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British Association for the Advancement of
Science

IPSWICH, 1895

TENTH REPORT

ON THE

NORTH-WESTERN TRIBES OF CANADA

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British Association for the Advancement of Science.

On the North-Western Tribes of Canada.—Tenth Report of the Committee, consisting of Dr. E. B. TYLOR, Dr. G. M. DAWSON, Mr. R. G. HALIBURTON, and Mr. H. HALE.

[PLATE.]

THE Committee, as was expected last year, are now able to complete their work by sending in the final report by Dr. Franz Boas on 'The Indians of British Columbia.'

In concluding the investigations which have since the Montreal Meeting of 1884 been carried on under their direction, the Committee desire to return thanks for the liberality with which the British Association took up the task of preserving records of the Anthropology of the North-Western Tribes of the Dominion of Canada. With equal generosity, the Canadian Government recognised the necessity of the work by large contribution to the funds at the disposal of the Committee. Thus has been brought together a collection of valuable physical and philological information, coupled with accounts of native culture, much of which would probably have changed or disappeared within a few years had not this timely enterprise been undertaken.

For convenience of reference, the principal contributions embodied in the Committee's series of Reports are here set down, viz. :—

Circular of Inquiry drawn up by Committee. (Report III.)

Report on the Blackfoot Tribes, by Mr. Horatio Hale, in correspondence with Father Lacombe and Rev. John McLean. (Report I.)

Report on the Blackfoot Tribes, by Rev. Edward F. Wilson, and Notes by Mr. Hale. (Report III.)

Notes on Indians of British Columbia, by Dr. Franz Boas. (Report IV.)

Report on the Sarcee Indians, by Rev. Edward F. Wilson, and Notes by Mr. Hale. (Report IV.)

Remarks on North American Ethnology, by Mr. Hale. (Report V.)

First Report on the Indians of British Columbia, by Dr. Franz Boas. (Report V.)

Remarks on the Ethnology of British Columbia, by Mr. Hale. (Report VI.)

Second Report on the Indians of British Columbia, by Dr. Franz Boas. (Report VI.)

Introduction, by Sir Daniel Wilson. (Report VII.)

Third Report on the Indians of British Columbia, by Dr. Franz Boas. (Report VII.)

Physical Characteristics of the Tribes of the North Pacific Coast, by Dr. Franz Boas. (Report VII.)

Remarks on Linguistic Ethnology, by Mr. H. Hale. (Report VIII.)

Report on the Kootenay Indians, by Dr. A. F. Chamberlain. (Report VIII.)

Fourth Report on the Indians of British Columbia (Indian Tribes of Lower Fraser River), by Dr. Franz Boas. (Report IX.)

Fifth Report on the Indians of British Columbia, by Dr. Franz Boas. (Report X.)

Fifth Report on the Indians of British Columbia. By FRANZ BOAS.

During the months from September to December 1894, I revisited British Columbia under instructions of the Committee, the object of the journey being to fill, so far as possible, gaps left in previous investigations. I considered four points to be of particular importance: the anthropometry of those portions of the province which were not covered by previous work; an investigation of a Tinnéh tribe on the extreme northern part of the coast of which I had heard reports, but which has never been described; a study of the customs of the Hé'iltuq, and further inquiries in regard to the Tinnéh tribe of Nicola Valley which was first described by Dr. G. M. Dawson ('Trans. Royal Soc. Canada,' vol. ix. 1891, sec. ii. p. 23).

On account of lack of time I was unable to visit the Hé'iltuq, and for the same reason I delegated the work in Nicola Valley to Mr. James Teit, of Spence's Bridge, who is thoroughly conversant with the language and the customs of the Ntlakyá'pamuq. His report will be found embodied in the following pages.

The subject matter which I collected on my journey is presented in the following manner:—

- I. Physical Characteristics of the Tribes of the North Pacific Coast (p. 3).
- II. The Tinnéh tribe of Nicola Valley, by Mr. James Teit (p. 30).
- III. The Tinnéh tribe of Portland Canal (p. 34).
- IV. The Nass River Indians (p. 48).
- V. Linguistics (p. 62).

 1. Nisk'a'.
 2. Tsetseá'ut.

I have to express my obligation for valuable help extended in the course of my work to the Rev. Mr. Collison, of Kinkolith; Mr. George Hunt, of Fort Rupert; Mr. C. O. Hastings, of Victoria, British Columbia; Mr. James Teit, of Spence's Bridge; and Rev. Father Le Jeune, of Kamloops.

The following alphabet has been used in this report:—

The vowels have their Continental sounds, namely: *a* as in *father*; *e* like *a* in *mate*; *i* as in *machine*; *o* as in *note*; *u* as in *rule*.

In addition the following are used: *ä, ö* as in German; *á=aw* in *law*; *é* as in *tell*; *î* as in *hill*; *ó* as in German *voll*; *ε=e* in *flower* (Lepsius's *g*).

Among the consonants the following additional letters have been used: *g*, velar *g*; *k*, velar *k*; *q*, the German *ch* in *bach*; *h*, the German *ch* in *ich*; *q*, between *q* and *h*; *c=sh* in *shore*; *tl*, an explosive *l*; *dl*, a palatal *l* (dorso-apical); *!*, increased stress of articulation; *'*, the mouth assumes the position for the articulation of *u*.

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I. PHYSICAL CHARACTERISTICS OF THE TRIBES OF THE NORTH PACIFIC COAST.

In the Seventh Report of the Committee I pointed out that the region around Harrison Lake is inhabited by a peculiar type of man, differing considerably from the types found in the neighbourhood. It seemed desirable to investigate the characteristics of the people of the surrounding country, in order to better define the locality inhabited by this type and to discover in what manner the transition between the distinct types of this region takes place. For this purpose I collected anthropometric data in the region lying between Harrison Lake and Thompson River. This country is inhabited by the Ntlakyā'pamuq, a tribe speaking a Salish language which has developed very slight dialectic differences only. The people of this tribe live in a great many villages which are scattered along Fraser and Thompson Rivers; but the villages are grouped in five subdivisions of the tribe, which are named as follows: the Utā'mk't, who live between Spuzzum and Keefers; the Ntlakyāpamuq'ō'ē, or real Ntlakyā'pamuq, whose territory extends from a little above Keefers to a point above Thompson Siding on Thompson River, and about twenty miles up Fraser River from Lytton; the Nkamtcī'nemuq, from Thompson Siding to Ashcroft on Thompson River; Stlaqā'yuq, on the upper part of Fraser River, between the Lillooet and the Ntlakyāpamuq'ō'ē; and finally, the Cawā'qamuq, of Nicola Valley. For the purpose of my investigation I kept these divisions separate.

Furthermore, the anthropometric material given in the Seventh Report of the Committee was very insufficient so far as the northern parts of the coast are concerned. For the purpose of filling this gap I collected data among the Nass River Indians and among the Kwakiutl. The technique of the measurements was the same as that described in the Seventh Report of the Committee. I have added to the material which I collected for the Committee other data which were collected under my direction for the Anthropological Department of the World's Columbian Exposition; but I have refrained from the use of the head measurements which were gathered at that time, as these would extend the scope of the Report beyond desirable limits.

A glance at the tables (p. 23) will show that a very material change of type takes place somewhere between Vancouver Island and Skeena River. For this reason it is necessary to compare the various Kwakiutl tribes among each other before combining them, in order to see if there is any appreciable difference between them. According to their location, I have combined the material which I collected in the following manner: First, tribes of the Nak'oartók group, embracing the Goasila and Nak'oartók; second, tribes of the Koskimo group, embracing the extreme northern tribes of the Ncotka, the Kwakiutl tribes of the west coast of Vancouver Island, of Cape Scott and Newetsee; third, the Kwakiutl group, embracing the Kwakiutl proper and all the tribes of this group south-east of Fort Rupert.

The following tables show the results of this comparison:—

BREADTH OF FACE OF WOMEN (17 years and over).

Mm.	132	134	136	138	140	142	144	146	148	150	152	154	156	Number of Cases
	133	135	137	139	141	143	145	147	149	151	153	155	157	
Nak'oartók	—	—	—	—	2	—	1	2	2	1	—	—	1	9
Kwakiutl.	—	1	—	2	1	1	2	1	1	1	—	—	—	10
Koskimo	1	2	1	2	3	3	5	5	—	—	—	—	—	22
Total	1	3	1	4	6	4	8	8	3	2	—	—	1	41

HEIGHT OF FACE OF MEN (20-59 years of age).

Mm.	116	118	120	122	124	126	128	130	132	134	136	138	140	Number of Cases
	117	119	121	123	125	127	129	131	133	135	137	139	141	
Nak'oartók	—	—	—	1	1	2	—	—	—	2	1	—	2	9
Kwakiutl.	2	1	1	—	1	2	1	2	2	1	1	—	1	14
Koskimo	—	1	1	—	2	4	4	4	2	1	1	—	—	20
Total	2	1	2	1	4	8	5	6	4	4	3	—	3	43

HEIGHT OF FACE OF WOMEN (17-59 years of age).

Mm.	106	108	110	112	114	116	118	120	122	124	126	128	130	132	134	136	138	Number of Cases
	107	109	111	113	115	117	119	121	123	125	127	129	131	133	135	137	139	
Nak'oartók	—	—	1	—	—	1	—	—	2	—	1	2	—	—	1	—	—	8
Kwakiutl.	—	—	1	—	2	1	1	1	1	1	—	1	—	—	—	—	—	9
Koskimo	—	—	—	1	1	2	3	3	1	1	—	3	3	—	—	1	—	20
Total	1	—	2	1	3	4	4	4	4	1	2	6	3	—	1	—	1	37

BREADTH OF NOSE OF MEN (20-59 years of age).

Mm.	35	36	37	38	39	40	41	42	43	44	45	46	Average	Number of Cases
Nak'oartók	—	—	—	1	2	1	1	2	—	1	—	—	40.6	8
Kwakiutl	4	1	2	2	1	1	—	—	3	—	—	—	38.1	14
Koskimo	—	1	1	5	5	4	—	3	—	—	—	1	39.5	20
Total	4	2	3	8	8	6	1	5	3	1	—	1	39.3	42

BREADTH OF NOSE OF WOMEN (17-59 years of age).

Mm.	30	31	32	33	34	35	36	37	38	39	Average	Number of Cases
Nak'oartók	—	1	—	—	—	2	—	2	1	1	35.0	7
Kwakiutl	1	1	1	1	—	3	1	—	1	—	33.9	9
Koskimo	—	1	1	2	2	6	1	3	1	3	35.4	20
Total	1	3	2	3	2	11	2	5	3	4	35.2	36

HEIGHT OF NOSE OF MEN (20-59 years of age).

Mm.	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	Average	Number of Cases
Nak'oartók	—	—	—	—	1	—	1	1	—	4	—	—	—	1	—	—	57.0	9
Kwakiutl	1	—	—	1	2	1	1	1	2	2	2	—	1	—	—	—	54.8	14
Koskimo	1	—	—	1	2	1	1	2	1	4	4	2	1	—	—	—	55.7	20
Total	2	—	—	2	5	2	3	4	3	10	6	2	2	1	—	1	55.7	43

HEIGHT OF NOSE OF WOMEN (17-59 years of age).

Mm.	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	Average	Number of Cases	
Nak'oartók	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7
Kwakiutl	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	9
Koskimo	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	20
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	36

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It appears that the three groups are quite uniform. Possibly the breadth of face of the most northern group, the Nak'oartók, is a little larger than that of the others, but the number of cases is so small that it remains doubtful if there is any real difference between the types. It will be seen that the three tribes differ very considerably from the Nass River Indians, their faces being much higher and narrower.

In order to prove properly the uniformity of the material collected among the Kwakiutl, it is necessary to take into consideration their habit of deforming the head by means of a pressure brought to bear upon the front and sides of the head. Possibly the practice might have an effect upon the development of the face, which differs much from the form found among all the neighbouring tribes. In order to decide if the artificial deformation has any influence upon the form of the face, I have divided the material into three groups:—Heads not deformed or slightly deformed only, moderately deformed heads, and strongly deformed heads. As will be seen from the tables showing the measurements of individuals, I made finer distinctions when recording the original observations, namely:—Not deformed, slightly deformed, moderately deformed, considerably deformed, strongly deformed, and very strongly deformed. The first two classes embrace children and young persons only, the practice of deformation being gradually abandoned. Leaving these out of consideration, we find the following numbers of individuals in each class:—

	Men	Women	Men	Women
Moderately deformed . . .	25	9	59 %	32 %
Considerably deformed . . .	8	7	19 %	25 %
Strongly deformed . . .	9	9	22 %	32 %
Very strongly deformed . . .	—	3	—	11 %

This table shows that the heads of female children were much more strongly deformed than those of male children, and that the deformation represented in each group is stronger among women than among men.

		Slightly Deformed	Moderately Deformed	Much Deformed
Length of Head	Men . . .	191·6	196·7	195·6
	Women . . .	186·3	187·4	191·2
Breadth of Head	Men . . .	158·7	160·3	153·6
	Women . . .	153·4	154·0	147·0
Breadth of Face	Men . . .	146·3	151·6	150·7
	Women . . .	143·2	143·4	143·1
Height of Face	Men . . .	128·4	130·1	129·2
	Women . . .	118·6	119·7	123·6

The differences exhibited in this table show clearly that a strong deformation of the kind practised by the Kwakiutl increases the length of head and diminishes the breadth of head; but that moderate degrees of deformation do not influence materially the lower portion of the skull, in which the greatest breadth of the head is found. The table does not reveal any influence upon the dimensions of the face, so that, so far as the latter is concerned, we may consider all the measured individuals together, without regard to the degree of deformation of the head.

While the preceding discussion has shown that the tribes of the

Kwakiutl, so far as they are represented in my measurements, belong to one type, the tables reveal considerable differences among the subdivisions of the Ntlakyāpamuq. Besides the groups named above, I subdivided the Utā'mk't into two groups, that of Spuzzum and that of the villages higher up Fraser River. Unfortunately, in the limited time at my disposal, I was unable to obtain measurements of the Stlaqāyuq of Fraser River and of the Cawāqamuq of Nicola Valley. A study of the last-named group would be of interest on account of the admixture of Tinneh blood in this region.

In the following pages the measurements and a few tables which show the principal results obtained by their means are given.

It will be seen (pp. 9 and 10) that the statures of men and women of the different tribes are nearly arranged in the same order, differences appearing only in cases where the number of observations is very small. I have given the averages of the various series, not because I consider the averages as the typical values of the tribes, but because they give a convenient index for purposes of comparison. The table shows a gradual decrease in stature as we go southward along the coast from Alaska to Fraser River. In the series for men the stature decreases from 173 cm. among the Tlingit to 169 cm. among the Haida and Tsimshian; while the Nass River tribes, who live farther inland, and who are probably mixed with Tinneh tribes of the interior, are only 167 cm. tall, the Tinneh of the interior being in their turn only 164 cm. tall. As we proceed southward, the stature decreases to 166 cm. among the Bilqula, 164 among the Kwakiutl, 162 in the Delta of Fraser River, and reaches its minimum of 158 cm. on the shores of Harrison Lake. As we go southward, the stature increases again, but its distribution becomes very irregular. The Salish tribes of Puget Sound and the Yakonan, Tinneh, and other tribes of Oregon have a stature of 165 cm. It seems that the Clallam and Nanaimo represent a taller people, but I am not quite certain of this, as some of the taller half-breeds may have been included in these series. On Columbia River the Chinook, who extend from Dalles to the coast, represent a taller type of a stature of 169 cm., which may be considered as a continuation of the tall Sahaptin type, which has a stature of 170 cm. South of the Oregonian Tinneh the stature increases slightly, reaching 168 cm. among the Klamath, and sinking again to 166 among the Hoopa. The tribes of California, who lived north of San Francisco, and who are gathered on the Round Valley Reservation, near Cape Mendocino, represent a very short type of 162 cm. only, which is also distinguished by its elongated head. When we consider the stature of the inland tribes, we may say that the stature decreases north and south from Columbia River. The Sahaptin, a people of a stature of 170 cm., represent the tallest type; northward we find the Spokane and Okanagan 168 cm. tall, the Shuswap of South Thompson River of the same stature, while those of North Thompson River measure 167 cm. only. The Chilcotin measure only 164 cm. Along Columbia River the tall stature extends to the sea. In the part of Oregon east of the Cascade Range, and in western Nevada, we find statures of 168 cm., while the Shoshone tribes of Idaho and Utah measure 166 cm. only.

I have added to these tribes the Eskimo of Alaska and those of Labrador. It will be seen that, while the latter are exceedingly short,

15	34	35	36	37	38	39	40	41	42
Willy Bailey	Thomas Trounce	Luke Nelson K'iqs	William Pollard	Moses Bell	Charles Woods	Matthew Haldane	Heber Watson	Chief Mountain	Philip Latimer
Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Gyitka'n	Niska'	Tsimshian
16	40	45	55	58	60	62	65	67	65-70
mm. 1,634	mm. 1,677	mm. 1,625	mm. 1,644	mm. 1,645	mm. 1,627	mm. 1,623	mm. 1,633 ¹⁰	mm. 1,573 ¹¹	mm. — ¹²
1,308	1,373	1,328	1,333	1,332	1,371	1,342	1,331	1,282	—
716	774	745	756	728	779	762	718	720	—
1,694	1,798	1,730	1,761	1,740	1,810	1,735	1,685	1,647	—
900	911	904	890	915	840	865	900	846	795
379	385	378	402	373	400	418	400	388	357
189	195	205	204	206	194	197	199	191	194
158	159.5	158	164	162	158	163	160	161	169
123	119	119	124	123	128	125	120	124	113
148	158	152.5	159	149	161	167	155	156	158
50	57	50	53	52	51	52	54	49	53
37	41	39	46	42	47	49	43	41	41
83.6	81.8	77.1	80.4	78.6	81.4	82.7	80.4	84.3	87.1
83.1	77.5.3	78.0	78.0	82.6	79.5	74.9	77.4	79.5	71.5
74.0	871.9	78.0	86.8	80.8	92.2	94.2	79.6	83.7	77.4
43.9	446.1	45.7	46.1	44.1	47.8	47.0	44.0	45.9	—
103.9	107.0	106.1	107.4	105.5	111.1	107.1	103.4	104.9	—
55.2	554.2	55.5	54.3	55.5	51.5	53.4	55.2	53.9	—
23.3	222.9	23.2	24.5	22.6	24.5	25.8	24.5	24.7	—

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Number	Males			I. Males																																										
	1	2	3	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	
Name	Jonathan Da'njell	Timothy	Levi	James Stewart	Charlie Ward	Philip Latimer	Arthur Nelson	Matthew Forster	John McNeill	Perry Barton	Gasper Russ	Andrew Nelson	Matthew Gurney	Mnc Kyebob'	John Green	Harry Forster	Stephen Barton	Willy Bailey	James Ward	Peter Stafford	Peter Watson	Charles Tait	William Sutton	James K'waseqo'	Albert Allan	Jonah Wilson	John Edwards	John Tait	John Wesley	Walter Haldano	Frank Gurney	Stephen Allen	Alfred Watson	Abel	George Palmer	Charles Russ	Thomas Trounce	Luke Nelson Kags	William Pollard	Moses Hoil	Charles Woods	Matthew Haldano	Heber Watson	Chief Mountain	Philip Latimer	
Tribes	Tsetsat'ut	Tsetsat'ut	Tsetsat'ut	Niska'	Niska'	F. Tsimshian (No. 42) M. Niska'	Niska'	Niska'	Niska'	F. Niska' M. Gytika'n	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	F. Tsimshian M. Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Tsimshian		
Age	14	21	55	6	6	9	10	10	10	11	13	14	14	14	15	16	16	16	17	17	20	20	20	25	27	28	28	30	32	33	35	35	35	36	37	38	40	45	55	58	60	62	65	67	65-70	
Height, standing	mm. 1,600	mm. 1,650	mm. 1,570	mm. 1,127	mm. 1,073	mm. 1,208	mm. 1,273	mm. 1,349	mm. 1,286	mm. 1,320	mm. 1,421	mm. 1,488	mm. 1,578	mm. 1,545	mm. 1,630	mm. 1,629	mm. 1,567	mm. 1,634	mm. 1,668	mm. 1,643	mm. 1,605	mm. 1,620	mm. 1,617	mm. 1,671	mm. 1,723	mm. 1,629	mm. 1,771	mm. 1,700	mm. 1,680	mm. 1,712	mm. 1,632	mm. 1,726	mm. 1,698	mm. 1,668	mm. 1,640	mm. 1,717	mm. 1,677	mm. 1,625	mm. 1,644	mm. 1,645	mm. 1,627	mm. 1,623	mm. 1,633	mm. 1,573		
Height of shoulder	1,322	—	1,303	880	812	947	1,107	1,023	1,107	1,040	1,141	1,206	1,285	1,250	1,305	1,346	1,274	1,308	1,364	1,350	1,310	1,332	1,293	1,373	1,434	1,327	1,460	1,423	—	1,397	1,335	1,440	1,340	1,381	1,350	1,435	1,373	1,328	1,333	1,332	1,371	1,342	1,331	1,282		
Length of arm	678	—	718	495	466	527	559	564	584	549	636	649	715	683	700	739	697	716	761	739	694	725	719	780	810	729	800	653	—	784	751	784	729	780	742	808	774	745	756	728	779	762	718	720		
Finger-reach	1,591	—	1,662	1,168	1,102	1,208	1,303	1,334	1,334	1,300	1,468	1,535	1,650	1,640	1,647	1,724	1,593	1,694	1,766	1,734	1,680	1,691	1,734	593	810	1,712	1,830	1,808	—	1,841	1,723	1,830	931	881	878	880	893	888	911	904	890	915	840	865	900	846
Height, sitting	868	—	861	640	596	670	720	708	692	714	757	790	856	807	882	869	850	900	914	895	890	908	828	1,815	928	877	942	878	880	954	902	931	881	878	893	888	911	904	890	915	840	865	900	846		
Width of shoulder	351	—	352	238	238	284	275	272 (?)	261	289	306	328	348	342	363	396	378	379	390	384	375	395	402	878	387	378	385	381	393	396	425	385	399	408	415	385	378	400	415	385	378	400	415	385	378	
Length of head	190	191	183	172	179	173	184	178	184	174	178	188	186	180	181	188	188	189	192	186	187	191	189	190	203	186	204	194	192.5	189	198	192	196.5	194	200	197	195	205	204	206	194	197	199	191	194	
Breadth of head	158	153	157	140	144	151	155	147	155	144	152.5	159	161	157.5	154	159	158	154.5	157	157	160	158	166	164	151	160	157	164	165	167	157	166	163	167	161	159.5	158	164	162	158	163	160	161	169		
Height of face	110	128	122	92	93	95	103	102	105	99	100	110	112	112	121	119	122	123	119	119	123	112	124	120	120	119	133	124	126	110	111	123	127	116	127	109	119	119	124	123	128	125	120	124	113	
Breadth of face	146	146	151	120	123.5	128	133	135	135	135	134	138	143	145	146.5	151	146	148	149	149	142	150	143	155	160	148	157.5	157	160	163	164	150	156.5	161	165.5	165	158	152.5	159	149	161	167	155	156		
Height of nose	47	50	56	34	37	37	39	42	46	39	38	43	46	47	48	45	50	50	54	48	48	47	52	48	49	53	49	49	49	50	52	54	53	52	52	52	57	50	53	52	51	52	54	49		
Breadth of nose	41	41	43	30	30.5	31	33	34	34	35	34	38	40	37	41	37	39	37	41	40	43	38	35	37	42	41	43	49	39	42	43	41	42	38	40	41	39	46	42	47	49	43	41	41		
Length-breadth index	83.2	80.1	85.8	81.4	80.4	87.3	82.1	87.1	79.9	89.1	80.9	81.2	85.5	89.4	87.1	81.9	84.6	83.6	80.5	84.4	84.0	83.8	83.6	87.4	80.8	81.2	78.4	80.9	85.2	87.3	84.3	81.8	84.5	84.1	83.5	81.7	81.8	77.1	80.4	78.6	81.4	82.7	80.4	84.3	87.1	
Facial index	75.3	87.7	80.8	76.7	75.3	74.2	77.5	75.6	77.8	73.4	74.7	79.7	78.3	77.3	82.6	78.8	83.6	83.1	79.9	79.9	86.6	74.7	86.7	77.4	75.0	80.4	84.4	79.0	78.8	67.5	67.7	82.0	81.2	72.1	76.8	66.1	75.3	78.0	78.0	82.6	79.5	74.9	77.4	79.5		
Nasal index	87.2	82.0	76.8	88.2	82.4	83.8	84.6	81.1	73.9	89.7	89.5	88.4	87.0	78.7	85.4	82.2	78.0	74.0	82.0	74.1	89.6	79.2	74.5	71.2	87.5	83.7	81.1	79.6	75.5	79.6	84.0	82.7	73.9	79.2	73.1	76.9	71.9	78.0	86.8	80.8	92.2	94.2	79.6	83.7	77.4	
Index of arm	42.4	—	45.7	43.9	43.4	43.6	44.1	41.8	45.3	41.6	44.8	43.6	45.3	44.4	42.9	45.3	44.4	43.9	45.6	45.1	43.1	44.8	44.4	46.7	47.1	44.7	45.2	45.3	—	45.8	46.1	45.3	42.9	46.7	45.2	47.0	46.1	45.7	46.1	44.1	47.8	47.0	44.0	45.9		
Index of finger-reach	95.4	—	105.9	103.6	102.6	100.0	102.6	98.8	103.4	98.5	103.4	103.0	104.4	106.5	101.1	105.8	101.5	103.9	108.7	105.7	104.3	104.4	107.1	108.7	107.6	105.0	103.4	106.4	—	107.7	105.7	105.8	107.5	108.0	106.2	108.1	107.0	106.1	107.4	105.5	105.5	105.5	104.9	—		
Index of height, sitting	54.2	—	54.8	55.5	55.4	56.7	52.4	53.6	54.1	53.3	53.0	54.2	52.4	54.1	53.3	54.1	55.2	54.7	54.6	55.3	56.0	51.1	52.6	54.0	53.8	53.2	51.6	52.4	55.8	55.3	53.8	51.8	52.6	54.5	51.6	54.2	55.5	54.3	55.5	51.5	53.4	55.2	53.9	—		
Index of width of shoulders	21.9	—	22.4	21.1	22.1	21.0	21.7	20.2 (?)	20.3	21.9	21.5	22.0	22.0	22.2	22.3	24.3	24.1	23.3	23.4	23.4	23.3	24.4	24.8	23.1	22.5	23.2	21.8	22.4	23.4	23.2	26.1	22.3	22.6	23.9	24.9	24.1	22.9	23.2	24.5	22.6	24.5	25.8	24.5	24.7		

1 Son of Nos. 42 and 70. Brother of No. 49. 2 Son of No. 67. Brother of Nos. 9, 44, 55. 3 Brother of No. 13. 4 Son of No. 67. Brother of Nos. 4, 44, 55. 5 Son of No. 28. 6 Brother of No. 5. 7 Son of Nos. 40 and 74. Blind in consequence of an explosion of gunpowder. 8 Son of No 41. Right leg broken. 9 Father of No 10. 10 Father of No. 18. Occiput rather flat. Large exostosis on vertex. 11 Father of No. 26. 12 Father of Nos. 3 and 49. Much bent by age.

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Bessie Seymour

Watson

Niska

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[North-Western Tribes of Canada
2A. Niska' Half-bloods.]

2

Nis

I		I. Males.				II. Females.		
6	74	75	76	77	78	79	80	81
Bessie Seymour	Susan Watson	Dick Woods	William Elliot	Frank Days	Charles Elliot	Dorothea Alice Elliot	Sarah Ward	Emma Allen
Niska'	Niska'	F. Americann M. $\frac{1}{2}$ Niska', $\frac{1}{2}$ White	F. $\frac{1}{2}$ Niska', $\frac{1}{2}$ Dutch M. Niska'	F. Spaniard M. Niska'	F. Scotch M. Niska'	F. $\frac{1}{2}$ Niska', $\frac{1}{2}$ Dutch M. Niska'	F. White M. Niska'	F. Scotch M. Tsinshian
20	60	3	5	16	29	6	25	32
1m.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
559	1,572 ²⁹	888	— ³⁰	1,579	1,652	1,146 ³¹	1,632	1,603
310	1,304	—	—	1,301	1,352	888	1,360	1,312
702	689	—	—	726	754	465	732	723
680	1,608	898	—	1,630	1,712	1,118	1,686	1,653
853	827	504	—	834	872	635	822	874
374	331	201	—	326	374	243	326	328
197	181	168	176	179	188	175	176	181
56.5	155	141	140	151.5	150	145	160	155
117	117	90	—	111	130	95	117	110
149	141	112	117	140.5	144	119	139	146
43	44	34	39	49	55	37	52	48
38	39	26	28	38	35	32	31	33
79.4	85.6	83.9	79.6	84.7	79.8	82.9	90.9	85.6
78.5	83.0	80.4	—	78.9	90.3	79.8	84.2	75.4
38.4	88.6	76.5	71.8	77.6	63.6	86.5	59.6	68.8
15.0	43.9	—	—	45.9	45.7	40.4	44.9	45.2
37.7	102.4	101.1	—	103.2	103.8	97.2	103.4	103.3
54.7	52.7	56.8	—	52.8	52.8	55.3	50.4	54.6
24.0	21.1	22.6	—	20.6	22.7	21.1	20.0	20.5

¹⁷ S Hunchback.

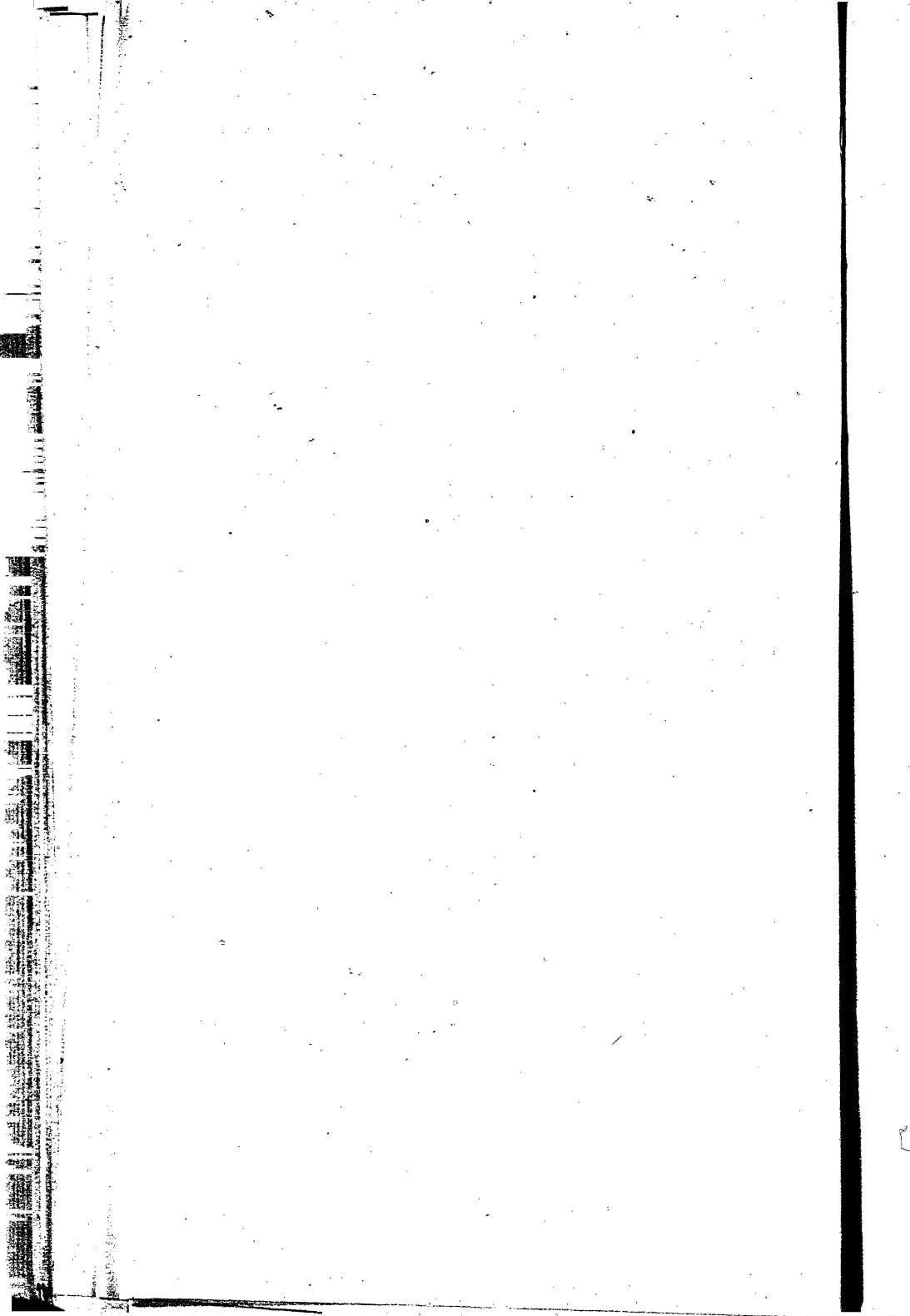
²⁸ Daughter of No. 67. Sister of Nos. 4, 9, and 44.

¹⁷ Daughter of No. 62. Sister of No. 76.

2. Niska' (continued).

Number.	II. Females.																												I. Males.				II. Females.							
	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	
Name	Muggie Solene Gurney	Elizabeth Nelson	Ellen Barton	Kak'g'kis	Josephine Ward	Emily Barton	Mary Lattimer	Agnes Allen	Melita Ward	Maudie Woods	Fanny Truenco	Jane Harvey	Julia Sutton	Bessie Seymour	Marianno Watson	Susan Allen	Nollie Seymour	Evelyn Gurney	Mary Edwards	Rose Elliot	Emily Barton	Amy Watson	Edna Gurney	Solene Barton	Allice Nelson	Coellia Ward	Emma Ward	Maria Lathimer	Louisa Hindano	Martha Woods	Leticia Nelson	Susan Watson	Dick Woods	William Elliot	Frank Days	Charles Elliot	Dorothea Alice Elliot	Sarah Ward	Emma Allen	
Tribe	Niska'	Niska'	Niska'	Niska' Upper part of river.	Niska'	Niska'	F. Talmashian M. Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	Niska'	F. American M. 1/4 Niska', 3/4 White	F. 1/2 Niska', 1/2 Dutch M. Niska'	F. Spaniard M. Niska'	F. Scotch M. Niska'	F. 1/2 Niska', 1/2 Dutch M. Niska'	F. White M. Niska'	F. Scotch M. Tsimshian
Age	2	5	6	7	8	9	11	12	12	16	16	17	18	20	20	20	22	25	26	26	28	30	30	32	35	35	40	45	54	55	60	60	3	5	16	29	6	25	32	
Height, standing	mm. 926 ¹³	mm. 1,000 ¹⁴	mm. 1,065 ¹⁵	mm. 1,137 ¹⁶	mm. 1,225 ¹⁵	mm. 1,418 ¹⁹	mm. 1,387	mm. 1,465 ²⁰	mm. 1,560	mm. 1,250 ²¹	mm. 1,239 ²²	mm. 1,587 ²³	mm. 1,559	mm. 1,594	mm. 1,571	mm. 1,549	mm. 1,536	mm. 1,566	mm. 1,536 ²⁴	mm. 1,556 ²⁵	mm. 1,488	mm. 1,552 ²⁶	mm. 1,540	mm. 1,512 ²⁷	mm. 1,523	mm. 1,503	mm. 1,538 ²⁸	mm. 1,516	mm. 1,542	mm. 1,571	mm. 1,572 ²⁹	mm. 888	mm. 888	mm. 1,579	mm. 1,652	mm. 1,146 ³⁰	mm. 1,632	mm. 1,603		
Height of shoulder	—	775	818	—	922	965	1,152	1,105	1,178	1,285	—	1,132	1,292	1,310	1,304	1,283	1,271	1,263	1,281	1,225	1,277	1,225	1,276	1,230	1,259	1,210	1,245	1,280	1,283	1,304	—	—	1,301	1,352	888	1,360	1,312			
Length of arm	—	419	456	—	485	538	596	553	626	689	—	732	716	702	726	679	688	661	687	678	713	642	708	665	673	662	683	685	657	701	689	—	—	726	754	465	732	723		
Finger-reach	917	1,003	1,050	—	1,124	1,255	1,430	1,340	1,510	1,582	—	1,452	1,655	1,680	1,643	1,605	1,613	1,570	1,612	1,628	1,656	1,498	1,653	1,580	1,575	1,567	1,535	1,567	1,618	1,620	1,608	898	—	1,630	1,712	1,118	1,686	1,653		
Height, sitting	537	556	606	—	648	693	772	757	738	828	—	583	824	853	842	862	858	863	850	843	858	836	850	878	815	844	828	840	805	—	822	827	504	—	834	872	635	822	874	
Width of shoulders	—	235	241	274	241	263	300	294	313	319	—	295	352	374	349	318	343	353	348	353	334	354	370	342	323	352	349	335	354	—	360	331	201	—	326	374	243	326	328	
Length of head	168	170	177	173	167	170	176	178.5	176	183	184	181	193	197	184	193.5	185	179	181	185.5	188	183.5	188	186	186	183	182	186	191	192	186	181	168	176	179	188	175	176	181	
Breadth of head	144	137	148	142	144	145	151	145	146.5	151	149	145	153	156.5	157	150	158.5	156	154.5	157	154.5	156	147.5	151	158	149	144	155	163.5	151	155	141	140	151.5	150	145	160	155		
Height of face	85	89	94	92	97	97	101	98	109	112	—	105	111	117	118	115	113	114	110	108	119	109	117	111	105	121	106	114	117	125	117	110	90	—	111	130	95	117	110	
Breadth of face	123	118	120	123	123	125	134	130	129	138	130	133.5	143	149	144	142.5	144.5	147	144.5	148.5	142	143	149	142	143	146	142	137	149	152	147	141	112	117	140.5	144	119	139	146	
Height of nose	32	36	38	37	37	40	39	40	44	44	—	42	47	43	45	47	45	45	37	48	48	40	46	45	42	49	42	43	46	59	53	44	34	39	49	55	37	52	48	
Breadth of nose	28	29	29	30	33	31	31	34	36	34	—	37	35	38	33	38	35	33	38	37	35	35	39	41	39	38	39	33	37	35	38	39	26	—	28	38	35	32	31	33
Length-breadth index	85.7	80.6	83.6	82.1	86.2	85.3	85.8	81.2	83.2	82.5	81.0	80.1	79.3	79.4	85.3	77.5	85.7	87.2	85.4	84.7	82.2	85.0	83.0	79.3	81.2	86.3	81.9	77.4	81.2	85.2	81.2	85.6	83.9	79.6	84.7	79.8	82.9	90.9	85.6	
Facial index	69.1	75.5	78.3	74.8	78.9	77.6	75.4	76.2	84.5	81.2	—	78.6	77.6	78.5	81.9	80.9	78.2	77.6	76.2	72.8	83.8	76.2	78.5	78.2	73.4	82.9	74.7	83.2	78.5	82.2	79.6	80.4	—	78.9	90.3	79.8	84.2	75.4		
Nasal index	87.5	80.5	76.3	81.1	89.2	77.5	79.5	85.0	81.8	77.3	—	88.1	74.5	88.4	73.3	80.9	77.8	73.3	102.7	77.1	72.9	87.5	84.8	91.1	92.9	77.6	92.9	76.7	82.2	59.4	71.7	88.6	76.5	71.8	77.6	63.6	86.5	59.6	68.8	
Index of arm	—	41.9	42.6	—	42.5	44.1	42.0	39.8	42.6	44.2	—	—	45.0	45.0	45.7	43.2	44.4	42.9	43.8	44.0	45.7	43.1	45.7	43.2	45.0	44.3	44.1	44.4	45.1	42.7	44.6	43.9	—	—	45.9	45.7	40.4	44.9	45.2	
Index of finger-reach	99.1	100.3	98.1	—	98.6	102.7	100.8	96.4	102.8	101.4	—	—	104.0	107.7	103.3	102.2	104.1	102.0	102.7	105.7	106.2	100.5	106.6	102.6	104.3	103.1	102.3	101.8	106.4	101.9	103.2	102.4	101.1	—	—	103.2	103.8	97.2	103.4	103.3
Index of height, sitting	58.0	55.6	56.6	—	56.8	56.8	54.4	54.5	50.2	53.1	—	—	51.8	54.7	53.0	54.9	55.4	56.0	54.1	54.7	55.0	56.1	54.8	57.0	54.0	55.5	55.2	54.5	53.0	—	52.4	52.7	56.8	—	—	52.8	52.8	55.3	50.4	54.6
Index of width of shoulders	—	23.5	22.5	—	21.1	21.6	21.1	21.1	21.3	20.4	—	—	22.1	24.0	22.0	20.3	22.1	22.9	22.2	23.2	21.4	23.8	23.9	22.2	21.4	23.2	23.3	21.8	23.3	—	22.9	21.1	22.6	—	—	20.6	22.7	21.1	20.0	20.5

¹³ Daughter of No. 65. ¹⁴ Daughter of No. 67. Sister of Nos. 4, 9, 55. ¹⁵ Daughter of No. 63. Sister of No. 48. ¹⁶ Hunchback. ¹⁷ Sister of No. 51. ¹⁸ Daughter of No. 63. Sister of No. 48. ¹⁹ Daughter of Nos. 42 and 70. ²⁰ Sister of No. 47. ²¹ Idiotic. ²² Hunchback. ²³ Daughter of No. 67. Sister of Nos. 4, 9, and 44. ²⁴ Mother of Nos. 45 and 48. ²⁵ Mother of No. 43. ²⁶ Mother of Nos. 4, 9, 44, and 55. ²⁷ Mother of Nos. 3 and 49. ²⁸ Mother of No. 18. ²⁹ Son of No. 62. ³⁰ Brother of No. 79. ³¹ Consumptive. ³² Daughter of No. 62. ³³ Sister of No. 76.



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4. *Héiltsuk.*

II. Females								Female
7	18	19	20	21	22	23	24	1
M. Awl'ky'énóx	Tlá'tleméyíla	Ts'ó'q'saétsenk'a	Tsmk'ó'tla	Mé'l'nétsas	K'é'k'áq'tlala	K'á'k'oégy'lak'	Ma'qmalak'udayuk'oa	A'lakylank'oa
Nak'oartók	Goasila	F. Kwakiutl M. Nak'oartók	Nak'oartók	Nak'oartók	Goasila	Nak'oartók	F. Héiltsuk. M. Awl'ky'énóq	
5	28	30	50	50	60	60	65	58
m.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
08 ¹⁵	1,486	1,565 ¹⁶	1,597	1,522 ¹⁷	1,532	1,542 ¹⁸	1,530 ²⁰	1,522 ²¹
28	1,197	1,273	1,322	1,243	1,236	1,250	1,272	1,255
36	626	650	676	694	680	658	668	675
33	1,525	1,615	1,645	1,650	1,660	1,635	1,570	1,618
34	853	841	842	840	863	810	835	826
33	345	342	370	357	358	338	342	335
31 ⁵	192 ¹	194 ⁴	190 ⁴	186 ⁴	200 ³	181 ¹⁹	190 ⁴	182 ¹⁹
51 ⁵	160 ¹	163 ⁴	156 ⁴	155 ⁴	159 ³	171 ¹⁹	152 ⁴	162 ¹⁹
26	117	123	123	128	134	129	125	115
40	141·5	150	146	147·5	148	156	148	150
51	47	56	52	54	58	59	57	52
39	35	35	37	38	37	37	36	38
3·4 ⁵	83·3 ¹	84·0 ⁴	82·1 ⁴	83·3 ⁴	79·5 ³	94·4 ¹⁹	80·0 ⁴	89·1 ¹⁹
0·0	83·0	82·0	84·3	87·1	90·5	82·7	84·5	76·7
3·5	74·5	62·5	71·2	70·4	63·8	62·7	63·1	73·1
1·1	42·0	41·4	42·3	45·7	44·4	42·7	43·7	44·4
1·9	102·4	102·9	102·8	108·6	108·5	106·2	102·0	106·5
3·5	57·2	53·6	52·6	55·3	56·4	52·6	54·6	54·3
2·1	23·2	21·8	23·1	23·5	23·4	22·0	22·4	22·0

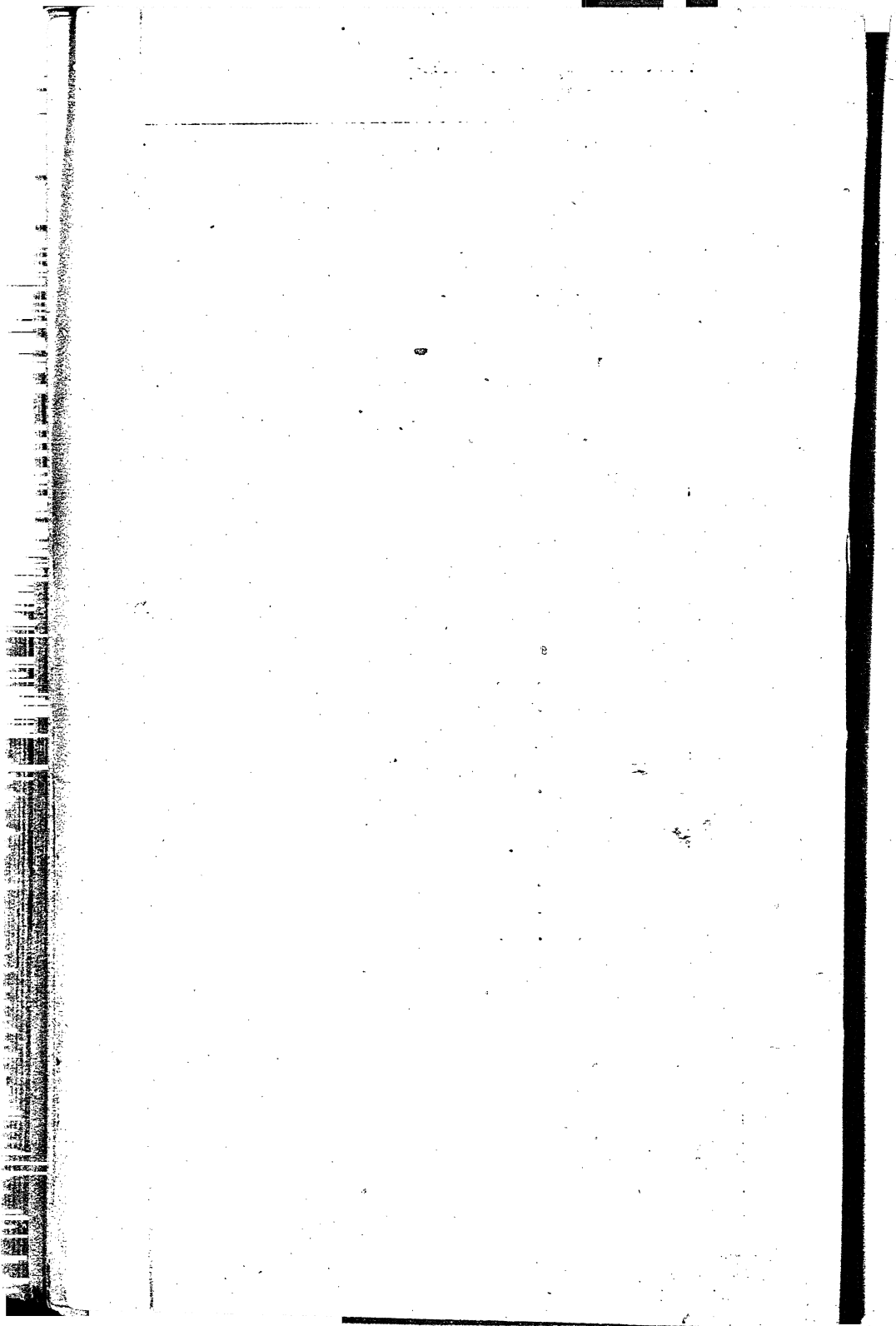
uch deformed. ⁷ Son of No. 12, brother of No. 2. ⁸ Son
 father of Nos. 1 and 2; son of Nos. 15 and 23; brother of No. 19.
¹⁷ Sister of No. 8. ¹⁸ Grandmother of Nos. 1 and 2, mother

3. Goasila and Nak'oartók.

4. Héiltsuk.

Number.	I. Males															II. Females								Female	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	1
Name	K'a'nis	Maie'to	K'oe'isalas	Tié'lemidnautl	K'oe'kulagiyila	Ha'mtsit	Haé'timlas	Nemó'guis	K'alá'pa	Po'patlak'alas	Kyil'tsa	Ky'v'nik-it	Ó'gwila	K'ó'mhút	Sí'wité	Kyá'niklkyas	Ha'mtsit	Tlá'tlemégylia	Ts'ó'Qsaétsenk'a	Ts'ek'a'tla	Mm'lnétsas	K'e'k'aq'tlala	K'a'k'oégy'ilak'	Ma'qmalak'udayuk'oa	A'lakylank'oa
Tribe	F. $\frac{1}{2}$ Goasila, $\frac{1}{2}$ Nak'oartók M. Goasila	F. $\frac{1}{2}$ Goasila, $\frac{1}{2}$ Nak'oartók M. Goasila	Nak'oartók	Nak'oartók	Nak'oartók	Nak'oartók	Nak'oartók	Nak'oartók	F. Goasila M. Nak'oartók	F. Nak'oartók M. Kwakiutl	Nak'oartók	F. Nak'oartók M. Goasila	Nak'oartók	Nak'oartók	Goasila	F. Nak'oartók M. Awl'ky'enóx	F. Nak'oartók M. Awl'ky'enóx	Nak'oartók	Goasila	F. Kwakiutl M. Nak'oartók	Nak'oartók	Nak'oartók	Goasila	Nak'oartók	F. Héiltsuk M. Awl'ky'enóq
Age	8	16	16	16	18	18	25	30	31	39	40	49	50	60	70	18	25	28	30	50	50	60	60	65	58
Height, standing	1,120 ⁷	1,640 ⁸	1,624 ⁹	1,564	1,694 ¹⁰	1,682	1,725	1,730 ¹¹	1,700	1,645 ¹²	1,585	1,608 ¹³	1,672	1,566	1,670 ¹⁴	1,528	1,508 ¹⁵	1,486	1,565 ¹⁶	1,597	1,522 ¹⁷	1,532	1,542 ¹⁸	1,530 ²⁰	1,522 ²¹
Height of shoulder	874	1,337	1,319	1,273	1,373	1,382	1,421	1,442	1,408	1,337	1,306	1,313	1,363	1,285	1,368	628	666	626	650	676	694	680	658	668	675
Length of arm	491	704	725	702	760	754	778	799	767	744	680	726	722	720	765	870	884	853	841	842	840	863	810	835	826
Finger-reach	1,122	1,718	1,745	1,737	1,780	1,765	1,800	—	1,835	1,758	1,650	1,727	1,783	1,690	1,728	1,593	1,583	1,525	1,615	1,645	1,650	1,660	1,635	1,570	1,618
Height, sitting	612	922	880	823	911	910	940	950	893	880	881	870	952	835	913	323	333	345	342	370	357	358	338	342	335
Width of shoulders	251	374	378	396	383	375	378	405	406	384	375	381	381	366	404	870	884	853	841	842	840	863	810	835	826
Length of head	179 ¹	203 ⁴	191 ²	183 ⁴	195 ²	200 ³	201 ³	198 ³	194 ⁴	189 ³	208 ³	199 ³	188 ³	189 ³	204 ⁴	174 ³	181 ⁵	192 ¹	194 ⁴	190 ⁴	186 ⁴	200 ³	181 ¹⁹	190 ⁴	182 ¹⁹
Breadth of head	147 ¹	169 ⁴	157 ²	154 ⁴	162 ²	171 ³	161 ³	160 ³	151 ⁴	163 ³	168 ⁵	168 ⁵	156 ³	156 ³	165 ⁴	152 ³	151 ⁵	160 ¹	163 ⁴	156 ⁴	155 ⁴	159 ³	171 ¹⁹	152 ⁴	162 ¹⁹
Height of face	104	144	120	121	127	121	136	140	126	127	123	134	135	124	139	110	126	117	123	123	128	134	129	125	115
Breadth of face	124	156	146	146 ⁵	150	158	151	152	148	153	156	159	157	151	162	144	140	141 ⁵	150	146	147 ⁵	148	156	148	150
Height of nose	38	58	51	56	52	50	55	57	54	57	52	57	57	57	61	44	51	47	56	52	54	58	59	57	52
Breadth of nose	31	42	40	42	40	41	41	40	42	38	44	42	39	41	45	31	39	35	35	37	38	37	37	36	38
Length-breadth index	82.1 ¹	83.3 ⁴	82.2 ²	84.2 ⁴	83.1 ²	85.5 ³	80.1 ³	80.8 ³	77.8 ⁴	86.2 ³	81.0 ³	84.7 ³	83.0 ³	82.5 ³	80.9 ⁴	87.4 ³	83.4 ⁵	83.3 ¹	84.0 ⁴	82.1 ⁴	83.3 ⁴	79.5 ³	94.4 ¹⁹	80.0 ⁴	89.1 ¹⁹
Facial index	83.9	92.3	82.2	82.9	84.7	76.6	90.1	92.1	85.1	83.0	78.9	84.3	86.0	82.1	85.8	76.4	90.0	83.0	82.0	84.3	87.1	90.5	82.7	84.5	76.7
Nasal index	81.6	72.4	78.4	75.0	76.9	82.0	74.5	70.2	77.8	66.7	84.6	73.7	68.4	71.9	73.8	70.5	76.5	74.5	62.5	71.2	70.4	63.8	62.7	63.1	73.1
Index of arm	43.8	43.0	44.8	45.0	45.0	44.9	45.0	46.2	44.7	45.4	43.0	45.1	43.2	45.9	45.8	41.1	44.1	42.0	41.4	42.3	45.7	44.4	42.7	43.7	44.4
Index of finger-reach	100.0	104.8	107.7	111.3	105.2	105.1	104.1	—	108.0	107.2	104.4	107.2	106.8	107.6	103.5	104.2	104.9	102.4	102.9	102.8	108.6	108.5	106.2	102.0	106.5
Index of height, sitting	54.6	56.2	54.3	52.8	53.9	54.2	54.3	54.9	52.5	53.7	55.8	54.0	57.0	53.2	54.7	56.9	58.5	57.2	53.6	52.6	55.3	56.4	52.6	54.6	54.3
Index of width of shoulders	22.4	22.8	23.3	25.4	22.7	22.3	21.8	23.4	23.9	23.4	23.7	23.7	22.8	23.3	24.2	21.1	22.1	23.2	21.8	23.1	23.5	23.4	22.0	22.4	22.0

¹ Not deformed. ² Slightly deformed. ³ Moderately deformed. ⁴ Considerably deformed. ⁵ Much deformed. ⁶ Very much deformed. ⁷ Son of No. 12, brother of No. 2. ⁸ Son of No. 12, brother of No. 1. ⁹ Brother of No. 5. ¹⁰ Brother of No. 3. ¹¹ Brother of No. 21. ¹² Grandson of No. 24. ¹³ Father of Nos. 1 and 2; son of Nos. 15 and 23; brother of No. 19. ¹⁴ Grandfather of Nos. 1 and 2, father of No. 12. ¹⁵ Daughter of Héiltsuk (No. 1). ¹⁶ Daughter of Nos. 15 and 23, sister of No. 12. ¹⁷ Sister of No. 8. ¹⁸ Grandmother of Nos. 1 and 2, mother of No. 12. ¹⁹ Occiput flattened. ²⁰ Grandmother of No. 10. ²¹ Grandmother of No. 17.

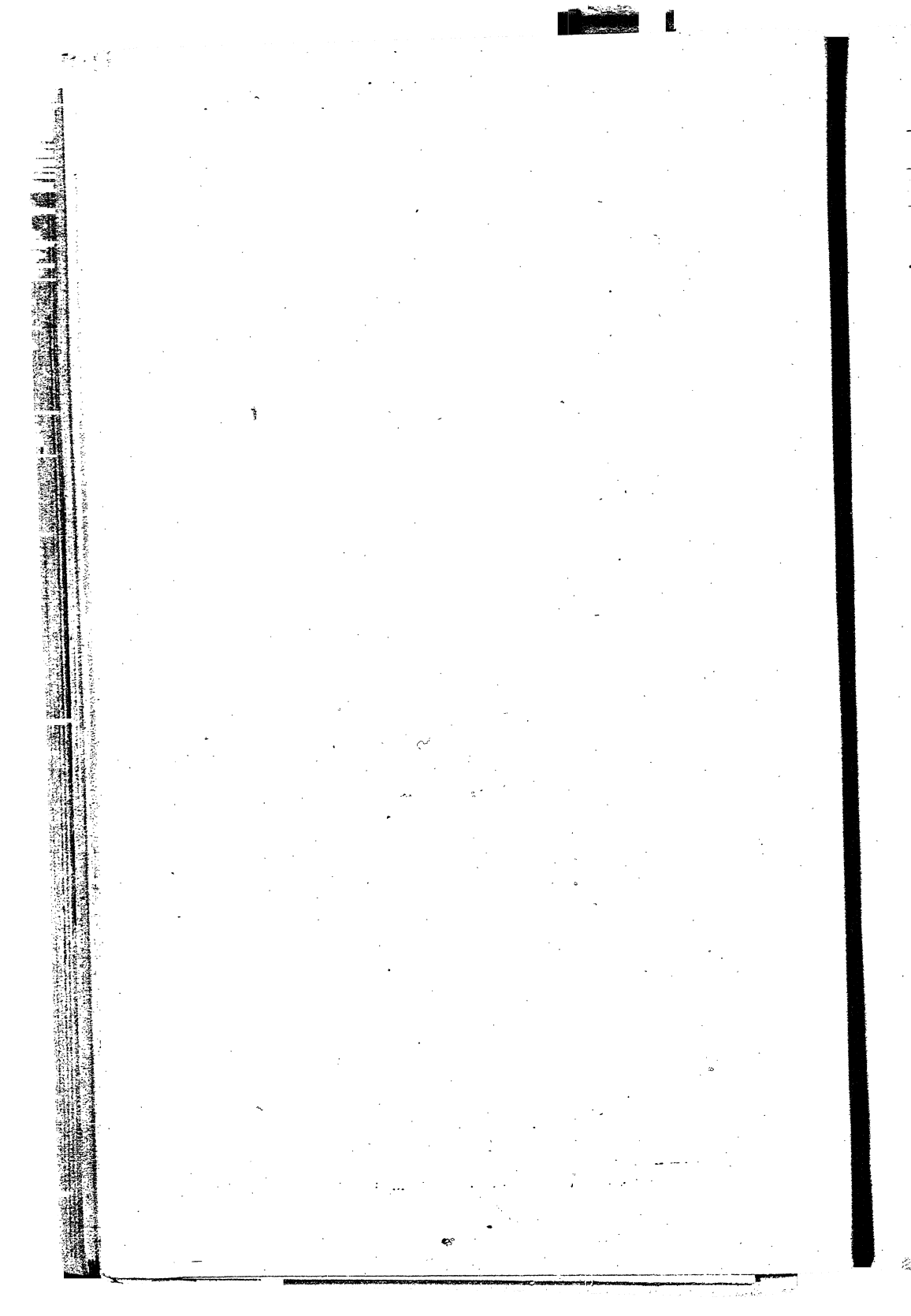


	19	41	42	43	44	45	46	47	48	49
	Yá'kathnala	G'u'ntélak	K'é'wilméka	Qá'nusemék'a	E'ntsemátosélaguyilis	Nemsqemse'las	Quá'né	Yá'kamneayuk'oa	Tlá'litl	An'nantse'm'ka
	Gyo'p'éndq	Koskimo	Gyo'p'éndq	Koskimo	Koskimo	Koskimo	Koskimo	Koskimo	Koskimo	Koskimo
	45	40	40	40	40	42	45	50	60	60
1.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
3	1,663	594	1,502	1,542	1,543 ³⁵	1,565	1,585 ²²	1,530	1,542	1,504 ³⁶
2	1,352	317	1,184	1,250	1,261	1,276	1,266	1,243	1,240	1,193
0	741	670	576	637	657	661	682	657	663	656
4	1,742	610	1,432	1,540	1,645	1,535	1,644	1,568	1,560	1,535
2	951	852	879	855	850	861	866	835	813	830
9	384	346	336	341	330	352	—	324	328	324
9 ³	206 ⁵ 206 ⁶		203 ⁵	186 ⁵	185 ⁵	195 ⁵	179 ⁶	196 ⁶	190 ²	199 ⁶
6 ³	150 ⁵ 140 ⁶		148 ⁵	139 ⁵	134 ⁵	146 ⁵	142 ⁶	139 ⁶	144 ²	140 ⁶
1	125	138	129	106	120	128	130	123	125	128
2	147	143	144	137	138	146	144	135	133	144
8	55	66	56	47	57	58	60	54	55	55
8	39	34	36	39	39	37	37	35	40	38
4 ³	72·8	58·0 ⁶	72·9 ⁵	74·7 ⁵	72·4 ⁵	74·9 ⁵	79·8 ⁶	70·9 ⁶	75·8 ²	70·4 ⁶
2	85·0	36·5	89·6	77·4	87·0	87·7	90·3	91·1	94·0	88·9
5	70·9	51·5	64·3	83·0	68·4	63·8	61·7	64·8	72·7	69·1
1	44·4	42·1	38·4	41·3	42·3	42·4	43·2	42·9	43·1	43·7
0	104·3	31·0	95·5	100·0	106·9	98·4	104·0	102·5	101·3	102·4
0	56·9	53·6	58·6	55·5	55·2	55·2	54·8	54·6	52·8	55·4
3	23·0	21·8	22·4	22·1	21·4	22·6	—	21·2	21·3	21·6

med. No. 44.

²⁸ Father of No. 11.

²⁹ Father of No. 12.



5

[North-Western Tribes of Canada.
7A. Kwakwaka'wakw. 8. Sishiatl.]

		I. Males		II. Female	I. Boy	II. Girls	
13	31	1	2	3	1	2	3
K'oo'milaa	Há'nusemak'a	Maqmu'st'kamé	Gó'Isalis	Mo'p'ene'staak'	Thomas	Lucy Louis	Magdalen Andrew
F. Wai'kwaka'waka M. Kué'oa	Kué'qa	F. American M. Wulaskwakiutl	F. Iroquois M. Kwakintl	F. White M. Koskimo	Sishiatl	Sishiatl	Sishiatl
50	70	20	26	23	11	5	11
mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
.64	1,477	1716	1,662	1,510	1,307	1,066	1,350
.33	1,219	1,410	1,390	1,201	1,035	820	1,102
73	714	790	760	627	573	432	580
1,72	1,604	1,968	1,824	1,560	1,338	1,050	1,340
87	764	895	874	858	704	576	728
35	308	400	494	358	282	239	307
1 ³	185 ³	183 ¹	184 ¹	187 ¹	180	159	171
1 ³	145 ³	154 ¹	151 ¹	154 ¹	147	145	156
1 ¹	115	125	124	125	104	90	100
1 ¹	143	147	145	147	127	121	135
1 ¹	53	53	50	52	41	35	38
1 ¹	37	40	39	33	30	29	35
8 ³	78.4 ³	84.2 ¹	82.1 ¹	82.4 ¹	81.6	91.2	91.5
8 ²	80.4	85.0	85.5	85.0	81.9	74.4	74.1
6 ⁵	69.8	75.5	78.0	63.5	73.2	82.9	92.1
4 ¹	48.3	45.9	45.8	41.5	43.7	40.4	43.0
10 ¹	108.4	114.4	109.9	103.3	102.1	98.2	99.3
5 ¹	51.6	52.0	52.7	56.8	53.7	53.8	53.9
2 ¹	20.8	23.3	24.3	23.7	21.5	22.3	22.7

1. r of No. 16. ³ Sister of No. 20. ⁴ Sister of No. 18

Number.	Women		I. Males															II. Females															I. Males		II. Female	I. Boy	II. Girls		
	1	2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3	1	2	3
Name.	He'nolembis	Ni'm	Wa'wulik'ine	Lag'y'q	Wa'nuk	Hik'osama'6	Anig'kyinis	Te'o'xdis	Qooy'm	Ma'qmusak'am6	Pa'nakult	Kuc'qalgy'lnak'	Maig'te	Ky'k'te	K'o'p'mias	Tih'ualagy'lis	E'wanuqas	He'fostok'a	Wa'd'ina	Tse'latl	Wa'te'lnak	Ky'o'g'ulinal'	Tia'lnaswetsem'na	To'kon'is	O'mag'yoyik'a	Hayo'at'asalis	K'o'talis	Hic'anusnak'a	Yim'kons	Tit'asundalyuk'on	Tih'ualitsem'na	Hic'anusnak'a	Mag'must'kam6	Go'balis	Mo'p'uesnak'	Thomas	Lucy Louis	Magdalen Andrew	
Tribe.	Ts'ek'tlis'atq	Ts'ek'tlis'atq	F. K'omoyus M. Diaw'tis	F. Kwakiutl M. Walaskwakiutl	F. Kwakiutl M. Le'kwit'ok	F. Kud'qa M. Walaskwakiutl	F. K'oc'p'oc'lon'q M. Ne'mk'ic	F. Tar'waras'6q M. Kwakiutl	F. Gu'e'ria M. Ma'malek'ala	F. Walaskwakiutl M. Ma'malek'ala	F. Walaskwakiutl M. Ne'mk'ic	F. Kwakiutl & He'llsank M. He'llsank	Kwakiutl	Walaskwakiutl	F. Walaskwakiutl M. Kud'qa	F. Walaskwakiutl M. K'o'moye	K'o'moye	Ma'malek'ala	Ma'malek'ala	F. Ne'mk'ic M. Kwakiutl	Ma'malek'ala	Ne'mk'ic	F. Ne'mk'ic M. Diaw'tis	F. Walaskwakiutl M. Ne'mk'ic	Ne'mk'ic	F. & Kud'qa & Tena'qtaq M. Tena'qtaq	F. Ma'malek'ala M. Kwakiutl	Ne'mk'ic	F. Ma'malek'ala M. Kud'qa	Walaskwakiutl	Walaskwakiutl	Kuc'ya	F. American M. Walaskwakiutl	F. Iroquois M. Kwakiutl	F. White M. Keskimo	Sishiatl	Sishiatl	Sishiatl	
Age	23	40	13	18	25	26	30	35	35	36	38	38	42	42	50	60	65	4	6	8	11	13	18	18	22	28	30	36	38	40	45	60	70	20	26	23	11	5	11
Height, standing	mm. 1,601 ²	mm. 1,592 ³	mm. 1,286 ³	mm. 1,520	mm. 1,632 ²	mm. 1,691	mm. 1,662 ²	mm. 1,746	mm. 1,584	mm. 1,595	mm. 1,638	mm. 1,666	mm. 1,566 ²	mm. —	mm. 1,640	mm. 1,550	mm. 1,595 ²	mm. 990 ⁴	mm. 1,077 ²	mm. 1,261 ²	mm. 1,353	mm. 1,460 ⁴	mm. 1,486	mm. 1,513 ²	mm. 1,562 ²	mm. 1,493	mm. 1,505	mm. 1,552	mm. 1,634	mm. 1,503	mm. 1,463	mm. 1,483	mm. 1,477	mm. 1,716	mm. 1,662	mm. 1,510	mm. 1,307	mm. 1,066	mm. 1,350
Height of shoulder	1,317	1,313	1,060	1,236	1,340	1,383	1,394	1,430	1,284	1,303	1,328	1,362	1,281	—	1,333	1,265	1,323	768	867	995	1,100	1,183	1,234	1,358	1,292	1,234	1,220	1,250	1,353	1,223	1,195	1,236	1,219	1,410	1,390	1,201	1,035	820	1,102
Length of arm	659	705	573	642	741	759	—	787	702	731	735	750	694	—	733	692	744	406	449	524	—	658	686	—	694	667	640	657	683	649	655	696	714	790	760	627	573	432	580
Finger-reach	1,682	1,650	1,350	1,515	1,757	1,788	1,826	1,848	1,638	1,693	1,795	1,782	1,699	1,715	1,722	1,638	1,750	975	1,057	1,262	1,398	1,513	1,563	1,594	1,674	1,580	1,592	1,585	1,658	1,540	1,563	1,608	1,604	1,968	1,824	1,560	1,338	1,050	1,340
Height, sitting	840	896	694	800	911	968	899	952	880	891	892	885	846	916	876	850	838	570	565	686	726	750	823	831	837	838	833	852	923	785	803	862	764	895	874	858	704	576	728
Width of shoulders	383	355	275	321	—	392	—	375	337	377	364	392	—	363	392	353	—	218	226	257	309	315	325	—	—	335	362	351	342	327	345	348	708	400	494	358	282	239	307
Length of head	188 ¹	192 ¹	182 ¹	179 ¹	192 ¹	189 ²	205 ⁴	200 ³	187 ³	184 ³	190 ³	184 ¹	180 ³	193 ³	191 ³	—	186 ⁴	166 ¹	171 ¹	172 ¹	177 ²	184 ¹	177 ¹	187 ²	190 ²	180 ²	187 ²	185 ²	188 ²	181 ²	179 ²	182 ²	185 ²	183 ¹	184 ¹	187 ¹	180	159	171
Breadth of head	151 ¹	146 ¹	150 ¹	158 ¹	160 ¹	163 ²	158 ⁴	170 ³	168 ³	159 ³	156 ²	160 ¹	161 ³	156 ³	158	157 ⁴	139 ¹	140 ¹	143 ¹	147 ²	150 ¹	163 ¹	154 ¹	159 ²	152 ²	155 ²	154 ²	153 ²	165 ²	148 ²	152 ²	163 ²	145 ²	164 ¹	151 ¹	154 ¹	147	145	156
Height of face	118	120	107	114	133	131	141	136	129	132	126	117	134	131	124	130	138	87	94	101	114	103	111	127	128	114	116	115	123	120	119	119	115	125	124	125	104	90	100
Breadth of face	146.5	145	126	140	147	147	148	151	152	148	141	144	166	151	150	153	147	117	112	123	135	132	140	148	139	135	146	144	151	139	145	149	143	147	145	147	127	121	135
Height of nose	47	52	42	45	57	55	58	51	60	56	48	52	58	56	43	57	62	33	38	40	43	40	43	60	57	44	47	45	46	45	52	49	53	53	50	52	41	35	38
Breadth of nose	34	35	32	35	35	38	43	43	38	37	37	37	35	40	43	36	41	28	29	30	33	33	32	33	35	31	35	35	38	30	36	42	37	40	39	33	30	29	35
Length-breadth index	80.3 ¹	76.0 ¹	82.4 ¹	88.3 ¹	83.3 ¹	86.2 ²	77.1 ⁴	85.0 ³	89.6 ³	86.4 ³	82.1 ²	87.0 ¹	89.4 ³	80.8 ³	88.3 ³	—	84.0 ⁴	83.7 ¹	81.9 ¹	83.1 ¹	83.1 ²	81.5 ¹	87.0 ¹	75.0 ³	80.0 ²	86.1 ³	82.3 ²	82.7 ¹	87.8 ²	81.8 ²	84.9 ³	84.1 ³	78.4 ³	84.2 ¹	82.1 ¹	82.4 ¹	81.6	91.2	91.5
Facial index	80.8	82.8	84.9	81.4	90.5	89.1	95.3	91.0	84.9	89.2	89.4	81.2	85.9	86.8	82.7	85.0	93.9	74.4	83.9	82.1	84.5	78.1	79.3	85.8	92.1	84.5	79.5	79.9	81.5	86.3	82.1	79.9	80.4	85.0	85.5	85.0	81.9	74.4	74.1
Nasal index	72.3	67.3	76.2	77.8	61.4	69.1	74.2	84.3	63.3	66.1	77.1	67.3	69.0	76.8	69.2	71.9	69.3	84.8	76.3	75.0	76.7	82.5	74.4	55.0	61.4	70.5	74.5	77.8	82.6	66.7	69.2	85.7	69.8	75.5	78.0	63.5	73.2	82.9	92.1
Index of arm	41.2	44.3	44.8	42.2	45.5	44.9	—	45.0	44.4	46.0	44.8	44.9	44.2	—	44.7	44.6	46.5	41.0	41.6	41.6	—	45.1	46.0	—	44.5	44.8	42.4	42.4	41.9	43.3	44.9	47.0	48.3	45.9	45.8	41.5	43.7	40.4	43.0
Index of finger-reach	105.1	103.7	105.5	99.7	107.8	105.8	110.0	105.6	103.6	106.5	109.4	106.7	108.2	—	105.0	105.7	109.4	98.5	97.6	100.0	103.6	103.7	104.9	104.9	107.4	106.1	105.5	102.3	101.7	102.7	107.1	108.7	108.4	114.4	109.9	103.3	102.1	98.2	99.3
Index of height, sitting	52.5	56.4	54.2	52.6	55.9	57.3	54.2	54.4	55.7	56.4	54.4	53.1	—	—	53.4	54.8	52.4	57.6	52.3	54.5	53.8	51.4	53.2	54.7	53.7	56.2	55.2	55.0	56.6	52.3	55.0	58.2	51.6	52.0	52.7	56.8	53.7	53.8	53.9
Index of width of shoulders	23.9	22.3	21.5	21.1	—	23.2	—	21.4	21.3	23.7	22.2	23.5	—	—	23.9	22.8	—	22.0	20.9	20.4	22.9	21.6	21.8	—	—	22.5	24.0	22.6	21.1	21.8	23.6	23.5	20.8	23.3	24.3	23.7	21.5	22.3	22.7

1 Not deformed. 2 Slightly deformed. 3 Moderately deformed. 4 Considerably deformed. 5 Much deformed. 6 Very much deformed. = Measured by Dr. G. M. West. * Daughter of No. 2. ** Mother of No. 1. *** Son of No. 15. **** Father of No. 1. ***** Sister of No. 17. ***** Sister of No. 16. ***** Sister of No. 20. ***** Sister of No. 18

12

mm.

1,402

1,131

584

1,403

766

324

171

149

103

137

42

35

87-1

75-2

83-3

41-7

100-0

54-7

23-1

10. Tribes of Harrison River.

I. Boys						II. Girls				Boy
20	3	4	5	6	7	8	9	10	11	12
Célestine Victor	Harry Skoatats	Alexander	Jackson	William	William Philip	Minnie	Mary James	Emily James	Cécile Lewis	Thomas Purcell
Lék'it'mel	Sk'au'elitsk	Sk'au'elitsk	Stséc'lis	Sk'au'elitsk	Stséc'lis	Stséc'lis	Sk'au'elitsk	Sk'au'elitsk	Sk'au'elitsk	F. $\frac{1}{2}$ Stséc'lis, $\frac{1}{2}$ White M. $\frac{1}{2}$ Stséc'lis
12	11	12	13	13	14	8	11	14	16	9
mm. 1,402	mm. 1,259	mm. 1,273	mm. 1,427	mm. 1,450	mm. 1,512	mm. 1,200	mm. 1,366	mm. 1,497	mm. 1,468	mm. 1,198
1,131	985	1,030	1,156	1,170	1,211	958	1,094	1,213	1,198	984
584	560	547	590	651	658	517	609	654	646	534
1,403	1,302	1,280	1,433	1,513	1,580	1,197	1,424	1,523	1,520	1,217
766	677	677	778	768	787	653	720	796	785	646
324	288	291	287	325	357	253	304	318	328	263
171	183	175	177	190	181	166	167	182	162	171
149	152	148	156	158	157	143	146	165	153	153
103	103	102	100	112	111	94	105	111	102	95
137	132	126	132	136	141	122	126	141	137	124
42	43	39	38	49	44	39	46	48	39	38
35	36	34	35	33	39	30	34	35	34	33
87.1	83.1	84.6	88.1	83.2	86.7	86.1	87.4	90.7	94.4	89.5
75.2	78.1	81.0	75.8	82.4	78.7	77.0	83.3	78.7	74.5	76.6
83.3	83.7	87.2	92.1	67.3	88.6	76.9	73.9	72.9	87.2	86.6
41.7	44.4	43.1	41.3	44.9	43.6	43.1	44.5	43.6	43.9	44.5
100.0	103.3	101.7	100.2	104.3	104.6	99.8	103.9	101.5	103.4	101.4
54.7	53.7	53.3	54.4	53.0	52.1	54.4	52.6	53.1	53.4	53.9
23.1	22.9	22.9	20.1	22.4	23.6	21.1	22.2	21.2	22.3	23.6

9. Tribes of the Delta of Fraser River.

9A. Half-bloods, Delta of Fraser River.

10. Tribes of Harrison River.

10A. Half-blood, Stae'ilis.

Table with columns for Name, Tribe, Age, and various anthropometric measurements (Height, Length of arm, Finger-reach, etc.) for individuals across different tribes and categories.

1 Brother of No. 28.

2 Sister of No. 23.

3 Sister of No. 15.

4 Sister of No. 8.

2

mm.
803 6

593

327

722

480

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166

148

82

115

32

27

89:2

71:3

84:4

40:7

96:1

59:8

—

other c
brothe

20	21	43	44	45	46	47	48	49	50
Anias	Harry	Ch'qala	Ma'lsdtem	Chlpi'tza	Pak'oyaten	Tqoalikt'e'n	La'ict	Nqa'tembkan	Kula'ta
Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar	Utamkt of North Bend and Boston Bar
2	3	55	58	60	60	65	65	70-75	75
mm. 803 ⁴	mm. 897 ¹³	mm. 1,492	mm. 1,555	mm. 1,622	mm. 1,566	mm. 1,538	mm. 1,620	mm. 1,572	mm. —
593	—4	1,218	1,258	1,350	1,292	1,280	1,308	1,313	—
327	—4	663	682	713	760	672	741	716	—
722	—4	1,510	1,610	1,745	1,707	1,552	—	1,672	1,558
480	51 ⁵	790	830	816	808	797	843	815	793
—	21 ¹¹	327	365	364	334	354	348	361	348
166	17 ⁸⁹	177	195	188	191	182	185	176	188
148	14 ⁵⁸	151	155	162	160	151	154	156	160
82	8 ¹⁷	110	130	118	124	121	130	130	117
115	12 ⁴³	139	149	153	150	148	143	146	153
32	3 ⁵³	53	55	47	55	51	56	62	57
27	2 ⁴⁰	41	40	41	43	38	40	38	43
89.2	83.6	85.3	79.5	86.2	83.8	83.0	83.2	88.6	85.1
71.3	70.8	79.1	87.3	77.1	82.7	81.8	90.9	79.0	76.5
84.4	90.5	77.4	72.7	87.2	78.2	74.5	71.4	61.3	75.4
40.7	—4.9	44.5	44.0	44.0	48.4	43.7	45.7	45.6	—
96.1	—3.0	103.0	103.9	107.7	108.7	100.8	—	106.5	—
59.8	57.7	53.0	53.5	50.4	51.5	51.8	52.0	51.9	—
—	23.0	22.0	23.5	22.5	21.3	23.0	21.5	23.0	—

other of No. 9 Brother of No. 28. ¹⁰ Brother of No. 24.
 brother of

a. Utamkt of Spuzzum.

b. Utamkt of Spuzzum and Upper Divisions mixed.

c. Upper Utamkt of Boston Bar and North Bend.

Table with columns for Number, Name, Tribe, Age, and various anthropometric measurements (Height, Length of arm, etc.) for individuals from different tribes and divisions.

1 Father of Nos. 16, 17, and 18. 2 Mother of half-bloods Nos. 2, 4, and 18. 3 Son of No. 10; brother of Nos. 17 and 18. 4 Son of No. 10; brother of Nos. 16 and 18. 5 Son of No. 10; brother of Nos. 16 and 17. 6 Son of Nos. 39 and 60. 7 Son of No. 42. 8 Grandson of No. 42. 9 Brother of No. 28. 10 Brother of No. 24.

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69	109	110	111	112	113	114
Qitpé'tgo	Ha'kó	Taau'en	T'eo'iska	Qozamé'kan	Jim Tsiaqa'skt	Philip K'm'itlam
Utamak't of North Bend	Ntlakyapamuq'ó'é	Ntlakyapamuq'ó'é	Ntlakyapamuq'ó'é	Ntlakyapamuq'ó'é	Ntlakyapamuq'ó'é	Ntlakyapamuq'ó'é
40	60	65	65	65	65	65
mm.	mm.	mm.	mm.	mm.	mm.	mm.
1,488	1,547	1,544	1,643 ⁴¹	1,543	1,684	1,641 ⁴²
1,200	1,273	1,290	—	1,287	1,413	1,328
62	701	707	—	693	766	704
1,510	1,648	1,610	1,693	1,605	1,745	1,713
80	813	793	878	783	880	870
30	329	365	383	341	365	372
10	196	197	189	180	183	190
10	151	153	158	146	150	146
10	125	128	115	120	120	125
10	148	147	154	139	148	145
	56	61	48	59	52	52
	39	39	42	38	41	45
8	77.0	77.7	83.6	81.1	82.0	76.8
8	84.5	87.1	74.7	86.3	81.1	86.2
7	69.6	63.9	87.5	64.4	78.8	86.5
4	45.2	45.9	—	45.0	45.6	42.9
10	106.3	104.6	103.2	104.2	103.9	104.4
10	52.5	51.5	53.5	50.8	52.4	53.1
10	21.2	23.7	23.4	22.2	21.7	22.7

40. 75 and 78. ²⁸ Daughter of No. 140

41. 33. ²⁹ Brother of No. 106.

c. Upper Utank't of Boston Bar and North Bend (continued).

11. Nilakya'pmua (continued).

e. Nilakya'pama'ge'e.

Anthropological data table for 146 individuals, organized by sex (I. Males, II. Females) and tribe. Columns include Number, Name, Tribe, Age, and various measurements (Height, arm, etc.).

Family relationships and notes for individuals: Daughter of No. 69; Mother of Nos. 54, 55, 76, 77, 78; etc.

males

3

15 weeks

N. H. K. Y. A. P. H. I. N. G. S.

28

m.

07³⁶ 1,

50 1,

44

23 1,

94

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83

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63-6

79-7

73-3

22-6

01-0 1

52-6

22-7

o. 96.
of Nc
Sc

e. *Nlakaipamu'ó'e* and Upper Tribes mixed.

males			II. Females								
3	134	157	158	159	160	161	162	163	164	165	166
	Cillel'igó	Téó'téteca	Ci'ntgo	Zehé'btsa	Kóólgó'tigó	Tculoquteé'nak'	Kaqqi'tza	Ma'asutl	Kuslaqi'nak	Kwazi'nik	K-ena'igó
	Nlakaipamu'ó'e	F. Lytton M. ½ Lytton ½ Okanagan	F. Lytton M. Spence's Bridge	F. Lytton M. Foster Bar	F. Nicola Valley M. Lytton	F. Spence's Bridge M. Lytton	F. Okanagan M. Lytton	F. Lytton M. Nicola	Stlaqa'yuuq	F. Lytton M. Spence's Bridge	Stlaqa'yuuq
28	30	8	17	19	29	30	33	37	37	39	40
mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
07 ⁵⁶	1,570 ⁵	1,557 ⁷⁰	1,533 ⁷¹	1,550 ⁷²	1,422	1,534 ⁷³	1,510 ⁷⁴	1,556	1,558	1,540 ⁷⁵	1,573 ⁷⁶
50	1,295	—	1,224	1,295	1,190	1,280	—	1,292	1,270	1,270	1,281
44	678	—	650	580	663	650	—	665	658	683	689
23	1,604	1,186	1,547	1,606	1,558	1,570	1,540	1,620	1,578	1,588	1,638
94	827	—	792	817	764	794	—	820	837	837	839
43	362	253	338	336	321	322	335	336	350	343	371
83	188	172	179	178	171	173	174	172	180	181	178
53	147	147	146	150	146	148	148	146	149	152	152
10	117	93	112	111	108	111	119	113	122	114	110
33	134	121	134	138	133	134	141	133	138	143	144
45	49	39	49	39	47	44	47	49	50	46	45
33	34	31	36	33	36	32	34	35	37	36	33
3-6	78-2	85-5	81-6	84-3	85-4	85-8	85-1	84-9	82-8	84-0	85-4
9-7	87-3	76-9	83-6	80-5	81-2	82-9	84-4	85-0	88-4	79-1	76-4
7-3	69-4	79-5	73-5	84-6	76-6	72-7	72-4	71-4	74-0	78-3	73-3
2-6	43-2	—	42-5	46-1	46-7	42-5	—	42-6	42-3	44-3	43-9
01-0	102-2	102-2	101-1	103-6	109-7	102-6	102-7	103-8	101-2	103-1	104-3
52-6	52-7	—	51-8	52-7	53-8	51-9	—	52-6	53-7	54-4	53-4
22-7	23-1	21-8	22-1	21-7	22-6	21-1	22-2	21-5	22-4	22-3	23-6

o. 96. 143; sister of No. 129. ⁵² Grand-daughter of No. 106; sister of No. 85. Grandmother of Nos. 126 and 129. ⁶² Grandmother of No. 89; ⁶⁷ Son off No. 152. ⁷³ Mother of No. 119. ⁷⁴ Mother of No. 157.

11. Nilakya'pamua (continued).

e. Nilakya'pamua'q' (continued).

f. Nilakya'pamua'q' and Upper Tribes mixed.

Table with columns for Number, Name, Tribe, Age, Height, Length of arm, Finger-reach, Height, sitting, Width of shoulders, Length of head, Breadth of head, Height of face, Breadth of face, Height of nose, Breadth of nose, Length-breadth index, Facial index, Nasal index, Index of arm, Index of finger-reach, Index of height, sitting, Index of width of shoulders. Rows 115-166.

Grand-daughter of No. 106; sister of Nos. 125 and 127. Sister of No. 118. Sister of No. 117. Daughter of No. 96. Daughter of No. 134. Grand-daughter of No. 106; sister of No. 116; twin sister of No. 127. Grand-daughter of No. 118. Daughter of No. 77. Grandmother of Nos. 126 and 129. Grandmother of No. 89; daughter of No. 125. Sister of No. 122. Sister of No. 126. Daughter of Nos. 103 and 136; sister of No. 82. Sister of No. 85. Mother of No. 121. Daughter of No. 77. Grandmother of Nos. 126 and 129. Grandmother of No. 89; daughter of No. 151. Mother of No. 139. Mother of No. 146; great-grandmother of No. 89. Son of No. 166; brother of No. 159. Son of No. 114. Son of No. 156. Father of No. 155. Daughter of No. 162. Sister of No. 158. Mother of Nos. 152 and 159. Mother of No. 119. Mother of No. 165. Daughter of No. 166; sister of No. 152.

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1. *Nitakya*

utci'nemua mixed with Shuswap and Okanagan.

		Iales		II. Females					
185		191	202	203	204	205	206	207	208
	Tsiléqé'sket		Paa	Tcé'a	A'utgö	Tsekzé'lza	TélliH'nak	Quale'nik	Wa'qtgö
	Nkamtel'nemua	M. N'kaintéi'nemua	F. Sequa'pamua M. Nkamtel'nemua	F. Nkamtel'nemua M. $\frac{1}{2}$ Okanagan $\frac{1}{2}$ Nkamtel'nemua	F. $\frac{1}{2}$ Nkamtel'nemua $\frac{1}{2}$ Sequa'pamua M. Nkamtel'nemua	F. Okanagan M. Nkamtel'nemua	F. Okanagan M. Nkamtel'nemua	F. $\frac{1}{2}$ Sequa'pamua $\frac{1}{2}$ Nkamtel'nemua M. Nkamtel'nemua	F. Nkamtel'nemua M. $\frac{1}{2}$ Sequa'pamua $\frac{1}{2}$ Nkamtel'nemua
	95	0	75	6	26	50	50	53	65
1.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
) ⁸⁷	—	1,004	1,600	1,101	1,533	1,602	1,611	1,562 ⁸⁴	1,424
3	—	823	1,327	893	1,273	1,297	1,324	1,297	1,178
5	—	425	719	493	662	707	687	678	636
7	—	1,083	1,648	1,113	1,571	1,680	1,635	1,575	1,490
9	—	536	832	616	801	853	837	840	726
11	—	250	337	229	328	355	325	333	321
13	189	194	187	167	183	191	172	177	178
15	158	150	156	143	144	147	147	152	150
17	101	14	107	92	121	112	113	110	102
19	144	147	151	122	136	139	135	140	143
21	52	53	56	38	47	49	51	43	48
23	41	40	42	29	37	36	34	35	37
25	83·6	87·3	83·4	85·6	78·7	77·0	85·5	85·9	84·3
27	70·1	77·6	70·9	75·4	89·0	80·6	83·7	84·6	71·3
29	78·8	85·5	75·0	76·3	78·7	73·5	66·7	81·4	77·1
31	—	45·3	45·0	44·8	43·3	44·2	42·7	43·5	44·8
33	—	95·2	103·0	101·2	102·7	105·0	101·6	101·0	104·9
35	—	52·3	52·0	56·0	52·4	53·3	52·0	53·8	51·1
37	—	21·9	21·1	20·8	21·4	22·2	20·2	21·3	22·6

⁸² Brother of 186, and of 1.

⁸⁶ Father of No. 167.

⁸⁷ Father of No. 188.

11. *Nlakya'pamua* (continued).

g. *Nkamtc'i' nemua*.

h. *Nkamtc'i' nemua mixed with Shuswap and Okanagan.*

Numb-r.	I. Males																		II. Females																		I. Males			II. Females					
	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208			
Name.	Kiyu'yua	Qe'o	Nowa'wasget	Kilka'los	Thomas Kait'm	Kue'tesia	Lemli'stam	Quistamml'tsa	Kultn'tsa	Gu'laten	Tsa'la	Waipa'st	Kwateceli'	Kolomastou't	Nxam'eit	Ta'qsa	Ye'iqoska	Tluqpa'os	Tsalag'e'sket	Tlammaq'na'igo	Tkual'q'k'en	Kunkun	Qosape'tnik.	Cuyasat'e'igo	Stoak'os'nek'	Tak'ama	Taril'nek Yupa'tgo	Cumaqa'tgo	Qasat'ska	Zhkoat'ksa	Waze'nek'	Tll'igo	Le't'igo	K ozati'sket	S'u'qan	P'au	Tee'a	A'ingo	Ts'ekze'laa	Tetlin'nak	Quale'nik	Wa'itgo			
Tribe.	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua	Nkamtc'i' nemua M. & Nkamtc'i' nemua & Sequa'pamua	F. Okanagan M. Nkamtc'i' nemua	F. Sequa'pamua M. Nkamtc'i' nemua	F. Nkamtc'i' nemua M. & Okanagan & Nkamtc'i' nemua	F. & Nkamtc'i' nemua & Sequa'pamua M. Nkamtc'i' nemua	F. Okanagan M. Nkamtc'i' nemua	F. Okanagan M. Nkamtc'i' nemua	F. & Sequa'pamua & Nkamtc'i' nemua M. Nkamtc'i' nemua	F. Nkamtc'i' nemua M. & Sequa'pamua M. Nkamtc'i' nemua				
Age	7	21	25	25	29	30	33	38	40	50	50	51	54	55	58	65-70	70	75	95	5	6	16	17	19	32	35	37	40	48	52	60	68	70	48	60	75	6	26	50	50	53	65			
Height, standing	1,127 ⁷⁷	1,850 ⁷⁸	1,674 ⁷⁹	1,716 ⁸⁰	1,655	1,600 ⁸¹	1,563 ⁸²	1,645 ⁸³	1,660 ⁸⁴	1,513	1,610	1,703 ⁸⁵	1,657 ⁸⁶	1,655	1,660	1,602	—	1,540 ⁸⁷	—	1,046 ⁸⁸	1,108 ⁸⁹	1,565 ⁹⁰	1,642	1,612	1,576	1,555 ⁹¹	1,590	1,605	1,543	1,520	1,470 ⁹²	1,477 ⁹³	1,516	1,718	1,604	1,600	1,101	1,533	1,602	1,611	1,562 ⁹⁴	1,424			
Height of shoulder	884	1,569	1,369	1,413	1,338	1,296	1,300	1,372	1,348	1,228	1,350	1,400	1,384	1,362	1,353	1,341	—	1,246	—	850	887	1,274	1,363	1,303	1,307	1,295	1,314	1,300	1,265	1,272	1,204	1,225	1,238	1,383	1,323	1,329	893	1,273	1,297	1,324	1,297	1,178			
Length of arm	471	836	756	779	738	711	707	749	715	689	707	778	729	770	751	764	—	686	—	439	464	683	756	705	685	688	687	720	629	642	669	655	702	758	725	717	493	662	707	687	678	636			
Finger-reach	1,145	1,855	1,768	1,828	1,720	—	1,660	—	1,685	1,601	1,662	1,830	1,625	1,810	1,774	1,724	—	1,614	—	1,032	1,075	1,565	1,693	1,647	1,630	1,585	1,680	1,688	1,573	1,560	1,571	1,510	1,593	1,798	1,683	1,648	1,113	1,571	1,680	1,635	1,575	1,490			
Height, sitting	600	926	887	898	878	823	833	842	864	810	842	876	862	834	874	827	—	773	—	593	613	819	823	857	818	793	846	832	789	780	754	716	788	900	836	832	616	801	853	837	840	726			
Width of shoulders	265	408	385	392	410	363	374	382	371	369	343	393	333	371	380	362	—	341	—	225	258	354	373	329	332	347	371	355	323	313	312	327	323	388	350	337	229	328	355	325	333	321			
Length of head	173	202	187	195	191	186	190	179	187	197	181	190	181	187	198	185	186	188	189	161	162	184	185	174	178	189	180	178	183	179	186	179	180	187	194	187	167	183	191	172	177	178			
Breadth of head	154	162	153	160	161	155	151	153	153	158	148	150	152	151	151	158	161	156	158	138	151	154	149	148	148	144	153	144	145	148	148	142	143	150	150	156	143	144	147	147	152	150			
Height of face	90	135	118	131	124	110	116	129	120	125	111	128	115	122	118	119	123	115	101	90	113	118	118	119	110	114	110	117	109	116	108	115	98	114	114	107	92	121	112	113	110	102			
Breadth of face	124	151	151	149	148	143	144	143	147	155	140	148	145	148	145	146	150	149	144	116	126	136	140	135	134	136	145	138	133	135	140	135	138	146	147	151	122	136	139	135	140	143			
Height of nose	38	55	51	53	50	48	52	55	52	53	52	55	49	54	48	60	50	55	52	37	42	45	47	47	47	49	49	55	50	50	46	54	48	48	53	56	38	47	49	51	43	48			
Breadth of nose	33	41	38	36	35	40	38	35	37	41	41	36	40	38	36	38	45	40	41	31	30	35	34	36	39	40	39	30	40	40	36	40	45	38	40	42	29	37	36	34	35	37			
Length-breadth index	89.0	80.2	81.8	82.1	84.3	83.3	79.5	85.5	81.8	80.2	81.8	78.9	84.0	80.7	76.3	85.4	86.6	83.0	83.6	86.0	93.2	83.7	80.5	85.1	83.1	76.2	85.0	80.9	79.2	82.7	79.6	79.3	79.7	80.2	77.3	83.4	85.6	78.7	77.0	85.5	85.9	84.3			
Facial index	72.6	89.4	78.1	87.9	83.8	76.9	80.6	90.2	81.6	80.6	85.4	86.5	79.3	82.4	81.4	81.5	82.0	77.2	70.1	77.6	89.7	86.8	90.8	88.1	82.1	83.8	75.9	84.8	82.0	85.9	83.1	85.2	71.0	78.1	77.6	70.9	75.4	89.0	80.6	83.7	84.6	71.3			
Nasal index	86.8	74.5	74.5	67.3	70.0	83.3	73.1	62.5	71.2	77.4	78.8	65.5	81.6	70.4	75.0	63.3	90.0	72.7	78.8	83.8	71.4	77.3	72.4	76.6	83.0	81.6	79.6	54.5	80.0	80.0	78.3	74.1	93.8	79.2	73.5	75.0	76.3	78.7	73.5	66.7	81.4	77.1			
Index of arm	41.7	45.2	45.3	45.3	44.7	44.5	45.3	45.4	43.1	45.6	43.9	45.7	43.9	46.4	45.2	47.7	—	44.5	—	41.8	41.8	43.8	46.1	43.8	43.4	44.1	43.2	45.0	44.1	42.2	45.5	44.3	46.2	44.1	45.3	45.0	44.8	43.3	44.2	42.7	43.5	44.8			
Index of finger-reach	101.3	100.3	105.9	106.3	104.2	—	106.4	103.5	101.5	101.0	103.2	107.6	101.5	109.1	106.9	107.8	—	104.8	—	98.3	96.9	100.0	103.2	102.3	103.2	101.6	105.7	105.5	102.1	102.0	106.9	102.0	104.8	104.5	105.2	103.0	101.2	102.7	105.0	101.6	101.0	104.9			
Index of height, sitting	53.1	50.1	53.1	52.2	53.2	51.4	53.4	51.0	52.0	53.6	52.3	51.5	51.9	50.2	52.7	51.7	—	50.2	—	56.5	55.2	52.5	50.2	53.2	51.8	50.8	53.2	52.0	51.3	51.3	51.3	48.4	51.8	52.3	52.3	52.0	56.0	52.4	53.3	52.0	53.8	51.1			
Index of width of shoulders	23.5	22.1	23.1	22.8	24.8	22.7	24.0	23.2	22.3	24.4	21.3	23.1	20.1	22.3	22.9	22.6	—	22.2	—	21.4	23.2	22.7	22.7	20.4	21.0	22.2	23.3	22.2	21.0	22.6	21.2	22.1	21.3	22.6	21.9	21.1	20.8	21.4	22.2	20.2	21.3	22.6			

⁷⁷ Son of Nos. 179 and 207. ⁷⁸ Brother of No. 170. ⁷⁹ Son of No. 197; brother of No. 175. ⁸⁰ Brother of No. 168. ⁸¹ Brother of No. 173. ⁸² Brother of No. 172. ⁸³ Son of No. 198. ⁸⁴ Son of No. 197; brother of No. 169. ⁸⁵ Father of No. 187. ⁸⁶ Father of No. 167. ⁸⁷ Father of No. 188.
⁸⁸ Daughter of No. 192. ⁸⁹ Daughter of No. 178. ⁹⁰ Daughter of No. 184. ⁹¹ Mother of No. 186, and of half-blood No. 5. ⁹² Mother of Nos. 169 and 175. ⁹³ Mother of No. 174. ⁹⁴ Mother of No. 167.

em

21

Shushu

(Shukhukwuk)

1	1
7	1,
8	1,
5	6
4	1,5
2	8
6	3
9	1
1	15
5	10
2	13
	4
	3

85

79

71

45

106

54

23

of Shus

13. Okanagan. Okanagan.

emales				ales			I. Male	II. Females		Males	
21	22	23	2-25	1 8	9	10	1	2	3	1	2
(Chukchukwuk)	Minnie Axime	Lisette Andrew	Victoire Mary	Nkómá'skt Tcós'sigó	Catherine Falardeau	Nellie Falardeau	Allen Edward	Julienne François Shileiza	Victoire	Simon Kamloops	Edward Moreno
Seqwá'pamuq (Chukchukwuk)	Seqwá'pamuq (Kamloops)	Seqwá'pamuq (Chukchukwuk)	Seqwá'pamuq (Kamloops) Seqwá'pamuq (Enderby)	F. Seqwá'pamuq M. $\frac{1}{2}$ Seqwá'pamuq M. $\frac{1}{2}$ Spuzauw, $\frac{1}{2}$ Muliatto	F. $\frac{1}{2}$ French, $\frac{1}{2}$ Seqwá'pamuq M. Seqwá'pamuq	F. $\frac{1}{2}$ French, $\frac{1}{2}$ Seqwá'pamuq M. Seqwá'pamuq	Okanagan	Okanagan	Okanagan	F. White M. Okanagan	F. $\frac{1}{2}$ Mexican, $\frac{1}{2}$ Okanagan M. Okanagan
14	16	236	9 16	18	22	12	12	18	11	11	
mm. 1,481	mm. 1,449	mfm. 1,555 ⁵	mmmm. 1,26,466 ⁶	mm. 1,588	mm. 1,584	mm. 1,352	mm. 1,354	mm. 1,552	mm. 1,355	mm. 1,270	
1,212	1,174	1,27?	1,02,180	1,297	1,293	1,103	1,103	1,284	1,087	999	
677	641	65—	53,637	710	681	590	610	710	600	542	
1,580	1,512	1,63,23	1,28,498	1,680	1,643	1,380	1,396	1,623	1,369	1,262	
811	798	83,23	69,759	822	840	733	740	820	738	708	
341	325	36,40?	26,346	361	359	297	302	350	288	281	
175	184	18,81	181,179	185	184	179	174	188	177	183	
150	156	15,60	155,154	159	156	150	150	147	145	143	
107	110	11,20	97,102	111	112	111	99	110	97	103	
134	143	14,50	131,137	142	138	134	131	140	126	123	
46	43	4 53	38 43	51	47	43	41	43	41	44	
33	31	3 36	32 37	38	37	32	29	33	30	34	
85·7	84·8	82·8·4	87·88·0	85·9	85·1	83·8	86·2	78·2	81·9	78·1	
79·9	76·9	90·0·0	74·074·5	78·2	81·2	82·8	75·6	84·6	77·0	83·7	
71·7	72·1	75·7·9	84·286·0	74·5	78·7	84·4	70·7	76·7	73·2	77·3	
45·7	44·2	44—	42·743·3	44·7	43·1	43·7	45·2	45·8	44·1	42·7	
106·8	104·3	103·4·7	101·601·9	105·7	104·0	102·2	103·4	104·7	100·7	99·4	
54·8	55·0	53·3·1	55·051·6	51·7	53·2	54·3	54·8	52·9	54·3	55·8	
23·0	22·4	23·1·9?	20·923·5	22·7	22·7	22·0	22·4	22·6	21·2	22·1	

11. *Nilakya'pamua* (continued).
i. *Half-blood Nilakya'pamua.*

Table with 12 columns for I. Males and 12 columns for II. Females. Rows include Name, Tribe, Age, Height, Length of arm, Finger-reach, Height, sitting, Width of shoulders, Length of head, Breadth of head, Height of face, Breadth of face, Height of nose, Breadth of nose, Length-breadth index, Facial index, Nasal index, Index of arm, Index of finger-reach, Index of height, sitting, Index of width of shoulders.

1 Son of Nos. 11 and 25. 2 Father of No. 1.

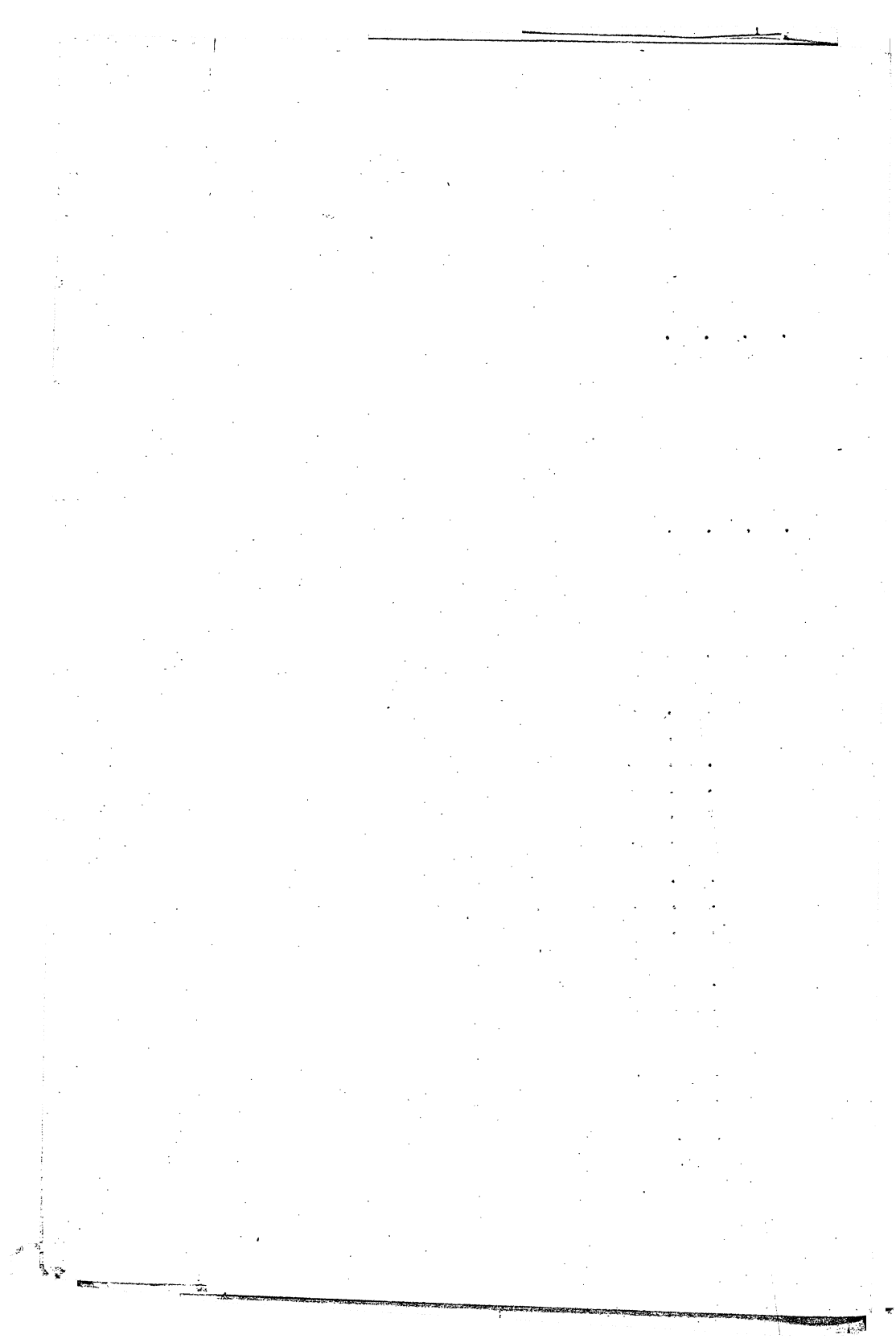
Table with 20 columns for I. Males and 20 columns for II. Females. Rows include Name, Tribe, Age, Height, Length of arm, Finger-reach, Height, sitting, Width of shoulders, Length of head, Breadth of head, Height of face, Breadth of face, Height of nose, Breadth of nose, Length-breadth index, Facial index, Nasal index, Index of arm, Index of finger-reach, Index of height, sitting, Index of width of shoulders.

3 Father of half-bloods Nos. 1 and 8.

4 Mother of No. 1.

5 Son of Shuswap No. 16; brother of No. 8.

6 Daughter of Shuswap No. 16; of No. 1.



ON THE NORTH-WESTERN TRIBES OF CANADA.

Stature of Men of Tribes of the Pacific Coast.

Chm.	144	146	148	150	152	154	156	158	160	162	164	166	168	170	172	174	176	178	180	182	184	186	188	Ave. ages	Number of Cases, Observers.	
Eskimo of Labrador																									157.5	26 Sornerger
Eskimo of Alaska																										84 —
Tlingit																										15 Hendrichson, Krause, Brown
Haida																										88 Brown
Nees River Indians																										20 Boas
Tsimshian																										29 Brown
Bligula																										26 Boas
Kwakwiltl																										40 Boas
Delta of Fraser River																										80 Boas and Greer
Harrison Lake																										11 Boas
Spuzzum																										22 Boas and Greer
Utamik																										12 Boas
Nlakapannu'ye.																										161.0
Nkamto'pennuq.																										162.7
Shuswap, Kamloops																										15 Boas
Northern Shuswap																										48 Boas, Greer, Watt
Okanagan																										51 Watt
Thneh																										168.1
Cowichean and Chillum																										69 Greer and Lawrence
Puget Sd., Makah, Quinault																										18 Watt
Chinook																										18 Brown and Waughop
Sahaptin																										98 Waughop and Boas
Coast of Oregon																										22 O'Neill and Boas
Klamath																										71 Moncrieff and Stro- minger
Hoopa																										60 Boas and Lawrence
Round Valley																										80 Moncrieff
Piute, Nevada																										32 Moncrieff and Leng- feldt
Shoshone and Ute																										80 Chesnut
																										68 Biedenbach and Law- rence
																										121 Bolton and Shaw

Length of Head of Men.

Mm.	{ 174 175	{ 176 177	{ 178 179 180 181 182 183 184 186 188 190 192 194 196 197 199 200 202 203 204 206	{ 205 207	Average	Number of Cases
Nass River Indians	—	—	—	—	—	25
Bilqula	1	—	—	—	—	25
Harrison Lake	1	—	—	—	—	15
Spuzzum	—	—	—	—	—	12
Uta'mk't	—	—	—	—	—	18
Ntlak'apamuq'o'e	—	—	—	—	—	26
Nkamitci'humuq	—	—	—	—	—	21
Shuswap	—	—	—	—	—	10
Oregonian Timneh	—	—	—	—	—	19

Length of Head of Women.

Mm.	{ 166 167	{ 168 169	{ 170 171 172 173 174 175 176 178 180 182 184 186 187 188 189	{ 190 191 193 195 197	Average	Number of Cases
Nass River Indians	—	—	—	—	—	21
Kwakiutl	—	—	—	—	—	8
Harrison Lake	1	—	—	—	—	12
Spuzzum	—	—	—	—	—	5
Uta'mk't	—	—	—	—	—	19
Ntlak'apamuq'o'e	1	—	—	—	—	33
Nkamitci'humuq	—	—	—	—	—	14
Oregonian Timneh	—	—	—	—	—	10

Utá'mk't	1	1	1	3	3	5	4	2	3	2	—	—	—	—	1788	33
Ntíak'yápanuq'ó'e	1	1	2	3	3	7	4	2	1	1	1	—	—	—	1810	14
Nkam'teí'némuq	—	—	—	1	1	4	2	1	1	1	1	—	—	—	1809	10
Oregonian Tinnéh	—	—	—	2	2	—	1	2	2	1	—	—	—	—	—	—

Breadth of Head of Men.

Mm.	146	147	148	149	150	152	154	156	158	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	Average	Number of Cases
Tribes:																											
Nass River Indians	—	—	—	—	—	—	—	3	4	5	3	4	4	4	4	4	4	1	—	—	—	—	—	—	—	161.5	25
Bilqula	—	—	1	1	1	2	1	6	4	4	4	4	3	4	4	4	2	2	2	—	—	—	—	—	158.7	25	
Harrison Lake	—	—	—	—	—	—	3	2	2	3	2	2	1	1	1	2	2	2	2	—	—	2	1	—	164.5	15	
Spuzum	—	—	—	—	2	—	2	4	2	4	4	1	3	3	3	—	—	—	—	—	—	—	—	—	159.7	12	
Utá'mk't	—	—	—	—	5	2	2	2	2	2	2	2	2	2	2	2	—	—	—	—	—	—	—	—	158.3	18	
Ntíak'yápanuq'ó'e	2	—	4	1	6	4	3	3	3	3	3	1	1	1	1	1	1	—	—	—	—	—	—	—	153.7	26 ¹	
Nkam'teí'némuq	—	—	—	—	—	—	1	2	3	3	3	1	1	1	1	1	1	—	—	—	—	—	—	—	154.6	21	
Shuswap	—	—	—	—	—	—	1	2	—	3	4	4	4	4	4	4	—	—	—	—	—	—	—	—	160.7	10 ²	
Oregonian Tinnéh	—	—	—	—	1	4	1	2	3	4	4	1	1	1	2	1	1	—	—	—	—	—	—	—	158.0	19	

¹ 155.9 (37 cases), M. Greer.

² 158.6 (39 cases), M. Greer.

Breadth of Head of Women.

Mm.	140	141	142	143	144	146	148	150	152	154	156	158	160	162	164	Average	Number of Cases
Tribes:																	
Nass River Indians	—	—	—	—	—	—	—	3	1	4	6	2	—	—	—	153.6	21
Kwakwintl	—	—	—	—	2	—	1	2	2	1	1	2	2	—	—	154.3	7
Harrison Lake	—	—	—	—	1	—	1	3	2	1	1	2	1	—	—	153.9	12
Spuzum	—	—	—	—	—	—	—	4	3	1	1	—	—	—	—	151.8	5
Utá'mk't	—	—	—	—	1	4	1	4	4	1	3	1	—	—	—	151.2	19
Ntíak'yápanuq'ó'e	2	—	2	—	3	8	8	3	6	1	—	—	—	—	—	147.7	33 ¹
Nkam'teí'némuq	—	—	2	—	4	2	5	1	2	—	—	—	—	—	—	147.0	16
Shuswap	—	—	—	—	—	1	—	—	—	—	2	—	—	—	—	154.8	4 ²
Oregonian Tinnéh	—	—	—	—	—	3	2	2	—	1	1	1	—	—	—	149.1	10

¹ 152.0 (58 cases), M. Greer.

² 155.1 (30 cases), M. Greer.

Tribes:	137	139	141	143	145	147	149	151	153	155	157	158	160	162	164	166	Average	Number of Cases
Nass River Indians																	156.5	25
Bilqula				2	1	1	2	2	1	2	4	3	4	1	3	1	152.4	24
Kwakiuti					6	8	6	7	9	1	4	4	1	1	1		150.4	49
Harrison Lake				2		3			1	1		2				151.5	15	
Delta of Fraser River								1								159.9	7 ¹	
Puget Sound					1		1		1			2		1		154.0	7	
Spuzzum					2	4	2			3	1					148.7	13	
Uta'mkt				2		6	6	4	2	2						148.7	18	
Ntlakyapamuq'o'e		1	2	1	6	6	6	4	2	1						146.2	25 ²	
Nkamtc'i'nemnuq				2	4	4	5	4		1						147.4	21	
Shuswap					2	2	2	1	1	1						149.2	10 ³	
Sahaptin					3	2	1	1	1							151.2	9 ⁴	
Oregonian Timneh		1	1	5	3	3	1	4	3							146.0	20	
Hoopa			1	3	1	3	1	1	1							146.5	12	

¹ 151.0 (33 cases), M. Greer.

² 145.1 (41 cases), M. Greer.

³ 150.3 (38 cases), M. Greer.

⁴ 150.3 (34 cases), Dr. Moncrieff.

Breadth of Face of Women.

Mm.	126	128	130	132	134	136	138	140	142	144	146	148	150	152	154	156	158	Average	Number of Cases
Nass River Indians																		143.2	21
Bilqula						1	1	1	1	1	1	1	2	1	1	1		146.7	6
Kwakiuti				1	3	1	4	6	4	8	8	3	2					143.1	41
Harrison Lake					1	1	1	1	2	1	1							140.3	12
Puget Sound								1	2	1	1			1				145.0	5
Spuzzum									2	1	1	1						144.6	5
Uta'mkt			1	5	7	5	2	4	1	2	3	1						139.9	19
Ntlakyapamuq'o'e				1	1	5	2	3	4	1	1							136.8	33 ¹
Nkamtc'i'nemnuq																		137.6	16
Shuswap																		Greer (143.5)	
Oregonian Timneh			1		2		3	1	1									138.7	(30)
Oregonian Timneh																		138.7	10

¹ 138.4 (62 cases), M. Greer.

Height of Nose of Men.

Mm.																				Number of Cases	
	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	Average		
Nass River Indians	1	3	4	2	—	5	3	1	—	—	1	—	—	2	—	—	—	—	—	50·8	20
Bilqula	—	—	—	—	2	5	3	3	—	2	5	2	2	2	—	2	—	2	—	57·7	25
Kwakiutl	—	2	—	—	2	5	2	3	—	4	10	6	2	2	1	—	1	—	—	55·7	43
Harrison Lake	—	3	—	2	—	—	1	—	—	4	1	1	2	—	—	—	—	—	—	52·8	11
Spuzzum	—	—	—	3	1	2	1	—	—	—	—	—	—	—	—	—	—	—	—	53·9	13
Utá'mk't	1	1	—	—	1	—	3	—	—	2	1	1	—	—	—	—	—	—	—	52·5	18
Nlakyapamuq'ó'e	—	1	1	5	2	2	2	2	2	2	—	—	—	—	—	—	—	—	—	52·2	15
Nkamtoi'nEmuq	—	3	1	1	1	3	2	2	2	2	—	—	—	2	—	—	—	—	—	55·6	10
Shuswap	—	1	—	—	—	2	2	2	—	—	1	1	—	1	—	—	—	—	—	55·0	19
Oregonian Tinneh	—	—	—	1	4	2	2	2	—	—	4	1	—	1	—	—	—	—	—		

Height of Nose of Women.

Mm.																				Number of Cases		
	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	Average		
Nass River Indians	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	45·2	19
Bilqula	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	54·8	6
Kwakiutl	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	51·8	36
Harrison Lake	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	49·4	10
Spuzzum	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	47·5	4
Utá'mk't	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	47·4	29
Nlakyapamuq'ó'e	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	49·2	12
Nkamtoi'nEmuq	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	48·4	9

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	Average	Number of Cases			
Spuzzum																							40.1	20	
Utá'mk't	1	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	3	4	38.7	24	
Ntlakýápanuq'ó'e																							38.3	42	
Nkamtci'némuq.																							40.6	5	
Nass River Indians																								87.5	12
Bilqula	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	30.8	13	
Kwakiutl																								37.8	12
Delta of Fraser River.																								38.8	12
Harrison Lake																								37.8	17
Spuzzum																								38.0	15
Utá'mk't																								40.8	10
Ntlakýápanuq'ó'e																									
Nkamtci'némuq.																									
Shuswap																									

Breadth of Nose of Women.

Mm.	30	31	32	33	34	35	36	37	38	39	40	41	42	Average	Number of Cases
Nass River Indians															
Bilqula															
Kwakiutl															
Harrison Lake															
Spuzzum															
Utá'mk't															
Ntlakýápanuq'ó'e															
Nkamtci'némuq.															

Length-breadth Index. Total Series.

Per cent.	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	Average	Number of Cases
Nass River Indians																									
Bilqula																									
Kwakiutl, undeformed																									
Delta of Fraser River.																									
Harrison Lake																									
Spuzzum																									
Utá'mk't																									
Ntlakýápanuq'ó'e																									
Nkamtci'némuq.																									
Shuswap																									

Facial Index of Men.

Per cent.	66 67		68 69		70 71		72 73		74 75		76 77		78 79		80 81		82 83		84 85		86 87		88 89		90 91		92 93		94 95		Average	Number of Cases			
	{																																		
<i>Tribe:</i>																																			
Nass River Indians	3									3		2	4	2	2	2	2	2	2	1	1	2		2		1							77.0	20	
Bilqula											1	1	6	4	3	4	3	3	8				3	3		1							83.6	29	
Kwakiutl												1	3	3	2	2	3	6	1				8	5		7		2					86.7	38	
Delta of Fraser River												2	2	2	1	1	2	1					2										79.2	7	
Harrison Lake					1	1				3		2	2	2	1	2	4	4															76.2	12	
Spuzzum								2				2	2	2	3	4	2	2	4	1			4	1			1						80.4	13	
Uta mikt												1	1	2	3	4	2	2	4	1			4	2	1	1							81.5	12	
Ntlakyapamuq'o'e								1				1	1	2	3	4	2	2	1				1	1	1	1							81.6	17	
Nkamct'nemuq												1	1	1	1	2	2	2	3	4			1	2	1	1							82.8	16	
Shuswap.												1	1	2	3	4	2	2	3	3			1	2	1	1							83.6	10	
Oregonian Tinneh.												2		2			4							3			3							85.1	19

Facial Index of Women.

Per cent.	66 67		68 69		70 71		72 73		74 75		76 77		78 79		80 81		82 83		84 85		86 87		88 89		90 91		92 93		94 95		Average	Number of Cases			
	{																																		
<i>Tribe:</i>																																			
Nass River Indians																																		78.6	19
Bilqula												4	1	2	2	6								1										83.0	6
Kwakiutl												1	3	3	3							3	2											84.8	33
Harrison Lake																																		78.4	9
Spuzzum																																		77.8	4
Uta mikt																																		80.9	17
Ntlakyapamuq'o'e																																		81.8	29
Nkamct'nemuq.																																		84.2	12
Oregonian Tinneh.																																		83.3	10

Index of Finger-reach of Men.

Per cent.	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	Average	Number of Cases
<i>Tribes:</i>																	
Nass River Indians									4	3	6	3	2	1	1	106.4	19
Bilqula					1	2	2	2	4	1	5	4	1	1	1	106.7	24
Kwakiutl		2	1		1	1	2	6	5	6	5	3	1	2		105.6	35
Harrison Lake					2	1	2	1	5	2	2	1				105.6	11
Spuzzum					1	2	3	2	4	1	2	1				105.5	13
Utá'mk't					1	1	3	2	1	2	1	1		1		104.6	10
Nlakyápanuq'ó'é					2	3	1	1	7	2	1	1		1		105.2	17
Nkamtoi'nemuq				1	2	2	2	1	1	2	1	1	1			104.5	14
Shuswap				1	3	2	1	1	3	3	1	1	1			106.5	10
Oregonian Tinneh				3	2	3	4	3	2	1	1	1				104.1	17

Index of Finger-reach of Women.

Per cent.	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	Average	Number of Cases
<i>Tribes:</i>																	
Nass River Indians						1	2	5	2	3	1	3	1	1	1	103.2	18
Bilqula						2	6	8	1	2	1	1	1	1		105.7	6
Kwakiutl	1			3		2	1	1	1	6	1	2	2	1		102.6	35
Harrison Lake						2	1	1	1	1	1	2	1			104.8	8
Spuzzum						1	1	1	1	1	1	1	1			101.8	4
Utá'mk't			1	1	1	1	4	5	2	4	1	2	1			102.3	16
Nlakyápanuq'ó'é					1	2	3	6	5	4	1	2			1	102.7	28
Nkamtoi'nemuq					1	1	7	6	2	2	3	1				103.1	12
Oregonian Tinneh					1	1	3	4	2	2	1					102.7	9

over the face is also very slight only. The bridge is generally concave, and very flat between the eyes. The Kwakiutl are somewhat shorter, their bodies are relatively longer, their arms and legs shorter than those of the first group. The dimensions of the head are very nearly the same, but the face shows a remarkably different type, which distinguishes it fundamentally from the faces of all the other groups. The breadth of the face exceeds only slightly the average breadth of face of the Indian, but its height is enormous. The same may be said of the nose, which is very high and relatively narrow. Its elevation is also very great. The nasal bones are strongly developed, and form a steep arch, their lower end rising high above the face. This causes a very strongly hooked nose to be found frequently among the Kwakiutl, while that type of nose is almost absent in all other parts of the Pacific coast. This feature is so strongly marked that individuals of this group may be recognised with a considerable degree of certainty by the form of the face and of the nose alone. It will be noticed that in this group the facial and the nasal indices of the women indicate that their faces are more leptoprosopic, their noses more leptorrhinic, than those of the men, while among almost all races the reverse is the case. This fact led me first to suspect that the artificial deformation which is more strongly developed among women might be the cause of the peculiar form of the face of this tribe. I have shown, however, in the preceding pages that the observations give no countenance to this theory. Besides this the Bilqula show the same features and the same relation between the two sexes, although the heads of the men are not deformed, and those of the women are deformed in a different manner. The measurements of Bilqula women can, however, claim no great weight, as they are too few in number.

The Harrison Lake type has a very short stature. The head is exceedingly short and broad, surpassing in this respect all other forms known to exist in North America. The face is not very wide, but very low, thus producing a chamæprosopic form the proportions of which resemble those of the Nass River face, while its dimensions are much smaller. In this small face we find a nose which is absolutely higher than that of the Nass River Indian with his huge face. It is, at the same time, rather narrow. The lower portion of the face appears very small, as may be seen by subtracting the height of the nose from that of the face, which gives an approximate measure of the distance from septum to chin. The values of this measurement for the four types are 69, 73, 62, and 67 mm. respectively.

The Shuswap represent a type which is found all over the interior of British Columbia, Idaho, Washington, and Oregon, so far as they are inhabited by Salishan and Sahaptin tribes. Their stature is approximately 168 cm. The head is shorter than that of the tribes of Northern British Columbia or of the Indians of the plains. The face has the average height of the Indian face, being higher than that of the Nass River Indians, but lower than that of the Kwakiutl. The nose is high and wide, and has the characteristic Indian form, which is rare in most parts of the coast. The facial and nasal indices are intermediate between those of the Kwakiutl and of the Nass River tribes.

I marked together with the measurements of the Indians certain descriptive features. I give here a tabulation of these observations, but only those taken during the journey of 1894, as I find that it is very difficult to compare descriptive features on account of the large personal equa-

tion of the observers, and even of the same observer at different times. The type which is being described exerts a deep influence upon the form of description. Thus when first visiting the Indians there is a tendency to describe the lips as thick because they are compared with those of the whites, while later on they are called moderate because Indian lips are compared among themselves. Descriptive features are, therefore, of no great value, owing to the inaccuracy of the terms involved. Still, some striking differences will be noticed in the following tabulations of the descriptive features of men from 20 to 59 years of age:—

	Bridge of Nose			Form of Nose			Point of Nose			
	High	Medium	Low	Concave	Straight	Convex	Long	Shot	Thin	Thick
Nass River Indians	7	10	2	4	13	3	12	5	8	9
Kwakiutl	21	5	—	1	19	11	21	8	16	13
Utá'mk't	7	3	2	1	7	3	3	8	3	8
Ntlakyápmuq'ó'e	13	3	—	1	8	6	6	8	5	9
Nkamtcí'nEmuq	13	2	—	2	8	4	7	8	6	9

	Ear			Lobe of Ear					
	Large	Moderate	Small	Large	Small	Attached	Detached	Round	Triangular
Nass River Indians	12	6	2	14	6	13	6	15	5
Kwakiutl	11	14	3	17	12	9	20	26	3
Utá'mk't	4	8	—	10	2	6	6	10	2
Ntlakyápmuq'ó'e	5	11	—	9	7	9	7	14	2
Nkamtcí'nEmuq	4	8	3	7	6	6	7	8	5

This tabulation makes particularly clear the difference in the form of nose found among the various tribes.

I recorded the colour of the skin according to Radde's standard colours, and selected the forehead for my comparisons. I recorded the following tints among the various tribes:—

	32						33						
	l	m	n	o	p	q	l	m	n	o	p	q	r
Nass River Indians	1	—	—	—	—	1	2	1	—	3	1	—	1
Kwakiutl	—	—	—	—	—	1	2	—	2	7	8	7	2
Utá'mk't	—	—	—	—	—	—	—	1	1	1	1	2	—
Ntlakyápmuq'ó'e	—	—	—	—	—	—	—	3	2	6	2	—	2
Nkamtcí'nEmuq	—	—	—	—	—	—	—	—	2	1	—	—	—

It appears from these data that the Kwakiutl are the lightest among the people of the North Pacific coast, while the Nass River and Thompson Indians are considerably darker.

It is necessary to consider the cephalic index of the various tribes a little more closely, because it seems that among the tribes of Fraser River children are much more brachycephalic than adults. Investigations carried on by means of extensive material do not show any such differences, and

it is likely that more extended investigations would cause the apparent difference to disappear; but it is also possible that in this region we may find the length of head to increase more rapidly than the breadth of head. Among the Eastern Indians, and in different parts of Europe, we find a slight decrease of the cephalic index with increasing age, but in no case does the difference exceed 1 per cent. We find also that the heads of women are somewhat shorter than those of men. The following tabulation shows that among the northern tribes the same relations prevail, but that among the Ntlakya'pamuq the heads of adults appear much more elongated than those of children.

Average Cephalic Index.

	Nass River Indians	Bilqula	Kwakiutl	Harrison Lake	Spuzzum	Utá'mk't	Ntlakya'pamuq'ó'e	Nkamte'i'nemuq	Oregonian Tinneh
Boys	84.0(17)	83.6(8)	85.5(6)	90.8(3)	83.5(1)	86.3(13)	86.9(12)	89.5(1)	84.0(17)
Girls	83.5(11)	—	82.5(5)	87.1(5)	—	88.5(12)	87.7(14)	87.8(5)	84.4(10)
Men	82.7(24)	84.7(24)	85.5(2)	89.8(15)	84.9(12)	84.9(17)	82.6(26)	82.0(21)	84.0(20)
Women	82.9(20)	—	82.9(7)	87.5(12)	82.5(5)	83.1(19)	82.8(33)	81.7(17)	83.6(10)
Children	83.8(28)	—	84.1(11)	83.5(8)	83.5(1)	87.4(25)	85.8(26)	88.2(4)	84.2(27)
Adults	82.8(44)	84.7(24)	83.5(9)	88.8(27)	84.2(17)	84.0(36)	82.7(59)	81.9(38)	83.9(30)
Total	83.5(73)	84.4(32)	83.8(21)	88.7(35)	84.1(18)	85.3(61)	83.6(85)	82.5(42)	84.0(57)

It appears from this comparison that even if the greater brachycephalism of the children on Fraser River should be the effect of a peculiar law of growth, the general relations of the cephalic indices of adults would remain unchanged, so that the preceding considerations remain unaltered when the total series or the adults alone are considered.

It is necessary to treat two groups of tribes a little more fully, namely, the Bilqula and the Ntlakya'pamuq. The tables show clearly that the Bilqula are closely related to the Kwakiutl type, with which they have the high face and nose in common. The differences between the divisions of the Ntlakya'pamuq have been discussed above. It remains to point out the probable cause of these differences. It is evident that the lower divisions, particularly those of Spuzzum and the Utá'mk't, are more alike to the Harrison Lake type than the divisions farther up the river. It is also evident that the Nkamte'i'nemuq resemble the Shuswap more than any other division of the Ntlakya'pamuq.

A detailed comparison is given on the following table, which also includes the Oregonian Tinneh.

It will be seen that, on the whole, an approach between the forms of Harrison Lake and that of the Shuswap is found. But the Ntlakya'pamuq'ó'e occupy, in many respects, an exceptional position. Their heads are narrow, their faces are lower and narrower than those of their neighbours. They are narrower than those of any other Indians, with the exception of the Hoopa and Oregonian Tinneh, while the Shuswaps have a face as broad as the average Indian face. These differences between the absolute measurements of the face are also expressed in the indices. The

Averages of Measurements.—Men.

Tribe	Stature	Length of Head	Breadth of Head	Height of Face	Breadth of Face	Height of Nose	Length-breadth Index	Facial Index	Nasal Index
Harrison Lake . . .	1580(11)	183-0(15)	164-5(15)	115-5(11)	151-5(15)	52-8(11)	88-8(35)	76-2(12)	72-0(11)
Spuzzum . . .	1605(22)	186-7(12)	159-7(12)	119-7(13)	148-7(13)	53-9(13)	83-5(12)	80-4(13)	79-0(13)
Uta'mk-t . . .	1610(12)	186-7(18)	158-3(18)	121-7(12)	148-7(18)	53-2(12)	85-3(61)	81-5(12)	75-9(12)
Nlakayapamuq'ó'e . . .	1627(44)	188-9(26)	153-7(26)	119-4(18)	146-2(25)	52-5(18)	83-6(85)	81-6(17)	73-3(17)
Nkamit'nemuq . . .	1657(15)	188-9(21)	154-6(21)	121-6(15)	147-4(21)	52-2(15)	82-5(42)	82-8(15)	73-6(16)
Shuswap . . .	1679(43)	191-8(10)	160-7(10)	123-0(10)	149-2(10)	55-6(10)	83-4(25)	83-6(10)	74-0(10)
Oregonian Tinneh . . .	1648(60)	188-3(19)	158-0(19)	125-3(20)	146-0(20)	55-0(19)	—	85-1(19)	—

Averages of Measurements.—Women.

Tribe	Stature	Length of Head	Breadth of Head	Height of Face	Breadth of Face	H. i. ht. of Nose	Length-breadth Index	Facial Index	Nasal Index
Harrison Lake . . .	1509 (8)	176-0(12)	153-9(12)	109-3(12)	140-3(12)	49-4(10)	87-5(12)	78-4 (9)	72-6(10)
Spuzzum . . .	1527(15)	184-2 (5)	151-8 (5)	113-0 (3)	144-6 (5)	47-5 (4)	82-5 (5)	77-8 (4)	81-7 (4)
Uta'mk-t . . .	1532(17)	180-1(19)	151-2(19)	113-1(17)	139-9(19)	47-4(29)	83-1(19)	80-9(17)	74-7(17)
Nlakayapamuq'ó'e . . .	1530(74)	178-8(33)	147-7(33)	112-5(29)	136-8(33)	49-2(12)	82-8(33)	81-8(29)	74-6(29)
Nkamit'nemuq . . .	1577(12)	181-0(14)	147-0(16)	114-6(12)	137-6(16)	48-4 (9)	81-7(17)	84-2(12)	75-9(13)
Shuswap . . .	1554(30)	—	154-8 (4)	—	143-5(30)	—	—	—	—
Oregonian Tinneh . . .	1545(26)	180-9(10)	149-1(10)	115-7 (9)	138-7(10)	—	83-6(10)	83-3(10)	—

cephalic index decreases rapidly as we go up Fraser River, but it is higher among the Shuswap than among the Nkamteí'nemuq. The facial index increases quite regularly from Harrison Lake to the Shuswap, but we must remember that the face of the Ntlakyá'pamuq'ó'e is much smaller than that of the Shuswap and that of the lower divisions of the Ntlakyá'pamuq. The nasal index is so variable that we cannot draw any conclusions from its average values.

It seems, therefore, that there is a disturbing element among the Ntlakyá'pamuq'ó'e which hides among them the gradual approach of forms between the Harrison Lake type and that of the Shuswap. This fact does not seem surprising, as it is likely that mixture has taken place along Fraser River. The low values of the breadth of face remind us of the Tinneh tribes of Oregon and California, and I do not consider it unlikely that we may find here the effects of an admixture of Tinneh blood.

However the peculiarities of the Ntlakyá'pamuq'ó'e may be explained, the fact remains that the Ntlakyá'pamuq, who represent a people speaking one language, are physically by no means homogeneous. The upper and lower divisions indicate clearly the effect of mixture with the neighbouring tribes; while the central group, 'the real Ntlakyá'pamuq,' present peculiarities of their own, which may be the old characteristics of the Ntlakyá'pamuq, or which may be due to admixture of Tinneh blood. The gradual change of type along Fraser River proves clearly that these tribes must have occupied these regions for very long times, and that the population has been very stable. The differences in type between the divisions of this people offer an excellent example of the fact that linguistic and anatomical classifications do not follow the same lines; that people who are the same in type, and must therefore be related in blood, may speak different languages; and that people who differ in type may speak the same language.

It remains to give a review of the number of children of women of the tribes which I investigated. The data obtained by means of this inquiry allow us to understand the causes of the diminution in numbers among these Indians, and suggest at the same time a possible remedy for this sad fact. I give here the number of living and deceased children of all the women whom I measured, arranged according to ages.

When we direct our attention to the average number of children of women of more than forty years of age, we find the following result:—

Nass River Indians	4.8 children (6 cases)
Kwakiutl	3.5 " (20 ")
Utá'mkt	5.3 " (11 ")
Ntlakyá'pamuq'ó'e	5.8 " (13 ")
Nkamteí'nemuq	5.8 " (10 ")

Although the number of observations is small, the general result is undoubtedly correct, and agrees with the relative number of children in the villages of the various groups, the number being very small among the Kwakiutl, and much larger among the other tribes. The number of children among the Ntlakyá'pamuq equals that found among the tribes of other parts of North America, while that of the Kwakiutl is much smaller.

The cause of the diminution of the tribes becomes clearest when we consider that group of mothers who may just begin to have adult children, that is, between the ages of thirty-five and forty-five years. At

20-24		25-29		30-34		35-39		40-44		45-49		50-54		60 and more	
Living	Deceased	Living	Deceased	Living	Deceased	Living	Deceased	Living	Deceased	Living	Deceased	Living	Deceased	Living	Deceased
Sons	Daughters	Sons	Daughters	Sons	Daughters	Sons	Daughters	Sons	Daughters	Sons	Daughters	Sons	Daughters	Sons	Daughters
<i>Nass River Indians.</i>															
1	1	2	1	1	1	1	1	2	2	1	1	1	1	3	3
2	1	1	1	1	1	2	3					4	5	1	3
1		1	3	1		1									
<i>Kwakwaka'it.</i>															
2	2	3	2	1	1	3	1	1	1	1	1	2	1	1	3
1	1	1	2	1	1	1	1	2	2	1	1	1	3	3	1
1	1	1	1			1	1	1				2	1	1	3
<i>Uit'uk't.</i>															
1	2	1	1	2	1	4	4	2	4	2	1	2	2	3	3
				1	1	3	4	1	1	1	2	1	1	1	1
<i>Nlalyapamuc'v'e.</i>															
2	1	1	3	1	1	3	4	1	2	1	1	2	1	2	3
				2	2	1	1	3	2	1	1	1	1	2	2
				1	1	1	1	1	1			2	3	2	3
<i>Nhamta'w'muq.</i>															
1	1	1	3	4	1	1	2	1	1	1	1	3	7	6	3
				1	1	2	3	1	1	1	1	2	5	5	3
												1	2	1	2
												1	1	1	1

these ages they will have children who are not yet mature, but a portion of these children will be adults. If the population were to remain stable, the number of children would have to be considerably more than twice that of the mothers. The actual distribution is shown by the following figures :—

Nass River Indians	3	mothers of 35-45 years of age have	5	living	4	dead	children.
Kwakiutl	14	"	"	8	22	"	"
Uta'mk't	8	"	"	31	17	"	"
Ntlakyāpamuq'ō'e	8	"	"	14	20	"	"
Nkamitci'nEmuq	3	"	"	3	9	"	"

This table shows how exceedingly unfavourable the conditions are among the Kwakiutl, as fourteen mothers have produced considerably less than eight mature children. The figures prove also that a very slight improvement of the sanitary conditions among the Ntlakyāpamuq would produce an increase of the population.

The cause of the extremely unfavourable conditions among the Kwakiutl becomes particularly clear when the mothers are grouped in decades. When this is done we find the following result:—

Age of mother	20-30	30-40	40-50	50-60	60 and more.
Average number of children	2.7	2.1	1.6	5.2	4.9

That is to say, the maximum sterility is found among women who are now from forty to fifty years old, that is, who became mature about twenty-five or thirty years ago. This agrees closely with the time when the Kwakiutl sent their women most extensively to Victoria for purposes of prostitution. During the last decade a number of influential men among the tribe have set their influence against this practice, and we see at the same time a rapid increase in the number of children. The young women who have now an average number of 2.7 children may hope to regain the number of children which their grandmothers had. But the only hope of preserving the life of the tribe lies in the most rigid suppression of these visits of women to Victoria, which are still continued to a considerable extent, and in an effort to stamp out the diseases which have been caused by these visits.

II. THE TINNEH TRIBE OF NICOLA VALLEY.

In his Notes on the Shuswap People of British Columbia¹ Dr. G. M. Dawson first called attention to a Tinnéh tribe which used to inhabit the Nicola Valley, but which has become extinct. Some notes on the history of this tribe were given by Dr. Dawson according to information obtained from Mr. J. W. McKay, formerly Indian Agent at Kamloops, who has an extensive knowledge of the Indians of the interior. As parts of this information conflicted with reports which I had received, and as it seemed desirable to gather as much information as possible on this tribe, I resolved to visit them in the course of my investigations. Owing to pressure of time I had to give up the intended journey, and requested Mr. James Teit, who is thoroughly familiar with the Ntlakyāpamuq, to try to collect as much information as possible on the tribe. He visited Nicola Valley early in March 1895, and reports the results of his work as follows :—

¹ *Trans. Royal Soc. Canada*, vol. ix. 1891, sect. ii. p. 23.

'I saw the three old men who are said to know the old Stúwí'hamuq language, which was formerly spoken in Nicola Valley, and found that they only remembered a few words of what they had heard from their fathers. One of them could only give me five or six words, another one twelve, and another one twenty. As many of these words were the same, I only obtained twenty distinct words and three phrases. I also learned two place-names used by them which I think are probably Tinneh. A few of the words which I obtained are not on the lists of Dr. Dawson and Mr. McKay. One Indian, who also knows some words of the language, is living at present in Similkameen; therefore I was unable to see him. It is unfortunate that the work of collecting the remains of the language was not undertaken a few years sooner. An old woman who was half Stúwí'hamuq died in Nicola only five years ago. She was the last person who could talk the language properly. The three Indians whom I saw are only one quarter Stúwí'hamuq blood; each of them is old and white-haired, and I should judge over seventy years of age. One of them said he remembered that when he was a boy his grandfather (who was then a very old man and hardly able to walk) pointed out to him the spot on the Nicola a little below the lake where he (the old man) was born, and also told him that his people had always inhabited that region. This old man must have been born in Nicola at least 120 years ago, and it seems that he had no knowledge of the origin of his tribe.

'Another old man whom I saw was taken when a lad, by his father, all over the boundaries of the tribal territory in order to impress upon him the different landmarks which constituted at that time the tribal boundaries. One of the old men named his ancestors for four generations back, saying that at that time the whole tribe lived in three camps or subterranean lodges, and that there were not very many people in each (probably from forty to fifty souls), and that they all wintered along Nicola River below the lake, and in close proximity to each other. They also had two fortified houses in which they took refuge when threatened by war parties of other tribes. The man mentioned war parties of Okanagan, Ntlakyá'pamuq, and Shuswap, who attacked their fortifications unsuccessfully. These events happened three or four generations before his time.

'Three generations ago the tribe had some admixture of Okanagan and Ntlakyá'pamuq blood. Some of them had wives from among their tribes, and the latter took wives from among them. They claim that their tribe never went on war expeditions into the territories of other tribes, and they say, with pride, that their country is the only one in this region where the white men's blood has never been shed. They have a tradition that at one time their tribe was numerous and that their southern boundary extended to Keremeous, on the Lower Similkameen River. They have no tradition regarding a foreign origin, and were quite indignant when I mentioned to them Mr. McKay's theory of their being descended from a war party of Chilcotin. They said that when young they had heard the old people of the tribe telling mythological stories, but these were just the same as those current among the Okanagan and Ntlakyá'pamuq. At my request they told me some of these stories which had been told to them by their grandfathers, and I recognised them as identical with those which I had heard at Spence's Bridge, and which are current in slightly different versions among the interior Salish. I questioned them extensively regarding the customs of their ancestors, and found that these corresponded

exactly to those of the Ntlakyá'pamuq. Their weapons were also exactly the same. Their personal names, so far back as they can trace them, are also Ntlakyá'pamuq. The oldest personal name that they could give me was that of a man of note among them called Tsúqkokwa's. This is the only name that I do not recognise as Ntlakyá'pamuq. They said that the pure Stúwi'hamuq whom they had seen were of about the same height as the Ntlakyá'pamuq and Okanagan, but generally heavier in build. They were also of the same complexion. Their features were slightly different, but they could not explain wherein the difference consisted. They told me the names by which the tribe was known among themselves, and also by neighbouring tribes. These names have all the Salish suffix *-muq*, meaning *people*. These names are Sei'leqamuq (said to mean people of the high country); Smilé'kamuq and Stúwi'hamuq. The last is the name by which they are principally known to the Ntlakyá'pamuq, who have from time immemorial called the upper Nicola country Stúwi'ḥ. The Indians at Spence's Bridge say that this is probably one of the many forms of their word meaning "creek," such as Cawā'uq, Tcawa'q, Tcúwa'uq, Stewauq. Sei'leqamuq is decidedly a Ntlakyá'pamuq word. Smilé'kamuq is probably connected with the place-name Smilékami'n or Smilékami'núq, of which Similkameen is a corruption. They say that about sixty years ago the winter habitations of the Ntlakyá'pamuq extended up the Nicola River only some seventeen miles. The country above this point was recognised as belonging to the Stúwi'hamuq. The Ntlakyá'pamuq called their division which lived along the Lower Nicola River, Tcawa'qamuq, but the Stúwi'hamuq called them Nkamtcí'nemuq, and looked upon them as a part of the division extending from Thompson Siding to Ashcroft. The Tcawa'qamuq, or Cawa'qamuq, used in former days only to go into the Stúwi'ḥ country in the summer and fall of the year to hunt. (The reason that the Cawa'qamuq at that time inhabited principally the lower part of Nicola River was no doubt on account of the superior fishing facilities.) When the number of horses of the Cawa'qamuq and Nkamtcí'nemuq began to increase, many of these people moved up to the Stúwi'ḥ country on account of its good grazing, and settled there about fifteen years before the advent of the white miners in 1858. After the country was partly settled by the whites more Cawa'qamuq and Nkamtcí'nemuq, many Uta'mkt, and some Ntlakyá'pamuq'ó'e and Okanagan settled in the Stúwi'ḥ country, being attracted by its farming facilities. Shortly before the arrival of the whites the Okanagan commenced to make permanent settlements in the neighbourhood of Douglas Lake on account of the good grazing in that region. The Nicola Tinneh, who were already mixed with these tribes, never offered any opposition to their settlement. At the time of the advent of the whites (1858) the recognised chief of the Nicola country was Newisiskin, a Cawa'qamuq, born within seven miles of Spence's Bridge. The Ntlakyá'pamuq soon became the prevailing language of that district. It seems that at least for several generations back the Stúwi'hamuq simply acted on the defensive. The Ntlakyá'pamuq and Okanagan made what use they liked of the Stúwi'ḥ country, hunting in it and passing through it when they desired. The Okanagan always went by that route when going to trade with the Nkamtcí'nemuq. Parties of Shuswap, Okanagan, and Ntlakyá'pamuq on war expeditions against each other passed through the Stúwi'ḥ country unmolested.

'One of the old men whom I saw, named Tcuié'ska or Sé'súluskin, is

the first person of the Ntlakya'pamuq whom I have seen tattooed on the body. He is one quarter Stûwi'hamuq, one quarter Okanagan, and half Nkamtc'i'nemuq. He said that formerly the Stûwi'hamuq were occasionally tattooed on the body, as were also some of the Nkamtc'i'nemuq.'

So far Mr. Teit's report. It may be mentioned in connection with these facts that the Ntlakya'pamuq, near the mouth of Nicola Valley, are the only people who use round lodges in summer, not square lodges, such as I described in my report on the Shuswap. This custom may be due to contact with the Tinneh tribe, or to that of the Okanagan, who are said to use round lodges.

From what we know about Indian life, Mr. McKay's theory that the Stûwi'hamuq are descendants of a Chilcotin war party, which was hemmed in by the Ntlakya'pamuq, seems very unlikely, and Mr. Teit's data prove beyond a doubt that the people have lived in the Similkameen and Nicola regions for a long time. I do not doubt that they must be considered the most northern of the isolated bands of Tinneh origin which are found all along the Pacific coast.

The following is a list of all the words belonging to the language which have been collected. The names of the collectors are indicated by initials, standing for Mr. J. W. McKay, D. for Dr. George M. Dawson, and T. for Mr. James Teit. Mr. Teit adopted the same system of spelling that I use; where more words than one are given under his name they were obtained from different individuals.

1. *T-hach*, M., man.
2. *Tei'lwutz*, D., man.
Thate, T., man.
3. *Nootl*, D., man.
4. *Tsik-hi*, M.; *tsé-a-hai'*, D.; *tsekne'*, T., woman.
5. *Sass*, M.; *sus*, D.; *sas*, T., bear (D., grizzly bear).
6. *Si-si-aney*, M., ram of mountain sheep or big horn.
Sis-ya-né', D., big deer of old; either wapiti or cariboo.
Sisi'ni, T., ewe of mountain sheep.
Sesia'ni, T., elk.
(éstahi'tz), T., elk, probably a corruption of *isteha'tz*, elk in Ntlakya'pamuq. (J. Teit).
7. *T-pae* or *ti-pae*, M.; *tpi*, T., ewe of mountain sheep or big horn.
Ti-pi, D., mountain sheep.
8. *Tit-pin*, T., ram of mountain sheep.
9. *Sa-pie*, M., trout; *si-pai'*, D.; *sipai'i*, T., lake trout.
10. *Hülhültu'tái*, T., a small fish called *hültu'liak* by the Ntlakya'pamuq.
11. *Taki'nktcin*, T., a small fish called *eyi'nik* by the Ntlakya'pamuq.
12. *Zülhe'ke*, T., ground hog.
13. *Tsho*, T., buck of deer.
14. *Tloht-ho*, M., snake; *klos-ho'*, D.; *stlosno'*, T., rattlesnake.
15. *Tin-ih*, M.; *ti'neh*, *tí'nuq*, T., bear-berry (Arctostaphylos).
16. *Tegó'ztz*, T., soap-berry.
17. *Notl-ta-hat'-se*, D.; *notlqa'tzi*, T.; *qtlona'zi*, T., wild currant.
18. *Ta-ta-ney*, M.; *tét-ta-ü-né'*, D.; *ta-a'ni*, T., knife.
19. *Sa-te-tsa-é*, M.; *séttsai'i*, T., spoon made of mountain-sheep horn.
Sit-é-tshí-i', D., spoon.
20. *Sha-kil-ih-kane*, M., rush mat.
21. *K'e*, T., bow and arrow.
22. *Naltsi'tse*, T., arrow-head.
23. *Thutl, tlotl*, T., packing line.
24. *Sa-pe*, M., one.
25. *Tun-ih*, M., two.
26. *Tlohl*, M., three.
27. *Na-hla-li-a*, M., four.

28. *E-na-hlē*, M., five.
29. *Hite-na-ke*, M., six.
30. *Ne-shote*, M., seven.
31. *K-pae*, M., eight.
32. *Sas*, M., nine.
33. *Ti-li-tsa-in*, M., give me the spoon, or bring me the spoon.
34. *N-shote*, M., give it to me.
Etl-teot, T., I may give you.
35. *Pin-a-lē-ē-ī-ītz*, D., look out ! or take care.
36. *A'we ge*, T., come here, child !
37. *Ap̄in tleqi i en q̄ain*, T., exact meaning unknown, but used like the swearing of the whites.
38. *Tasthezu'li*, a place-name.
39. *Tizzi'la*, a place-name.

These words show that the dialect was much more closely related to the Tinneh languages of British Columbia than to those farther south, although it would seem to have differed from the former also considerably. A comparison of vocabularies, which shows the relationships of these dialects, will be found in the linguistic part of this report.

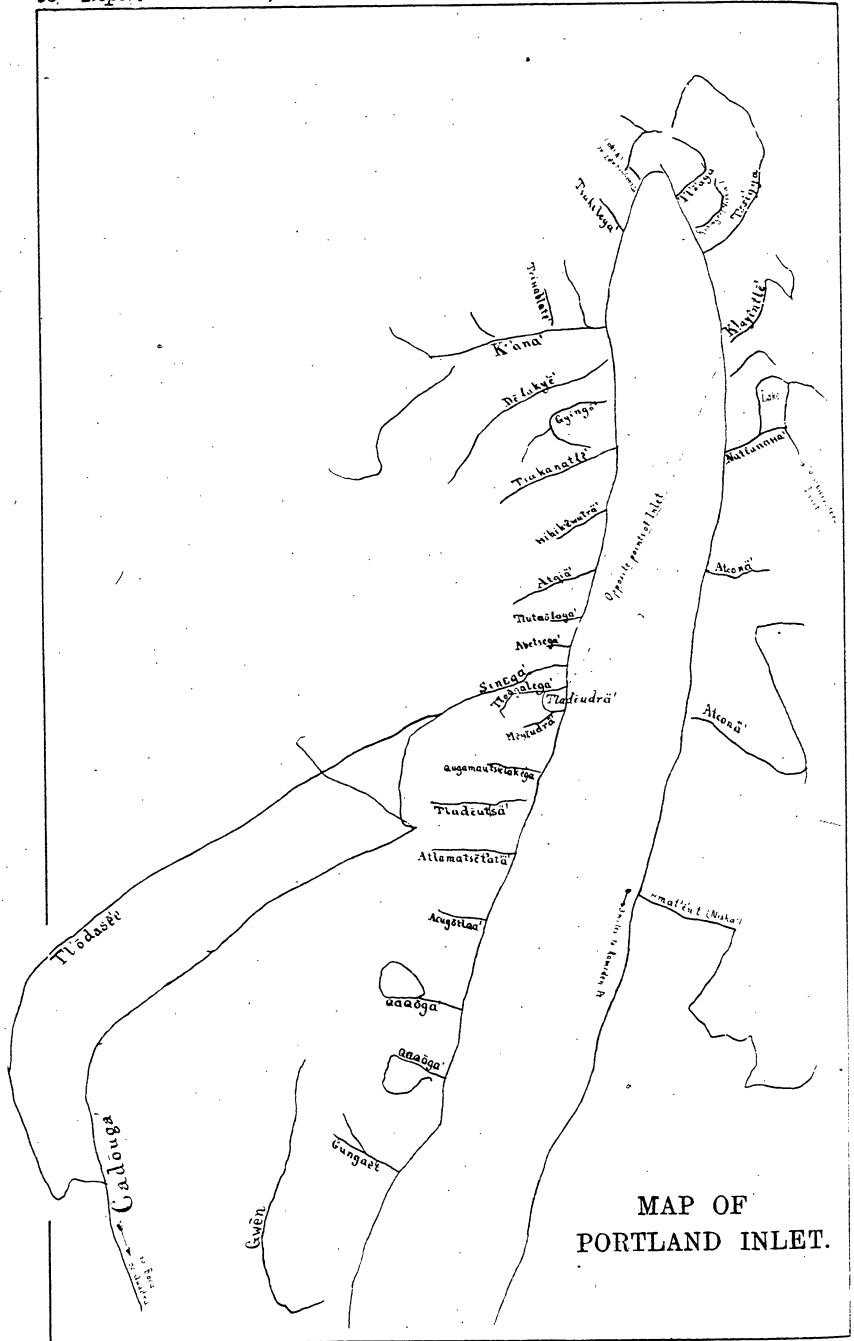
III. THE TS'ETS'Ā'UT.

On my second journey to British Columbia I made an effort to find members of a tribe that was reported as living on Portland Inlet, and as being slaves of 'Chief Mountain,' the chief of a Nisk'a' clan. I received reports of this tribe from Mr. Duncan, and some additional data were learned from the Tsimshian. On my last trip I visited the village Kinkolith, at the mouth of Nass River, whither the tribe was said to resort at certain seasons of the year. There I found a boy named Jonathan and one young man named Timothy ; later on, after a prolonged search, I found an elderly man, Levi. From these three men the following information was obtained. Levi was the only one who spoke the language well, while the two young men used almost exclusively the Nisk'a' in their conversations. All the ethnological and historical data were given by Levi. The language proved, as I anticipated, to be a Tinneh dialect. The tribe is called by the Nisk'a' and by the Tsimshian, Ts'ets'ā'ut—those of the interior. By this name are designated all the Tinneh tribes of the interior. It does not refer to any one tribe exclusively, and corresponds to the Tlingit name Gunana'. The number of members of the tribe is reduced at present to about twelve, and only two of these continue to speak their own language correctly. The native name of the tribe is forgotten, and we must therefore continue to designate them as Ts'ets'ā'ut. According to the testimony of the Nisk'a' and of the Ts'ets'ā'ut, the latter form a tribe different from the Laq'uyi'p (= the prairie), who have their principal villages on the head waters of the Stikeen River. They are called Naqkyina (on the other side) by the Ts'ets'ā'ut. Their town is called Gunaqā'. Levi named three closely related tribes whose languages are different though mutually intelligible: the Tahltan (Tā'tltan), of Stikeen and Iskoot Rivers ; the Laq'uyi'p, Naqkyina, of the head waters of the Stikeen ; and the Ts'ets'ā'ut. The home of the last named tribe extended from a little north of Teūna (Chunah) River, in the extreme north-eastern corner of Behm Channel eastward to Observatory Inlet, northward to the watershed of Iskoot River. About sixty years ago this tribe numbered about five hundred souls, but they were exterminated by continued attacks of the Sā'nak

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MAP OF
PORTLAND INLET.

Illustrating the Tenth Report on the North-Western Tribes of Canada.

the Tlingit tribe of Boca de Quadra and of the Laq'uyí'p. The present generation confine their wanderings to the surroundings of Portland Inlet, north of Port Ramsden. At my request Levi drew a map of this region, which is here reproduced. It will be seen that all the rivers of the inlet have Tinnéh names. Levi gave me also the Tinnéh names of the rivers emptying into Behm Channel and of several places in Observatory Inlet.

Geographical Names in the Ts'ets'á'ut Territory (see map).

Ky'etsō'ga; Observatory Inlet.
 Ky'etsō'ga; Hastings Arm. Nisk'a': Kcuwa'n.
 Māātrēga; Alice Arm.
 K'aqané'; Larcum Island.
 Atconā' (1); Nisk'a': Gunskey'ik.
 Atconā' (2); „ Anukepē'tk.
 Natlanaha' (=canoe); Nisk'a': Kcá'u.
 K'ayintlē'; Nisk'a': hmá'ótlk.
 Tssi'gya; Nisk'a': Gunci'én.
 Tl'ō'aga; Nisk'a': hio'dzi.
 Tsakilega'; Nisk'a': Gunaqné't.
 K'anā'; Nisk'a': Sk'amgō'ns.
 Délaky'é' (=dog salmon); Nisk'a': Laqñk'alā'n.
 Tsakanatié'; Nisk'a': Gyidziks'á's.
 nihik'éwutrā'; Nisk'a': Angulikō'otk.
 Atqiā'; Nisk'a': Angutlqá'k'sk.
 Tlūtaōlaga' (=salmon); Nisk'a': Gyīnmē'lik'st.
 Abetsēga' (=Mountain Goat Creek); Nisk'a': Anlē'k's.
 Sinēga'; Nisk'a': hmā'enik'tl.
 Tloāgalega'; Nisk'a': Gyīl'ā'mēq.
 Tladēudrā'; Nisk'a': Wia'k's (English: Tombstone Bay).
 qugamautsiclak'é'ga; Nisk'a': Wilduwa'ntlgyat.
 Tladēutsā'; Nisk'a': Tlgugyitl'ā'mtl.
 Atlamatsēt'at'ā'; Nisk'a': Qā'dik'c.
 Gwēn; Nisk'a': hgōnt.
 Cadōuga'; Nisk'a': Cadōuga'.

Names of Rivers emptying in Bay of Quadra, or Nekyehūljā'.

Atqatqaga'.
 Nugufega'.
 Tsētliega'.
 Teū'naq: Chunah River.

Among these names two are worth a remark: Atlamatsēt'at'ā', on the west side of Portland Inlet, is so called on account of a localised tradition. It is said that in the beginning there were no mountain-goats. One day a man named Atlama went up the mountains and found a cave full of goats. He hid at the entrance of the cave and killed the goats when they came out, one after the other. He caught two kids, tied their legs, and carried them down to the camp. Therefore the place was called Atlamatsēt'at'ā'. The second place which is worth remarking is Cadōuga', because it has the same name in Nisk'a', which shows that the Tinnéh name was adopted by the intruding Nisk'a'.

When the members of the tribe were reduced in numbers the Nisk'a' began to claim Portland Inlet as their territory, and 'Chief Mountain' monopolised the right of trading with the Ts'ets'a'ut. Since that time they have been called his slaves.

These reports on the former location of the tribe are corroborated by the fact that all their legends are localised either on Teū naq River, which seems to have been their principal haunt, or on Portland Inlet, and on rivers and lakes of the peninsula between Portland Inlet and Behm Channel.

I learned the following particulars in regard to their history.

According to the statements of Levi, they lived in olden times much more frequently on Behm Channel than on Portland Inlet. At that time they were on friendly terms with the Sā'nak'oan (Ssanghakōn, Krause) of Boca de Quadra. The chief of the latter was their friend, and some of their number were in the habit of staying with the Sā'nak'oan. After his death the Sā'nak'oan intended to kill the Ts'ets'a'ut, and to enslave the women and children. The chief's nephews, however, informed them of this plan, and from that time they hunted more frequently around Portland Inlet. They then fell in, for the first time, with the Nisk'a' on Portland Inlet. The names of men whom they met there were K'aya'q, Gunā'q, and Gytqō'n.

Three friends of the deceased chief of the Sā'nak'oan, whose names were Walk'en, Tlaqō'ns, and Qutk'a', resolved to pursue the Ts'ets'a'ut, whose chief at that time was K'acguēta', a member of the Laqski'yek clan. Tlaqō'ns and Qutk'a' were brothers, and the last-named had married a K'utlk'oa'n woman. This tribe lived, at that time, on Revilla Gigedo Island, while nowadays they have joined the Sta'kink'oan. They are called by the Nisk'a' Gytqā'él. These three men followed the Ts'ets'a'ut. They found that they had made friends with the Nisk'a', and that most of them were hunting south of Nass River, near the village opposite Greenville, while some had gone to Observatory Inlet. They did not dare to follow them into the country of the Nisk'a', and turned back. They returned to Boca de Quadra, and went to a place which was owned by K'asā'qs, the chief of an eagle clan of the Sā'nak'oan. They call this place K'a'itl, while the Ts'ets'a'ut call the river which empties there Atqatqaga.' This is the most southern of three rivers emptying in Quadra Bay. The middle one is called Nugufega', the most northern one Tsétliega' in the Ts'ets'a'ut language. In the following autumn the Ts'ets'a'ut returned to the mouth of Atqatqaga', and fell in with the Sā'nak'oan. The latter invited them to come down to the place where their fish was stored, which they proposed to exchange for skins. There were three Laqski'yek men, three Laqkyebō' women, and fourteen children in the party. They had three guns among them. Levi's uncle was one of the party. It was raining, and as soon as they reached the camp the Ts'ets'a'ut placed their guns over the fire in order to dry them. The Sā'nak'oan had loaded their guns outside. They had two long guns and one short one. A Tongass woman, who was married to one of the Sā'nak'oan, was friendly to the Ts'ets'a'ut, as were all the members of her tribe, and she cried all the time in order to warn them, but they did not understand what she meant. In order to provoke a quarrel Tlaqō'ns, who owned the short gun, asked one of the Ts'ets'a'ut if he thought that the gun would kill a bear. The Ts'ets'a'ut thought it was too small. Then Tlaqō'ns took the guns of the Ts'ets'a'ut, which were small-bore, from the drying frame, and, under pretence of examining them, placed them out

of their reach. He said that his gun was wide-bore, and that he had only cut off the barrel in order to make it handier. He pretended to take offence at the deprecatory remarks of the Ts'ets'ä'ut and shot him. At this signal his companions shot the other men. They took the bodies and the women and children in their canoe, and threw the former into the sea. When the Ts'ets'ä'ut heard of what had happened, they went to Nass River in order to attack the Sā'nak'oan when they should come to buy olachen grease. But they did not dare to come for several years. From that time the Ts'ets'ä'ut made Portland Inlet their headquarters. These events happened before Levi was born, *i.e.*, about sixty years ago. But the attacks of the Sā'nak'oan continued afterwards. Whenever one of their chiefs died, they tried to kill some of the Ts'ets'ä'ut, and to obtain slaves from among their number.

At one time an uncle of Levi had run away with a girl whose parents refused to give her to him in marriage. At Halibut Bay he met a Nisk'a', whom he requested to take him across the inlet. The Nisk'a', who wanted to buy marmot skins, proposed to go back to Nass River to fetch powder and lead, and was going to return in order to take the couple across the inlet. In return the Ts'ets'ä'ut was to catch for him a certain number of marmots. While he was away a canoe carrying three Nisk'a' men (Gyitqo'n, a Laqski'yek; Nēsqba'k't, a Gyispawaduwe'da; and Sinatló'öt, a K'anha'da) landed. The Ts'ets'ä'ut owed some marmot skins to the first of these men, who demanded immediate payment. The Ts'ets'ä'ut explained that he had no skins, because he had run away with a girl, but Gyitqo'n did not listen. He got angry, and killed the Ts'ets'ä'ut with his axe. The woman ran away, but Nēsqba'k't shot and killed her. Then they buried them at the foot of a tree. After a while the first Nisk'a' returned, but did not find the couple. When he saw their dog running about, he thought that the three men whom he had met might have killed them. He went to Tombstone Bay, where many Ts'ets'ä'ut were encamped, in order to catch salmon. He took the dog along, and told them what had happened. Then all those who were encamped at the Bay, about fifty in number, struck camp because they became afraid of the Nisk'a'. They were more willing to brave the attacks of the Sā'nak'oan than those of the more numerous Nisk'a'.

One of the Sā'nak'oan had a Ts'ets'ä'ut woman for his wife. They fell in with him, and he took them to the large island K'ä'tik' (Tlingit name; probably Revilla Gigedo Island). After some time the K'u'tlk'oan learned of their whereabouts and searched for them. When they had found them they wanted to remove them to the mainland. The Ts'ets'ä'ut agreed to go, but during the night, while all were asleep, the K'u'tlk'oan produced their guns which they had hidden, and shot all the men and women. One of the Ts'ets'ä'ut, who had a gun, was killed while he was aiming at one of their aggressors. They put the children into their canoe as slaves, but as there were too many of them they threw eight of their number into the sea. Thirty were enslaved.

Another quarrel took place about forty-five years ago. One winter, about the month of February, Levi's father and several other men went from Portland Inlet to Qä'itl, which is a river near Teu'naq. They pitched their camp near the mouth of the river. After some time one man and his wife saw a canoe coming. When the canoe landed they saw that several Sā'nak'oan were in it. The latter gave them tobacco, powder, and balls, and inquired for their camp. After they had learned where it

was, they promised to call there on the following day. The Sā'nak'oan camped in the entrance of a small bay. On the following morning they went to the camp of the Ts'ets'a'ut, and after having eaten they began to trade, the Sā'nak'oan buying skins for tobacco, powder, lead, and shirts. On the following morning two Sā'nak'oan brothers, K'atsé'el and Yaq'té'it, remarked that there were many crows on the beach, and took up their guns in order to shoot them. After a short while they re-entered the hut, one of them holding his gun under his blanket. He aimed at one of the Ts'ets'a'ut, hiding his gun under his blanket all the time, and shot him. At this signal his brother shot another man, and a third of the Sā'nak'oan, whose names were K'ahoté' and Nag'atsé' (Fox), shot a third man. The others drew their daggers, and killed all the Ts'ets'a'ut men. They enslaved the women and children, and took them to Revilla Gigedo Island, where they stayed the rest of the winter. In the spring of the year Levi's mother made good her escape, taking her two children along. She made a bark canoe, crossed Behm Channel, and after two months of hardships they reached Tombstone Bay, on Portland Inlet, where they met the Ts'ets'a'ut who had stayed on the inlet. 'Eve,' who is old now, was sold at that time to the Skétk'oan, from whom she escaped.

At another time, while Levi was a boy, the Ts'ets'a'ut had a war with the Laq'uyi'p. At that time his sister had just married a man named Negusts'ikatsa'. They were hunting north of the upper reaches of Nass River. When they returned to Portland Inlet a party of Laq'uyi'p came there accompanying a Ts'ets'a'ut hunter. The Ts'ets'a'ut had one gun among them, and were about to shoot at the Laq'uyi'p when their country man asked them to desist, as the Laq'uyi'p had come to make peace and to pay for those who had been killed in previous wars. The Ts'ets'a'ut allowed them to approach and gave them to eat. When they were about to go to bed they showed the Laq'uyi'p their gun. One of the latter kept it, and in the ensuing quarrel he shot two of the Ts'ets'a'ut. Levi added here that in olden times his countrymen were 'as stupid as ghosts.'

These historical data define their territory fairly well.¹

¹ Mr. J. W. McKay on hearing indirectly of my researches at Portland Inlet published in a journal which commands some authority in Canada (*The Province*, Victoria, B.C., December 29, 1894) a correction before any of my observations were made public. He says that these Indians 'belong to the Kunáná, a tribe which inhabits the lower Stikine Valley, and whose headquarters are at Tahitan, on the first north fork of the Stikine River. About forty years ago three or four families of these Indians were hunting in the neighbourhood of the head waters of the Skoot (Iskoot), a large tributary of the Stikine. Game was scarce, the prospect of a hard winter stared them in the face; they accordingly decided to make for Chunah, on the sea-coast, at the head of Behm Inlet. They took a wrong direction and struck the coast on the west shore of Portland Channel. They were then discovered by one of the headmen of the Naas tribe, who arranged with them to protect them from molestation provided that they sold all the product of their fur hunts to him at his price. Having no alternative but to accept his proposition, or be sold into slavery, they agreed to be his vassals, and have remained as such to his heirs and assigns to this day. They are not the remnants of a tribe; they belong to a tribe which still maintains its normal strength in the valley of the Stikine.'

In a letter addressed to Dr. G. M. Dawson and dated Victoria, B.C., January 19, 1895, Mr. McKay makes the following additional statement:—

'I have your letter of the 6th instant touching Dr. Boas's discovery of a remnant of a tribe of Indians on Portland Canal. The facts of the case are substantially as stated in *The Province*, and were made known to me incidentally during my sojourn in Cassiar.

'I was one day encamped near the Tahltan River when some Naas Indians came

In regard to the personal appearance of the Ts'ets'a'ut I refer to the measurements contained in the first part of this report. The individuals whom I saw were short, of light colour, with broad and flat faces and low noses. Their mouths were full. Their general appearance is very much like that of the Nisk'a'.

They have no fixed villages, but make a camp wherever they intend to hunt. Their staple food is porcupine, marmot, mountain-goat, and bear. The skins of these animals supply the material for clothing. In summer they go down the rivers of Portland Inlet to catch salmon, which they dry for winter use.

At present they wear white man's clothing, but according to Levi's descriptions their old style clothing corresponded to that of other Tinnéh tribes. Both sexes wore high boots (khê) made of marmot skins and reaching to the thighs, and pants (êklayê) made of curried skins. Men wore a leather jacket (ayā'n) cut like a shirt and reaching to the middle of the thigh. In winter they wore a jacket of marmot skins with mittens attached (agôtsqa') and threw a robe of birdskins (tss'a) over their shoulders. In travelling they tied the robe around their waists by means of a belt (sê). Women wore a short coat, which was tied around the waist (atlaê'), and a jacket (tl'a), both being made of mountain-goatskins. The skin of the belly of the beaver was also used for the manufacture of clothing. In recent times both sexes have adopted the use of the moccasin

into my camp and complained that Na-nok, the chief of the Tahltan Ku-nâ-nâs, would not let them proceed to Dease Lake unless they paid him something for passing through his country. I had with me at the time as servant one Jim, a Ku-nâ-nâ Indian, who explained the cause of Na-nok's conduct by detailing the statement published in *The Province*. I made Na-nok understand that he must not make reprisals; that his tribesmen at Portland Inlet had full liberty to return to their own country if they wished; that his jurisdiction did not extend to levying tolls on strangers passing through the country, in which he himself was only a sojourner, as he had done nothing to improve it; and that he must let the Naas Indians pass, which he accordingly did. This happened about twenty years ago.

As to the original inhabitants of Portland Inlet the most ancient of which we have any account is the Tongas band of the Tlinkeet tribe. The wintering villages of this band at one time extended as far south as Mâh-lit-hâh-lâ; they were driven northward by two (Metlakathla) hordes of Tsimsians (men of the river) who descended from the interior by the valleys of the Skeena and Naas, took possession of the Tsimshian Peninsula, and settled thereon. The Tongas, being forced to relinquish their rights therein, retired to the coast and islands immediately north of the entrance to Portland Canal. If there were any inhabitants in Portland Inlet when the Tlinkeets first reached that locality, they would have been exterminated or otherwise absorbed by the latter race before the Tsimshian race made its appearance on the scene of action. The Tongas would be the most likely Indians to give what information may be obtainable respecting any race more ancient than themselves, which may have existed in the locality under consideration. The Tlinkeets of Cape Fox might also be able to throw some light on the subject.

You are aware that the Ku-nâ-nâs of the Stikine Valley are closely allied to the Tlinkeets of that section, i.e. the Skat-kwan. The Skat-kwan are closely allied to the Tongas, and these facts may account for the Naas Indians' moderate treatment of the little band of Ku-nâ-nâs who unfortunately tumbled, as it were, into the lands of the stranger, and stranger meant enemy in the days and in the country of which I am writing. Had they reached *Chunah*, at the head of the Behm Canal, the point for which they were making, they would have been amongst their friends the Skat-kwan Tlinkeets.

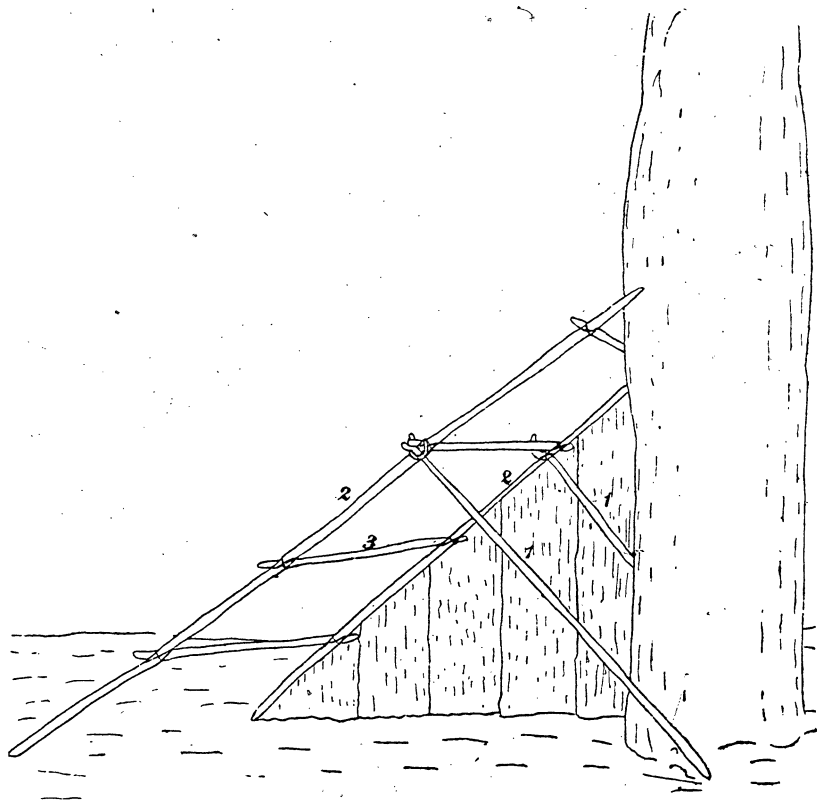
There is no traditional evidence of the invasion of the Tsimshian tribe to which Mr. McKay refers, although it is probable that the Tsimshian were originally an inland people. The statements collected by me show also that Mr. McKay is mistaken in regard to his notions of the distribution of tribes in Southern Alaska.

(kêcikatssê) in place of the high boot. It is made of mountain-goat hide. The hair was tied in a knot behind the head, while the Tatltan (Tahl-tan) shaved their heads.

They wore ear-ornaments made of the wool of the mountain goat. These were attached to holes made in the lobe and in the helix. The nose was also perforated, and ornaments made of haliotis shells or of coins were suspended from the septum. The clothing was embroidered with porcupine quills. Before the introduction of glass beads they made beads of bone. Girls wore hats (see p. 45).

The houses of the Ts'ets'a'ut are made of bark, and of a very temporary

FIG. 1.—Hut of the Ts'ets'a'ut.



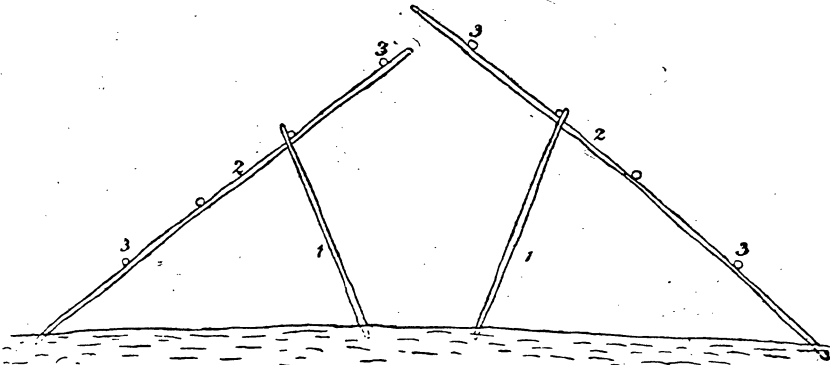
character. They clear a space at the foot of a large tree and place a forked pole, about seven feet long (at!anaa', fig. 1, (1)) on each side of the tree, from about six to eight feet apart. These poles support two slanting poles (êhi', fig. 1 (2)) about fourteen feet in length, which are connected by four cross poles (têtlatsaa', fig. 1 (3)). The slanting roof and both sides are covered with bark, while the end next to the tree remains open. Sometimes one side next to the tree is closed; the other serves as a doorway. The fireplace (khō da tla') is at the foot of the tree; the smoke escapes at the open top next to the trunk of the tree. The ground is covered with brushes, and

the bed is spread at the low end of the hut, the head end being at the side remote from the tree. The structure is lashed together.

When two families desire to inhabit one house, two of these structures are joined together, so that they stand end to end, and one is built a little higher than the other (fig. 2). Thus the roof of one side overlaps that of the other and prevents the entrance of rain. This house has a door on each vertical side. It is also built close to the butt of a tree as a protection against snow and rain, the trunk of the tree being close to one of the vertical sides. When the tribe moves to another camp the houses are taken apart and the poles are tied together and to a tree. When the party returns to the same place they untie the bundle and use the same poles.

In winter the poles are tied more strongly, and very stout supports are selected. When the snowfall is very deep the doors are blocked up and the exit is through the roof. It would seem very likely that this winter house may be the primitive form out of which the subterranean

FIG. 2.—Double hut of the Ts'ets'a'ut.



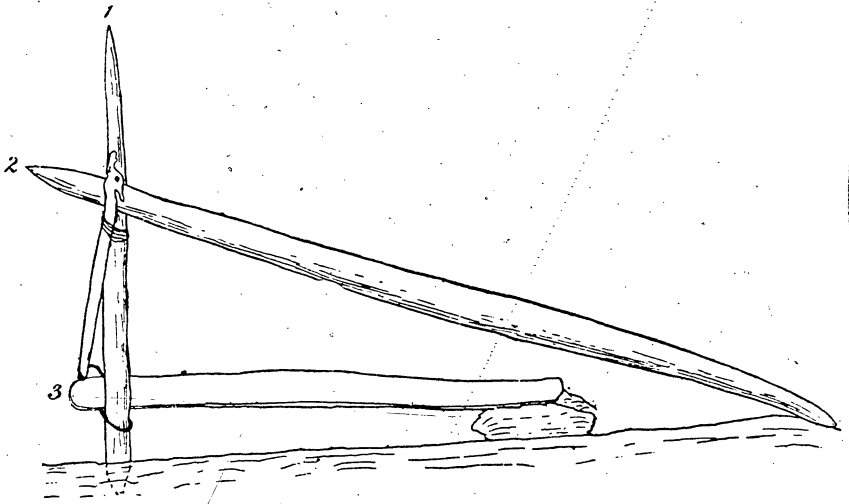
lodge of the interior of British Columbia may have developed. The advantage of covering the walls with dirt instead of waiting for a snowfall, to ensure protection against winds and cold, would become easily apparent, and then the ground plan of the two houses would become very much alike. The advantages of the bilateral arrangement would also disappear when the houses were built underground instead of overground. I would remark at this place that the supports of the subterranean lodge are slanting outward, not vertical, as indicated on page 81 of the Sixth Report of the Committee, and that Dr. Dawson's figure ('Transactions of the Royal Society of Canada,' 1893, ii.) renders the plan correctly.

The bed is covered with mats made of cedar-bark. Quilts or blankets are made of the skins of goats, bear, and marmot. Baskets are used for cooking and for carrying water, berries, and other kinds of food. They are made of spruce roots or of bark. Spoons are made of bark or of mountain-goat horn. Axes and adzes were made of bone or horn.

Fire was made either by means of the firedrill or with a strike-a-light. The stone for the latter is found in Tombstone Bay, but the description of the kind of stone was too indefinite for the purpose of identification.

The firedrill is turned by means of a bow: the upper end is held in a piece of bark, while the lower ends turns in a slit of a piece of wood. Dry rotten wood is used for tinder. The sinew-backed bow was made of yew wood. There was a stud on the inner side, which served to keep the string from the bow. The string was made of the skin of the back of the beaver, which was cut into strips and twisted. One end was tied to the end of the bow, while the other had an eye which was hung over the other end. Bows of this description are used by the Kenai and the Tinneh of the Lower Yukon River. The arrow was made of yellow cedar and winged with eagle feathers. Flint for arrow-heads was obtained from a place in the mountains north of Laq'uyip'. It is said that the people made expeditions for obtaining this material, which lasted two years. The bow is held horizontally. The arrow is grasped by the bent first finger and thumb of the right hand. Sometimes the bow is held vertically.

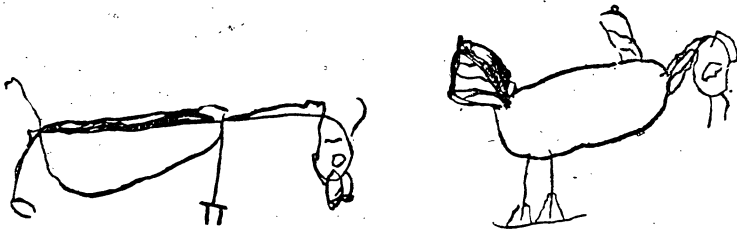
FIG. 3.—Marmot trap.



Then the arrow is grasped by the thumb and first and second fingers of the right hand, and rests between the first and second fingers of the left. When hunting they carry their small game in pouches. In winter they travel on snow-shoes, the netting of which is made of beaver skin. For mountain climbing they use a pole about three fathoms long (tqê). Marmots are caught by means of traps of simple construction (fig. 3). A stick, the end of which is carved in the shape of a blue jay, crane, or some other animal, is tied to a longer stick, which is placed upright in the ground (1). A heavy club-shaped stick (2) is laid over the place where the two sticks are tied together, pressing on the head of the carved stick. The lower end of the latter is held to stick 1 by means of a loop. The lower end of stick 2 is burdened with heavy stones. A small flat stick or board (3) is placed over the loop, and lies in the entrance to the marmot hole. This board is covered with dirt and grass, and as soon as the animal steps on it the loop slips down stick 1, the heavy stick falls down and breaks its back. All these sticks are painted red, and are then covered

with stones and grass. They also bear property marks. Figures are also engraved on sticks. Some of them are reproduced here (fig. 4). No. 1 represents the mountain-goat browsing, No. 2 the blue grouse, No. 3 the pigeon, No. 4 is a man holding a lance in the act of killing a bear. His nose is indicated by two spots; the black lines in the

FIG. 4.—Figures engraved on traps.

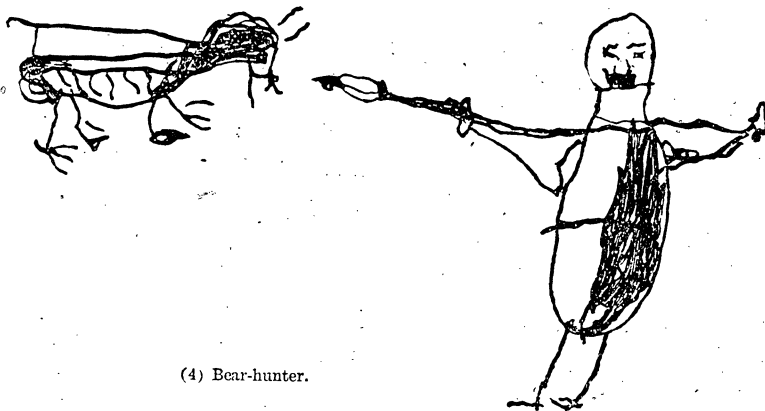


(1) Mountain Goat.

(2) Grouse.



(3) Pigeon.



(4) Bear-hunter.

body represent the backbone. The position of these lines shows that the body is represented as being turned towards the bear. The two lines near the back of the bear are also the backbone; the lines descending from it are the ribs. Its mouth is open.

Porcupines are hunted during the nighttime. They are not caught in traps, but killed with lances, clubs, or arrows. It seems that they do

not use nets for catching rabbits. Levi said that the Laq'uyi'p hunted in this manner, but that the Ts'ets'á'ut did not do so. They always hunt singly, one man confining his operations to one valley at a time. They use canoes to a slight extent only. The canoes were made of the bark of the yellow cedar. They were about three fathoms long. The bark is stripped all around the tree. Then it is stretched, sewed in the proper shape, and the seams and holes are calked with gum. They used sails which were made of marmot skins.

In winter they live to a great extent upon meat dried during the summer months. The staple food is marmot meat, which is mixed with marmot grease, boiled and preserved in marmot guts.

The tribe consisted of two clans, the Eagle and the Wolf. Only members of the Wolf clan survive. The native names of the clans are lost, and they are called by their Nisk'a equivalents, Laqski'yek and Laqkyebó'. The equivalent of the latter among the Sá'nak'oan are the Tek'oedé. The clans are exogamic. As members of one clan only survive, all the married Ts'ets'á'ut of this time have married members of foreign tribes. Each clan has separate names. I obtained names of the Laqkyebó' only.

Men.
Drentselé'.
qatló'.
Gwaya'.
Tsikyatsa'.
Tsátso'.
Cán.
Nadzé'.

Women.
Atlaádze'.
Cétlgwé'uk.

The institutions are maternal, succession being in the female line. The child inherits from his mother's brother. We find among the Ts'ets'á'ut also the institution of avoidance between mother-in-law and son-in-law (matuōha') which is found among all the northern Tinneh tribes. Levi explained that they were ashamed to talk to each other, and even to see each other. The mother-in-law leaves the house before the son-in-law enters, or, if such is impossible, she hides her face or turns the other way while he is near her. Levi stated that the adult man must also not look at his adult sister. This custom, he explained, is based on a tradition according to which a man married his sister. Their brothers were ashamed, tied them together, and deserted them; but the man broke the ropes. They had a child, and eventually he killed a ram, a ewe, and a kid of the mountain-goat, put on their skins, and they assumed the shape of goats. He had acquired the power of killing everything by a glance of his eyes. One day his tribe came up the river for the purpose of hunting, and he killed them. Then he travelled all over the world, leaving signs of his presence everywhere, such as remarkable rocks. The woman and her child went to the head waters of the Nass River, where they still continue to live on a lake.

I also found the Tinneh custom according to which the parents of a child change their names and adopt that of father or mother of so-and-so. In this case at least the custom must be interpreted somewhat differently from the way in which it is usually done. There are a limited number of names only in the tribe, probably names belonging to the nobility. When a child reaches a certain age, his father, uncle, mother, or aunt may give

it his or her name ; and since by this act the former owner has relinquished his place, he also loses the name belonging to the place, and consequently adopts that of the father, mother, or aunt of the owner of the place, thus indicating that he owned the place formerly.

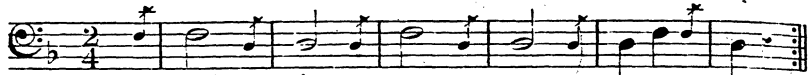
When a woman is about to give birth to a child a separate hut is built for her. When the child is being born two other women hold a stick horizontally in front of the mother. She takes hold of it, standing in a bent position. A third woman takes hold of the child, covering its mouth until it is born. The navel-string is tied with sinews, placed on a stick, and then cut. The mother rests for a day, then she takes up her usual occupation. After a boy is born the father must not cut off the legs of any kind of male game ; after a girl is born he must not cut off those of female game, else the private parts of the child would swell.

A girl when reaching maturity wears a neck-ring of crabapple twigs (k'lasē'l), earrings of bone, and a piece of a rib around the neck, as amulets to secure good luck and a long life. She also wears a large skin hat which comes down over her face, and prevents the sun from striking it. If she should expose her face to the sun or to the sky, it would rain. The hat protects her face also against the fire, which must not strike her skin. For this purpose she also wears skin mittens. She wears the tooth of an animal in her mouth to prevent her teeth from getting hollow. For a whole year she must not see blood unless her face is blackened, else she would grow blind. For two years she wears the hat and lives in a hut by herself, although she is permitted to see others. After that period a man takes the hat off from her head and throws it away.

When a young man desires to marry a girl he asks her parents to whom he gives presents of meat at intervals during a year. Then the bride's parents invite him and his clan to a feast at which the marriage is celebrated. When a man dies and leaves a widow his brother marries her. He provides for her during the period of her widowhood. He must not marry her before the lapse of a certain time, as her husband's ghost stays with her and as the ghost would do him harm. The widow and also the widower eat out of a stone dish. She or he carries a pebble in the mouth, and a straight crabapple stick is placed along the back, inside the jacket. She sits upright day and night. The meaning of this custom is that her back shall remain as straight as the crabapple stick even in her old age. The deceased husband's brother must take care that everything is quiet in the widow's house. Any person who crosses the hut in front of her dies. She fasts for two or three days after the death of her husband. After that she is allowed to eat what she pleases. When a woman dies and her husband survives, he marries her sister.

Men must not cut their hair, else they would grow old quickly. Men and women do not eat the heads of mountain goats, else their hair would turn grey early.

In cases of sickness the shaman is called. He sings certain songs. He does not use a rattle, but only a feather wand, generally an eagle's tail. His hands and his face are painted red. He fans and blows the patient or blows water on to him. Then he takes the disease out of him with both hands, acting as though he dipped it out, and blows it into the air. He uses a square drum consisting of a frame over which a skin is stretched. The four corners of the frame are connected by thongs. Here is a shaman's song : -



Ka nã ki ò ka nã ki ò ka nã ä ki ò

I add a dancing song :—



Ya hä ya hi ya hi ya ya; ya hä ya hi ya hi ya ya; ya hä ya hi ya hi ya ya

When a person is about to die his friends leave the house and desert him. Everything that is in the house is left behind. They are afraid of ghosts and avoid returning to the same place. Sometimes the body is placed in a hollow tree and stones are piled up in front of the entrance, or the butt of a tree is hollowed out on purpose. The knees of the body are doubled up so that they touch the chin. The relatives of the deceased cut their hair.

The ceremonial after the death of a chief is somewhat elaborate. The body is burnt by the clan of which the deceased is not a member. The chief's clan fast for three days. On the fourth day they partake of a little water and raw food. On the fifth day they prepare a feast in honour of their deceased chief. During the feast some food is burnt for him. Those who buried the body receive blankets in payment. After they have finished eating they begin to dance. The mourners sit down around a fire wailing. They wear mittens and cover their mouths with their hands that the fire may not strike them. The same ceremony is repeated three times; the second time from the fifth to the tenth day, and the third time from the eleventh to the fifteenth day after the death of the chief; then they are clean. During all this time they do not undress, and keep their hats on. Every morning they wash in sour urine and put fresh coal on their faces.

The following tradition illustrates the beliefs of the Ts'ets'a'ut in regard to the abode of the soul after death. 'A widow who was with child was killed by a branch striking her abdomen. Before dying she gave birth to two girls. Her sister adopted the children and reared them. In the spring of the year the tribe went up Portland Inlet to catch olachen. The woman with her two children could not travel as quickly as the others did and lagged behind. One night she was unable to reach the camp of the tribe, and when it grew dark she made a hut and camped with the two girls. They had nothing to eat and the children were crying. After some time they fell asleep. All of a sudden the woman awoke, and on looking around found herself in a village. It was a beautiful village. There were two rows of huts, one on each side of a river. She entered a house and saw her sister and her sister's husband. Then she knew that she was in the village of the ghosts. She began to cry and her sister cried with her. She told her sister that she had not been able to follow the tribe and that she and the children were starving. Then the ghost left the house and re-entered carrying a bag of marmot-guts filled with marmot meat and grease. She gave the bag and a dish to her sister to take them home. She told her that the meat would last her a long time. The woman took the bag

and the dish and went home. The trail led up the river through a beautiful valley. Finally she came to a pass leading across the mountains. As soon as she reached this place she fainted. When she awoke she found herself in her hut. The two girls were asleep, and the bag and the dish which the ghost had given her stood next to them. She gave them some meat and told them that she had been to the village of the ghosts who had given her provisions. The next morning they proceeded on their journey and finally reached the tribe. The meat in the bag did not grow less although they were using it all the time. She told the people of her adventure and showed them the dish, which differed in shape from the dishes of the Ts'ets'a'ut. They lived on the meat for a whole year and it did not grow less. The girls became stout because they were always well nourished. The aunt and the two girls married. After some time the aunt's husband was lost when hunting porcupine. When he did not return the people went to look for him, but they could not find him. On returning they told the widow to go once more to the village of the ghosts in order to see if her husband were dead. She lay down to sleep, and when she awoke she found herself on the pass which she had crossed before. She saw the village down below in a beautiful valley on both sides of a river. While it was winter on earth it was summer here. She reached the village and entered her sister's hut. She told her that she herself and her nieces had married and that she had come to look for her lost husband. Then her sister cried and told her that her husband was in the hut next door where he stayed with his parents. The woman said: "He took a belt and a marmot-skin blanket away which belong to my child. I wish to take them home." Her sister replied: "He had them on when I saw him." Then the woman went into the hut next door and found her husband lying near the fire. She saw his parents and others of his deceased relatives. Then she asked him for the belt and the blanket, and he gave them to her. He also told her the place where his body was lying. It was at the foot of a mountain where they had camped before. There was a little boy in the hut who ran up and down in front of the woman. She grew angry and pushed him so that he fell into the fire. He vanished, for if a ghost is killed, he is destroyed entirely and he ceases to exist. The woman ran out of the house and at once she awoke in her own hut. It was early in the morning. The blanket lay next to her. The belt was on the ground, but one half of it was still in the ground and the people were unable to pull it out. She reported what her husband had told her, and when the people went to look for the body of her husband they found it at the place indicated by the ghost. The head was frozen to the ice, while the lower part of the body was moving. They tried to free it from the ice, but they were unable to do so. Then they cut wood and burnt the body right where it lay.

I did not obtain much information in regard to their games and pastimes. Levi insisted that he had never seen a Ts'ets'a'ut gambling and knew only a game at ball played with a ball of cedar-bark, and the game of cat's-cradle. Hunters, who desire to secure good luck, fast and wash their bodies with gingerroot for three or four days and do not touch a woman for two or three months. They drink decoctions of 'devil's club' for purposes of purification and for securing good luck.

Their traditions are remarkable on account of the slight influence of the coast tribes upon them. The Rev. F. Maurice has pointed out that the customs and traditions of the Tinneh of the interior of British Columbia,

namely, of the Chilcotin, Carrier, and Siccanie, have been influenced to a considerable extent by the coast tribes.¹

The mythology of the Ts'ets'a'ut agrees closely with that of the northern and eastern Tinneh tribes, which were studied by E. Petitot. Without entering into details I will mention a few of the fundamental traits of their traditions. The earth was originally level: it was hot, there was neither water nor rain, snow, fog, or wind. The animals were starving and tore the sky, went up and liberated rain, snow, and wind, which were kept in bags in the house of the goose woman. Rivers originated when a man, in order to obtain water, shot an arrow into the ground, whereupon a spring welled up. Mountains originated when two brothers flew from their giant wives, who pursued them. In order to obstruct their progress they threw the contents of the stomach of a cariboo upon the ground. These were transformed into mountains and valleys. Later on a flood destroyed all the people: only children of two clans survived, who were placed by their parents inside two trees. The fire was originally in possession of the grizzly bear, who wore a strike-a-light as an ear-ornament. A bird stole it and brought the stones to men. Glaciers and snow on the mountains are the remains of an immense snowfall which covered the whole world. There are a great many traditions telling of the marriage of men to women who were animals or other beings. A people of cannibals of human form, but with faces of dogs, called qudā'le, and giants called Tsūfa', are the subjects of many tales.

IV. THE NĪSK'A'.

The customs of the Nisk'a' and those of the Tsimshian, which were described in the Fifth Report of the Committee, are practically identical. Therefore I will not enter into a detailed description of this tribe, but give such data only as supplement my previous notes. The Nisk'a' speak one of the three main dialects of the Tsimshian language; the other dialects are the Tsimshian and the Gyitkshan. They inhabit Nass River, except its upper course. Nowadays they live in a great many permanent villages, but formerly only four subdivisions were recognised by them. Laqk'altsa'p (=at the town), Andegualé, Gyitwunkse'tlk, and Gyit-laqdámiks. I mentioned in my former report that the Tsimshian are divided into four clans: The K'anha'da, or Raven; the Laqkyebó, or Wolf; the Laqski'yek, or Eagle; and the Gyispawaduwe'da,² or Bear.

I discovered that these clans are subdivided or specialised, there being families of the clan at large, and subdivisions of the clan. Among the Nisk'a' and Gyitkca'n I found the following subdivisions:—

¹ The Rev. F. Maurice misunderstands me when he assumes that I think the coast people have not influenced the tribes of the interior. This influence is apparent in all the descriptions of former travellers, and has been admirably demonstrated by Mr. Maurice. But the reverse influence exists also, and has affected to the greatest extent the Tlingit tribes who trade with the interior, the Tsimshian, the Bilqula, and the Salish of the interior. The flood legends which refer to the finding of the earth by the musk rat, some of the burial customs and inventions, must have percolated through these channels, even if the Tinneh tribes have lost some of those customs owing to secondary changes.

² This spelling is more correct than Gyispotuwe'da, as given formerly.

I. K'anha'da : Raven.

1. Gyitnk'adó'k.
2. Laqsé'el = on the ocean.

II. Laqkyebō : Wolf.

1. Laqt'ia'k'tl.
2. Gyitgyigyé'niH.
3. Gyitwulnaky'é'l.

III. Laqski'yek : Eagle.

1. Gyisk'ab'ēnā'q.
2. Laqlō'ukst.
3. Gyits'a'ek.
4. Laqts'ēmē'liH = on the beaver.

Gyispawaduwe'da : Bear.

1. Gyisg'ahā'st = grass people.

These totemic subdivisions are not represented in all the villages of the tribe, but are found as follows :—

I. Laqk'altsa'p.

Raven : K'anha'da, Gyitnk'adó'k.
 Wolf : Laqkyebō'.
 Eagle : Laqski'yek, Gyisk'ab'ēnā'q.

II. Andegualé'.

Raven : Laqsé'el.
 Wolf : Gyitgyigyé'niH.

III. Gyitwunksé'tlk.

Wolf : Laqt'ia'k'tl.
 Eagle : Laqlō'ukst, Gyits'a'ek.
 Bear : Gyisg'ahā'st.

IV. Gyit'laqdā'mikc.

Raven : Laqsé'el.
 Wolf : Gyitwulnaky'é'l.
 Eagle : Laqski'yek, Laqts'ēmē'liH.

These are the old recognised subdivisions of the Nisk'a' which were given to me by 'Chief Mountain,' and corroborated in part by other members of the tribe. It is remarkable that in olden times the Gyispawaduwe'da, who are nowadays the most numerous clan, appear confined to a single village. It is possible that the clan became more numerous owing to intermarriage with the Tsimshian.

Turning towards Skeena River we find the Gyitwuntlkō'l, who are

considered a separate tribe, and whose dialect is intermediate between the Nisk'a' and the Gyitkshan. They have two clans: the K'anha'da and Laqkyebō'.

'Chief Mountain' gave me the following subdivisions of the Gyitkshan; the list is, however, incomplete:—

I. Gyitwung'ā'.

Raven : K'anha'da.

Eagle : Laqski'yek.

II. Gyitsigyu'kta.

Raven : K'anha'da.

Bear : Gyisg'ā'hast.

III. Gyispayó'kc.

Raven : K'anha'da.

Wolf : Laqkyebō'.

IV. Gyit'anmä'kys.

The subdivisions of a clan cannot intermarry with the main clan or with any other of its subdivisions. The people form four exogamic groups only: Raven, Wolf, Eagle, and Bear. Of these the Bear is considered the noblest clan, because it derives its origin from Heaven.

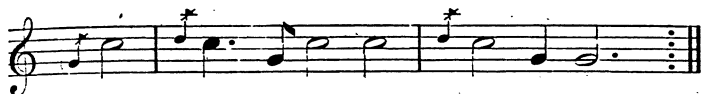
In all festivals the totems of the clan play an important part. Carvings representing the totem are worn as masks or head-dresses; they are painted or carved on houses and utensils, and on memorial columns and totem poles. In all initiations an artificial totem animal brings back the novice. I made particular inquiries regarding the meaning of masks and carvings, and the modes of their use. I shall next give what new information I obtained on these points.

When the Gyitk'adó'k' branch of the K'anha'da have a potlach, three masks make their appearance, one of which has a moustache and represents a young man named Gyitgoó'yim, while the other two are called Cā'cā. They represent the following tradition. While the people were staying at the fishing village Gulgyē'utl, the boys under the leadership of a young man named Gyitgoó'yim made a small house in the woods behind the town. They took a spring salmon along and played with it until it was rotten. They caught small fish in the creek and split and dried them. They made small drums and began to sing and to dance. For four days they stayed there, dancing all the time. Then they became supernatural beings. Gyitgoó'yim's hair had turned into crystal and copper. The people were about to move to another camp, and went to the place where they heard the boys singing.



Drum &c.

Hiä ylä wu lä yi läqtl kē - cEmō ka wa



wu lä yi-lä a aqtl k'ë - sël dautl nEq-nô'k'.

I.e. Where the copper hair, when the ice hair, is spread out, is the supernatural being.

As soon as the people approached them they disappeared and were seen at once dancing and singing at a distant place. They were unable to reach them. Then they returned, and since that time they have used the song and dance of these boys.

The Gyispawaduwe'da have one head-dress representing an owl (*Mäskutguruu'ks*) surrounded by many small human heads called *gyademlak's* (claw-men). This is worn in potlaches and commemorates the following tradition. A chief at T'emlaq'a'mt had a son who was crying all the time. His father became impatient and sent him out of the house saying, 'The white owl shall fetch you.' The boy went out, accompanied by his sister. Then the owl came and carried the girl to the top of a tree. The people heard her crying and tried to take her down, but they were unable to climb the tree. After a while she ceased to cry and married the owl. They had a son. When he grew up she told her husband that she desired to send her son home. Then his father made a song for him. His mother told him to carve a head-dress in the shape of an owl for use in his dance and to sing the song which his father had made for him. She bade him good-bye and said that her husband was about to carry her to a far-off country. The owl carried both of them to the old chief's house. When his wife saw the unknown boy she was afraid, but her daughter addressed her, saying that the boy was her grandson. Then the old woman took him into her house while the boy's mother and the owl disappeared. When the boy was grown up his mother's brother gave a potlach, and before the blankets were distributed the boy danced, wearing the owl head-dress and singing the song which his father had made for him.



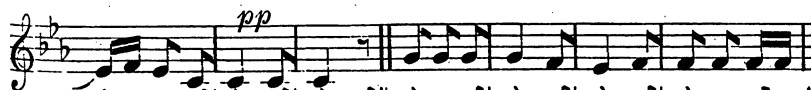
Drum   |   |   |   |   |  

Lep ha ne dâ yu wa há é yi ya



















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lep ha le dâ yu wâ há é hē he há á há



pp

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yi á há é i ya Lep ha lē dat k'as wá gyitl mas k'uts kugu



I.e. My! brother this tree is my seat.

Some of the dances are actual mimical representations of myths. In one ceremony two men dressed like Ts'ets'ā'ut hunters appear. Suddenly the noise of thunder is heard, and down through the roof comes a person dressed in eagle skins and wearing the mask of the thunder bird. The Ts'ets'ā'ut shoot at the bird. At once there is a flash of lightning and a clap of thunder: one of the men falls dead and the other one escapes. The fire is extinguished by means of water, which wells up through a pipe of kelp which is laid underground and empties into the fire. At the same time water is thrown upon the spectators through the roof. This performance is accompanied by the song of the women, who sit on three platforms in the rear of the house. The song relates to the myth which is represented in the performance.

Burial.—The burial is attended to by members of the clan of the father of the deceased, who are paid for their services. Four or five men bend the head of the body down and his knees up. Thus he is placed in a box. Chiefs lie in state for some days, while others are buried without delay. They burn food and clothing for the deceased, saying that it is intended for him. Else the ghost would trouble them. Then they cut wood for a pyre; the box is put on top of it and it is burnt. The body is poked with long poles in order to facilitate combustion. When it bursts and gas escapes they believe they hear the voice of the ghost. Men and women sit around the pyre and sing all the cradle songs of the clan which are contained in their legends. The remains are put into a small box and placed on trees. Cotton-wood trees are often selected for this purpose. The body of the shaman is also burnt.

Some time after the burial the son or nephew of the deceased erects a column in his memory (*ptsān*). As the meaning of such columns is not yet clear by any means, I asked 'Chief Mountain' to describe to me the festivals which he gave after the death of his father, who was a Gyispawaduwe'da. His father had a squid for his protector (*naqnō'k*). After the death of his father he invited all the people to his house. During the festival the ground opened and a huge rock which was covered with kelp came out. This was made of wood and bark. A cave was under the rock and a large squid came out of it. It was made of cedar bark and its arms were set with hooks which caught the blankets of the audience and tore them. The song of the squid which was sung by the women sitting on three platforms in the rear of the house is as follows:—

| : K'ag'aba'qskε laqha' hāyā'i : |
| : It shakes the heaven hāyā'i : |

Nl k akystl k'ā'd'ikystl wī naqnō'k lō gyigyā'd'xtl ts'ā'gatl aks
For the first time comes great supernatural being in living inside of water
d.m in tsā'yiltl am gyigyā't.
to look at the people.

After the squid and the rock had disappeared a man wearing the sun mask appeared in the door, and when the people began to sing his song a movable sun which was attached to the mask began to turn. The sun belongs to the Gyispawaduwe'da; the squid reminds the people that one of his father's ancestors when hunting squids at ebb tide was captured by a huge animal. His friends tried to liberate him, but were unable to do so. When the water began to rise they pulled a bag of sea-lion guts over his head, hoping that the air in it might enable him to survive, but when they looked for him at the next tide they found him dead.

After the festival 'Chief Mountain' erected the memorial column. It represented, from below upwards, first four men called Lōayō'k's, or the commanders. These are a crest of the Gyispawaduwe'da. Tradition says that one night some men for some purpose dug a hole behind a house near a grave-tree. They saw an open place in the woods, a fire in the middle, and ghosts were dancing around it wearing head-dresses. They were sitting there as though they were in a house, but the men saw only a pole where the door of this house would have been. Four men called Lōayō'k's were standing at the door, and called to them *nagwīt!* (To this side!) Since that time the Gyispawaduwe'da have used these figures.

On top of the four men was the sea-bear (*medē'ek im akys*) with three fins on his back. Each fin had a human face at its base. His father had requested him to put the killer whale on the column, but he preferred to place the sea-bear on it because it is the highest crest of the Gyispawaduwe'da. The tradition of the sea-bear tells how four brothers went down Skeena River and were taken to the bottom of the sea by Hagulá'k, a sea monster, over whose house they had anchored. His house had a number of platforms. Inside were the killer whales, Hagulá'k's men. He had four kettles, called Lukewarm, Warm, Hot, Boiling, and a hat in shape of a sea monster, with a number of rings on top. The name of his house was Helahāi'dek (near the Haida country). He gave the brothers the right to use all these objects, and with them their songs, which are sung at all great ceremonies of the clan. The song of the house is as follows:—

K'o mila yē ē k'dēsku nā dē k'a a mila yē dēs ku nā

dē hēla hai deg-i yē dēya gō ē nu ēl wi hagu-lōk aya gō.

I.e. My friend, walk close to the country of the Haida, the great Hagulá'k.

Hagulá'k also gave them two cradle songs, which are sung for children of the clan and also at funerals.

Atlgrā'skm gunā't, atlgrā'skm gunā't, atlgrā'skm gunā't.
O real strong friend, O real strong friend, O real strong friend.

Ma'atlu wilew'kk'it *tlgōkycamqk'* *tlguts'ält* *tlguyō'hak'alā'q*
 Where he came from with his little black little face with his little club
yay'abū't.
 running down.

And the second one :—

Gunā'dēt, gunā'dēt, gwaā'dēt, gwnā'dēt.
 O friend, O friend, O friend, O friend.

Wulnūnō'ótlē, *semliā'n,* *hanqsā'nō,* *hangyā'ōl'egū.*
 They are very white, the real elks, which he won gambling. which he found when
 they drifted down tohim.

Marriage.—When a young man desires a girl for his wife he sends a certain amount of property (*hana'k's*) to her parents for the purchase of the girl. If the suitor and the amount of property are acceptable, they send word to him stating that they accept his suit. Then the young man takes a number of slaves, who accompany him. They are called *lōdā'mek'sgut* (= always close to him). They arm themselves, and the young man embarks with them in a canoe and sails to the bride's house. As soon as her relatives see them coming, they arm themselves with clubs and stone hammers and rush down to the landing-place. They break the canoe and try to drive off the companions of the young man. They fight seriously, and sometimes one of the *lōdā'mek'sgut* is killed. This foretells that the couple will never part. After the fight is over the bridegroom and his companions are carried into the bride's house. Then her friends strew eagle down, which is kept in a bag made of sea-lion's intestines, on the companions of the bridegroom, and the fighting ceases. Her father puts on his head-dress and dances while her friends sing. Then a feast is given, during which the young man pays the remainder of the purchase money. In the evening the girl's clan gives a considerable amount of property to the bridegroom (*lōgyinā'm*), which he distributes among his clan according to the amount which they have contributed to the purchase money. Her father and brothers give the groom a new canoe in place of the one which was broken in the morning. Then the bride is carried down to the canoe, and she departs with her husband to his village, where they live.

If the groom belongs to the same village, the couple often stay with the girl's parents.

The winter ceremonial.—I did not see any part of the winter ceremonial of the Niska', but I received descriptions which, in the light of our knowledge of these ceremonies among the Kwakiutl, bring out sufficiently clearly their similarities. There are six secret societies among the Niska', which rank in the following order: the Semhalai't, Mēitla', Lōtlē'n, Ōlala', Nanēstā't, Hōnana'tl, the last being the highest. The Semhalai't is really not confined to the winter ceremonial, but is obtained when a person obtains the first guardian spirit of his clan and performs the ceremony belonging to this event. The tradition of the origin of these ceremonies is the same as that found among the Tsimshian, to which I alluded in the Fifth Report of the Committee, p. 57 (see the full legend in 'Zeitschrift für Ethnologie,' 1888). The version of the legend which I obtained from the Niska' localises the events at Bellabella, and it is added that the ceremonies were obtained first by the Gyitqā'tla (a Tsimshian tribe located on the islands south-west of Skeena River)

from the Bellabella, and later on by the Nisk'a' from the Gyitqā'tla. This is corroborated by linguistic evidence. All the names of these societies, with the exception of the first, are of Kwakiutl origin. [Mēitla' = teasing; Lōtlēm, Kwakiutl Nō'ntlem = foolish; Ōlala', name of a Kwakiutl ceremony; Nānestā't, Kwakiutl, Nōntsistā'latl, dance of Nō'ntsista; Hōnānā'tl, dance of (?). The call of the Ōlala', hāp, is also a Kwakiutl word designating eating.] The original tradition mentions three societies only—the second, third, fourth. This shows that the first is not a secret society, properly speaking, and that the fifth and sixth are later introductions. The Nisk'a' state that with the ceremonies came the use of large whistles. The Kwakiutl of Fort Rupert state also that the use of large whistles and the custom of eating slaves and corpses and of biting pieces of flesh out of the arms of people came to them from the Hē'ītsuk. We must assume, therefore, that these ceremonies originated in the region of Milbank Sound. As the legends of these societies throw a clear light upon their practices, I will give the Nisk'a' tradition of the origin of the secret societies in full.

A Wutsda' (Bellabella) named Sag'aitlā'ben (a Nisk'a' name) went hunting. He saw a bear, which he pursued. He shot it several times, but was unable to kill it. Finally the bear reached a steep cliff which opened and let him in. As soon as he entered he heard the voices of the Ōlala' calling 'hāp,' and he fainted. Then his soul was taken into the house. In the rear of the house he saw a large room partitioned off. The partition was hung with red cedar-bark. It was the secret room of the Ōlala' (ptā'ōll): To the right of the door, on entering, was a secret room for the Mēitla', and to the left of the door one for the Lōtlēm. The chief, who was sitting in the rear of the house, ordered a fire to be made, and spoke: 'Those here are the Mēitla'; they did not bring you here. Those are the Lōtlēm; they eat dogs; they did not bring you here. But these are the Ōlala'; they eat men; they brought you here. You shall imitate what they are doing.' He had a heavy ring of red cedar-bark around his neck, a ring of the same material on his head, and wore a bearskin. He said: 'You must use the same ornaments when you return to your people.' He took a whistle out of his own mouth and gave it to Sag'aitlā'ben. He gave him his small neck-ring of cedar-bark, which instilled into him the desire of devouring men (therefore it is called *k'ātsq em'łōu*, cedar-bark throat), and he gave him large cedar-bark rings and a small bearskin, which enabled him to fly. He told him: 'You shall kill men, you shall eat them, and carry them to my house.' Then he opened the door. The singers sang and beat time, and Sag'aitlā'ben flew away from town to town over the whole world, crying 'hāp' all the time. He went from the country of the Wutsda to Skeena River and to Nass River. Sometimes he was seen sitting on high cliffs. He killed and devoured people whom he found in the woods.

After three years he was seen near the village of the Gyit'amā't. They attempted to catch him. They killed dogs and threw them into a hole, and a number of shamans hid under a canoe near by. Soon he was heard to approach. He alighted on the top of a dry cedar. He lay there on his stomach, and the point of the tree was seen to penetrate his body and to pierce it. But it did not kill him. When he saw the dogs he flew down, and, after having eaten, the shamans rushed up to him, caught him, and took him up to the house. They tried to cure him, and the people

sang *Ölala'* songs, all of which have a five-part rhythm (♩ ♪ ♪). He tried to fly again, but was unable to get out of the house. Finally he was tamed and became a man. Then the *Gyit'amä't* took him back to his home and received in return many slaves, coppers, and canoes.

The ceremonies take place in the month *Lökys em gunä'k* (cold month, or December).

The *Lötle'm* dance in a two-part rhythm: their call is a sharp *h, h*; their movements sudden jerks of the forearms, first the left moving up to the shoulder, while the right moves down, then *vice versa*.

The *Meitla'* dance in a three-part rhythm. The last two dances correspond to the *Nöntsistä'latl* of the *Kwakiutl*. When the members of these societies are in a state of ecstasy, they throw fire around and knock to pieces canoes, houses, and anything they can lay their hands on.

The insignia of the societies are made of cedar-bark dyed red in a decoction of alder-bark. For each repetition of the ceremony a new ring is added to the head ornament of the dancer. Those of the *Lötle'm* and *Ölala'* consist therefore of rings placed one on top of the other, while the *Meitla'* receives first a red ring, the second time a white ring, and so on alternating. His rings are twisted together.

There are only a limited number of places in the societies, and a new member can be admitted only when he inherits the place of a deceased member, or if a member transfers his place to him. If such a transfer is to take place, the consent of the chiefs of the clans must first be obtained. Then one evening the chiefs during a feast surround the youth and act as though they had caught the spirit of the society in their hands and throw it upon the novice. If he is to be a *Lötle'm*, a noise: *hôn, hôn*, is heard on the roof of the house, and the youth faints: The *Lötle'm* (or the members of the society in which he is to be initiated) are called to investigate why the youth fainted. They enter singing, their heads covered with down. They place him on an elk-skin, carry him around the fire, then they throw the youth upward and show the people that he is lost. After some time, when the novice is expected back, the people assemble in the house, and all the members of the nobility try to bring him back by the help of their spirits. In order to do this they dance with the head ornaments of their clans, their rattles, dancing blankets, aprons and leggings, or they use the head ornament representing two bears' ears, which is made of bearskin set with woman's hair, which is dyed red: this ornament is used by all clans; or they wear masks representing their guardian spirits (*neqnö'k*). As an example of these I will describe the spirit of sleep (*wôq*) which belongs to the *Gyispawaduwe'da*. The owner of this spirit appears sleeping, his face covered with a mask, the eyes of which are shut. Then a chief steps up and tries to awake him by hauling the drowsiness out of him with both his hands. Then the eyes of the mask are opened, and roll while the man who wears the mask rises. The chief who took the drowsiness out of him asks if he shall try to put the people to sleep, and on being asked to do so he throws his hands open. The *neqnö'k* is supposed to enter the people, and all close their eyes. After some time he gathers the drowsiness again, and they awake and sing:—

| : *Aiwôtlwôghkuä'*, *aiwôtlwôghk'* : |
Oh! how sleepy we are. Oh! how sleepy we are.

Adē gūgō'ēt nētl gyamk' atl ts'xmlaqha' ya tla gyin tqaldū' utl dēn wōq
Whenever strikes me the heat of heaven ya! again comes (fut.) sleep.
ka's nēlc em wōq, kua!
to the husband of sleep, kua!

|: *Aiwōtlwōqkū'*, *aiwōtlwōqkō'* : |
Oh! how sleepy we are. Oh! how sleepy we are.

In this manner the spirit of sleep proves his presence and is asked to try to bring back the novice.

One *nēqnō'k'* after the other tries to bring him back. If the novice does not return by midnight of the first night, the ceremony is interrupted and continued the following night. On one occasion a member of the Lōtlē'm was the last to try. He took his *nēqnō'k'*, a small carved human image, held it up, and asked it to bring back the novice. Then he poured a spoon of grease into the fire and threw the carving after it. At once the whistles of the novice were heard on the roof. All the Lōtlē'm rushed out of the house, but soon they returned, saying that they had seen him, but lost him again. They cried, 'ēh!' (drawn out very long). Then all the people left the house. After the novice is lost in this manner he is expected back on the following day. Early in the morning a killer-whale or some other animal is seen on the river carrying the novice on his back. He is crying *mā, mā, mā, mā!* all the time, and the people go to see him. The Lōtlē'm take a canoe and paddle, singing, towards the novice. When they have almost reached him one of their number, who stays ashore and wears a bearskin, drives all the people into the houses. The Lōtlē'm take the novice into their canoe and destroy the whale float which carries him, and which is manipulated by means of ropes. Then he runs up and down the street like one wild, and the Ōlala' follow him and bite any of the profane who dare to leave the house. The novice catches a dog, tears it to pieces, and eats it going from house to house. When returning he is naked. Then they enter his house, which becomes tabooed. A rope hung with red cedar-bark is stretched from the door of the house to a pole erected on the beach, preventing the people from passing in front of the house and compelling them to go behind. A large ring of cedar-bark is fastened to the pole in front of the house. These remain on the house for a day after the return of the novice. On the following day four men put on bearskins and place rings of red cedar-bark on their heads. Thus attired they go from house to house inviting the people to see the dance of the novice and to learn his songs. When the people have assembled, the uncle of the novice throws blankets on the ground, on which the novice dances. Then his uncle pays the chiefs who tried to bring him back, and distributes blankets among the other people also. He gives a feast consisting of two kinds of berries, each mixed with grease. Chiefs are given large spoons filled with grease. Their people help them to empty the contents, as they must not leave any of the food that they receive. After the ceremony the novice is called *ūaamgya't* (a perfect man).

The man who wants to become a member of the Ōlala' must have been a *halai't* (shaman) first.

The following description of the initiation of an Ōlala' was given by a man who had gone through the ceremony himself, but who is a Christian now. It is a question to my mind if the ceremonies at the grave about which he told me were actually performed, or if he reflected only the dread in which the Ōlala' were held.

During a festival when he was to be initiated his friends pretended to begin a quarrel. They drew knives and pretended to kill him. They let him disappear and cut off the head of a dummy, which was skilfully introduced. Then they laid the body down, covered it, and the women began to mourn and to wail. His relatives gave a feast, distributed blankets, slaves, canoes, and coppers, and burnt the body. In short, they held a regular funeral.

After his disappearance he resorted to a grave. He took the body out of the grave and wrapped a blanket about himself and the body. Thus he lay with the corpse for a whole night. The other *Ōlala'* watched him from a distance. In the morning he put the body back into the grave. He continued to do so for some time in order to acquire courage. All this time, and for a whole year, he was not seen by any member of the tribe except by the *Ōlala'*.

A year after his disappearance his nephew invited all the tribes to bring him back. This was done in the same manner as described above in the case of initiation of the *Lōtle'm*. Finally his whistles were heard, and he appeared on the roof of the house crying *ā lalalalala!* He disappeared again, and in the following night after prolonged dances he was seen on the hills dancing in a fire, which he had built in such a manner that when he danced behind it it looked from the village as though he was standing right in it. The following day he appeared carried by his totem animal.

The *Gyispawaduwe'da* are brought back by a killer-whale, as described above; the *Laqkyebō'* by a bear; the *Laqski'yek* appear on the back of an eagle which rises from underground; the *K'anha'da* on the back of a frog. Sometimes the novice appears on a point of land some distance from the village carrying a corpse in his arms. Then he is said to walk over the surface of the water and to come ashore in front of the village. This is accomplished by means of a raft which is covered with planks, and burdened so that it floats a short distance under the surface of the water. It is pulled by means of a rope by some of the other *Ōlala'* while the novice is dancing on it, so that the impression is conveyed that he has approached on the surface of the water. When he reaches the village he eats of the body which he is carrying, and one or other of the chiefs kills a slave and throws the body to the *Ōlala'*, who devour it. It is said that before eating human flesh the *Ōlala'* always use emetics, and that afterwards they tickle their throats with feathers to ensure vomiting.

In festivals which take place during the dancing season the *Ōlala'* receives his share first, and nobody is allowed to eat until he has begun to eat. He has a dish and a spoon of his own. These are wound with bark. Those who have been *Ōlala'* formerly are his servants and bring him food. When he hears the word *lō'lek* (ghost) he gets excited and begins to bite again. After he ceases to bite and to devour men a heavy ring of red cedar-bark is placed around his neck, and he is led slowly around the fire. The ceremony is called 'making him heavy' (*sēp'a lyiq*), and serves to prevent his flying away and getting excited again. He must stay in his room for a whole year after his initiation. After biting he must chew the bark of 'devil's club' (*wōō'mst*), which acts as a purgative.¹

In olden times the appearance of the artificial totem animal, or of the guardian spirit, which was described above, was considered a matter of

¹ See also Fifth Report, p. 57.

great importance, and any failure which would disclose the deception to the uninitiated was considered a great misfortune, which was atoned off by the death of those involved in the disclosure. One striking instance of an event of this kind which took place among the Hëiltsuk was reported to me. Three brothers invited all the tribes, among them the Tsimshian, to a festival. The eldest was to return from a visit to the bottom of the sea. When the visitors landed they had to wait on the beach for his return. A rock was seen to emerge at some distance from the shore. It opened and the young man stepped out and danced, adorned with his headdress. Then he stepped back into the rock, which disappeared again in the waters. The rock was made of wood and covered with kelp. Its movements were regulated by means of ropes running to the woods where a number of men were hidden, who operated them. After the rock had emerged twice the ropes became entangled, and they were unable to make it emerge for the third time. The man who was hidden in the rock was drowned. The family of the man who was lost in this manner concealed their grief, and his brothers pretended that he had stayed with the spirit residing at the bottom of the sea. They went through the whole festival. After the guests had departed all the surviving members of the family tied themselves to a long rope, sang the cradle song of their family, and precipitated themselves from a cliff into the sea.

Shamanism.—In reply to my questions regarding the acquisition of supernatural helpers and the powers of the shaman (*halai't*), 'Chief Mountain,' who is nowadays a regular attendant at church, gave me the following account of his own experience. Only a man whose father was a shaman can become a shaman. When he himself was a youth the supernatural beings (*neqno'k*) were pursuing him all the time. One day a beautiful girl appeared to him and he fainted. She taught him her song which enabled him to make the olachen come in spring, and which is as follows:—

Lanë'tl wul haqhā'gwuqtl akys atl k'igyē'wutl.
Behold where meet the waters on the beach.

Gyitwulgyigyā'mk' wulōd'āt kāt cāky.
(People of warm place) where is heart olachen.

I.e. Behold where the tides meet at Gyitwulgyigyā'mk' are many olachen.

She wanted to have intercourse with him. One night she took him through a fire, and since that time he was able to handle fire with impunity. When she left him he saw that she had an otter tail. Her name was *Kcemwa' tsq* (land-otter woman).

She is a *neqno'k* of the Laqski'yek clan. When he gave a festival he danced with the mask of this *neqno'k*. He was covered with otter skins and wore claws of copper. He moved around the fire like an otter crying *uhruā'*. This ceremony is called the *Semhalait*. Later on he saw four other supernatural beings, who had the shape of wild-looking men, who wore bearskins and crowns made of the claws of bears. They taught him to foresee sickness. At one time the Gyitqadē'q disbelieved his power over fire. He asked them to build a large fire. He threw an iron hoop into it, moistened his hands, and covered his face, hair, and hands with eagle-down. Then he stepped barefooted over the glowing embers, took the redhot hoop, and carried it through the fire without burning his hands or his feet. He added that a few years ago he repeated this

experiment, but as he failed and burnt his hands and feet he gave up his supernatural helper and became a Christian. He also added that many who pretend to be shamans have no supernatural helpers at all. They cannot cure or foresee disease. When he was called to cure disease the four supernatural men appeared to him and helped him. They told him to draw the breath of the supernatural beings out of the body of the patient. Other shamans suck the disease out of the body. They pointed out witches to him, and enabled him to see ghosts. A few years ago a number of shamans were dancing in a house. When he entered he saw a ghost dancing among them, and foretold at once the death of one of the shamans. Indeed, after a few hours one of them died. The shaman wears stone and bone amulets, and does not cut his hair. His appearance is the same as that of the Tlingit shaman.

Witchcraft is practised by people called *Haldā'wit*. They steal a portion of a corpse, which they place in a small, long, watertight box. A stick is placed across the middle of the box, and thin threads are tied to this stick. The piece of corpse is placed at the bottom of the box, and part of the clothing or hair of the person whom the *Haldā'wit* desire to bewitch is tied to thin strings. If it is in immediate contact with the body the person will die soon; if it is hung a little higher he will be sick for a long time. If hair is put into the box he will die of headache; if part of a moccasin, his foot will rot; if saliva is used he will die of consumption. If the person is to die at once the *Haldā'wit* cuts the string from which the object is suspended, so that it drops right on to the corpse. This box has a cover, and is kept closely tied up. It is kept buried under the house or in the woods. After the *Haldā'wit* has killed his enemy he must go around the house in which the dead one is lying, following the course of the sun. After his enemy is buried he must lie down on the grave and crawl around it, again following the course of the sun, and attired in the skin of some animal. If they do not do this they must die. Therefore the Nisk'a' watch if they see anyone performing this ceremony. Then they know that he is a *Haldā'wit*, and he is killed. He is not tied and exposed on the beach at the time of low water, as is done by the Tlingit. When a corpse is burnt the *Haldā'wit* tries to secure some of the charred remains and uses them for painting his face. This is supposed to secure good luck. The *Haldā'wit* sometimes assemble in the woods, particularly when dividing a body. Then they cover their faces with masks, so that a person who should happen to come near may not know them. If anyone should happen to see them they try to catch him and make him a *Haldā'wit* also. If he refuses to join them he is killed. Once a man by the name of K'amwā'skyē was caught in this manner. He pretended to accept, and was given a mask. They made a song and sang while he danced

Yaḡahō'dē bā'vək'ē,
Wilmulā'ns K'amwā'skyē,

i.e. the ghosts run to the beach on account of the winds of K'amwā'skyē. He emitted winds while he was dancing. He danced, hidden behind the trees. Then he turned his mask round so that it was on his occiput, and made good his escape. He reached his house, told what he had seen, and the *Haldā'wit* were killed.

The similarity between this method of witchcraft and the *ē'ka* of the Kwakiutl (Sixth Report, p. 60) is striking.

As in olden times cremation was prevalent, they tried to secure

bodies of persons who had died by accident before they were found by the friends of the deceased. They sold them among the other Haldá'wit. There are, however, many tales which mention the use of bodies for supernatural purposes as well as tree burial, such as is practised by the southern tribes. For this reason I suppose that the custom of cremating the body was borrowed recently from the Tlingit.

The following tale explains the ideas of the Nisk'a' regarding the future life.

Once upon a time the Gyispawaduwe'da killed Adiná'ky, the chief of the Laqkyebō'. There was a young man in the same town who happened to walk towards the graveyard chewing gum. There he saw a man approaching him, who wore a robe of martin skins. When he came nearer he saw that he was no other than the dead chief. The youth wished to run away, but the ghost overtook him and asked him for some of the gum he was chewing. The youth did not dare to hand it to him, and just pushed it out of his mouth. The ghost took it and turned back. The youth went home, and after he had told what had happened, he fell down and lay there like one dead. He had a perforated stone for an amulet, which he wore suspended from his neck. It was to insure him long life. His friends washed the body and put clean clothing upon him. Meanwhile the ghost carried his soul away. They followed a broad trail, and came to a river. He got tired of waiting, and yawned. Then he heard a noise in the town. A canoe came across to fetch him. He went aboard, and was taken to the chief's house. He was sick, and the chief ordered him to be laid down next to the fire. He called four shamans, who were to heal him. They tried to take his heart out of his body, but they were unsuccessful. They said, 'His breast is as hard as stone.' This was because he wore the amulet. Finally the chief said to the shamans, 'Let us give up our efforts. He is too powerful; we must send him back.' Then he was taken back to the canoe, and sent across the river. He returned the same way which he had come, and when he entered his house life was restored to the body.

The conception of the world is as follows :—

The earth is carried by a man named Am'ala' (smoke-hole). He lies on his back, and holds on his chest a spoon made of the horn of the mountain goat. It is filled with grease, and in it stands a pole on which the earth is resting. When he gets tired he lifts the pole, and the earth shakes. The pole, with the earth on it, is turning in the bowl of the spoon. The grease in it serves to make it turn easily. The earth is round. Sun, moon, and stars belong to the sky, and do not turn with the earth.

An eclipse of the sun indicates that a chief is to die. Then the whole tribe go out of the house and sing.—



The following games were described to me :—

1. Leha'l : the guessing game, in which a bone wrapped in cedar-bark is hidden in one hand. The player must guess in which hand the bone is hidden.

2. Qsan : guessing game played with a number of maple sticks marked with red or black rings, or totemic designs. Two of these sticks are

trumps. It is the object of the game to guess in which of the two bundles of sticks, which are wrapped in cedar-bark, the trump is hidden. Each player uses one trump only.

3. Matsqá'n.—About thirty small maple sticks are divided into four or five lots of unequal numbers. After a first glance one of the players is blindfolded, the other changes the order of the lots, and the first player must guess how many sticks are now in each lot. When he guesses right in three, four, or five guesses out of ten—according to the agreement of the players—he has won.

4. Göntl : a ball game. There are two goals, about 100 to 150 yards apart. Each is formed by two sticks, about ten feet apart. In the middle, between the goals, is a hole in which the ball is placed. The players carry hooked sticks. Two of them stand at the hole, the other players of each party, six or seven in number, a few steps behind them towards each goal. At a given signal both players try to strike the ball out of the hole. Then each party tries to drive it through the goal of the opposing party.

5. Tlét! : a ball game. Four men stand in a square : each pair, standing in opposite corners, throw the ball one to the other, striking it with their hands. Those who continue longest have won.

6. Sménts.—A hoop is placed upright. The players throw at it with sticks or blunt lances, and must hit inside the hoop.

7. Matldä.'—A hoop, wound with cedar-bark and set with fringes, is hurled by one man. The players stand in a row, about five feet apart, each carrying a lance or stick. When the ring is flying past the row they try to hit it.

8. Halha'l : spinning top, made of the top of a hemlock tree. A cylinder, $3\frac{1}{2}$ " in diameter and 3" high, is cut; a slit is made in one side and it is hollowed out. A pin, $2\frac{1}{2}$ " long and $\frac{1}{4}$ " thick, is inserted in the centre of the top. A small board with a wide hole, through which a string of skin or of bear-guts passes, is used for winding up the top. It is spun on the ice of the river. The board is held in the left, and stemmed against the foot. Then the string is pulled through the hole with the right. Several men begin spinning at a signal. The one whose top spins the longest wins.

V. LINGUISTICS.

I. NĪSK·A'.

The Nisk'a' does not differ very much from the Tsimshian. There are certain regular changes of sounds—which, however, are not yet sufficiently clear to me, but some of which will become apparent by a glance at the comparative vocabulary—slight differences in grammar and in vocabulary. For this reason I confine myself to a very few remarks, leaving a full discussion of the collected material for a future opportunity.

The plural of noun and verb is formed in the same manner as in Tsimshian. Although the same words do not always follow the same rules, the classes are almost the same. The remarks regarding adjective and verb (Fifth Report, pp. 83, 84) hold good in Nisk'a' also.

The system of numerals differs in so far as there is no separate class for long objects.

Class	1	2	3	4
	Counting	Flat Objects.	Round and Long Objects, groups of forty	Men
1	ky'äk'	ky'äk'	ky'e'el	ky'äl
2	t'Epqá't	t'Epqá't	ky'e'lbél	bag-adé'l
3	golá'nt	golá'nt	gul'a'l	gulá'n
4	tqálpq	tqálpq	tqálpq	tqálpqdá'l
5	k'stênc	k'stênc	k'stênc	k'stênsá'l
6	k'a'elt	k'a'elt	k'a'elt	k'ádeldá'l
7	t'Epqá'elt	t'Epqá'elt	t'Epqá'elt	t'Epqádedá'l
8	k'andá'elt	yuqdá'elt	yuqdá'elt	yuqdaeldá'l
9	k'stêmä'c	k'stêmä'c	k'stêmä'c	k'ctêmsá'l
10	ky'ap	ky'ap	Hpé'el	Hpál
11	ky'ap di ky'äk'	ky'ap di ky'äk'	Hpé'el di ky'e'el	Hpál di ky'äl
12	ky'ap de t'Epqá't	ky'ap de t'Epqá't	ky'e'lbél di ky'e'el	Hpál di bag-adé'l
20	kye'lbél wul gya'p	ky'iyé'tk'	kye'lbél wul gya'p	} Class I.
30	gó'la wul gyap	gó'la wul gyap	gó'la wul gyap	

Class	5	6	7
	Canoes	Fathoms	Bundles of 10 Skins
1	k'amá'Et	ky'ilgá'H	gusky'ewa'
2	galbá'eltk's	ky'elbelgá'H	gyilpwa'
3	gulá'alk's	gulalá'ón	—
4	tqálpqk's	tqálpqaló'n	—
5	k'stênsk's	k'stênsEló'n	—
6	k'áeltk's	k'áeldeló'n	—
7	t'Epqá'eltk's	t'Epqáeldeló'n	—
8	yuqdá'eltk's	yuqdá'aldeló'n	—
9	k'stêmä'sk's	k'stêmásEló'n	—
10	ky'apk's	Hpao'ndé	—
11	ky'apk's di k'amá'Et	Hpao'ndé di ky'äk'	—
12	ky'apk's di galbá'eltk's	—	—
20	ky'iyé'tk's	—	—
30	ky'iyé'tk's di gyapk's	—	—

ORDINAL NUMBERS.

	Animate	Inanimate
The first	<i>Kysk'á'óg'ót</i>	<i>tsógyé'elt</i>
The second	<i>tsogyé'lp'elt</i>	<i>tsogyé'lp'elt</i>
The third		<i>tsó'gula'alt</i>
The fourth		<i>tsótqálpq</i>
The fifth		<i>tsók'stêns</i>
The sixth		<i>tsók'á'elt</i>
The seventh		<i>tsót'epqá'elt</i>
The eighth		<i>tsóyqudá'elt</i>
&c.		

The numeral adverbs agree with the words used for counting round objects.

PRONOUN.

PERSONAL PRONOUN.

I, <i>nē</i> .	me, <i>lā' r.</i>
thou, <i>nē' ēn.</i>	thee, <i>lā' ēn.</i>
he, she, it (present), <i>net.</i>	him, her (present), <i>lā' ot.</i>
" (absent), <i>nē' tgyé.</i>	" (absent), <i>ēsne' tgye.</i>
we, <i>nōm.</i>	us, <i>lā' ēm.</i>
ye, <i>ne' cēm.</i>	ye, <i>lā' ēem.</i>
they (present), <i>nē' det.</i>	them (present), <i>lā' odrt.</i>
" (absent), <i>nē' detgyé.</i>	" (absent), <i>lā' odrtgye.</i>

POSSESSIVE PRONOUN.

There is only one form for presence and absence, except that the latter has the general suffix designating absence *-gya*. The past is formed by the perfect prefix *tl-*, the future by *dēm-*: The house that I had, *tlhwi' tēē*; my future wife, *dēmna' kysē.*

my father, <i>nēguā' edēē.</i>	our father, <i>nēguā' edēm.</i>
thy father, <i>nēguā' edēn.</i>	your father, <i>nēguā' ētsem.</i>
his father, <i>nēguā' ētt.</i>	their father, <i>nēguā' edet.</i>

THE VERB.

INTRANSITIVE VERB.

The forms of the verb are also simpler than they are in Tsimshian.

I am sick, <i>sī' ēpk' nēē.</i>	we are sick, <i>sīpsī' ēpk' nōēm.</i>
thou art sick, <i>sī' ēpk' nēn.</i>	ye are sick, <i>sīpsī' ēpk' nēsēm.</i>
he is sick, <i>sī' ēpk.</i>	they are sick, <i>sīpsī' ēpk'.</i>

The perfect is formed by the temporal prefix *tlē-*, the future by *dēm-*.

Interrogative.

am I sick? <i>sī' ēpgunēia.</i>	are we sick? <i>sīpsī' ēpgunōēma.</i>
art thou sick? <i>sī' ēpgēnēna.</i>	are ye sick? <i>sīpsī' ēpgunēna (!).</i>
is he sick? <i>sī' ēpgua.</i>	are they sick? <i>sīpsī' ēpgua.</i>

Negative.

I am not sick, <i>nīyī(di) sī' ēpguē.</i>	we are not sick, <i>nīyī(di) sīpsī' ēpguēm.</i>
thou art not sick, <i>nīyī(di) sī' ēpguēn.</i>	ye are not sick, <i>nīyī(di) sīpsī' ēpk' sēm.</i>
he is not sick, <i>nīyī(di) sī' ēpguēt.</i>	they are not sick, <i>nīyī(di) sīpsī' ēpk' tēt.</i>

TRANSITIVE VERB.

The transitive verb shows also small differences from the Tsimshian verb. I give the forms of the verb to kill—singular *dzak'*, plural *yadzi*—for the imperfect, which was not given in the description of the Tsimshian. The present tense is analogous to that of the Tsimshian.

	I	thou	he	we	ye	they
<i>me</i>	—	<i>dzak'dēnēē</i>	<i>dzak'dētnēē</i>	—	<i>dzak'dēssemnēē</i>	<i>dzak'dētēē</i>
<i>thee</i>	<i>dzak'dēnē'n</i>	—	<i>dzak'dētnē'n</i>	<i>dzak'dēmne'n</i>	—	<i>dzak'dētē'n</i>
<i>him</i>	<i>dzak'dē'ē</i>	<i>dza'k'dēn</i>	<i>dza'k'dēt</i>	<i>dza'k'dēm</i>	<i>dza'k'dēssem</i>	<i>dzak'dē't</i>
<i>us</i>	—	<i>ya'dzinnōm</i>	<i>yadzitnōm</i>	—	<i>yadzēssemnōm</i>	<i>yadz'dētē'nēm</i>
<i>ye</i>	<i>yadzine'sēm</i>	—	<i>yadzitnē'sēm</i>	<i>yadzēmne'sēm</i>	—	<i>yadz'dētē'nēsēm</i>
<i>them</i>	<i>ya'dzi</i>	<i>yadzen(nē'ēdet)</i>	<i>ya'dzēt</i>	<i>ya'dzēm</i>	<i>ya'dzēssem-</i> (nē'ēdet)	<i>ya'dz'dēt</i>

The interrogative is formed by the suffix *-a*.

The imperative of the transitive verb is expressed by the second person of the indicative, that of the transitive verb by the suffix *-tl*.

eat, *yō' uagun.*

eat it, *gyēptl.*

I have obtained a considerable number of prefixes and suffixes, a list of which is given here.

Prefixes.

an- abstract nouns.
aq- without.
agwi- outside.
allda- in darkness.
asē- from middle to side of house.
baɟ- uphill.
da- with.
de- to cause.
deɣ- down.
gwiŋ- *nomen actoris*.
gwi'kys- backward, one's self.
gun- to cause an action.
g'utgō- around.
g'utl- about.
gus- blanket.
gyici- down river.
gyini- left behind.
gan- state of.
gani- for good.
g'ap- entirely, certainly, by necessity.
g'ali- up river.
g'al- too much.
hadin- along, lengthwise.
ha- instrument.
hagun- near by, toward speaker.
haspa- inverted.
hagul- slowly.
his- to appear to be.
hi- beginning of.
i- with reduplication, action done during motion.
ke- fluid.
keem- *wōmap*.
kei- out of.
ktle- all over.
ky'édō- sideways.
ky'ag- for a little while.
kys- extreme (plural *da-*).
k'a- more, comparative.
k'aldin- in woods.
k'alnsi- through.
k'ani- without interruption.
keɣ- only, without instrument.
qpi- partly.
q- accident happening.
qs- resembling, sound of, called.

qpi'lyim- forward.
qtlem- around an obstacle.
qtlna- bent forward.
q- to eat.
qtse- across middle.
lāq- to and fro.
lāgy'é'q- part of.
libelt- against.
leg'em- into, from top.
leg'ul- for good.
le- on.
lō- in.
luktl- under.
lōsa- in front of.
leks- strange.
lēgan- over.
man- upward.
mæem- separate.
mē- like.
na- to break, come to.
nōom- to desire.
pūlem- to attempt.
spi- out of water towards land.
se- to make something.
sil- to accompany.
sk'a- obstructive, sideways.
staq- along.
ca- off.
tam- from side of house to middle.
tk'al- against.
ts'ū- suddenly.
tk'ō- around.
tga- altogether.
tgas- long thing.
ts'əm- in.
ts'e'lem- into (from the side).
txke- } out of water.
uho- }
ts'en- left behind.
ts'eq'em- landward.
witl- away.
wud'en- away.
yaga- down to beach, out of woods.
yeg'es- down.
tle'm- stopping a motion.

Suffixes.

-ma dubitative. *-an* to make. *-kat* quotative.

A comparatively full grammar of the Tsimshian has recently been published by Count Dr. A. von der Schulenburg.

2. THE TS'ETS'A'UT.

Unfortunately my informant Levi, the only one from whom I was able to obtain grammatical information, was exceedingly difficult to manage, and I did not succeed in making him understand that I desired to have Ts'ets'a'ut sentences and accurate translations. For this reason my material is very unsatisfactory, and does not permit an accurate description of the structure of the language. Besides this the Tinnéh phonetics are difficult, and Levi could not be induced to speak slowly, which circumstance made the work still more difficult. I give on the following pages a few remarks on the grammar, which will show what position the dialect takes among other Tinnéh dialects.

THE NOUN.

The noun has no gender. I did not find any indication of the existence of separate forms for dual and plural, although these occur in Loucheux, Hare, and Chippewayan. Cases do not exist.

Compound nouns are of frequent occurrence. They are formed by means of juxtaposition. Possession is often expressed by this means.

dirt, *kwut'è fū* (= sand-mud).
 bear meat, *fu tsqa*.
 female salmon, *tlabé' ék!ó'*.
 hoof of goat, *abra' aba'*.
 top of tree, *ts'ü tlü*.

NUMERALS.

- | | |
|-----------------------|--|
| 1. étlié'è. | 8. tqátqatlié'è. |
| 2. tlé'id'è. | 9. étli'tlā'ródu'néé'è, étliad'unéé'è. |
| 3. tqādéd'á. | 10. tlóky'ada'. |
| 4. at'onéé'. | 11. tlóky'ada' étlié'è. |
| 5. étl'áda'. | 20. tle'id'è tlóky'adé'. |
| 6. étltáts'è. | 30. tqādé tlóky'adé'. |
| 7. tle'id'éthatlié'è. | |

THE PRONOUN.

PERSONAL PRONOUN.

I, <i>sqe'né</i> .	we, <i>daqó'ó</i> .
thou, <i>niné'</i> .	ye, <i>daqó'né</i> .
he, ?	they, ?

POSSESSIVE PRONOUN.

my, <i>és</i> .	our, <i>dā</i> .
thy, <i>nē</i> .	your, <i>dā</i> .
his, <i>ma</i> .	their, <i>ma</i> .

Before words beginning with *k*, *és* becomes *iq*. For instance:
 my house, *iq khó*.

THE VERB.

The verb is exceedingly difficult to understand, and the meagre material which I obtained from Levi is insufficient for a clear understanding of the subject. There are a number of classes of verbs, as will be seen by the following examples:—

to sing (*Petitot*, 2nd class).

I sing, <i>isdji'</i> .	we sing, <i>da'ó'dji</i> .
thou singest, <i>indji'</i> .	ye sing, <i>daadji'</i> .
he sings, <i>mdji'</i> .	they sing, ?

to be ashamed (*Petitot*, 5th class).

I am ashamed, <i>óca'</i> .	we are ashamed, <i>da'óna</i> .
thou art ashamed, <i>ónna'</i> .	ye are ashamed, <i>da'ána</i> .
he is ashamed, <i>óna'(ka)</i> .	they are ashamed, ?

to be afraid.

I am afraid, <i>nēsdjé'</i> .	we are afraid, <i>dā'nidjé</i> .
thou art afraid, <i>nēndjé'</i> .	ye are afraid, <i>danadjé</i> .
he is afraid, <i>nidjé'</i> .	they are afraid, <i>danēdjé'</i> .

to be cold.

I am cold, *sēistlu'*.
thou art cold, *sintlu'*.
he is cold, *sūtlo'*.

we two are cold, *neē'itl'*.
we are cold, *dū'sitlo'*.
ye are cold, *qaatlō'*.
they are cold, *nihitlō'*.

to speak.

I speak, *quxsdā'*.
thou speakest, *qundū'*.
he speaks, *quadā'*.

we speak, *daqō'idā'*.
ye speak, *daqoadā'*.
they speak, *daqoadā'*.

The future is formed by the vowel *ū*.

I skin it, *dūstocē'*.
I eat, *ūstqē'*.
I tear it, *nē'stse'*.

I shall skin it, *dūstocē'*.
I am going to eat, *ūstsqē'*.
I shall tear it, *nō'stse'*.

The interrogative is formed by the suffix *-ya* :

art thou cold? *sindlō'ya*.
has he got a wife? *nts'ayā'ya*.

The negative is formed by the suffix *-dēbē'* :

I am not sick, *ēsaa'dēbē'*.
I have no dog, *īstlē'dēbē'*.

There are numerous irregular verbs, particularly verbs of motion, but my notes on this subject are very fragmentary :

to run.

I am running, *dē'istl'a*.
thou art running, *dē'intl'a*.
he is running, *datl'a*.

we are running, *tlāxnē'idē'*.
ye are running, *tlāinō'odē'*.
they are running, *tlāi'nadē'*.

to swim.

I am swimming, *gy'ina'sbē'*.
thou art swimming, *gy'ina'mbē'*.
he is swimming, *gy'inadē'*.

we are swimming, *k'ā'ēd*.
ye are swimming, *gy'inaō*.
they are swimming, $\left\{ \begin{array}{l} \textit{kana'ō} \\ \textit{gy'ina'ō} \end{array} \right.$.

I found only a few dual forms, but there is no doubt that many more exist.

I am sitting, *sēnda*.
we two are sitting, *sikyē'*.
man sitting, *dēidā'a*.

run up, sing. *sēitl'a*.
run up, dual, *sē'a*.
run up, plural, *sēdē*.

The prefixed pronouns of the various tenses differ in the same manner as in other dialects, but I have not been able, so far, to systematise the fragmentary material at my disposal.

The preceding remarks show, however, that the dialect of the Ts'ets'ā'ut is more closely affiliated to the Chippewayan and Sarcee than to the Chilcotin and Carrier dialects.

The following pages contain a comparative vocabulary of two dialects of the Tsimshian, the Tsimshian proper and the Niska', and of three Tinneh dialects: the Taltan (Tahltan), Ts'ets'ā'ut, and the Tkuhiyogō'ikc. The last of these is extinct. The tribe inhabited the Upper Willoughby River, in the State of Washington, and is, therefore, the most northern of the great number of Tinneh tribes which are scattered along the Pacific coast. The dialect is, for this reason, particularly interesting. I am indebted to Major J. W. Powell, Director of the U. S. Bureau of Ethnology, for permission to publish the vocabulary of this tribe which was collected by George Gibbs in February 1856, and which is in the Library of the Bureau of Ethnology in Washington, D. C. Gibbs calls the tribe erroneously O'whil-lapsh (Quila'pc), this being the name of the Chinook tribe of the Lower Willoughby River. Their name in the Chinook language is Tkuhiyogō'ikc, which agrees with Anderson's name Kwā-whee-o-qua: their dialect seems to be almost identical with that of the Klatskanai. I obtained a few words on my last journey from an old Chinook woman, which I add to Gibbs's list. He introduces his vocabulary with the following remarks:—

G. GIBBS, Willopah, February 1886.

From an Indian at S. G. Fords.

'Of the Willopah tribe formerly inhabiting that river and the head waters of the Chihalis, there are, I believe, but two families left; from a man belonging to them I obtained the following:—

'He called his people O'whil-lapsh, the termination of which I should, however, judge to be of Chihalis origin. Their territory he called Whilap-a-hai-you. The vocabulary was taken down in some haste, and, besides being incomplete, is not always altogether correct. Enough, however, is given to afford evidence of its character.'

'Mr. Anderson says: "The Kwal-whee-o-qua seem, from what I can learn, to have occupied the Willopah River and its tributaries towards the head of the Chihalis, and to have interlocked with the tribe who inhabited the country bordering on the Elokamin River. Their habits of life seem to have been very similar to those of the Klatskanai—the chase and an interior life for part of the year—resorting to the main rivers at certain periods to secure a supply of salmon."

The Tatltan vocabulary is reprinted from Dr. G. M. Dawson's report on that tribe ('Annual Report of the Geological Survey of Canada,' 1887, p. 191, B. f.). The words in parenthesis in the Ts'ets'a'ut vocabulary were obtained from Timothy, and differed from those obtained from Levi. The latter said in explanation that Timothy's father had come from Laq'uyi'p (Naqkyina), and that for this reason Timothy spoke slightly differently. The two vocabularies show clearly that Tatltan and Ts'ets'a'ut are closely affiliated, but that certain regular changes of sounds occur, particularly *ts* in Tatltan becomes *f* in Ts'ets'a'ut, and *t* is often replaced by *tg* or *tr*. Other changes are not so certain, and may be based on differences in perception and method of recording. It would seem that the Tkulhiyogo'ikc resembles the northern dialects more than those of the interior of British Columbia, but I am not sufficiently familiar with the latter to satisfactorily judge on this point. In both the Tatltan and Tkulhiyogo'ikc vocabularies I have retained the original spelling.

English	Tsimshian	Niska'	Tatltan (Dawson)	Ts'ets'a'ut	Tkulhiyogo'ikc (Gibbs)
Man	iō't	gyat	den'e	trané' (trá)	tee-e't-sun
Woman	haná'aq	hanak	e-ga-tên'	aqadé'	whoo-ah-te
Boy	wóm'tlk	—	etō-né'	irkv'e	ske-e'h
Girl	—	—	'te-da	t'áe	—
Infant	gyin'é's	—	—	dwnun' (dóné')	—
Father	nēguá'at	nēguá't	é-te-uh	t'áe	(my-) s-tah
Mother	ná'e	noq	e-tli	é-llé'e, idé', ná	" s'ehnah-na
Husband	naks	—	(my-) es-kuh-lé'-na	ts'aya'	" s'kud or s'kuda
Wife	naks	—	" es-tsi-yá-na	kadl'aé'	" s'ah't
Son	—	—	" es-tshí-me'	tcú'u	au-kwa
Daughter	—	—	" es-too'-eh	tqū	—
Elder	wegy	—	" es-tí-uh	qud'é'e	(my-) s'ohn-a-
brother	—	—	—	—	re'p
Younger	t'lrnkté'	—	" es-tshít'-le	étceé'é	" s'keh-te
brother	—	—	—	—	—
Elder sister	—	—	e-tá'-ta	sá	—
Younger	—	—	(my-) es-té'juh	édá'e	s'teh-tse
sister	—	—	—	—	—
Head	t'émg'á'us	t'émg'é'c	" es-tsí	atsé'	" s'nehu
Hair	g'á'us	g'éc	" es-tsi-gá'	atséqa'	" se'ra'ch
Face	ts'al	—	" es-né	tráine	" —
Forehead	wá'p	óp	" es-tse'-ga	etsedá'	" s'ta'h-ke
Ear	mó	muq	" es-thés'-bol	dze'e	" —
Eye	wul'f'l	ts'al	" es-tá'	adá' (trás)	" s'nah-rhé'
Nose	dz'aq	dz'ak'	" es-tshí	etse'e	" s'el'us
Mouth	kutl'á'q	ts'émá'k'	" es-sá't'-a	asa'	" s'tah
Tongue	dú'la	an'ón	" es-sá'	atsusa	" soh
Teeth	ua'n	uá'n	" es-goo'h'	é'qó	" se-roh
Beard	émq	ié'mk'	" es-stane'-	á'qa	" stah-ra
			GVH	—	—
Neck	t'ém'lá'né	t'ém'lá'nih	" es-kós'	akwó'	" squus
Arm	—	t'ém'ká'h	" es-si-tl'uh	agá'	" ská'l'-ne
Hand	an'ón	an'ón	" es-slu'h'	á'tla	" se-la'ch
Fingers	—	katsuwé'énk's	" es-slu'h' or slus-sé-guh	á'tla ts'á	" —
Thumb	más	mmás	slus-tshó'	á'tla tsqa	—
Little finger	—	sk'é'nih	slus-tshé'-le	—	—

English	Tsimshian	Nisaka'	Tatiltan (Dawson)	Ts'xts'a'ut	Tkulhiyogoá'ikc (Gibbs)
<i>Nails</i>	tléqs	tlak's	(my-) is-lá-gun'-a	á'tla k'ané', atlgo'-na	" s'chu'l-le
<i>Body</i>	—	púlnáq	(my-)es-hia'	é'niá	—
<i>Chest</i>	k'a'yek'	k'etlák'	" es-tshán	é'djutrá'é (atré'ya)	—
<i>Belly</i>	bkn	ban	" es-bét	t'á	(my-) s'chahn
<i>Female breast</i>	—	má'dz'iks	má-tó'-ja	é'tá	" se'h-te
<i>Leg</i>	—	t'emtlá'm	(my-) es-tshn-a	asri'e	—
<i>Foot</i>	si	sa'-i	" es-kul'	ékya'e	" skeh
<i>Toes</i>	—	k'atsuwé'mk's	" es-kus-tshó'	ékya'k ts'á	" skeh
<i>Bone</i>	sá'yup	—	" es-tse'	atsr'e'na	" tsu'nn
<i>Heart</i>	k'á'ót	grá'ót	" es-tshéa'	é'bvá'e	" steh-ye
<i>Blood</i>	itlé'	itl'á	e-ted-luh	adi'la	too'tl
<i>Village</i>	k'alts'a'p	k'alts'a'p	ké-yé'	Hidaa'	—
<i>Chief</i>	sém'a'gyit	sém'a'gyit	tín-tí'-na	anéqa'	ks-ke'h
<i>Warrior</i>	—	wuldi'gyitk'	e-ted'-etsha	—	(enemy?) wuts-e'h-ten
<i>Friend</i>	nesé'bansk'	nesé'b'knsk'	es-tsin-é	—	—
<i>House</i>	hwálp	hwilp	ki-mah'	khó	kóte
<i>Kettle</i>	—	ndzám	'kótl	k'u'lá	chéh-he-hats-kus-see
<i>Bow</i>	haukta'k'	haqda'k'	des-án	itne'	kl-toh-wa
<i>Arrow</i>	háwá'l	haw'l	'kah	k'a	—
<i>Axe</i>	dahé'rés	dawí's	tsi-tl	daz'ra	ti'ke-rúits'tl-tse'h-re
<i>Knife</i>	hatleb'i'esk	hatleb'i'sk	pésh	—	tche-ro'h (iron)
<i>Canoe</i>	qsá	mál	ma-lá'-te	bé	tse'h (generic)
<i>Moccasins</i>	ts'á'óqs	ts'á'wik's	e-tshil-e-kéh'	tsék'a'e	ti-na'ts-ee-ii
<i>Pipe</i>	aqpéyá'n	haqmiyá'n	—	k'á'thé'	stah-wootl
<i>Tobacco</i>	wundá'n	miyá'n	tsé-a-kh	k'á	suts-u'l-tus-see
<i>Sky</i>	laqha'	laqha'	ya-za	yad'a'	hook-kwii-l'e'h-ne
<i>Sun</i>	gyá muk	tlók's	tshá	fa	hrah-tleh
<i>Moon</i>	gyá muk	tlók's	—	fa	hrah-tleh
<i>Star</i>	p'lá'ls	pléi'st	SUHM	sró	kah-lessie
<i>Day</i>	sa	messá'h	zeu-és	—	—
<i>Daylight</i>	—	—	yé-ká'	yakqa'	—
<i>Night</i>	hó'opel	aqk'	ih-klé-guh	é'tl'a'e	tca-a'húte
<i>Morning</i>	k'antla'k'	bé'tluk	tshut-tshaw-tluné'	tsétsá'ótlqu'na	ka'h-hum-ta
<i>Evening</i>	ski'yetlak's	sé'l	hih-guh'	quda'hia	tcha-ahu-ta
<i>Spring</i>	—	guá'yim	tá-né'	—	—
<i>Summer</i>	sónt	sint	kli-we-guh'	trá'né'	seh-nie
<i>Autumn</i>	ks'ót	'k'sit	tá-tla'	—	—
<i>Winter</i>	k'átl	wul má'dém	ih-ha-yéh	Qú tse'	kwuts'e'h
<i>Wind</i>	písk	ba'ask'	it-tsi'	é'v'e'	tit-se'h
<i>Thunder</i>	kalaplé'ém	tia'etk	it-ti-i-tshí'	uné'i'	nái-ult-se-re'h
<i>Lightning</i>	—	—	—	—	—
<i>Rain</i>	ts'a'mti	ts'amth	kun-ta-tsel	uné da'	—
<i>Snow</i>	hwás	haiwí's	tshá	tsae	nar-reh-á'ih
<i>Fire</i>	má'dém	má'dém	zus	qó	yuchs
<i>Water</i>	lak'	lak'	kón	kwó	kwunn
<i>Ice</i>	aks	akys	tsoo	tqó	toh, tsnah-neh
<i>Earth</i>	dá'n	dá'u	tena	tqa	kwul-b'h
<i>Sea</i>	dsá'atseks	ts'á'ts'ik's	nén	néé	ne-e'y
<i>River</i>	laq man	laqsé'idé	é-é'tla	tqó tsqó	to-a'hr-ra
<i>Lake</i>	g'ala aks	g'aliakys	too-désá	tqó' ga	toh'
<i>Valley</i>	—	—	mén	máe	chus-ka'h-ne
<i>Prairie</i>	tikut'e'en	t'eq	tá-gós'-ke	mágaqaqó'	tseh
<i>Mountain</i>	sqané'ist	laq'amá'k's	'klo'-ga	dádit'amé'	tsch
<i>Island</i>	léksd'a'	sk'ani'st	his-tsho	tsé'nér	sus-kut
<i>Stone, rock</i>	láp	liky'd'a	ta-é-too-e	—	—
<i>Salt</i>	mán	la'óp	tsé	tsha	sta'h-witl
<i>Iron</i>	t'ótsk	mó'ón	é-é'tlá	—	—
<i>Forest</i>	—	t'ótsk'	pes-te-zin'	—	tche-ro'h
<i>Tree</i>	kan	spátr'anga'n	got-é	—	—
<i>Wood</i>	—	gran	til-gé-gut'	ts'ó	s'chinn
<i>Leaf</i>	ia'nes	lak'	tset-tsh-tselsh	p'ó	t'kinn
<i>Bark</i>	gyimst	ia'ns	e-táne'	á'tra'e	kutt
	(shredded)	má'es; gyi'm')	ed-lá	atlat'ó'u	s'kaih
		Est (shredded)	—	—	—
<i>Grass</i>	keyá'qt	hap'É'sk'	klóáh	á'tra'e	kluhw
<i>Pine</i>	—	amsgyini'st	gá-za	tséwá'há'	s'chunn
<i>Fish, meat</i>	ca'mi'	smah	e-tset'	atsqa'	che-chunn
<i>Dog</i>	has	os	kli	tle	kleh
<i>Bear</i>	ól	ól	shush	fó	til-e-zun
<i>Wolf</i>	kyebó'	kyibó'	tshí-yó-ne	éqa'	ne-nah-ta-lie
<i>Fox</i>	—	nagratsé'	nus-tsé'he	—	—
<i>Deer</i>	wan	wan	kiw-igana	qá'ra	yun-a'hl-yil
<i>Beaver</i>	sts'al	ts'Emé'lih	tshá	tsae	(white tailed deer)
					no'ne-yeeh

English	Tsimshian	Niska'	Tatitan (Dawson)	Ts'xts'a'ut	Tlukhiyogoa'ikc (Gibbs)
Rabbit	—	—	guh	k'aq	—
Fly	—	—	tsi-meh	tlá'ira'	—
Mosquito	gyi'ek	biá'sk	tsi	dzesdzá'	—
Snake	matqalá'ltq	laelit	—	—	ke-ru'ss
Bird	ts'ó'wots	ts'óts	tsi-meh	—	na'ht-ke (<i>a winged thing</i> ?)
Egg	—	tlgyima't	è-ga-zuh'	—	che-reh-zie
Feathers	li	laq	tshósh	á'qa	ch'óhts-kwu
Wings	k'ák'a'i	k'ak'a'H	mi-i-tséne	má't'a	ch-na'ht-keh
Goose	há'aq	hak'	gan-jeh	dáwa'k'	—
Duck (<i>Mal-lard</i>)	mé'ek	neqna'q	too'-deh	nesna'q'	haat-hat (=Nsk-wali)
Fish	luwe'lem	luwe'lem ts'ém	akyc	—	—
Salmon	ts'ém aks	hán	hán	klew'-eh	—
Name	wá	wa	on-reh	—	tlémá'
White	máks	ma'uks ²	ta'-kád'le	dak'alá'	(<i>spring salmon</i>)
Black	t'ó'otsk	t'ótsk ²	ten-es-klá'-je	d's'nestl'ena	see-loh-kwa
Red	m'esk	itlá'etk' ²	te-tsi-je	d'esd'e'la	tcho-se'h
Blue	kuskua'sk	qsgsguá'ók's ²	te-tlesh'-te	—	kl-kwe'e-yeh
Yellow	mstl'é'itk	qsléteg'al- má'sk ²	tsim-tlet	d'estsqá'wé	kluz-zun-ne
Green	mstl'é'itk	mstlá'tk ²	e-tsho	—	tch-zu'm-me
Great, large	wi	wi	ta-a-tsed'le	ntsqa'	ó-é'h
Small, little	tligua	tligua	na-tó-yi	utsá'E	nwe'hl-e
Strong	—	daqgyat	es-tshán	ad's'ntsqa	nu-me'h
Old	wud'a'gyat	wud'a'gyat	—	sá'na ²	tsunn (<i>bad or worn</i>)
Young	copac	qa'ema's	es-ki-uh	d'egnanahá'	ahr-re-yie (<i>new</i>)
Good	ám	ám	e-ti'-uh	a'tawa	ne-zo'-á-nie
Bad	hada'q	had'a'q	tshá'-ta	tssá'at'	n'tsun-ne
Dead	ts'ak	nó	a-juh'	tszá'ts'a	re'h-to-eh
Alive	dó'els	dédéls	te-tshí'	—	tah-ke-re'h-to-eh (<i>not dead</i>)
Cold	kua'tkó	guná'qk'	hós-tli'	qusg'a's	kose-kwut-sie
Warm	gyá'muk	gyámky	hos-sitl	qusqó'n	kl-ko'-ne
I	ne'rió	ne'E	shi-ni	tsq'ne'	shik
Thou	ne'ren	ne'én	nin-e	nene'	nuk
He	ne'édet	net	a-yi-ge	—	—
We	ne'rem	nóm	ta-hun'-e	taq'o'n	nai'-yook
Ye	ne're'em	ne'erm	kla'-tse	taqona'	hon-ne'k
They	ne'édet	ne'det	—	—	—
This	—	tgón	ti-te	—	che-ka'nn
That	—	tgóst	a-yi-ge	—	che-tuk'
All	—	tgóst	se-tse	daq'ó'ó' (?)	a-wa'ht-hlo
Many	—	tgóst	oo-tlá ²	its á'ada	klah-ne'
Who	—	tgóst	ma-dai-e	its á'ada	tsai-in
Far	—	tgóst	ni-sá-te	itiya	ne-za'ht-so-neh
Near	—	tgóst	hah'-ne	wuní'ya	che-kehn-tis-tie
Here	—	tgóst	tis-tsik	ahí'ya (?)	—
To-day	—	tgóst	too'-ga	ad'ó'	tchut-seh-nie
Yesterday	—	tgóst	kit-só'-kuh	idragia	kun-tahn
To-morrow	—	tgóst	tsha-tshá'	tsatsá'	kl-ka'ht-te
Yes	—	tgóst	—	—	—
No	—	tgóst	—	—	—
One	—	tgóst	—	—	—
Two	—	tgóst	—	—	—
Three	—	tgóst	—	—	—
Four	—	tgóst	—	—	—
Five	—	tgóst	—	—	—
Six	—	tgóst	—	—	—
Seven	—	tgóst	—	—	—
Eight	—	tgóst	—	—	—
Nine	—	tgóst	—	—	—
Ten	—	tgóst	—	—	—
Twenty	—	tgóst	—	—	—
To eat	—	tgóst	—	—	—
To drink	—	tgóst	—	—	—
To run	—	tgóst	—	—	—

Snow colour.

² Iron colour.
² Gall colour.² Blood colour.² Blue jaw colour.² Colour of inside of crab.
² Loaned from Niska'.² Loaned from Tlingit.

English	Tsimshian	Nisk'a'	Tatiltan (Dawson)	Ts'ets'a'ut	Tkuliyogoā'ikc (Gibbs)
To dance	halá'it	hala'it	en-dlě'	—	ne'h-toi's-to
To sing	li'emi	li'mih	en-tshin	djě	stah-whēh-lum
To sleep	qstóq	wók'	nes-tétl'	s—thē	n'teh-la-to
To speak	a'lgyaq	a'lgyiq	hun-tēh	qundé'	yah'tl-st-keh
To see	nē	gye	nat-si	ēd'n'ē	nāh-ta-res-to
To love	sebā'n	—	na-cs-tlook'	di'ne'	—
To kill	ds'ak	dzak'	tsin-hia'	dēnēh'ya	noo-ne'k-la-rah
To sit	d'a	d'a	sin-tuh'	sindā'	ne'ht-sa-to
To stand	hā'yitk	hētk'	nun-zit'	nēnsqé'	ne'k-luk-sto
To leave	dā'wuit	k'stak's	un-tih' (to go)	niqēndō'sa (in canoe)	teh-a's-to (to go)
To come	kā'edēks	ā'dekysk'	a-nēh'	aquné'	neh-as-to
To walk	—	—	yes-shā'-dle	—	nah-ya
To work	—	—	ho-ya-estiluh'	—	—
To steal	—	lē'luks	en-a-i	ana'ē	—
To lie down	nāg	gyētl	—	nōsté'	—
To give	gyēnā'm	gyinā'm	me-ga-ni-āh'	na	—
To laugh	sis'a'qs	hīs'a'qs	na-is-tlook'	gyēntqō'	—
To cry	wihā ut	wuyi'tk'	eh-tshih	ēia'	—

Additional Words in Gibbs's Vocabulary of the Tkuliyogoā'ikc.

my son, au-kwa.
lad, sk-e'h; *as when an Indian chief talks of his young men, i.e. his unmarried followers, he terms them*
See-sk-e'h, my boys or lads.
Indians, people, kwun-a-runt.
my eyebrow, sne'hts-eh-le.
my thigh, so-ru'rs.
calf of my leg, sku't-ta.
cedar, kl-sklo-ne-ye.
oak, tsoo-we'h.
fat, che-kuch.
buffalo, moos-e-moos-he (*Chinook*).
prairie wolf, sul-i-kul (*sin-e-kul Chehalis*).
black-tailed deer, woon-ins-kunnie.
male elk, t'chest-hu.
female elk, tseh-a-ka-you.
tortoise, wit-la-hoh (*it-lah-wa, Chinook*).
pigeon, hum-ehm (*hum-o'h, Nisqualli*).
winter salmon, see-ahie.
sturgeon, wuz-e-te'h-nie.
land otter, che-leh-zie.
cougar, wutche-nai-kul.
wild cat, wun-el-kāits-le.

raccoon, kwa'hlas.
fawn, till-kah.
calf of elk, chabht-la-zoo-lie.
tamanous of medicine, tee-e'nn.
tamanous of feasts, tseh-kwa'ss.
small haiqua, ret-eh-sie.
large haiqua, te-ko-et-sie.
plank, klush-ts.
basket, hah-tsa.
gun, shwool-wool-tch-re.
Chinook canoe, kl'whee'-at.
year, tl-ne'h-ta
handsome (good), n'zo'-an.
ugly (bad), nt-sunn.
eleven, kwīn-eh-she-a choot-tlē-e'h.
twelve, kwīn-eh-she-a choot-na'ht-keh.
thirty, tah klitch-e'hl-tcho.
one hundred, kwan-ne-san-ne-tchehl-choot.
hungry, tche'h-a.
thirsty, za-re'hl-tcha.
G—d—n you, cheh-sl-ka'hne.
thank you, che-nāl-yah.
thank you very much, see-nā-chāl-yah

Words of the Tkuliyogoā'ikc obtained from 'Catherine,' 1894.

water, tō (*Gibbs*: toh).
sky, yā.
salmon, ka'mō's.
bear, tē'lsēnē (*Gibbs*: til-e-zun).
dog, na'ttaii (*Gibbs*: klehl).

old woman, stsiā'nē.
pole for pulling canoe, tck-u'lk-ulē.
come! nē'astō (*Gibbs*: neh-as-to).
give me! sqā'dō.
give me water to drink! qatc'e'titcō tō.