British Association for the Advancement of Science

BRISTOL MEETING, 1898

TWELFTH AND FINAL REPORT

ON THE

NORTH-WESTERN TRIBES OF CANADA

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The North-Western Tribes of Canada.—Twelfth and Final Report of the Committee, consisting of Professor E. B. TYLOR (*Chairman*), Sir CUTHBERT E. PEEK (*Secretary*), Dr. G. M. DAWSON, Mr. R. G. HALIBURTON, Mr. DAVID BOYLE, *and* Hon. G. W. ROSS, *appointed to investigate the Physical Characters, Languages, and Industrial and Social Conditions of the North-Western Tribes of the Dominion of Canada.*

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THE following Report contains the results of field-work undertaken under the auspices of the Committee during the summer of 1897. The work was carried out by Messrs. Franz Boas and Livingston Farrand. A brief summary of the results of the work of the Committee has been drawn up by Dr. Boas, and forms part of this Report.

While the work of the Committee has materially advanced our knowledge of the tribes of British Columbia, the field of investigation is by no means exhausted. The languages are known only in outline. More detailed information on the physical types may clear up several points that have remained obscure, and a more detailed knowledge of the ethnology of the northern tribes seems desirable. Ethnological evidence has been collected bearing upon the history of development of the culture-area under consideration; but no archæological investigations have been carried on which would help materially in solving these problems.

For these reasons it is a matter of congratulation to know that the ethnological investigation in British Columbia will not cease with the operations inaugurated by the Committee. Ethnological and archæological work in the Province, in the adjoining States and Territories of the United States, and on the coast of Siberia is being carried on by expeditions the expense of which is borne by Mr. Morris K. Jesup, President of the American Museum of Natural History. It is hoped that these investigations may carry the work initiated by this Committee a step farther.

I. *Physical Characteristics of the Tribes of British Columbia.* *By* FRANZ BOAS *and* LIVINGSTON FARRAND.

The anthropometric measurements made during the season of 1897 were carried out by both of us according to the system applied in the previous Reports of the Committee. Before entering into a discussion of the results

it is necessary to show that the measurements of the two observers are comparable. We have carried out this comparison for the head measurements in which the personal equation is liable to attain considerable value. We give here the averages of the various measurements taken on I., StlEmqō'lEqumQ men ; II., StlEmqō'lEqumQ women ; III., Chilcotin men. When we call A the averages and E the mean errors, we find :—

—	Length of Head		Breadth of Head		Height of Face	
	Boas A. E.	Farrand A. E.	Boas A. E.	Farrand A. E.	Boas A. E.	Farrand A. E.
I. .	186·0 ± 0·9	187·1 ± 0·9	158·5 ± 0·8	157·9 ± 1·2	119·9 ± 1·0	121·5 ± 1·5
II. .	179·6 ± 1·4	177·9 ± 1·4	149·8 ± 0·9	151·9 ± 1·1	114·5 ± 1·4	114·5 ± 1·4
III. .	187·0 ± 1·0	186·1 ± 1·0	159·6 ± 1·2	157·9 ± 0·9	124·3 ± 1·4	124·3 ± 1·3

—	Breadth of Face		Height of Nose		Breadth of Nose	
	Boas A. E.	Farrand A. E.	Boas A. E.	Farrand A. E.	Boas A. E.	Farrand A. E.
I. .	149·0 ± 0·8	148·8 ± 0·9	52·5 ± 0·6	50·9 ± 0·8	40·6 ± 0·5	39·4 ± 0·5
II. .	138·0 ± 0·7	139·9 ± 1·2	49·1 ± 1·1	48·6 ± 0·9	35·5 ± 0·6	35·2 ± 0·6
III. .	149·1 ± 0·7	147·2 ± 1·0	53·4 ± 0·6	52·9 ± 0·6	39·9 ± 0·5	38·7 ± 0·5

The differences between these averages are throughout slight. In order to show the comparability of the measurements still more clearly we give here the values of the differences and their errors, and the average difference and its error for each measurement which have been obtained by weighting the individual differences.

Differences between Measurements taken by Boas and Farrand and their Errors.

—	Length of Head	Breadth of Head	Height of Face	Breadth of Face	Height of Nose	Breadth of Nose
I. .	+1·1 ± 1·3	−0·6 ± 1·4	+1·6 ± 1·8	−0·2 ± 1·1	−1·6 ± 1·0	−1·2 ± 0·7
II. .	−1·7 ± 2·0	+2·1 ± 1·4	0·0 ± 2·0	+1·9 ± 1·4	−0·5 ± 1·4	−0·3 ± 0·8
III. .	−0·9 ± 1·4	−1·7 ± 1·5	0·0 ± 1·9	−1·9 ± 1·2	−0·5 ± 0·8	−1·2 ± 0·7
Average.	+0·1 ± 0·8	−0·1 ± 0·8	+0·6 ± 1·1	−0·3 ± 0·7	−0·8 ± 0·5	−0·9 ± 0·4

It appears from this table that the measurements are strictly comparable, and that the personal equation may be neglected.

The tribes which were principally studied are the Northern Shuswap, the Lillooet, the Chilcotin, and the northern tribes of the coast. The Shuswap are divided into divisions in a manner similar to the divisions of the Ntlakya'pamuQ. We have collected measurements of the StlEmqō'lEqumQ, the division of the tribe living on Fraser River, north of the town of Lillooet, of the Stī'atEmQ of North Thompson River, of the Shuswap'ō'e of Kamloops, and a few of the group inhabiting Buonaparte River. We have treated the Lillooet of Fraser River, who are mixed with Shuswap, and Ntlakya'pamuQ separately from the purer groups of Seton and Anderson Lakes. Following are the tables of measurements :—

Stature of Men.

Cm.	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	Average	No. of Cases
Tribe:																																								
Haida	—	—	—	—	—	—	1	—	1	—	—	—	1	—	1	—	1	1	1	—	2	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	162·6	9
Nass River Indians	—	—	—	—	—	—	—	—	—	—	—	—	1	—	2	4	2	1	—	2	2	—	2	1	3	1	—	—	—	1	—	—	—	—	—	—	—	—	—	167·1	22
Tsimshian	—	—	—	—	—	—	—	—	—	1	—	—	1	1	2	2	2	—	1	—	1	—	—	—	1	2	—	1	—	—	—	—	—	—	—	—	—	—	—	165·6	15
Bilqula	—	—	—	—	—	—	1	—	—	—	—	3	1	2	1	—	2	—	2	1	4	1	2	1	2	2	1	—	—	—	—	—	—	—	—	—	—	—	—	166·1	26
Hē'iltsuk	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	1	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	166·2	5
Awī'ky'ēnôq	—	—	1	—	—	—	—	—	—	—	1	1	—	1	1	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	160·0	7
Kwakiutl	—	—	—	—	—	—	1	—	—	2	2	4	3	3	2	4	3	4	2	3	1	1	4	—	1	1	—	2	—	—	—	—	—	—	—	—	—	—	—	164·1	43
Delta of Fraser River	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	161·8 [1]	30
Spuzzum	—	2	—	—	1	—	—	—	—	1	—	—	2	1	1	2	—	1	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	159·7 [2]	13
Utā'mk·t	1	1	—	—	—	—	—	1	1	—	1	—	—	1	—	1	1	—	—	1	—	1	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	161·0	12
Ntlakyapamuq'ō'e	—	—	—	1	—	—	1	1	—	—	—	1	2	—	3	1	—	2	—	1	1	1	1	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	163·1 [3]	18
Nkamtci'nemuq	—	—	—	1	—	—	—	—	1	—	—	—	1	1	—	—	1	1	4	2	—	—	1	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	1	165·9	16
Harrison Lake	144 145	1	—	—	—	—	—	—	1	1	1	—	—	—	2	—	1	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	158·0	11
Lillooet (Anderson Lake)	—	—	—	—	—	—	—	—	1	3	—	3	—	—	1	—	1	1	—	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	162·3	12
Lillooet (Fraser River)	—	—	—	—	—	—	—	—	1	—	—	3	1	1	1	—	1	—	1	1	—	—	—	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	164·3	12
StlEmqō'lequmq	—	—	—	—	—	—	1	—	2	—	1	—	—	2	1	3	8	1	3	4	3	2	2	2	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	165·2	37
Shuswap (Kamloops)	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1	1	—	1	1	3	—	1	—	2	—	1	—	1	—	—	—	—	—	—	—	—	—	—	167·9	14
Chilcotin	—	—	—	—	—	—	1	1	2	—	3	2	—	3	—	4	2	1	2	3	3	—	—	2	2	2	—	1	—	1	—	—	—	—	1	—	—	—	—	165·1	36

[1] Boas and Greer.

[2] 160·5 Boas and Greer, 22 cases.

[3] 162·7 Boas and Greer, 44 cases.

Stature of Women.

Cm.	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	Average	No. of Cases
Tribe:																										
Haida	—	—	—	—	—	—	—	—	—	—	—	1	—	—	2	—	—	—	1	—	—	—	—	—	155·2	4
Nass River Indians	—	—	—	—	—	—	—	—	1	1	1	2	—	5	2	2	2	—	2	—	—	—	—	—	154·3	18
Tsimshian	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	152·0	3
Bilqula	—	—	—	—	—	—	—	—	—	—	—	1	—	—	2	—	—	1	1	—	2	—	—	—	157·3	7
Hē'iltsuk	1	—	—	—	—	—	1	—	—	—	—	1	1	—	—	—	1	—	—	—	—	—	—	—	150·0	5
Awī'ky'ēnôq	—	—	—	—	—	1	—	—	1	1	2	2	2	1	—	—	1	—	—	—	—	—	—	—	151·6	11
Kwakiutl	—	—	—	—	—	1	—	—	5	2	4	2	2	2	3	5	—	1	3	3	—	—	2	—	154·3	35
Spuzzum	—	—	—	—	—	—	—	—	—	—	2	—	—	1	—	—	1	—	—	—	—	—	—	—	153·2 [1]	4
Utā'mk·t	—	—	1	—	—	1	—	1	—	1	2	—	4	1	1	—	1	—	3	1	—	—	—	—	153·2	17
Ntlakyapamuq'ō'e	—	1	—	—	1	—	1	—	2	2	3	2	2	5	3	4	3	1	1	—	—	1	—	—	153·6 [2]	32
Nkamtci'nemuq	—	—	—	—	—	—	—	—	—	—	—	1	1	1	1	2	—	—	1	2	2	—	—	1	157·6	12
Harrison Lake	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Lillooet (Anderson Lake)	—	—	—	—	—	1	1	2	2	2	1	1	—	2	1	1	—	2	1	1	—	1	1	—	152·5	20
Lillooet (Fraser River)	—	—	—	—	—	—	1	—	1	1	—	—	3	—	3	1	2	1	—	1	—	—	—	—	154·2	14
StlEmqō'lequmq	—	—	—	—	1	1	2	—	—	1	2	1	3	1	2	1	2	3	3	1	—	4	—	—	155·0	28
Chilcotin	—	—	—	—	—	—	—	—	—	—	—	1	1	1	3	2	1	3	—	2	—	1	—	—	156·5	15

[1] 152·7 Boas and Greer, 15 cases.

[2] 153·1 Boas and Greer, 76 cases.

Length of Head of Men.

Mm.	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	Average	No. of Cases
Tribe:																																				
Haida	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	1	—	1	1	—	1	—	—	—	1	—	—	—	2	—	—	—	—	194·8	9
Nass River Indians	—	—	—	—	—	—	—	—	1	—	—	—	1	1	—	2	1	2	2	—	4	1	1	2	1	1	1	—	—	2	2	1	1	—	195·3	27
Tsimshian	—	—	—	—	—	—	—	—	—	—	—	1	—	1	—	1	2	—	2	2	1	—	—	—	1	3	—	1	—	—	—	—	—	—	193·4	15
Bilqula	—	1	—	—	—	1	1	1	—	4	—	—	—	—	2	3	1	2	1	3	2	3	—	—	—	—	—	1	—	—	—	—	—	—	188·7	26
Spuzzum	—	—	—	—	—	—	—	3	—	1	—	2	1	—	—	—	—	1	1	—	1	—	—	—	1	—	—	—	—	1	—	—	—	—	188·3	12
Utā'mk·t	—	—	1	1	—	—	—	—	1	1	1	2	1	—	3	2	1	2	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	186·7	18
Ntlakyapamuq'ō e	—	—	—	—	—	1	2	2	—	2	2	1	3	3	1	2	1	2	3	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	186·8	27
Nkamtcī'nEmuq	—	—	—	—	—	1	—	2	—	—	—	1	2	5	3	1	2	1	—	—	1	1	—	1	1	—	—	—	1	—	—	—	—	—	188·8	23
Harrison Lake	—	1	—	1	—	1	2	1	—	2	2	1	2	—	—	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	183·1	15
Lillooet (Anderson Lake)	1/0	1/2	—	2	1	—	1	—	1	4	3	1	1	—	—	2	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	181·7	20
Lillooet (Fraser River)	—	—	—	—	—	1	1	—	2	—	—	1	—	2	1	1	2	1	3	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	188·1	17
StlEmqō'lEqumQ	—	—	1	1	1	2	—	2	2	3	5	3	3	7	1	5	2	2	3	1	1	1	—	—	—	—	—	—	—	—	—	—	—	—	186·4	48
Shuswap (Kamloops)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chilcotin	—	—	—	—	1	1	1	3	1	3	4	2	2	2	4	2	2	2	3	—	1	—	2	—	—	—	—	—	—	—	—	—	—	—	186·6	36

Length of Head of Women.

Mm.	164	165	166	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	Average	No. of Cases
Tribe:																																				
Haida	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	182·0	4
Nass River Indians	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	3	1	2	1	2	4	—	2	—	—	1	1	2	—	—	—	1	186·2	21
Tsimshian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	186·3	3
Kwakiutl	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—	1	3	—	—	—	1	—	—	—	—	—	—	186·9	7
Spuzzum	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—	184·2	5
Utā'mk·t	—	—	—	—	—	1	—	—	—	1	1	—	3	—	2	1	1	1	1	1	2	2	—	1	1	1	—	—	1	—	—	—	—	—	—	180·9	21
Ntlakyapamuq'ō'e	—	—	1	—	1	—	1	1	2	4	3	—	—	—	3	4	1	4	2	3	3	—	3	—	1	1	—	—	—	—	—	—	—	—	—	178·6	38
Nkamtcī'nEmuq	—	—	—	—	—	—	—	—	1	—	1	—	—	1	3	2	2	—	—	2	—	1	1	—	—	1	—	1	—	—	—	—	—	—	—	180·8	16
Harrison Lake	—	—	—	1	—	—	1	1	—	—	—	2	2	1	2	—	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	176 0	12
Lillooet (Anderson Lake)	—	—	—	—	—	1	—	—	2	1	1	3	1	1	1	—	1	2	—	3	1	—	1	—	2	—	—	—	—	—	—	—	—	—	—	178·7	21
Lillooet (Fraser River)	1	—	—	—	1	—	—	—	1	1	1	—	2	—	2	1	1	4	1	1	—	1	2	—	—	1	1	—	—	—	—	—	—	—	—	179·2	22
StlEmqō'lEqumQ	—	—	1	—	—	1	1	1	1	1	4	2	—	—	4	—	2	3	2	3	1	1	1	1	—	—	2	—	—	—	—	—	—	—	—	178·7	32
Chilcotin	—	—	—	—	—	1	—	3	3	—	1	1	2	—	1	1	2	1	2	1	2	—	1	—	—	—	—	—	—	—	—	—	—	—	—	177·2	22

Breadth of Head of Men.

Mm.	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	Average	Number of Cases
Tribe:																																
Haida	—	—	—	1	—	—	—	—	—	—	—	—	1	1	1	1	—	1	—	—	—	—	—	2	—	1	—	—	—	—	163·3	9
Nass River Indians	—	—	—	—	—	1	—	—	—	—	—	4	3	2	3	2	1	2	3	1	2	2	—	1	—	—	—	—	—	—	161·2	27
Tsimshian	1	4	3	—	—	—	—	1	2	—	2	1	—	2	3	—	—	—	1	—	—	1	1	—	—	—	—	—	—	—	158·0	15
Bilqula	—	—	1	—	—	1	1	1	—	1	1	5	3	2	2	1	—	—	1	3	1	—	2	—	—	—	—	—	—	—	159·0	26
Spuzzum	—	—	—	—	—	1	—	—	1	2	1	1	1	1	—	—	—	—	1	—	—	—	2	—	—	—	1	—	—	—	159·8	12
Utā'mk·t	—	—	—	—	—	2	—	—	1	1	3	1	1	1	3	1	1	—	1	2	—	—	—	—	—	—	—	—	—	—	158·3	18
NtlakyapamuQ'ō'e	2	—	3	1	3	3	—	2	—	3	1	2	3	—	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	153·6	27
NkamtcI'nEmuQ	—	—	1	—	3	3	1	3	—	2	2	—	4	—	1	2	1	—	—	—	—	—	—	—	—	—	—	—	—	—	154·8	23
Harrison Lake	—	—	—	—	—	—	—	—	1	1	—	—	—	2	1	1	1	1	—	1	1	1	1	—	—	2	—	—	1	164·5	15
Lillooet (Anderson Lake)	1	4	1	—	—	—	1	2	—	—	3	4	2	—	—	1	1	—	3	1	—	—	—	—	—	—	—	—	—	—	157·0	20
Lillooet (Fraser River)	—	1	—	—	1	2	—	—	1	—	1	2	2	1	—	—	2	1	1	—	—	1	—	—	—	—	—	1	—	—	157·6	17
StlEmQō'lEqumQ	—	—	2	2	—	1	—	2	1	3	2	8	4	3	4	5	2	2	2	2	2	—	1	—	—	—	—	—	—	—	158·3	48
Shuswap (Kamloops)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Chilcotin	—	—	1	—	1	—	1	1	—	3	4	3	5	2	3	2	3	2	1	1	2	—	—	1	—	—	—	—	—	—	158·8	36

Breadth of Head of Women.

Mm.	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	Average	Number of Cases
Tribe:																												
Haida	—	—	—	—	—	—	—	1	1	—	—	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—	151·0	4
Nass River Indians	—	—	—	—	1	1	—	1	—	1	1	2	—	1	2	2	4	2	2	—	—	—	—	1	—	—	153·6	21
Tsimshian	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	153·3	3
Kwakiutl	—	—	—	—	—	—	—	—	—	—	1	1	1	1	1	—	—	—	—	—	2	—	—	—	—	—	154·3	7
Spuzzum	—	—	—	—	—	—	—	1	—	—	—	—	1	2	1	—	—	—	—	—	—	—	—	—	—	—	151·2	5
Utā'mk·t	—	—	—	—	—	2	3	1	1	1	1	3	1	3	1	—	3	—	1	—	—	—	—	—	—	—	150·8	21
NtlakyapamuQ'ō'e	1	1	1	1	2	1	5	5	7	2	2	2	5	2	—	1	—	—	—	—	—	—	—	—	—	—	147·9	38
NkamtcI nEmuQ	—	—	1	1	3	1	—	2	4	1	1	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	147·0	16
Harrison Lake	—	—	—	—	1	—	—	—	1	—	1	2	1	1	—	—	—	1	2	—	—	1	—	—	1	—	153·9	12
Lillooet (Anderson Lake)	—	—	—	—	—	—	1	3	3	1	—	1	1	1	3	1	—	4	—	—	—	1	—	—	1	—	152·7	21
Lillooet (Fraser River)	—	—	—	—	—	—	1	—	3	3	2	1	—	2	2	3	2	1	—	2	—	—	—	—	—	—	152·5	22
StlEmQō'lEqumQ	—	—	—	1	1	1	4	2	—	4	2	—	3	3	4	2	1	3	1	—	—	—	—	—	—	—	151·0	32
Chilcotin	—	—	—	—	—	1	2	—	—	3	1	—	1	2	2	2	1	3	—	—	1	1	1	1	—	—	153·8	22

Height of Face of Men.

Mm.	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	Average	No. of Cases
Tribe:																																							
Haida	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	2	1	—	—	1	—	—	—	—	—	1	2	—	—	—	—	—	—	—	—	—	—	123·3	9
Nass River Indians	—	—	—	—	1	1	1	1	—	—	—	1	—	—	4	2	—	—	4	3	—	1	2	—	—	—	—	—	1	—	—	—	—	—	—	—	—	120·5	22
Tsimshian	—	—	—	—	—	—	—	—	1	2	—	—	—	1	1	1	—	2	—	1	—	1	1	3	—	—	1	—	—	—	—	—	—	—	—	—	—	122·3	15
Bilqula	—	—	—	—	—	—	—	—	—	1	—	1	—	1	—	—	2	1	1	1	1	3	—	4	1	4	—	1	1	1	—	—	—	—	2	—	—	126·9	26
Hē'iltsuk·	—	—	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	1	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	123·0	5
Awī'ky'ēnôq	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—	—	1	—	1	—	1	—	—	—	1	1	—	—	—	—	—	—	127·5	7
Kwakiutl	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1	—	2	—	1	2	2	4	4	2	3	4	3	1	3	2	3	3	—	—	—	2	1	129·2	45
Delta of Fraser River	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	2	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	—	—	—	—	126·4	5
Spuzzum	—	1	—	—	—	—	1	—	—	1	1	—	1	1	1	2	1	—	—	—	—	1	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	119·2	13
Utā'mk·t	—	—	—	—	—	1	—	—	—	—	—	1	2	—	—	3	2	1	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1	—	121·2	12
Ntlakyapamuq'ō'e	—	—	—	1	—	1	—	—	—	—	1	1	1	3	3	1	2	1	1	—	2	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	119·0	19
Nkamtcī'nEmuq	—	—	—	—	—	1	1	—	—	1	1	1	—	2	1	1	—	1	—	1	1	—	—	1	1	—	1	—	—	—	—	1	—	—	—	—	—	120·9	16
Harrison Lake	1	—	1	—	—	—	—	2	—	—	1	1	1	1	1	—	—	1	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	115·1	11
Lillooet (Anderson Lake)	—	—	—	—	—	1	—	—	—	1	2	—	—	1	1	2	2	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	119·1	12
Lillooet (Fraser River)	—	—	—	—	—	—	1	—	—	—	—	—	—	2	1	1	—	—	3	1	—	1	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	122·0	12
StlEmqō'lEqumQ	—	—	—	—	2	1	—	1	—	3	—	2	6	2	6	1	2	2	3	2	—	1	2	—	1	1	—	—	1	—	—	—	—	—	—	—	—	120·5	39
Shuswap (Kamloops)	—	—	—	—	—	—	—	—	—	—	—	—	—	1	2	2	2	1	—	2	—	1	—	—	1	1	—	1	—	—	—	—	—	—	—	—	—	—	124·2	14
Chilcotin	—	—	—	—	1	—	—	1	—	—	1	—	1	—	1	3	4	1	4	2	2	3	1	—	2	4	2	2	1	—	—	—	—	1	—	—	—	—	124·3	36

Height of Face of Women.

Mm.	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	Average	No. of Cases
Tribe:																																				
Haida	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	115·7	4
Nass River Indians	—	—	—	—	—	—	—	2	1	—	1	1	1	2	—	1	2	1	—	3	1	1	—	1	—	—	—	1	—	—	—	—	—	—	—	113·4	19
Tsimshian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	—	1	—	—	—	—	—	—	—	—	—	—	—	118·0	3
Bilqula	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1	—	1	2	1	—	—	—	—	—	—	—	122·0	7
Hē'iltsuk·	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1	—	—	1	—	1	—	—	1	—	—	—	—	—	—	—	—	—	116·8	6
Awī'ky'ēnôq	—	—	—	—	—	—	—	—	—	—	1	—	—	1	2	1	2	1	2	—	2	—	1	—	—	—	—	—	1	—	—	—	—	—	—	115·8	11
Kwakiutl	—	—	—	—	—	—	—	—	1	—	—	—	1	1	—	1	2	1	2	2	2	2	3	1	—	4	1	—	1	1	3	2	3	139/1	—	121·2	35
Spuzzum	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	1	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	112·5	4
Utā'mk·t	—	—	—	—	—	—	1	—	—	2	2	1	3	—	1	—	—	2	—	3	—	3	1	1	—	—	—	—	—	—	—	—	—	—	—	112·6	17
Ntlakyapamuq'ō'e	1	—	—	—	—	1	—	1	1	—	4	—	3	3	3	4	3	—	—	3	—	3	1	—	2	—	—	—	—	—	—	—	—	—	—	112·4	33
Nkamtcī'nEmuq	—	—	—	—	—	—	—	—	—	—	—	1	3	—	1	1	1	—	1	1	1	1	—	1	—	—	—	—	—	—	—	—	—	—	—	114·1	12
Harrison Lake	—	1	—	—	—	—	—	—	—	1	1	1	1	—	1	1	1	—	—	—	—	1	—	—	—	3	—	—	1	—	—	—	—	—	—	110·5	10
Lillooet (Anderson Lake)	—	—	—	1	1	—	—	—	3	—	1	2	1	2	2	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	111·3	19
Lillooet (Fraser River)	—	—	—	—	—	—	—	1	—	1	1	1	—	1	2	1	—	—	1	2	2	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	113·0	14
StlEmqō'lEqumQ	—	—	—	—	—	—	—	2	1	1	1	—	1	3	2	—	2	2	1	3	2	2	1	1	—	—	1	—	1	—	—	—	—	—	—	—	114·5	28
Chilcotin	—	—	—	—	—	—	—	—	—	—	1	1	1	—	1	1	3	—	2	2	1	—	1	—	—	1	—	—	—	—	—	—	—	—	1	—	115·8	16

Breadth of Face of Men.

Mm.	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	Average	Number of Cases
Tribe:																																	
Haida	—	—	—	—	—	1	—	—	—	—	—	—	1	—	—	1	1	2	1	1	—	1	—	—	—	—	—	—	—	—	—	152·6	9
Nass River Indians	—	—	—	—	—	1	2	—	—	—	—	1	1	2	1	1	—	—	2	2	2	2	1	2	2	—	1	1	2	—	1	155·8	27
Tsimshian	—	—	—	—	—	—	—	—	1	1	—	1	3	3	2	—	1	1	—	1	—	—	1	—	—	—	—	—	—	—	—	150·7	15
Bilqula	—	—	—	—	1	—	—	—	1	1	—	1	3	2	3	2	1	1	2	3	3	—	1	—	—	—	—	1	—	—	—	152·5	26
Hē'iltsuk·	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	1	1	—	—	—	—	1	—	—	1	1	—	—	—	—	156·4	7
Awī'ky'ēnôq	—	—	—	—	—	—	—	—	—	—	2	1	—	—	—	1	1	1	1	2	—	—	—	—	—	—	—	—	—	—	—	152·0	9
Kwakiutl	—	1	1	—	1	—	—	6	—	1	8	5	1	2	5	5	6	1	—	2	3	2	1	—	1	1	—	—	—	—	—	150·2	53
Delta of Fraser River	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	1	—	—	1	2	1	—	—	—	—	1	159·9	7
Spuzzum	—	—	—	—	1	—	—	1	1	1	3	2	—	—	—	—	—	2	1	—	1	—	—	—	—	—	—	—	—	—	—	148·7	13
Utā'mk·t	—	—	1	—	—	—	2	—	—	1	—	4	2	2	2	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—	148·7	18
NtlakyapamuQ'ō'e	1	—	2	—	—	—	1	3	3	2	4	5	2	—	—	—	2	1	—	—	—	—	—	—	—	—	—	—	—	—	—	146·3	26
NkamtcĭʼnEmuQ	—	—	—	1	—	—	3	2	2	2	2	3	2	2	3	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	147·1	23
Harrison Lake	—	—	—	—	1	1	1	—	—	1	2	—	—	1	—	—	1	—	1	1	2	1	1	—	—	1	—	—	—	—	—	151·5	15
Lillooet (Anderson Lake)	—	—	—	1	—	—	3	3	1	2	1	3	1	1	—	—	2	—	1	—	1	—	—	—	—	—	—	—	—	—	—	147·3	20
Lillooet (Fraser River)	—	1	1	—	1	—	—	1	—	1	1	1	1	2	2	—	4	—	—	1	—	—	—	—	—	—	—	—	—	—	—	148·4	17
StlEmqō'lEqumQ	—	1	—	—	—	1	2	4	2	3	4	7	3	4	3	2	7	2	1	—	1	1	—	—	—	—	—	—	—	—	—	148·9	48
Shuswap (Kamloops)	—	—	—	1	1	—	—	1	1	—	—	1	3	1	—	2	1	1	—	—	—	1	—	—	—	—	—	—	—	—	—	148·9	14
Chilcotin	1	—	—	—	—	—	1	4	4	1	6	2	3	3	4	2	2	2	1	—	—	—	—	—	—	—	—	—	—	—	—	148·2	36

Breadth of Face of Women.

Mm.	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	Average	Number of Cases
Tribe:																																	
Haida	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	142·2	4
Nass River Indians	—	—	—	—	—	—	1	—	—	—	1	—	—	—	1	4	3	2	1	1	2	1	3	—	—	1	—	—	—	—	—	144·2	21
Tsimshian	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	1	—	1	—	—	—	—	—	—	—	—	—	143·8	3
Bilqula	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	1	—	2	1	—	1	—	—	—	—	—	—	1	—	146·6	7
Hē'iltsuk·	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1	—	1	—	2	—	1	—	—	1	—	—	148·9	7
Awī'ky'ēnôq	—	—	—	—	—	—	—	—	—	—	1	1	1	1	1	1	—	—	1	—	1	1	1	1	—	—	1	—	—	—	—	144·9	12
Kwakiutl	—	—	—	—	—	—	1	—	3	—	1	2	2	4	2	1	3	5	2	5	2	3	1	1	1	—	—	—	—	1	—	143·2	40
Spuzzum	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1	—	1	—	1	—	—	—	—	—	—	—	—	—	144·6	5
Utā'mk·t	—	—	—	—	—	—	—	2	1	2	3	1	1	1	3	1	1	2	—	2	1	—	—	—	—	—	—	—	—	—	—	139·9	21
NtlakyapamuQ'ō'e	1	—	—	1	—	2	4	5	3	5	2	4	1	2	2	2	2	1	—	1	—	—	—	—	—	—	—	—	—	—	—	136·7	38
NkamtcĭʼnEmuQ	—	—	—	—	—	—	1	1	4	2	—	2	1	3	—	—	1	—	1	—	—	—	—	—	—	—	—	—	—	—	—	137·6	16
Harrison Lake	—	—	—	—	—	—	—	—	1	1	—	1	4	—	1	1	—	1	1	1	—	—	—	—	—	—	—	—	—	—	—	140·3	12
Lillooet (Anderson Lake)	—	—	—	—	—	—	—	2	1	1	1	3	4	—	—	3	—	1	1	1	2	—	—	—	—	—	—	—	—	—	—	140·1	20
Lillooet (Fraser River)	—	—	—	—	—	—	1	1	1	—	—	2	1	4	2	2	2	3	1	—	—	—	1	1	—	—	—	—	—	—	—	141·1	22
StlEmqō'lEqumQ	—	—	—	—	—	—	2	3	3	2	4	2	4	1	3	—	3	1	1	—	2	—	—	1	—	—	—	—	—	—	—	139·1	32
Chilcotin	—	—	—	—	—	—	1	1	1	1	—	1	4	1	1	1	2	3	1	1	1	1	—	1	—	—	—	—	—	—	—	141·3	22

Height of Nose of Men.

Mm.	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	Average	Number of Cases
Tribe:																					
Haida	—	—	2	1	1	—	1	—	—	2	—	—	1	—	—	—	—	—	—	50·9	8
Nass River Indians	—	1	4	5	2	—	5	3	1	—	—	1	—	—	—	—	—	—	—	50·6	22
Tsimshian	—	1	—	—	4	1	—	—	2	1	1	2	1	1	—	—	1	—	—	54·0	15
Bilqula	—	—	—	—	—	2	1	4	—	3	2	5	2	2	2	—	2	—	2	57·3	27
Hē'iltsuk·	—	—	—	—	1	3	—	1	—	—	—	—	—	—	—	—	—	—	—	51·2	5
Awī'ky'ēnôq	—	1	—	—	—	—	—	1	1	—	3	1	—	—	—	—	—	—	—	54·1	7
Kwakiutl	—	—	2	—	—	2	5	3	3	4	4	10	7	2	2	1	—	1	—	55·7	46
Nkamtcī'nEmuQ	—	—	3	2	1	1	3	2	1	2	1	—	—	—	—	—	—	—	—	52·0	16
Lillooet (Anderson L.)	—	2	—	1	4	1	1	2	—	—	1	—	—	—	—	—	—	—	—	50·7	12
Lillooet (Fraser R.)	—	—	—	—	2	1	1	1	1	2	1	3	—	—	—	—	—	—	—	53·9	12
Kamloops	—	—	1	—	—	—	—	3	2	1	3	2	—	—	2	—	—	—	—	55·5	14
StlEmqō'lEqumQ	1	1	2	4	3	6	6	4	2	7	1	1	—	—	—	1	—	—	—	52·1	39
Chilcotin	—	1	—	3	3	4	4	3	2	9	3	4	—	—	—	—	—	—	—	53·2	36

Height of Nose of Women.

Mm.	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	Average	Number of Cases
Tribe:																										
Haida	—	—	—	—	—	—	—	—	—	—	1	2	—	—	—	—	—	1	—	—	—	—	—	—	47·2	4
Tsimshian	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1	—	—	—	—	—	—	—	50·0	3
Bilqula	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	1	—	1	—	1	—	1	1	53·9	7
Hē'iltsuk·	—	—	—	—	—	—	—	—	—	—	1	—	—	1	1	1	—	1	—	—	—	—	—	—	48·8	5
Awī'ky'ēnôq	—	—	—	—	—	1	—	—	—	—	1	—	1	—	3	1	1	1	1	—	1	—	—	—	49·1	11
Ntlakyapamuq'ō'e	1	—	—	—	1	—	—	1	1	2	3	4	3	1	5	5	2	2	2	—	—	—	—	—	47·3	33[1]
Lillooet (Anderson L.)	—	—	—	—	—	1	1	—	1	3	1	2	1	1	5	1	—	—	—	—	1	1	—	—	47·1	19
Lillooet (Fraser R.)	—	—	—	—	1	—	—	2	—	1	2	4	—	1	2	—	1	—	—	—	—	—	—	—	45·6	14
StlEmqō'lEqumQ	—	—	—	—	—	—	—	—	1	1	5	2	3	2	3	4	1	1	—	3	1	—	—	1	48·8	28
Chilcotin	—	—	—	—	1	1	—	—	1	1	1	1	—	—	3	1	3	1	—	1	—	1	—	—	48·1	16

[1] In the corresponding table of the Tenth Report of the Committee (p. 16) there is a misprint. The average for the Utā'mk·t must read 7·0, number of cases 17; for the Ntlakyapamuq'ō'e 47·3 and 29.

Breadth of Nose of Men.

Mm.	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	Average	Number of Cases
Tribe:																		
Haida	—	—	—	—	—	1	3	2	1	—	1	—	—	—	1	—	40·7	9
Nass River Indians	—	—	1	1	2	3	3	1	3	4	3	—	—	1	—	—	39·8	22
Tsimshian	1	—	—	—	1	3	2	1	4	1	—	1	—	—	—	—	39·4	14
Bilqula	—	—	3	4	2	5	1	5	2	3	—	—	—	—	—	1	38·8	26
Hē'iltsuk·	—	—	—	—	—	—	—	—	1	1	2	1	—	—	—	—	42·6	5
Awī'ky'ēnôq	—	—	—	1	1	—	—	2	2	—	1	—	—	—	—	—	39·7	7
Kwakiutl	—	—	4	3	4	8	8	6	1	6	3	1	—	1	—	—	39·3	45
Nkamtcī'nEmuQ	—	—	2	4	1	4	—	2	3	—	—	—	—	—	—	—	37·8	16
Lillooet (Anderson Lake)	—	—	1	—	—	3	1	3	1	3	—	—	—	—	—	—	39·6	12
Lillooet (Fraser River)	—	1	1	—	—	4	2	1	1	1	1	—	—	—	—	—	38·8	12
Kamloops	—	—	—	—	—	2	1	3	5	1	2	—	—	—	—	—	40·6	14
StlEmqō'lEqumQ	—	—	2	—	4	3	6	6	3	9	3	3	—	—	—	—	40·2	39
Chilcotin	—	1	—	3	3	7	5	4	7	4	1	1	—	—	—	—	39·3	36

Breadth of Nose of Women.

Mm.	30	31	32	33	34	35	36	37	38	39	40	41	42	43	Average	Number of Cases
Tribe:																
Haida	—	—	—	—	1	1	1	—	1	—	—	—	—	—	35·7	4
Tsimshian	—	—	—	—	1	—	—	—	—	1	—	—	1	—	38·3	3
Bilqula	—	—	1	2	—	1	2	—	—	1	—	—	—	—	34·8	7
Hē'iltsuk·	—	—	—	—	—	—	—	1	1	—	1	—	—	1	39·5	4
Awī'ky'ēnôq	—	1	—	1	—	6	1	1	1	—	—	—	—	—	35·0	11
Ntlakyapamuq'ō'e	—	3	3	5	5	6	5	4	2	—	1	—	—	—	34·8	33
Lillooet (Anderson Lake)	—	1	3	—	3	—	1	3	4	2	—	2	—	—	36·2	19
Lillooet (Fraser River)	—	—	1	2	3	1	5	2	—	—	—	—	—	—	34·9	14
StlEmqō'lEqumQ	1	—	2	3	4	6	2	4	3	3	—	—	—	—	35·4	28
Chilcotin	1	—	1	—	1	2	4	3	2	—	1	1	—	—	36·1	16

Length-breadth Index. Total Series.

Per cent.	74	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
Tribe :																										
Haida	—	—	—	—	2	1	3	1	2	2	2	—	1	1	1	—	1	—	—	—	—	—	—	—	82·7	17
Nass River Indians	—	—	—	3	2	4	5	14	8	4	11	9	5	8	—	2	—	—	—	—	—	—	—	—	82·9	75
Tsimshian	1	—	—	2	—	—	3	2	2	2	3	1	1	—	—	1	—	—	—	—	—	—	—	—	81·8	18
Bilqula, undeformed	—	—	—	—	1	2	2	3	3	3	1	2	6	3	5	1	2	—	—	—	—	—	—	—	84·5	34
Awī'ky'ēnôq, undeformed	—	—	—	—	—	—	—	1	—	1	1	1	—	—	—	2	—	—	—	—	—	—	—	—	85·2	6
Kwakiutl, undeformed	—	—	—	—	—	—	2	2	4	4	1	2	1	4	1	—	—	—	—	—	—	—	—	—	83·7	21
Delta of Fraser River, undeformed	—	—	—	—	—	—	2	1	—	4	5	9	5	8	3	6	3	3	2	2	1	—	—	—	86·8	54
Spuzzum	—	—	1	—	—	1	1	1	1	3	4	1	—	2	1	—	—	—	—	2	—	—	—	—	84·2	18
Utā'mk·t	—	—	—	—	1	1	1	4	1	8	6	8	9	8	1	5	2	5	1	—	1	—	—	—	85·8	62
Ntlakyapamuq'ō'e	—	—	—	3	6	4	8	5	8	10	14	11	4	6	3	4	2	1	1	—	—	—	1	—	83·5	91
Nkamtcī'nEmuq	—	—	2	2	—	5	6	2	5	5	6	3	5	1	—	1	—	—	—	1	—	—	—	—	82·4	44
Harrison Lake	—	—	—	—	—	—	—	—	3	1	4	1	1	3	3	1	5	4	2	5	—	—	1	1	88·7	35
Lillooet (Anderson Lake)	—	—	—	—	—	2	1	3	2	4	3	2	10	5	4	3	2	4	2	2	1	1	—	—	86·6	51
Lillooet (Fraser River)	—	—	—	1	—	1	2	5	3	4	4	6	8	5	4	—	5	3	—	1	—	—	—	—	85·3	52
StlEmqō'lEqumq	—	—	—	—	—	4	4	5	8	12	9	11	20	16	10	5	4	1	1	1	1	—	—	—	84·4	112
Stī'atEmq	—	—	—	—	—	—	1	1	1	—	2	3	—	2	3	2	—	—	—	—	—	—	—	—	85·5	15
Buonaparte	—	—	—	—	—	—	—	—	—	1	1	3	2	—	1	2	1	—	—	—	—	—	—	—	86·4	11
Chilcotin	—	—	—	—	—	2	2	4	3	3	9	14	8	9	8	4	4	2	—	1	2	—	—	—	85·8	75

Facial Index of Men.

Per cent.	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.
Tribe:																										
Haida	—	—	1	—	2	—	—	—	1	1	—	1	1	1	1	—	—	—	—	—	—	—	—	—	80·6	9
Tsimshian	—	—	2	—	1	1	—	1	2	2	1	—	2	—	2	1	—	—	—	—	—	—	—	—	80·7	15
Lillooet (Anderson L.)	—	1	—	—	1	—	—	1	2	—	4	1	1	—	1	—	—	—	—	—	—	—	—	—	80·8	12
Lillooet (Fraser R.)	—	—	—	—	1	—	—	1	3	1	—	—	1	2	—	2	1	—	—	—	—	—	—	—	82·7	12
Shuswap (StlEmqō'lEqumQ)	1	1	—	1	1	2	1	3	7	8	4	1	2	2	1	—	1	1	—	1	—	1	—	—	81·3	39
Chilcotin	1	—	—	2	—	1	—	—	3	3	1	3	3	5	6	3	2	—	1	—	1	—	—	1	83·9	36

Facial Index of Women.

Per cent.	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	Average	Number of Cases
Tribe:																			
Haida	—	—	—	—	—	—	1	1	1	—	1	—	—	—	—	—	—	80·7	4
Tsimshian	—	—	—	—	1	—	—	—	—	1	—	—	—	1	—	—	—	81·7	3
Lillooet (Anderson L.)	2	2	2	—	1	1	—	1	3	2	1	1	1	2	—	—	—	79·5	19
Lillooet (Fraser R.)	—	1	—	2	—	1	1	3	1	—	2	2	—	—	1	—	—	80·4	14
Shuswap (StlEmqō'lEqumQ)	—	—	—	1	—	1	2	4	2	5	4	2	3	—	1	—	3	82·6	28
Chilcotin	1	—	—	—	1	2	—	2	—	2	2	2	—	2	—	1	1	82·1	16

Nasal Index of Men.

Per cent.	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	Average	No. of Cases
Tribe:																																
Lillooet (Anderson Lake)	—	—	—	—	—	—	1	—	1	—	—	—	—	—	1	—	1	—	1	1	1	1	1	—	2	—	—	—	—	1	78·4	12
Lillooet (Fraser River)	1	1	—	—	—	—	—	—	2	1	—	1	—	1	1	1	—	1	—	—	—	—	—	—	1	—	1	—	—	—	72·2	12
Shuswap (StlEmqō'lEqumQ)	—	—	—	—	—	1	1	1	1	1	—	2	1	2	2	3	4	2	—	1	2	3	4	1	1	1	5	—	—	—	77·4	39
Chilcotin	—	—	—	1	—	1	—	—	4	1	2	2	3	3	5	3	1	—	2	—	2	2	1	—	2	—	1	—	—	—	74·2	36

Nasal Index of Women.

Per cent.	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	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	Average	No. of Cases
Tribe:																																																			
Lillooet (Anderson Lake)	—	—	—	1	—	—	—	—	1	—	—	—	—	2	—	1	—	—	—	—	—	4	2	—	1	1	—	—	—	—	1	2	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1	78·1	19
Lillooet (Fraser River)	—	—	—	—	—	—	—	1	—	—	—	1	—	1	—	—	—	—	2	—	1	—	3	—	—	—	1	1	1	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	77·1	14
Shuswap (StlEmqō'lEqumQ)	1	—	—	—	—	—	1	1	1	1	—	—	—	—	4	1	1	2	3	3	2	—	3	1	—	1	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	72·9	28
Chilcotin	—	—	—	—	—	—	1	—	—	—	1	—	—	1	1	2	—	—	—	3	—	—	—	2	—	1	—	1	—	—	—	1	—	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—	—	75·9	16

Index of Length of Arm of Men.

Per cent. { from / to	40·5 40·9	41·0 41·4	41·5 41·9	42·0 42·4	42·5 42·9	43·0 43·4	43·5 43·9	44·0 44·4	44·5 44·9	45·0 45·4	45·5 45·9	46·0 46·4	46·5 46·9	47·0 47·4	47·5 47·9	48·0 48·4	Average	Number of Cases
Tribe :																		
Lillooet (Anderson L.)	—	—	1	—	—	1	2	1	1	2	2	2	—	—	—	—	44·7	12
Lillooet (Fraser R.) .	—	—	—	—	1	—	2	3	3	1	—	1	—	—	—	—	44·4	11
Shuswap (StlEmqō'lEqumQ) . . .	—	1	—	1	4	3	5	8	5	5	3	2	—	—	—	—	44·1	37
Chilcotin . . .	1	—	2	—	1	3	9	2	7	4	5	—	1	—	—	1	44·4	36

Index of Length of Arm of Women.

Per cent. { from / to	39·0 39·4	39·5 39·9	40·0 40·4	40·5 40·9	41·0 41·4	41·5 41·9	42·0 42·4	42·5 42·9	43 0 43·4	43·5 43 9	44·0 44·4	44·5 44·9	45·0 45·4	45·5 45·9	46·0 46·4	46·5 46·9	47·0 47·4	47·5 47·9	48·0 48·4	48·5 48·9	Average	Number of Cases
Tribe :																						
Lillooet (Anderson L.)	1	—	—	—	—	—	1	2	3	3	3	—	1	3	—	1	—	—	—	1	44·1	19
Lillooet (Fraser R.) .	—	—	—	—	—	2	1	—	.	3	2	2	1	3	—	—	—	—	—	—	44·1	14
Shuswap (StlEmqō'lEqumQ) . .	—	—	—	—	1	—	—	2	2	8	3	—	5	2	3	—	—	1	—	1	44·6	28
Chilcotin . .	—	—	—	—	—	—	2		2	2	3	1	1	1	1	—	1	—	—	—	44·1	15

Index of Height sitting of Men.

Per cent. { from / to	48·0 48·4	48·5 48·9	49·0 49·4	49·5 49·9	50·0 50·4	50·5 50·9	51·0 51·4	51·5 51·9	52·0 52·4	52·5 52·9	53·0 53·4	53·5 53·9	54·0 54·4	54·5 54·9	55·0 55·4	Average	Number of Cases
Tribe :																	
Lillooet (Anderson L.)	1	—	—	2	—	1	1	1	—	1	1	1	2	—	1	52·0	12
Lillooet (Fraser R.) .	—	—	—	—	—	1	1	—	2	2	2	1	1	1	1	52·9	12
Shuswap (StlEmqō'lEqumQ) . .	—	—	1	1	2	3	3	2	6	5	6	2	5	—	2	52·4	38
Chilcotin . . .	—	—	1	2	—	2	2	2	6	4	5	3	2	4	—	52·5	33

Index of Height sitting of Women.

Per cent. . . { from / to	49·0 / 49·4	49·5 / 49·9	50·0 / 50·4	50·5 / 50·9	51·0 / 51·4	51·5 / 51·9	52·0 / 52·4	52·5 / 52.9	53·0 / 53·4	53·5 / 53·9	54·0 / 54·4	54·5 / 54·9	55·0 / 55·4	Average	Number of Cases
Tribe :															
Lillooet (Anderson Lake)	1	1	—	1	7	2	—	3	2	—	1	—	1	51·8	19
Lillooet (Fraser River) .	—	—	1	1	1	2	2	2	1	2	1	—	1	52·6	14
Shuswap (StlEmqō'lEqumQ)	—	—	—	2	2	2	6	8	1	3	1	1	2	52·8	28
Chilcotin . . .	—	—	1	2	1	3	—	2	2	2	—	—	1	52·4	14

Index of Finger-reach of Men.

Per cent	98	99	100	101	102	103	104	105	106	107	108	109	110	Average	Number of Cases
Tribe :															
Lillooet (Anderson Lake)	—	—	—	—	—		2	2	3	1	1	—	1	105·6	12
Lillooet (Fraser River) .	—	—	—	1	—		3	2	2	—	1	—	—	104·3	12
Shuswap (StlEmqō'lEqumQ)	2	—	2	1	3	6	9	3	5	3	1	1	1	104·1	37
Chilcotin . . .	—	—	3	—	3	3	10	5	8	1	1	—	1	104·4	35

Index of Finger-reach of Women.

Per cent.	99	100	101	102	103	104	105	106	107	108	Average	Number of Cases
Tribe :												
Lillooet (Anderson Lake)	—	2	4	1	4	3	2	—	1	2	103·3	19
Lillooet (Fraser River) .	1	1	—	2	1	4	3	2	—	—	103·5	14
Shuswap (StlEmqō'lEqumQ)	1	3	3	2	8	1	6	1	2	1	103.3	28
Chilcotin . . .	—	2	3	2	2	2	1	2	1	—	103·0	15

A short analysis of the material contained in the preceding tables and in previous Reports of the Committee allows us to distinguish with certainty three distinct types of man among the natives of British Columbia. These are the northern type, embracing the Haida, Nass River Indians, and Tsimshian; the Kwakiutl type, embracing the Bilqula, Hē'iltsuk', Awī'ky'ēnôq, and the tribes of the Kwakiutl; and the Thompson River type, embracing the Lillooet and Thompson River Indians. These types may be characterised by the following measurements :—

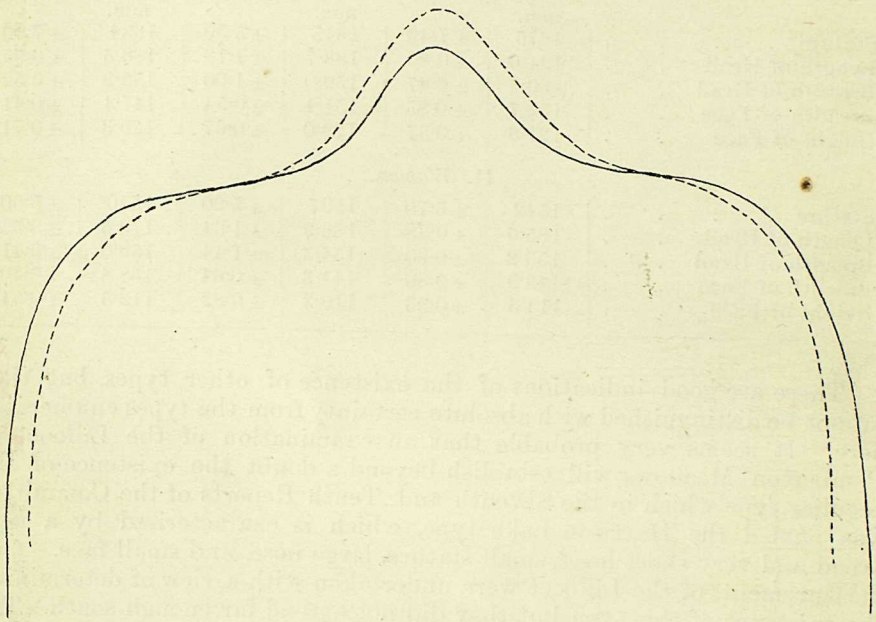
—	Northern Type		wakiutl Type		Thompson River Type	
	Average	Mean Error	Average	Mean Error	Average	Mean Error
			I. *Men.*			
	mm.		mm.		mm.	
Stature	1675	± 7·40	1645	± 5·90	1634	± 7·90
Length of Head	194·6	± 0·80	188·7	± 1·19	186 5	± 0·55
Breadth of Head	160·6	± 0·67	159·0	± 1·00	155·9	± 0·52
Breadth of Face	153·7	± 0·85	151·4	± 0·54	147·4	± 0·41
Height of Face	121·6	± 0·87	128·0	± 0·67	120·3	± 0·71
			II. *Women.*			
Stature	1542	± 5·70	1537	± 5·90	1540	± 5·00
Length of Head	185·6	± 0·88	186·9	± 1·64	179·5	± 0·53
Breadth of Head	153·2	± 0 90	154·3	± 1·44	150·0	± 0·41
Breadth of Face	143·9	± 0·80	144·3	± 0·64	138 8	± 0·40
Height of Face	114·3	± 0·93	119·3	± 0·82	112·5	± 0·54

There are good indications of the existence of other types, but they cannot be distinguished with absolute certainty from the types enumerated here. It seems very probable that an examination of the Lillooet of Pemberton Meadows will establish beyond a doubt the existence of the peculiar type which in the Seventh and Tenth Reports of the Committee was named the Harrison Lake type, which is characterised by a very broad and very short head, small stature, large nose, and small face. Our measurements of the Lillooet were undertaken with a view of determining the existence of this type, but they did not extend far enough south. The characteristics of the Coast Salish of Washington and Southern British Columbia are doubtful, because the prevalent practice of deforming the head does not permit us to compare their head measurements with those of other tribes. Their faces show the same breadth as those of the other coast tribes, but their noses are much lower and flatter than those of the Kwakiutl. The Kamloops and other Shuswap tribes are closely allied to the Thompson River type, but it seems that the dimensions of their heads are a little larger, their statures a little higher. The Chilcotin resemble the Shuswap much, but their faces are flatter, their noses not so highly elevated over the face.

A study of the profiles of these types shows several important phenomena that are not elucidated in the tables of measurements. The northern type shows, on the whole, a rounded forehead; a nose which tends rather to be concave than convex, with the exception

of a few individuals; short point of the nose, slight elevation of nose, long upper lip, and rather thick mouth. The Kwakiutl type shows a flat forehead, which is largely due to artificial deformation; a decidedly convex nose with short point, highly elevated over the face, and a less protruding mouth. It is very remarkable that the characteristic features of this type are so strongly marked in the female that the differences between the northern type and this type are more strongly noticed in women than in men. The Thompson River type has a very prominent, convex nose, with long point. The nose has a great elevation over the face.

We give the cross-sections of the face, laid through the tragus and lower rim of orbits for the various types. In order to make the differences clearer we have drawn a middle or composite outline for each type, which show clearly the considerable breadth of face prevailing on the coast and the flatness of the nose of the northern type.



Cross-sections of Face laid through the Tragus and the Lower Rim of the Orbit.
—— Average cross-section of the Kwakiutl, Haida, and Tsimshian.
- - - - Average cross-section of the NtlakyapamuQ and Kamloops.

The following table contains a number of repeated measurements, the first measurement having been taken in September 1894, the second in June 1897, the interval being two years and nine months. It will be seen that on the whole the measurements show a close agreement; but it appears that the error of observation for the measurements of the body, except for stature and finger-reach, is very considerable. The nasal index is also very unsatisfactory on account of the smallness of the measurements that are contained in it:—

Growth of Shuswap Children, September 1894 *to June* 1897.

Names	I. Full-blood girls							II. Full-blood boys			III. Half-blood girls			IV. Half-blood boys		
	Marianne	Rosalie	Julia	Augustine	Minnie	Julie	Lisette	George Alexis	Harry Duncan	Alexander Bob	Maggie Fallardeau	Aimée Manuel	Elizabeth	André Manuel	Basil Fallardeau	Alex Leonard
Age 1894	9	11	10	12	14	13	16	10	11	12	8 or 9	13	10	9	12	13
Stature	1172	1376	1308	1340	1481	1437	1449	1257	1301	1350	1213	1468	1341	1218	1390	1427
	+160	+108	+182	+115	+ 57	+113	+ 17	+108	+135	+ 76	+115	+ 54	+151	+142	+ 54	+140
Height of shoulder	933	1112	1136	1092	1212	1158	1174	1003	1045	1077	953	1183	1064	930	1105	1137
	+132	+102	+ 65	+ 78	+ 43	+ 86	+ 10	+ 97	+127	+ 73	+ 86	+ 72	+144	+163	+ 57	+133
Length of arm	509	628	684	612	677	615	641	539	557	593	522	655	591	490	590	607
	+100	+ 66	− 13	+ 60	+ 45	+ 54	+ 12	+ 48	+ 77	+ 51	+ 49	+ 27	+ 94	+117	+ 79	+ 71
Finger-reach	1166	1466	1362	1409	1580	1484	1512	1293	1296	1368	1233	1547	1408	1273	1448	1428
	+185	+ 94	+216	+133	+ 52	+ 70	+ 17	+110	+147	+ 94	+129	+ 56	+165	+143	+ 97	+175
Height sitting	650	752	717	747	811	822	798	702	716	750	664	773	727	656	736	788
	+ 70	+ 48	+ 73	+ 65	+ 19	+ 53	+ 12	+ 9	+ 39	+ 4	+ 40	+ 35	+ 70	+ 25	+ 14	+ 47
Width of shoulders	255	315	297	305	341	296	325	284	283	286	269	316	307	266	307	305
	+ 29	+ 36	+ 47	+ 42	+ 33	+ 27	+ 5	+ 19	+ 28	+ 8	+ 23	+ 15	+ 51	+ 33	+ 4	+ 42
Length of head	177	179	171	176	175	179	184	173	176	183	175	179	175	176	175	184
	+ 4	+ 1	+ 4	+ 3	+ 3	+ 4	+ 1	+ 3	+ 4	+ 2	+ 2	+ 2	+ 6	+ 4	+ 2	+ 5
Breadth of head	143	148	140	142	150	151	156	151	147	153	147	156	150	149	150	149
	+ 3	+ 0	+ 2	+ 4	+ 1	+ 2	+ 0	+ 2	+ 0	+ 2	+ 1	+ 2	+ 3	+ 3	+ 2	+ 1
Height of face	99	109	106	106	107	118	110	105	104	109	97	103	98	98	106	107
	+ 6	+ 3	+ 11	+ 7	+ 0	+ 4	+ 4	+ 7	+ 13	+ 1	+ 3	+ 5	+ 9	+ 7	+ 2	+ 8
Breadth of face	121	128	126	129	134	134	143	127	124	128	124	137	132	125	123	132
	+ 5	+ 7	+ 4	+ 7	+ 3	+ 4	+ 0	+ 4	+ 5	+ 4	+ 3	+ 3	+ 9	+ 3	+ 3	+ 4
Height of nose	41	46	44	45	46	44	43	45	48	48	41	46	39	44	45	44
	+ 3	− 1	+ 0	+ 2	+ 1	+ 7	+ 1	+ 6	+ 1	+ 0	+ 1	+ 5	+ 6	+ 1	− 4	+ 4
Breadth of nose	31	34	30	32	33	34	31	31	28	34	34	34	32	33	33	32
	+ 1	+ 1	+ 5	+ 2	+ 4	+ 1	+ 2	+ 2	+ 4	+ 1	+ 0	+ 2	+ 5	+ 1	+ 1	+ 3
Length-breadth index	80·8	82·7	81·9	80·7	85·7	84·4	84·8	87·3	83·5	83·6	84·0	87·1	85·7	84·7	85·7	81·0
	− 0·6	− 0·5	− 0·8	+ 0·8	− 0·9	− 0·8	− 0·5	− 0·4	− 1·9	+ 0·2	− 0·4	+ 0·2	− 1·2	− 0·3	+ 0·1	− 1·6
Facial index	81·8	85·2	84·1	82·2	79·9	88·1	76·9	82·7	83·9	85·2	78·2	75·2	74·2	78·4	86·2	81·1
	+ 2·3	− 2·2	+ 5·9	+ 0·9	− 1·8	+ 0·3	+ 2·7	+ 2·8	+ 6·8	− 1·9	+ 0·5	+ 1·9	+ 1·7	+ 3·6	− 0·5	+ 3·4
Nasal index	75·6	73·9	68·2	71·1	71·7	77·7	72·1	68·9	58·3	70·8	82·9	73·9	82·0	75·0	73·3	72·7
	− 1·2	+ 3·9	+11·4	+ 1·3	+ 7·0	− 8·7	+ 2·9	− 4·2	+ 7·0	+ 2·1	− 2·0	− 3·3	+ 0·2	+ 0·5	+ 9·6	+ 0·2
Index of length of arm	43·5	45·5	—	45·7	45·7	42·7	44·2	42·8	42·9	43·9	43·1	44·6	44·1	40·2	42·4	42·4
	+ 2·6	+ 1·4	—	+ 0·3	+ 1·2	+ 0·5	+ 0·2	+ 0·0	+ 1·1	+ 1·1	− 0·3	+ 0·3	+ 1·9	+ 4·4	+ 4·1	+ 0·8
Index of finger-reach	99·7	106·2	104·0	105·1	106·8	103·1	104·3	102·6	99·7	101·3	101·9	105·2	105·1	104·3	104·2	100·0
	+ 1·7	− 1·1	+ 1·9	+ 0·9	− 0·7	− 2·8	+ 0·0	+ 0·2	+ 0·8	+ 1·2	+ 0·6	+ 0·1	+ 0·3	− 0·2	+ 2·6	+ 2·3
Index of height sitting	55·6	54·5	54·7	55·7	54·8	57·1	55·0	55·7	55·1	55·6	54·9	52·6	54·3	53·8	53·0	55·1
	—	− 0·4	− 1·7	− 0·1	− 0·9	− 0·8	+ 0·2	− 3·8	− 2·7	− 2·9	− 2·0	+ 0·6	− 0·8	− 3·8	− 0·9	− 1·9
Index of width of shoulders	21 8	22·8	22·7	22·8	23·0	20·6	22·4	22·5	21·8	21·2	22·2	21·5	22·9	21·8	22·1	21·3
	—	+ 0·9	+ 0·4	+ 1·0	+ 1·3	+ 0·2	+ 0·0	− 0·4	− 0·2	− 0·6	− 0·2	+ 0·3	+ 1·1	+ 0·2	− 0·5	+ 0·8

II. *The Chilcotin.* *By* LIVINGSTON FARRAND.

The Chilcotin tribe occupies a territory lying chiefly in the valley of the Chilcotin River. They are somewhat isolated in situation, though on the east they are only separated from the Shuswap by the Fraser River. Between these two tribes, however, there is little intercourse. Toward the north their nearest neighbours are the related Tinneh tribe of Carriers or Porteurs; and while distance prevents frequent communication, they regard each other as more or less akin, and the relations are cordial. On the west a pass leads over the coast range to Bella Coola; and, as many Chilcotin make annual expeditions to the coast, they are fairly familiar with the people of that region. Toward the south the only tribe at present with whom they come in contact is the Lillooet, and with them but seldom.

Intercourse with the coast Indians, and particularly with the Bella Coola, was formerly much more frequent than now, for the reason that the early seat of the Chilcotin was considerably farther west than at present, while the Bella Coola extended higher up the river of that name into the interior. The results of this early intercourse is seen very clearly in certain of their customs, and particularly in details of their traditions. In former times and down to within about thirty years the centre of territory and population of the Chilcotin was Anahem Lake, and from here they covered a considerable extent of country, the principal points of gathering beside the one mentioned being Tatlah, Puntze, and Chizaikut Lakes. They extended as far south as Chilco Lake, and at the time of the salmon fishing were accustomed to move in large numbers down to the Chilcotin River to a point near the present Anahem Reservation, always returning to their homes as soon as the fishing was over. More recently they have been brought to the eastward, and to-day the chief centres of the tribe are four reservations—Anahem, Stone, Risky Creek, and Alexandria—the first three in the valley of the Chilcotin, and the last named, consisting of but a few families, somewhat removed from the others, on the Fraser. Besides these there are a considerable number of families leading a semi-nomadic life on the old tribal territory in the woods and mountains to the westward. These latter, considerably less influenced by civilisation than their reservation relatives, are known by the whites as Stone Chilcotin or Stonies.

Although subjected to more or less intimate intercourse with the whites for a comparatively short period, the Chilcotin have assimilated the customs and ideas of their civilised neighbours so completely that their own have largely disappeared except possibly among the families still living in the mountains, whom it was not practicable to reach.

The following notes were obtained with considerable difficulty, but the information was for the most part confirmed by the independent testimony of different individuals.

As regards the social organisation, persistent inquiry failed to disclose any traces of a clan system. The family unit was the family in the contracted sense, viz., the parents and unmarried children. Marriage was ordinarily monogamous, but many men had two wives. Recognised blood relationship was and is always an absolute bar to marriage, and at present this recognition seems to extend no further than first cousins. There seem to have been no local preferences in contracting marriages. Marriage

with an individual of the same village was not regarded as more desirable than one with a person from another locality, nor *vice versâ*.

Of laws of inheritance information is rather doubtful. It was stated that in former times upon the death of a man the widow received nothing, while his relatives as far as cousins divided the estate equally. It did not descend to the children alone. To-day if a man dies the widow inherits all, apparently in trust for the children, the sons, if there be such, managing the property. No information was obtained as to the procedure in case the widow remarries. The above change of custom, if true, strongly suggests missionary influence. If an unmarried man dies leaving property it is said that his relatives as far as cousins divide the estate. A man never married his brother's widow—she was still regarded as his own sister

Social ranks are not apparent at present, but there were formerly nobility, common people, and slaves, corresponding to a great extent to the system of the coast tribes. Wealth and the giving of feasts were the means of obtaining higher rank, and this seems to have been open to the lower class provided they had the means. Slaves were captives. From time immemorial, before the splitting up and settling upon the reservations, there seems to have been a head chief known as A'nahem, whose seat was at Anahem Lake, and whose influence extended over the whole tribe. The last great chief of that name died a few years ago, and his son is now the so-called chief of the Anahem Reservation.

Shamans, or medicine-men, are known by the term 'dī'yĭ'n,' which denotes any person of extraordinary powers who is supposed to have extra-human aid, and he becomes such by reason of some remarkable dream or experience. The deliberate candidate for such honours was accustomed to go away alone to the top of some mountain or other desolate place and there fast for several days, during which time the favourable dream might or might not come to him. The favourable dream was usually a vivid one of some animal or bird, and this became his protector and helper ever afterward. The dī'yĭ'n would then always wear some distinctive mark of his protector, such as teeth, claws, wings, feathers, &c. Aside from success in hunting and war, special powers were obtained in the cure of disease. The method of treatment was first the singing of the particular song of the dī'yĭ'n, which was his own property and used by no one else. The song was usually accompanied by dancing, but not always. Then followed the application of the hands to the body of the patient, and usually sucking through the hands placed over the diseased spot, thus drawing out the sickness. The hands were then held up in front of and above the face, and, being suddenly opened, the sickness would be sharply blown out into the air, and so expelled. Occasionally, after sucking the dī'yĭ'n would open his hands and show a grasshopper or other object, which he exhibited as the cause of the illness, and which had been thus removed. During such treatment the dī'yĭ'n usually carried a pouch containing certain charms, and, while wearing certain insignia as above stated, he did not dress in any particular robe as far as could be learned. Anyone might become dī'yĭ'n, even young boys and girls.

In former times the winter houses of the Chilcotin were the ordinary circular subterranean lodges, the excavation being about four feet in depth. There are none of these in existence to-day. The summer lodges were rectangular in shape, made of bark stretched over poles, and with only the roof and back covered, the front and two sides being thus left open. They

were ordinarily built in pairs facing each other and with a common fire between. At the present time the winter houses are of logs, often very well built, and in summer tents are used, canvas for the purpose being obtained from the whites.

It was said that formerly the canoes of this tribe were made of bark stretched over wooden ribs. Both bow and stern were sharp, and were not raised above the level of the rest of the canoe. The largest of these canoes would carry about ten men. Later and at the present time the canoes are dug-outs from single logs.

Cooking was done by roasting or boiling, the latter by means of hot stones in water-tight baskets of bark or woven fibre. The hot stones were manipulated by tongs of wood.

The weapons used in war were bows and arrows and war clubs, the latter made of a stout stick about the length of the arm with a stone head fastened by leather thongs. None of these weapons are now in existence apparently. Spears with points made of the horn of the mountain sheep were used in hunting, but not in war. The arrow points were of stone. Fishing spears with detachable heads of bone were formerly very common, but are now rarely seen, and a large bone hook fastened to a rod like a gaff was also sometimes used.

In war a sort of wooden armour was worn over the chest and back as far down as the waist. This protection, in shape like a sleeveless shirt, was made of tough sticks about an inch in diameter, fastened together with leather thongs, and was sufficient to turn arrows. The head was also protected by a thick leather cap covering the entire head except the face. According to the only obtainable account of war decorations, the upper part of the face was painted black and the lower part red. Besides the leather helmet, war head-dresses were worn of the skins of birds and of the heads of animals, so arranged that the beak or mouth came forward over the forehead. The most popular skin for such head-dresses was said to have been that of the raven. Any man who was a dī'yĭ'n would wear the skin of his own protecting bird or animal.

Ear ornaments were formerly quite universally worn by both sexes, and usually in the form of small buttons of various materials attached to short strings and suspended from the lobes of the ears, which were pierced for the purpose. Older people are still found with pierced ears, but the pendants are seldom seen. Rings were also worn in the ears, but the Chilcotin say that this was a coast custom which they adopted, and was not so common as the other.

Nose ornaments of rings and straight bars inserted through the septum were also worn. One old man further described a lip ornament as a small straight bar piercing the upper lip, but this was not confirmed, and no description of labrets was obtained.

Tattooing appears to have been pretty universal, the face, chest, arms, and legs being the parts most favoured. Little information as to designs could be obtained, but it was asserted that there was no difference in the designs used by the two sexes. This is of course doubtful. The materials used in the tattooing process were bone needles and charcoal.

In general the decorative art of the Chilcotin was very slightly developed. They did not carve their weapons or utensils, and the basketry designs were and are of the simplest character.

It was said that in the old days cremation was used in the disposal of the dead, the ashes being afterwards buried. Since the arrival of the

missionaries ordinary burial has been practised, the graves being protected by a low fence of logs.

The traditions of the Chilcotin are particularly interesting as showing the influence of their coast and inland neighbours, details of foreign origin being clearly traceable. Their chief tradition is of Lēndîx·tcux, a being half man and half dog, who came to the Chilcotin country from the north-west, and is their culture-hero. The story recites the adventures of Lēndîx·tcux and his three sons on their journey through the land. These adventures are chiefly with animals who before that time had been dangerous to man, but who were now overcome and made harmless. Methods of hunting and various arts were then taught to the people who previously had been wretched and ignorant. The widespread conception of the culture-hero as a trickster is especially well exemplified in this tale.

In the other traditions obtained, none of which are as full nor as important as the Lēndîx·tcux myth, but which cover a wide range of subjects, the raven is possibly the chief character, some of the stories in which he figures being identical with the raven tales of the coast, while others are apparently independent in origin. Few myths regarding natural phenomena were heard, and those which were told are of doubtful origin. The general impression was made of a not very rich independent mythology, but of surprising receptivity to foreign influences.

III. *The Social Organisation of the Haida.* *By* Franz Boas.

In the Fifth Report of the Committee I briefly described the social organisation of the Haida according to information obtained from a few Indians from Skidegate. I pointed out (p. 27) that the tribe is divided into two phratries, each of which consists of a number of clans the members of which are connected by ties of consanguinity, not by an imaginary relationship through the totem. I also pointed out that the clans sometimes bear the names of the places at which their houses stand. Since this statement was made I have had opportunity to investigate the social organisation of the Tsimshian and of the Kwakiutl in greater detail. The result of these inquiries on the Tsimshians was published in the Tenth Report of the Committee, and of those on the Kwakiutl in the Report of the United States National Museum for 1895 (pp. 311–738). These investigations proved that among the southern tribes of the Pacific coast the village community was the primitive unit, and that clans originated through the coalition of village communities.

During the past summer I had an opportunity of investigating the social organisation of the Haida in somewhat greater detail, although not as thoroughly as might be desired. The information thus obtained corroborates the views expressed in the Fifth Report of the Committee, and emphasises the fact that the village community is the constituent element of the phratry.

In order to make this clear I will first of all give a list of the Haida families. The two Haida phratries are called Gyit'ina' and K·'oā la, and every family belongs either to the one or to the other group. Each family has a number of emblems which are commemorative of certain events in the earliest history of the family. The name of the chief of each family is hereditary. For purposes of comparison I give the list of villages recorded by Dr. G. M. Dawson in his Report on Queen Charlotte Islands (Report of Progress, Geological Survey of Canada, 1878-79, Montreal, 1880).

KĀK-OH (Dawson, *l.c.*, p. 162 B).

Not in my list ; perhaps identical with Iā'k'ō ? (see below).

KY'IŪ'ST'A (Dawson : Kioo-sta, p. 162 B).

Gyit'ina' : Sta'stas *or* Sañgatl lā'nas. Chief : Ē'dENsâ (=glacier). Crests : Frog, beaver, raven, eagle. Chief's grave : Frog. An ancestor of the Sta'stas family met a giant frog in Tsiqoa'gEts. Girls when reaching maturity wear a hat that is painted green (tlt'E'ndadjang), the paint being obtained in the river NaēdE'n. Houses : 1, K·'ēgENgE nas. 2, K·oē'kyitsgyit. 3, Kun nas. 4, Nakhodā'das. 5, Skyil nās. Skyil is the mistress of copper who endows with wealth those who meet her. 6, Sk'ōlhahā'yut. 7, Naxa'was.

K'ā'was. Chief : Ētltenē'. Crests : Beaver, sg·a'ngō, eagle. The sg·a'ngō is a man who was transformed into a monster because he was living on raw fish and birds. He lives in a cave. He has long ears and wears a high hat. He carves birds as though they were large game and carries the parts home separately. When he throws them down it gives a loud noise. House : G·ōtnās.

K·a'nguatl lā'nai. Chief : Tāgyia'. Crests : Frog, eagle, beaver.

Tōgyit'inai'. Chief : Kuns. Crest : Eagle.

K·'oā'la : TōstlEngilnagai'. Chief : GwaisganEngk·'aiwa's. Crests : Ts'iliā'las (killer whale with raven wings), killer whale, bear, thunder bird.

(The two last named belong to the village Too of Dawson, p. 170 B.)

IĀ'K'Ō and DĀ'DENS (Dawson : Tartance, p. 162 B).

K·'oā'la : Yak' lā'nas. Chief : GEsawa'k. Crests : Bear, moon, dog-fish, killer whale, wolf, devilfish.

K·aok·ē'owai. Chief : G·atsō'En. Crests : Killer whale, owl, bear, woodpecker.

K·'oē'tas. Chief : HōtsElE'ng. Crests : Bear, killer whale, moon.

Gyit'ina' : Ts'ātl lā'nas. Chief : Gyit'îng·oda' and Kunkoya'n. Crests : Halibut, eagle, beaver, land otter (the last said to have been adopted recently).

S'alE'ndas. Chief : Îldzaunak·a'tlē. Crests : Frog, beaver, starfish, evening sky.

NEAR DĀ'DENS.

K·'oā'la : Tās lā'nas. Chief : Sk·anā'l. Crests : Land otter, killer whale, woodpecker, cirrus.

K·ANG (Dawson : Kung, p. 163 B).

Gyit'ina' : Sak'lā'nas. Chief : Gula'c. Crests : Eagle, sculpin, beaver.

K·'oā'la : Kyā'nusla. Chief : Hā'nsgyinai. Crest : Killer whale.

WĪ'TS'A.

Gyit'ina': Wī'ts'a gyit'inai'. Chief: Ētlgyiga. Tōtlgya gyit'inai'. Chief: Stētlta. Tsēts gyit'inai'. Chief: Nasgā'tl. Dzōs hāedrai'. Chief: Gûnia'. } Crests: Eagle, humming-bird, beaver, sculpin, skate (ts'ētg·a).

These families have the same crests. They live short distances apart.

IA'AN (near Wī'ts'a. Dawson: Yān, p. 163 B).

K·'oā'la: Stl'ENGE lā'nas. Chief: NENĀ'k·'enas. Crests: Killer whale, hawk, bear.

Gyit'ina': (Tsēts gyit'inai', moved to Ia'an from Wī'ts'a a few years ago).

G·AT'AIWA'S (Dawson: Ut-te-was, p. 163 B).

K·'oā'la: Skyit'au'k·ō. Chief: Cīgai'. Crests: Killer whale, grizzly bear, black bear.

Gyit'ina': Gyit'ī'ns. Chief: Sk·a-ina'. Crests: Eagle, beaver, sculpin.

Sg·adzē'guatl lā'nas. Chief: Skyîltk·'atsō. Crests: Eagle, beaver, sculpin.

K·'oā'la: Sg·āga'ngsilai. Crests: Killer whale, bear.

HAI'TS'AU.

K·'oā'la: G·anyakoîlnagai. Chief: Kyîlstlak·. Crests: Killer whale, bear.

K·'ĀYA'NG (Dawson: Kā-yung, p. 163 B).

K·'oā'la: Yāgun kunîlnagai'. Chief: Skyîlk·iê's. Crests: Bear, ts'EM'â's, killer whale.

Gyit'ina': Saqguī' gyit'inai'. Chief: Naok·adzō't. Ky'iā ltkoangas. Chief: K'odai'. } Crests: Eagle, beaver, sculpin.

These two groups are considered branches of one family.

K·'oā'la: T'ēs kunîlnagai'. Chief: Yätl'înk'. Dl'iā'lEN kunîlnagai'. Chief: Sēna't. { Crests: Bear, ts'EM'â's, killer whale.

The three groups Kunîlnagai' in K·'aya'ng are branches of one family.

IA'GEN (about three miles north-east of Masset).

Gyit'ina': Dl'iā'lEN k·ēowai'. Chief: Hā'yas. Crests: Eagle, raven, sculpin, frog. Said to be related to the Sta'stas.

K·'oā'la: Kun lā'nas. Chief: K·ogī's. Crests: Bear, ts'EM'â's, killer whale.

NAĒKU'N (Dawson: Nai-koon, p. 165 B).

Gyit'ina': Naēku'n stastaai'. Chief: Ts'ōn. Crests the same as those of the Sta'stas, of whom they are the branch from Naēku'n.

Tsiquā'gis stastaai'. Chief: Skyilā'ō. Crests the same as those of the Sta'stas, of whom they are the branch from the river Tsiquā'gis.

K·'oā'la : Qua'dōs. Chief : tl'eā'ls. Crests : Bear, killer whale, hawk, rainbow, stratus. The Stl'EngE lā'nas are considered a branch of the Qua'dōs, who are at present in Asegoa'n, Alaska. It is said that the Qua'dōs were in the habit of catching eagles in snares. One day a man caught a hawk in his snare. Another one stole it, leaving, however, one of the hawk's talons. This led to a quarrel, and a fight ensued, during which the family divided. Those who emigrated became the Stl'EngE lā'nas. For this reason both use the hawk and also the same personal names.

(Dawson : A-se-guang, p. 165 B.)

K·'oā'la : I was told that there was a branch of the Qua'dōs at the place who moved to Skidegate.

TLK·ĀGÎLT (Skidegate).

Gyit'ina' : Gyit'î'ns. Na yū'ans qā'edra ; Na s'ā'gas qā'edra. Chief : Sg·ēdEgî'ts. Crests : Raven, wasq, dogfish, eagle, sculpin.
Gyit'îngyits'ats. Chief : Sg·ā'nigyik·ē'do. Crests : Sculpin, eagle, wā'ts'at (a fabulous personage.)
Tsāagwī' gyit'inai'. Chief : Winā'ts. Crests : Sculpin, eagle.

K·'oā'la : Tsāagwīsguatl'adegai'. Chief : Log·ō't. Crests : Killer whale, gyitg·a'lya (a fabulous being), ts'Em'â's.
Tlg·aio lā'nas. Chief : Dō'anā'. Crests the same as the preceding family.
Taī'ōtl lā'nas. Chief : K·aäga'o. Crests : Black bear, killer whale.
K·ōg·ā'ngas. Chief : K·oē'sgutnEng'E'ndāls. Crests : Killer whale, ts'Em'â's.

TLG·Ā'IT (Gold Harbor ; Dawson : Skai-to, p. 168 B).

K·'oā'la : Tlg·ā'itgu lā'nas. Chief : NEnkyîlstla's. Crests : Moon, killer whale.

Gyīt'ina' : Tlg·ā'it gyit'inai'. Chief : Ganā'i. Crests : Raven, eagle, sculpin.

K·'oā'la : Stasausk·ē'owai : Chief : Sg·anayū'En. Crest : Ts'iliā'las (killer whale with raven wings).
Skoa'tl'adas. Chief : G·ōlEntkyîngā'ns. Crests : Sea-lion, killer whale, ts'Em'â's, thunder.

K·AI's'un (Dawson : Kai-shun, p. 168 B).

Gyit'ina' : K·ai'atl lā'nas. Chief : Nanā'rîskyîlqō'es. Crests : Beaver, frog, eagle.

(Dawson : Cha-atl, p. 168 B.)

K·'oā'la : tlg·ā'itgu lā'nas. (Same as above, under Tlg·ā'it.)

K·'U'NA (Skidans, Dawson : Koona, p. 169 B).

K·'oā'la : Tlk·înōtl lā'nas or K·agyalsk·ē'owai. Chief : Gudēk·a îngā'o. Crests : Bear, moon, mountain goat, killer whale, storm

cloud, cirrus, rock slide. Part of this family is called Kyîls qā'edrai. (Dawson : Tlkinool, p. 168 B.)

Gyit'ina' : K·'unak·ē'owai. Chief : Gyitk·ō'n. Crests : Dogfish, eagle, frog, monster frog, beaver.

T'ANO' (Tlō, Dawson : Tanoo, p. 169 B).

Gyit'ina' : K·'unak·ē'owai (same as in K·'u'na).
Tsēgoatl lā'nas or Laqskī'yek.

K·'oā'la : K·'adas k·ē'owai. Chief : Gyaqkutsā'n. Crests : Killer whale, wolf, ts'EM'â's.

Sg·a'nguai (NENSTĪ'NS, Dawson : Ninstance, p. 169 B).

Gyit'ina' : Gyit'î'ns. Chief : NENSTĪ'NS. Crests : Beaver, eagle.
K·'oā'la. Qaldā'ngasal. Chief : Ts'ÎHĪ'. Crests : Bear, killer whale, ts'EM'â's.

The villages on Hippah Island are not contained in my list.

A comparison of the list of families given here with that of the Skidegate families published in the Fifth Report of the Committee, p. 26, shows that the lists are fairly reliable. I give here both lists for purposes of comparison :—

Skidegate.

	(Fifth Report. Informant Johnny Swan)	Informant: Ē'densâ of Masset
Gyit'ina :	Nayū'ans qā'etqa.	Gyit'î'ns { Na yū'ans qā'edra / Na s'ā'gas qā'edra.
	Na'sā'yas qā'etqa.	
	Djāaquigi't'enai'.	Tsāagwī' gyit'inai'.
	Gyitingīts'ats.	Gyit'îngyits'ats.
K·'o'āla :	Naēkun k·erauā'i.	—
	Djāaqui'sk·uatl'adagā'i.	Tsāagwīsguatl'adegai'.
	Tlqaiu lā'nas.	Tlg·aio lā'nas.
	K·āstak·ērauā'i.	—
	—	Taiōtl lā'nas.
	—	K·og·ā'ngas.

It will be noticed that the Gyit'ina' families agree in both lists, while the K·'oā'la show certain discrepancies. It may be that the Naēkun-k·erauai' are the family from Asegua'n referred to above as removed to Skidegate.

It will be noticed that a great many family names are town names. Such names are Sangatl lā'nas, K·a'nguatl lā'nas, Yak' lā'nas, Tlg·aiō lā'nas, &c. Others signify 'the gyit'ina' of a certain place' ; for instance : Tō gyit'inai', Wīts'a gyit'inai', Tsāagwī gyit'inai'. Still others seem to signify 'the k·'oā'la of a certain place,' for instance : Tō stLENgilnagai', Ya'gun kunilnagai, Dl'iā'LEN kunilnagai. Another series of names signify 'the people of a certain place,' or 'those born at a certain place,' such as Dl'iā'LEN k·ēowai', K·'una k·eowai', and Dzōs hāedrai'.

These facts indicate that each family formed originally a local unit, so that each village would seem to have been inhabited by one family only. The present more complex village communities originated through the

coalition of several families in one village, each retaining its own name and organisation. On the other hand, families divided, and are for this reason present in different villages. This is the case with the Sta'stas, whom we find under the name of Sta'stas at Ky'iū'st'a, as Naēkun stastaai' in Naēku'n, and as TsiQuāgis stastaai' in the same village. The Yak' lā'nas are partly in their old village Dā'dEns, partly in TlEnk·oā'n (Klinquan, Alaska); the Ts'ātl lā'nas are partly in Dā'dEns, partly in G·augyā'n (How-aguan, Alaska). Part of the Stastas have even drifted to the Stikīnk·oan of the Tlingit. The Yak' lā'nas have a branch among the same tribe, where they have amalgamated with the Nanaā'ri family (Haida: Nan'a'ngi). A number of families left Queen Charlotte Islands in consequence of a quarrel, and form now the Kaigani. According to Dr. Dawson the event took place about 170 years ago (about 1730). The following families are said to have emigrated entirely: The S'alE'ndas to Sakoā'n (Shakan); the K·'oē'tas to the same place; the K·aok·ē'owai to G·augyā'n (How-aguan); and the Tas lā'nas to Kasaā'n.

It is clear, therefore, that the present arrangement of families is the result of a long historical development, and that in the orginal organisation of the tribe the village community was a much more important element than it is at present.

It is also instructive to investigate the distribution of totems among these families.

I. *Gyit'ina'* (18 *distinct families*).

Eagle	17 families	Starfish	1 family
Beaver	13 „	Humming-bird	1 „
Sculpin	9 „	Skate (?)	1 „
Frog	5 „	Monster-frog	1 „
Raven	3 „	Wā'ts'at	1 „
Dogfish	2 „	Wasq	1 „
Halibut	1 family	Sg·a'ngo	1 „
Land-otter	1 „	Evening sky	1 „

II. *K·'oā'la* (22 *distinct families*).

Killer whale	21 families	Devilfish	1 family
Black bear	14 „	Owl	1 „
Ts'Em'â's	7 „	Land-otter	1 „
Moon	4 „	Grizzly bear	1 „
Woodpecker	2 „	Sea-lion	1 „
Tsiliā'las	2 „	Mountain-goat	1 „
Thunder-bird	2 „	Gyitg·a'lya	1 „
Hawk	2 „	Rainbow	1 „
Wolf	2 „	Stratus cloud	1 „
Cirrus cloud	2 „	Storm cloud	1 „
Dogfish	1 family	Rock slide	1 „

This table shows a strong prevalence of two crests in each group: eagle and beaver among the Gyit'ina', killer whale and black bear among the K·'oa'la. The sculpin and ts'Em'â's, which are next in importance, are not found among the tribes of the extreme north-western part of the islands. All the others occur only once or twice among the different families, and for this reason resemble in character the totems of the

Kwakiutl. Since the characteristic features of the traditions explaining the acquisition of these crests are also the same among the Tlingit, Haida, Tsimshian, and Kwakiutl, it is likely that they may have had the same origin. I have tried to show at another place ('Report United States National Museum for 1895,' p. 336) that among the Kwakiutl the crest is the hereditary manitou, and I am inclined to consider the isolated totems of the Haida and of the other northern tribes of similar origin. It is very doubtful if this theory holds good for the more frequent totems which evidently form the bond between the members of each group. It seems more likely that they represent the oldest totemic organisation of the tribe which may have antedated their settlement in their present locations. It is, however, worth remarking that one of the totems of secondary frequency, the ts'EM'â'S, is evidently of Tsimshian origin. The name is clearly a corrupted form of ts'EM'a'KS=in the water, a fabulous monster, probably the personified snag. The four primary totems, eagle and beaver, and killer whale and bear, certainly represent the two oldest divisions of the tribe which split up in village communities that later on combined again in more complex groups.

IV. *Linguistics.* *By* FRANZ BOAS.

The Ntlakya'pamuQ.

The material for the following sketch was obtained in part directly from Mr. James Teit, in part from Indians whose statements were interpreted by Mr. Teit. The writer is, however, alone responsible for the systematic presentation of the material.

GRAMMATICAL NOTES.

THE ARTICLE.

The Ntlakya'pamuQ has an article which is similar in character to the one found in the dialects of the Coast Salish. In the Sixth Report of the Committee I briefly described the use of this article in the Bella Coola (p. 128). Its forms in other coast dialects are given in the following list:

Bilqula.	Masculine,	*ti*	Feminine,	*tsi*
Çatlō'ltq.	„	*ta*	„	*tla*
Pentlatc.	„	*ti*	„	*tla*
Nanaimo.	„	*ti*	„	*se*
Sk·qō'mic.	„	*te*	„	*tle*
Lku'ñgEN.	„	*ti*	„	*si*
Tillamook.	„	*ta*	„	*tla*

The Calispelm has the article *tlu*, which is used in the same manner. It is described by Mengarini in his 'Grammatica Linguæ Selicæ,' 1861, p. 80.

The Ntlakya'pamuQ has a number of articles.

ta is used for connecting adjectives and nouns:

stE'ptEp (1) ta (2) spEzu'zo (3), *a* (2) *black* (1) *bird* (3).
aqa (1) kES (2) ta (3) tlōsk·a'yuQ (4) kaQ (5) puī'stEmōs (6), [*it is*] *that* (1) *bad* (2) *Indian* (4) *who* (5) *killed him* (6).

ha and *a* seem to precede nouns that are not accompanied by attributes:

ha (1) chai'tkEnEmuq (2) kaQ (3) tla'k·atEm (4), *the* (1) *Indians* (2) *who* (3) *have killed them* (4).
ha (1) Nkamtcī'nEmuQ (2) ta chai'tkEnEmuQ (3) kaQ (4) tla'k·atEm (5), *the* (1) *Nkamtcī'nEmuQ* (2) *Indians* (3) [*who* (4)] *killed them* (5).

atla'kōs (1) ha (2) kō'kpi (3) akswā'watcip (4), *when* (1) *the* (2) *chief* (3) *comes* (1), *call me* (4).
a (1) sk·'ā'um (2) pū'ists (3) ha (4) ntltcask·a'qa (5), *the* (1) *wolf* (2) *killed* (3) *the* (4) *horse* (5).
ha (1) ntltcask·ā'qa (2) pū'ists (3) a (4) sk·a'um (5), *the* (1) *horse* (2) *killed* (3) *the* (4) *wolf* (5).
a *John* pū'ists a *Sam*, *John struck Sam.*

tik seems to be more definite than *ha*, but the distinction between the two forms is by no means quite clear:

puī'zEna (1) ha (2) kō'kpi (3), *I killed* (1) *the* (2) *chief* (3).
puī'zEna (1) aqa'tik (2) kō'kpi (3), *I killed* (1) *this* (2) *chief* (3).
wa'zQEna (1) tik (2) stsuk· (3), *I showed him* (1) *the* (2) *picture* (3).
na'qEna (1) tik (2) stsuk· (3), *I gave him* (1) *the* (2) *letter* (3).
tā'we (1) aqa'tik (2) kō'kpi (3) tik (4) tlō'sk·a'yuq (5)! *what a* (1, 2) *chief* (3) *this* (4) *man* (5) [*is*]!

THE DISTRIBUTIVE.

The distributive form of the noun is formed by amplification of the stem, most frequently by reduplication. Irregular distributives of nouns are rare. Plurals of verbs are formed in the same way, but the verbal plural is frequently derived from a separate stem. The verbal plural seems to have had a distributive meaning originally, but in the intransitive verb particularly the distinction between distributive and plural is easily lost.

1. Distributives and verbal plurals formed by reduplication:

house, tcītQ	*distributive*,	tcitcī'tQ.
tree, cirā'p	„	cipcirā'p.
picture, stsuk·	„	stsutsu'k·.
stone, cä'EnQ	„	cEncä'EnQ.
mountain, sk·um	„	sk·umk·u'm.
ground, tEmû'Q	„	tEmtEmû'Q.
dog, sk·ā'k·qa	„	sk·ak·ā'k·qa.
cattle, stEmâ'lt	„	stEmtEmâ'lt.
calf, stEmâltitēit	„	stEmtEmâlti'tēit.
camp fire, spam	„	spEmpa'm.
coyote, snikia'p	„	sniknikia'p.
animal, spEzō'	„	spEzpEzō'.
bird, spEzu'zō	„	spEpEzu'zō.
friend, snu'koa	„	snukEnu'koa.
musk-rat, skikElā'Qoa	„	skikikEla'Qoa.
man, sk·ai'yuq	„	sk·ai'k euq.
male of animal, sk·a'k·ayuq	„	sk·ak·a'k·ayuq.
sick, kEnu'Q	*plural*	kEnkEnu'Q.
crumpled, skō'um	„	skōumkō'um.
to walk, sQuasī't	„	sQusQuasī't.

These examples show that the laws which reduplication follows are very irregular. On the whole we may say that the prefixed *s* which is found in a very large number of Salish words is not affected by reduplication. Very often the first syllable, including the first consonant following the first vowel, is repeated with shortened vowel. But there are many exceptions to this rule. Reduplicated words may be reduplicated a second time (see musk-rat, male of an animal, in the preceding list).

2. Many nouns have the same form for the absolute and the distributive. It seems that many names of animals belong to this class:

beaver, tlk·'ō'pa (*Utā'mk·t dialect*).		
beaver, snū'ya (*Nkamtcī'nEmuQ dialect*).		
wolf, sk·'a'ōm	„	„
fox, EcQua'yuq	„	„
black bear, spêê'tc	„	„

deer, cmē'its (*Nkamtcī'nEmuQ dialect*).
elk, stqats „ „
caribou, slEquä'qan „ „
grizzly bear, cuQcu'Q „ „
panther, smō'a „ „
buffalo, kô·sp „ „
antelope, stataā'luk „ „
porcupine, cutī'a „ „
porcupine, skwī „ „
rabbit, sk·ok·ii'ts „ „
river, kowē' „ „
fire, tuktī'k· „ „
water, kōu „ „
star, nkoku'cEn „ „

3. Different stems are used for forming distributive, viz. plural and absolute forms:

	Distributive
horse, ntltcask·a'qa	sk·aqk·a'qa.
Indian, tlōsk·ai'yuq	s'ai'tkênEmuq.

	Plural
to weep, wawī'ìQ	k·oê'k·t.
to stand, stē'dlìQ	tsē'ìQ.
to die, zôk·	Qô'it.
to kill, puí'stEm	tlE'k'EtEm.
to lie down, pū'it	nmê'QìQ.

Diminutives.

Diminutives are also formed by means of reduplication. It seems that the prevailing form of reduplication consists in a repetition of the first syllable as far as the first vowel, with a tendency of throwing back the accent of the word to the reduplicated syllable.

	Diminutive
deer, cmē'its	cmE'mēits.
black bear, spêê'tc	spā'paats.
friend, snu'koa	nu'nkoa.
bad, kEst	kEkEEst.
large, qzu'm	qEzu'zum.
bird, spEzu'zu	spEyu'zu.

Numerals.

There are three sets of numerals: simple cardinals used for counting inanimate objects; and two reduplicated series, one used for counting animals, the other for counting human beings.

	Inanimate	Animate	Personal
1,	pai'a, pê'ia	piä'a	pa'pea.
2,	sê'ia	sê'sia	sisai'a.
3,	k·aatlā's, k·êak·tlā's	k êak·tlā's k·êk·aak·tlā's	k·ak·aak·tlā's.
4,	mūs	mō'ms	mū'smust.
5,	tcī'ikst	tcī'tciEkst	tcī'tciEkst.
6,	tlā'k·amakst	tlā'k·amakst tlatlā'k·amakst	tlatlā'k·amakst.
7,	tcū'łk·a	tcū'tcłk·a tcutcū'łk·a	tcū'tcułk·a.
8,	piō'ps(t)	piō'ps(t) pipiō'ps(t)	pipiō'ps(t).
9,	tE'mEł pai'a	tE'mEł piä'a	tE'mEł pa'pea.
10,	ō'pEnakst	ō'pEnakst op'ō'pEnakst	ōp'ō'pEnakst.
11,	ō'pEnakst Eł pê'ia	ō'pEnakst Eł piä'a	op'ō'pEnakst Eł pa'pea.

20, sīl ō'pEnakst
30, k·âł ō'pEnakst
40, mūł ō'pEnakst
50, tcī'êks ō'pEnakst
60, tlā'k·umaksł ō'pEnakst
70, tcū'łk·ał ō'pEnakst
80, piōpsł ō'pEnakst
90, tEmEł pēł ō'pEnakst
tEmeł pi ō'pEnakst
100, qatst pê'k·Enakst
qatsł pê'k·Enakst
200, sä'as qatst pê'k·Enakst
300, k·ä'ak·łā's qatst pê'k·Enakst
400, mūs qatst pê'k·Enakst

Same as inanimate.

The numerals five, six, ten, one hundred, are clearly compounds of *-akst*, hand. I presume five is a compound of the stem *tca*, which is found in the numeral one in Siciatl *nEtciā'lē*, Snanaimuq *nE'ts'a*, Sk·qō'mic *ntc'ō'i*, Lku'ñgEn *nE'tsa*; so that *tcī'î·kst* would mean one hand. Nine may be translated literally 'less one.'

The same classification that is used in the cardinal numbers is used in indefinite numerals; for instance—

	Inanimate	Animate	Personal
few	kwē'niQ	kwī'kwinEQ	kwē'nkwinQ.

Distributive Numerals.

Distributive numerals are formed from the cardinals by means of reduplication. They have the same three classes that were found in the cardinal series.

	Inanimate	Animate	Personal
1 to each	paapai'a	pēapai'a	papä'pia.
2 „	sēasai'a	asiasê'sea	siasai'a.
3 „	k·aak·aatlā's / k·aatlā's	k·aak·aatlā's	k aak·aatlā's.
4 „	musEmū's	moamō'ms	musmū'smust.
5 „	tciatcī'Ekst		
6 „	tlaatlā'k·amakst		
7 „	tcūatcū'tlk·a		
8 „	pepiō'pst		
9 „	tE'mEł pēapai'a		
10 „	ōpEō'pEnakst		

Same as inanimate.

THE PRONOUN.

Personal Pronoun.

	Independent	Dependent
I	ntcā'wa	--(k)En.
thou	awē'	--(k)^{u}, Q.
he	tcinī'tl	—
we	EnEmē'mutl	—kt.
ye	pia'pst	—p *or* —mp.
they	tcînku'st	—

Possessive Pronoun.

The possessive pronoun has a number of forms analogous to those of the Shuswap. Their use has not become clear to me. I give here the various forms and a few examples of their use.

my	n—	tlEn—	lEn—	QEn—
thy	a—	tla—	la—	Qa—
his	-- s			Q—s
our	—kt,—nt			
your	—p,—mp			
their	—ēQs			

Examples: ncu'tEm, *my object.*
nskī'Qaza, *my mother.*
ntcītQ, *my house.*
aqa'a tla kamu't, *this is thy hat.*
ƛo'a la kamu't, *that is thy hat.*
kEnu'Q tlEn ska'qa, *my horse is sick.*
kEnu'Q nska'qa, *my horse is sick.*

The two plural forms in *-kt* and in *-ut* are not exclusive and inclusive.

ska'tsoqt, *our father.*
ska'tsākt, *our father.*
tci'tQut aqa', *that is our house.*

I am inclined to consider the prefixes *tl*, *l-*, and Q- which appear combined with the possessive pronoun as verbal particles. The close relation between possessive pronoun and intransitive verb becomes clear in the imperfect sense, in which the object possessed is incorporated between the verb and the pronominal suffix:

kEnuQska'qakEn, *my horse was sick = sick horse I.*
but kEnu'Q tlEn ska'qa, *my horse is sick.*
kEnuQska'qak^{u}, *thy horse was sick = sick horse thou.*
but kEnu'Q tla ska'qa.
or kEnu'Q a ska'qa, *thy horse is sick.*

These constructions may be compared with the inflexion of the adverb that accompanies the verb (see below).

The prefix Q- seems to indicate the relation to the indirect object of the sentence:

pīpHī'tsEn Qa kamu't, *I lost it for thee thy hat.*
pīpsta'na nkamu't, *I lost my hat.*

But I found also:

tla skā'qa pū'istQtcEms tlEn katsk, *thy horse killed for me my elder brother.*

Intransitive Verb.

The intransitive verb may be inflected by means of suffixes or by means of auxiliary verbs, which latter form various tenses.

Aorist

kEnu'QkEn, *I am sick.*
kEnu'Qk^{u}, *thou art sick.*
kEnu'Q, *he is sick.*
kEnu'kt, kEnkEnu'Qkt } *we are sick.*
kEnu'Qp, *ye are sick.*
kEnkEnu'Q (tcînku'st), kEnu'Q tcînku'st } *they are sick.*

Present

(o)aqkEn kEnu'Q, *I am sick.*
(o)aqk^{u} kEnu'Q, *thou art sick.*
(o)aq kEnu'q, *he is sick.*
(o)aqkt (kEn)kEnu'q, *we are sick.*
(o)aqp (kEn)kEnu'q, *ye are sick.*
(o)ax kEnkEnu'q, *they are sick.*

Future I.

hwī'kEn(tca)râ'it, *I shall sleep.*
hwīk^{u}(tca)râ'it, *thou wilt sleep.*
&c.

Future II.

râ'itkEn hwī, *I shall sleep*
râitk^{u} hwī, *thou wilt sleep.*
&c.

Imperfect

oa'qkEn tlEm tlaha'ns, *I was eating.* &c.

When the intransitive verb is accompanied by an adverb the latter takes the pronominal ending, being treated like an auxiliary verb.

tlakamē'Q(k)En skEnu'Q, *I am always sick.*
tlakamē'Q(k)a skEnu'Q, *thou art always sick.*
tlakamē'Q(k) skEnu'Qs, *he is always sick.*
tlakamē'QEkt skEnu'Q, *we are always sick.*
tlakamē'Q(k)ap skEnu'Q, *ye are always sick.*
tlakamē'Q(k) skEnkEnu'Qs, *they are always sick.*

The verb with negative is treated in the same manner :

ta!ā'kEn skEnu'Q, *I am not sick.* &c.

The conditional mode is characterised by the prefix *a-* and the suffix *-u.*

tcu'ktcen, *to finish eating* (*= to finish with mouth*).

atcu'ktcEnuEn, *if I finish eating.*
atcu'ktcEnuQ, *if thou finishest eating.*
atcu'ktcEnus, *if he finishes eating.*
atcu'ktcEnut, *if we finish eating.*
atcu'ktEnup, *if ye finish eating.*
atcuktcu'ktcEnus, *if they finish eating.*

The negative conditional present is formed in the following way :

atE'mōs(ta)kEn skEnu'Q, *if I am not sick.*
atE'mōs(ta)ka skEnu'Q, *if thou art not sick.*
atE'mōs(ta)k skEnu'Qs, *if he is not sick.*
atE'mōskakt skEnu'Q, *if we are not sick.*
atE'moskap skEnu'Q, *if ye are not sick.*
atE'mos(tā)ks kEnkEnu'Qs, *if they are not sick.*

The negative conditional past :

taskEta'kEn skEnu'Q, *if I had not been sick.*

The interrogative is formed by the suffix -En :

kEnu'QkEnEn, *am I sick ?*
kEnu'Qkoan, *art thou sick?*
kEnu'QEn, *is he sick ?*
kEnu'QktEn, *are we sick ?*
kEnu'QP'En, *are ye sick ?*
kEnkEnu'QEn, *are they sick ?*

A periphrastic interrogative is formed by the dubitative particle *ska* :

skaka skEnu'Q, *perhaps thou art sick.*
skaak skEnu'Qs, *perhaps he is sick.*
skagap skEnu'Q, *perhaps ye are sick.*

It will be noticed that wherever the verb appears with an adverb or a particle it has the prefix s-, which makes verbal nouns, and that the third person has the suffix -s, which corresponds to the possessive pronoun. These forms are therefore identical with possessive nominal forms.

Transitive Verb.

The transitive verb incorporates the pronominal object as follows :

to see.

Object	Subject					
	I	thou	he	we	ye	they
me	—	wī'ktcEmuQ	wī'ktcEms	—	wī'ktcEp	wiktē'QsFtcina
thee	wī'ktcEn	—	wīktst	wīktst	—	wiktē'QsEtst
him	wī'kEnE	wīktQ	wīkts	wī'ktEm	wīktp	wiktē'QsEtEm
us	—	?	wī'ktis	—	wī'ktip (?)	wiktē'QsEtēis
ye	wī'ktimEn	—	wī'ktimEs	wī'ktimEt	—	wiktē'QsEtEmîs
them	wīktē'QsEnE	wīktē'QsEmuQ	wīkts / wīktē'iQsEtEm	wītē'QsEtEm	wīktp	wiktē'QsEtEm

Verbs which have the accent on the last syllable form the following series:

k·ôiEntcū't, *to talk to someone.*

Object	Subject				
	I	thou	he	we	ye
me	—	k·ôiEntcE'muQ	k·ôiEntcE'ms	—	k·ôiEntcēi'p
thee	k·ôiEntcī'n	—	k·ôiEntcī's	k·ôiEntcī t	—
him	k·ôiEnta'na	k·ôiEnta'uQ	k·ôiEntE's	k·ôiEntE'm	k·ôiEnta'p
us	—	k·ôiEntcē'ip	k·ôiEntē'is / k·ôiEntē'it	—	k·ôiEntē'ip
ye	k·ôiEntō'imEn	—	k·ôiEntū'imas	k·ôiEntō'imet	—
them	k·ôiEntē'QsEna	k·ôiEntē'QsEmuQ	k·ôiENtE's	k·ôiEntē'QsEtEm	k·ôiEnta'p

An analysis of these forms shows that most of them originate by composition, the pronominal object following the verb, the pronominal subject following the pronominal object. The pronominal object suffixes seem to have the following forms:

me, —ĉcEm
thee, —tc
him, —
us, —ti
ye, —tim (*for* —tip)
them, —tēQs

The pronominal subject suffixes have the following forms:

I, —En
thou, —Q
he, —s
we, — t
ye, —p
they, —s

But they are much more irregular than the objective suffixes.

The conditional is formed in the same manner as that of the intransitive verb by means of the prefix a- and the suffix -us:

awī'ktcEnus, *if I see thee.*
awīktipus, *if thou seest us.*
awīktē'QsEnōus, *if I see them.*

PASSIVE PARTICIPLE.

łou'm, *to stab.*
ni'kEm, *to cut.*
łōt, *stabbed.*
nikt, *cut.*

From this participle the passive is formed:

oaq łōt, *he has been stabbed.*

IMPERATIVE.

The imperative of the transitive and intransitive verbs are formed in the same manner, second person singular by -a, second person plural by -ōsa:

tlaha'nza, *eat!*
tlaha'nzōsa, *eat ye!*
ō'pita, *eat it!*
ō'pitōza, *eat ye it!*

The future serves as an exhortative:

Qwikt tlaha'ns, *let us eat!* or, *we shall eat.*

The Ntlakya'pamuQ distinguishes between the transitive verb with determined object and without object. The latter is derived from the stem of the transitive verb by the ending -EM:

aqkEn tcū'um, *I am working.*
aqkEn pê'qEm, *I am hunting.*
Qwē'ĭm, *he is looking.*
tl'Emô'pEm, *to chop.*
mē'Qimā, *kick!*
ē'tlEm, *to sing.*
pū'istEm, *to kill (one).*
qôstE'm, *to love.*
aq tcuta'na, *I work at it.*
aq pê'qEna ksmē'its, *I am hunting deer.*
Qwē'ês, *he is looking for it.*
aq tl'Emô'pEna, *I chop it.*
mē'Qita, *kick it!*
ē'tlEna, *I sing it.*
pū'istEna, *I kill it.*
aqôstE'na, *I love it.*

The relation to the indirect object is expressed by the suffix -Q, which precedes the pronominal ending:

na'qtEm, *to give.*	na'qEna, *I give it.*	na'qtQEna, *I give it to him.*
k·ôiEntcū't, *to talk.*	k·ôiEntcu'tEmst, *he talks about thee.*	k ôiEntcu'tEmQst, *he talks in thy behalf.*
ē'tlEm, *to sing.*	aq ē'tlEna, *I sing it.*	aq ē'tlEQna, *I sing it for him.* aq ē'tlEmQna, *I sing for him.*
pū'istEm, *to kill.*	pū'istEna, *I kill it.*	pūisQEna, *I kill it for somebody.*
Qui tsuk·hē'tcEmuQ, *write me a letter.*		Qui tsuk·Qē'tcEmuQ, *write a letter for me.*
pūists sk·ā'k·qas, *he kills his own dog.*		pū'istQts sk·ā'k·qas, *he kills his (another man's) dog (= he kills his dog for him).*

Derivatives.

I recorded the following derivatives:

Quotative	—okō	kEnu'Q'okō, *it is said he is sick.*
Putative	—nka	kEnu'Qnka, *he may be sick.*
Dubitative	—nuk	kEnu'Qnuk, *he is sick, I think.*
Affirmative	—n	kEnu'QEn, *indeed, he is sick.*
		pia'pstEn, *indeed, it is ye!*
Exhortative	—matl	puitamatl, *do lie down!*
Causative	—s	pū'it, *to lie down.* pū'itsEna, *I lay it down.*
		nkā'iQ, *to swim.* nkā'iQsena, *I swim a horse.*
Inchoative	—wîîQ	snuyawī'îQ, *to become possessed of money.*
		kîstEwī'îQ, kEstuwē'EQ } *to turn bad.*
		iawī'îQ, *to turn good.*
		Qinuwī'îQ, *it begins to be a long time.*
Durative	—mîQ	kEnuQEmî'QkEn, *I am always sick.*
Frequentative:	Reduplication	skEnkEnu'Q, *one who is repeatedly sick.*
		k·ēak·ea'ap, *one who is repeatedly indisposed.*
		oaq nikEnî'kEna, *I cut it repeatedly.*
		ɬɑ̄oata'na, *I stabbed him repeatedly.*
		qaquatsta'na, *I tie it repeatedly.*
Potential	—z'a	hai'mz'akEn, *I might do the same.*
		tcu'umz'akEn, *I might work, I ought to work.*
Facultative	—EnwatlEn	tlahansEnwatlEn, *to be able to eat.*
		rôitEnwa'tlEn, *to be able to sleep.*
Desiderative	—mamEn	tlahansma'mEnkEn, *I desire to eat.*
		rô'itma'mEnkEn, *I desire to sleep.*
Intensive	—ap	stlahans'a'p, *to eat much.*
		nmanqEma'p, *to smoke much.*
Copulative	—a-us	stlk·a'us, *together.*
		cînzia'us, *brothers.*
		snukua'us, *friends.*
		qamana'us, *enemies.*
		ktQuā'usEs, *he breaks it in two (= he halves it).*
Reciprocal	—tuaQ	qatstua'Q, *tied to each other.*
		puistua'Q, *to kill one another.*
		tla'k·tuaQ, *to kill each other.*
		iamintua'Q, *to have friendly feelings towards one another.*
		stlk·auzEmtua'Q, *to put together.*
Reflexive	—tcut	mEQEtcū't, *to kick oneself* (also *to kick without hitting anything*).
		wīkEntcu'tkEn, *I see myself.*
		nikEntcu'tkEn, *I cut myself.*

The reflexive is sometimes used as a simulative:

nikiapEntcū't, *to make oneself like a coyote = to act foolishly.*

kEnuQstcū't, *to make oneself sick, or to act like a sick person.*

PREPOSITIONS.

u, uɬ, *towards, to.*
tu, tuɬ, *from.*

Examples: uä'a, *towards here, this way.*

uɬQkEn uɬ tcitQ, *I go into the house.*
uɬ stkamlō'ps anê'soan, (*when*) *I went to Kamloops.*
tū'a kakā'o awī'kEna-us, (*when*) *I saw it from far away.*
tuQai'a, tukai'a, *from here.*
tutci'a, tuktci'a, *from there.*
tuɬo'a, tukɬo'a, *from there.*
tla'kEn tuɬ Nkamtcī'n, *I came from Spences Bridge.*
ktcī'QkEn tuɬ Nkamtcī'n, *I departed from Spences Bridge.*
tlak tuɬ estcītQ, *I came from the house.*
tlak túa tcitQ, *I came from a house.*

CONJUNCTIONS.

pEɬ, *and, connecting words designating persons:*

snukua'us (1) aē'ɬ (2) a (3) SEQuā'pamuQ (4) pEɬ (5) ha (6) Psqä'qEnEm (7), *Friends together* (1) *now* (2) *the* (3) *Shuswap* (4) *and* (5) *the* (6) *Chilcotin* (7).

Eɬ, *and, connecting all words not designating persons:*

sqä'its Eɬ cāEnq, *wood and stone.*

SUBSTANTIVALS.

I designate by the term substantivals nominal suffixes, which are used for specifying adjectives, substantives, and verbs:

—k·ēn, *head.*	qazumk·ē'n, *big-headed.*
—us, *face.*	ihús, *pretty.*
—ane, ear.	qazuma'ne, *big ear.*
	k·oa'nētEm, *he has piercing pains in his ear.*
—aks, *nose.*	tcīawa'ks, *nose bleeds.*
—tcīn, *mouth, language.*	ntlakyapamuQtcī'n, *Ntlakyapamuq language.*
	tcúktcin, *to finish with mouth*, i.e., *to finish eating.*
	pēatcī'n, *one word.*
	kliQutltcī'n, *another language.*
—anz, *tooth.*	
—iapsam, *neck.*	zaqiapsa'm, *long neck.*
	nzaqiapsa'm, *long-necked.*
—āqEn, *upper part of arm.*	kāupā'qEn, *broken arm.*
	tska'qEn, *wing, armpit.*
	zaqa'qEn, *long-armed.*
—äqkEn, *body.*	qzumä'qkEn, *big body.*
	piä'qkEn, *one body.*
—ikEn, *back.*	mitcaki'kEn, *to sit on back.*
—akst, *hand.*	pāuta'kst, *swollen hand.*
	tcuméEna'kstEm, *to point with hand.*
	kāupa'kstkEn, *I have broken my hand.*
—ist, *stone.*	piê'ist, *one stone.*
—uciap, *fire.*	piu'ciap, *one fire.*
—kō, —atkō, *water.*	nkui'skō, *to fall into water.*
	qazuma'tkō, *great lake.*
	nza'qkō, *long lake.*
	ntlk·a'tkō, *wide lake.*
—ūimuQ, *land.*	ksū'imuQ, *bad land.*
	ihū'imuQ, *nice land.*
	kaQū'imuQ, *dry land.*
	piū'imuQ, *one country.*

—atlQ, *house.*	qazuma'tlQ, *large house.*
	ôēpā'tlQ, *house burns down.*
—aus, *trail.*	Eniamina'us, *trail for hauling = waggon-road.*
	tcutlQuā'usEnuq, *thou pointest out the way to him.*
—äiuk·, *tree.*	ihä'iuk·, *a nice tree.*
	kunEQä'iuk·, *how many trees?*
	mitcak·ā'iuk·, *sitting on a tree.*
	ok·onä'yuk·, *rotten tree, wood.*
	k·ayä'yuk·, *green wood.*
	k·'ê'qiuk·, *hard wood tree.*
	za'qiak·, *long tree.*
—tlp, *species of trees and bushes.*	s'atk·tlp, *yellow pine.*
	sk·'atlp, *fir.*
—atldzîQ, *bush.*	pea'tldzîQ, *one bush.*
	kunEqa'tldzîQ, *how many bushes?*
—zanz, *driftwood.*	
—qans, *board, plank.*	k'unEqa'ns, *how many planks?*
—alks, *clothing for upper part of body.*	smūtlatsa'lks, *woman's gown.*
—itsa, *covering for body.*	spEk·ī'tsa, *white blanket.*
	ntltsask·aqaī'tsa, *horse skin.*
	pak·ui'tsa, *to shiver with fear.*
—autl, *canoe.*	qzuma'utl, *big canoe.*
	pia'utl, *one canoe.*
—als, *knife.*	spēia'ls, *one knife.*
	qzuma'ls, *large knife.*
—lEmuq, *sack, bottle, box.*	tlina'tlEmuq, *birch bark vessel.*
—ka, *spoon, cup, bucket, pail.*	pia'ka, *one spoon.*
—akEn, *bag, bundle.*	pia'ken, *one bag.*
—äiqEn, *rope.*	piä'iqEn, *one rope.*
—tîm, *hollow thing.*	ntsîktî'm, *empty vessel.*
—uza, *round thing.*	piu'za, *one round thing.*
	spek·ō'za, *white round thing.*
—uzEm, *group of.*	piu'zEm, *one group of things.*
—aski, *song.*	stläea'ski, *dancing song.*
—mēn, *instrument.*	tsuk·mē'n, *pencil.*
	niamē'n, *tool for hauling.*

Substantivals sometimes appear in combination:

—tcīnatlQ	*door = mouth of house.*
	nkamtcinā'tlQ, *entrance of house.*
	mitcaktcinā'tlQ, *to sit in the doorway.*

Some of the substantivals are developing into classificatory terms, such as are found in the Tsimshian:—

—aks	*nose; point of a horizontal pole.*
	mitcak·a'ks, *to sit on a point.*
—k·ēn	*head; top of a long, upright object.*
	mitcak·k·ē'n, *to sit on top of.*
—ikEn	*back; middle of long thing.*
	mitcak·i'kEn, *to sit in middle of a long thing.*
—aiuk·	*tree, long thing.*
	piai'uk· tik sqēts, *one (long thing) salmon.*
	piai'uk· tik tīnQ, *one (long thing) vein.*
—a-itQ	*flat thing.*
	piä'itQ stsuk·, *one sheet of paper.*
	piä'itQ ma'nta, *one piece of canvas (manta, Spanish).*
—k·ēn	*head,* round thing.
	piak·ê'in tk'au'za, *one (round thing) egg.*

Vocabulary of the Chilcotin Language.

The Chilcotin form a branch of the Tinneh stock. The following vocabulary is designed on the lines of the vocabularies given in the Sixth and Tenth Reports of the Committee. Since I am not familiar with the grammatical structure of the language, the vocabulary must be held subject to revision:

English	Chilcotin	English	Chilcotin
man	tînnē, ta'yañ.	*all houses*	kaunētlañ k·hō.
woman	tsē'k·ē.	*kettle*	nōsai'.
boy	kyēnl.	*bow*	atlthē'n, datsa'nk'a.
my girl	êsk·ē tsē'k·ē (= female child).	*arrow*	k'a.
		axe	tshēntl.
father	ā'pa	*knife*	palâ'.
thy mother	î'nku'l.	*jack-knife*	gyi'nalk·î'k.
my husband	sak·a'n.	*canoe*	ts'ē.
my wife	saa't.	*moccasins*	k·e.
my child	sEsk ē'i.	*pipe*	k'ā'tsai,
my elder brother	sō'nar.	*wooden pipe*	tītcEn k'ā'tsai.
my younger brother	sik·î'l.	*tobacco*	tsrîlyo'.
my elder sister	sä'tē.	*glove*	bāt.
my younger sister	sītē'z.	*sky*	yê't'a.
Indian	tēntlxōtē'n.	*sun*	sha.
my people	sêtltê's.	*moon*	a'ldzi.
my head	sErtsE'.	*star*	sEn.
my hair	sErtsa'ra.	*cloud*	k'ôs.
my face	sEnē'm.	*smoke*	tlît.
my forehead	sEtsēEku'tl.	*day*	k'antsī'n.
my ear	hētsa'ra (?).	*night*	êtl'ī'.
my eye	sEna'ra.	*morning*	k'apEna'q.
my nose	sētsī'nîH·.	*evening*	ngaratlra'tl.
my mouth	sErô'.	*noon*	sâtsana's.
my tongue	sErtsôll.	*midnight*	sōtêzni'.
my tooth	sErō'.	*spring*	Erotlts'E'n.
my beard	sEta'ra.	*summer*	dan.
my neck	sEk'ô's.	*autumn*	d'Enk·ī'z.[1]
my arm	sEka'n.	*winter*	qa'ī.
my hand	sEla'.	*wind*	nē'nts'E.
my fingers	sElats'ê'i.	*thunder*	ē'ndî.
thy fingers	nēlats'é'i.	*lightning*	tōu'c.
my thumb	sElaitchôr.	*rain*	nagutltī'x·.
my first finger	sElāskE't.	*snow*	nā·ljô's.
my second finger	sElanē'.	*fire*	k·ôn.
my third finger	sElāra'.	*water*	thō.
my fourth finger	sElāstE't.	*ice*	ku'dlu.
finger nail	lak'E'n.	*earth*	nEn.
my body	sEnê's.	*sea*	ya thō.
my chest	sēdzī'y.	*river*	tsirē'nli, yik·o'.
my belly	sEbE't.	*lake*	pēī.
my breasts	sEts'ô'r.	*snow mountain*	tsatl.
my leg	sEts'E'n.	*hill*	tētlku'tl.
my foot	sEk·ê'.	*island*	nnu.
big toe	k·ēlaitchô'r.	*salt*	lEsa'l (Chinook jargon).
toe nail	k·ēlak'E'n.		
my bone	sEku't.	*stone*	tshê.
my heart	sEtsī'y (? see chest)	*tree*	titcî'n.
my blood	sEtī'l.	*black pine*	tcintī' (?).
chief	nētc'îl'ī'n.	*all trees*	titcîngā'ts'êi.
house	k·hō.	*fuel*	tsêz.

[1] This 'z' is exceedingly weak, so much so that part of the breath escapes laterally, giving it a decided 'l' tinge.

English	Chilcotin	English	Chilcotin
tail	kye.	*cold*	gEzk'a'z.
dog	tlēn.	*warm*	gōzē'lgun.
black bear	sEs, tāyê's.	*I*	sī'it.
deer, buck	nēsî'ñy.	*thou*	nē'în.
fly	asts'E'z.	*he*	gū'yîñ.
mosquito	ts'îH.	*we two*	nantinī'ltē (?).
snake	tlarasE'n.	*we*	kaqonētla'n.
bird	pE (?).	*all*	kāts'ê'i.
feather	tcus.	*many*	tlaā'tla.
wing	pEt'a', pEt'sE'n.	*far*	tlaagosE't.
tail of bird	pEkye'.	*near*	întltīdyîl.
foot of bird.	pEk·ê'.	*below*	kūgyaq.
foolhen	dîH.	*to-day*	k'andzi'n.
goose	qaq.	*to-morrow*	k'āpE'n.
duck	nāt'ê'i.	*yesterday*	atlqatldā'.
loon	dāndzE'n.	*he speaks the truth*	atl'a'risEn.
teal duck	nād'atsE'l.	*yes*	ha'a.
bald-headed eagle	dā'kîH.	*no*	qā'tada'.
young eagle	shaiky.	*nothing*	dāQ.
fish	tlū'i.	*one*	ēntli'y.
salmon	kyêrs.	*two*	nā'k·ê.
trout	dEk'a'i.	*three*	tha'i.
fish tail	pEkyilarai't.	*four*	de'i.
white	tlēyê'l.	*five*	ăskōnla'.
black	tlEt'ê's.	*six*	tlgyanthai'.
red	dîldî'l.	*seven*	gyētlqatlgyanē'lt'ê.
blue	dētltsa'.	*eight*	k'aHinē'lt'ê.
yellow, green	dEltsô'r.	*nine*	tlgɔalagōntanē'lt.
large	întcā'.	*ten*	tlt'a'una.
large river	kuntcak·ô.	*twenty*	nātl'a'una.
small	ntsôdl.	*thirty*	thatlya'una.
small lake	pēngō ntsōdl.	*forty*	dētlyauna.
small creek	tcarēnligo ntōdl.	*one hundred*	nēlagau'nēldētl'auna.
strong	nadēnt'i'.	*to eat*	ats'iyē'.
old man	dagōldHîn.	*to drink*	thatsêtē.
young	k'ā'nēralitl (?).	*I walk*	sētrasts'a'tl.
good	tlaagō'su.	*to dance*	tsEnadai'H.
bad	pēkunidyî't.	*to sing*	tsîgdyê'n.
a bad man	denē'tla ātltsE'n.	*I want to sleep*	ntāstHē'tl.
dead	daltsha'n.	*I sleep*	satlagaitlqē'n (?).
sick	dEnēita'.	*to speak*	iāzêtld'i'ky.

In the Tenth Report of the Committee (p. 33) I have compiled the known words of the Tinneh dialect that in former times was spoken in the Nicola Valley. I have compared these words with Chilcotin and Nētcā'ut'in words, first by asking for the equivalents of the English words, then by pronouncing the Nicola Valley words. In a number of cases I obtained equivalents which showed close correspondence.

English	Nicola Valley	Chilcotin	Nētcā'ut'in
woman	tsik'hi, tsē-akai'	tsē'k·ē	ts'ē'ku
black bear	sass, sus, sas	sEs	sas
ram of mountain sheep	sisia'nì	cicia'n	sriya'n
ewe of mountain sheep	tpai	çôpai'	spai'a
mountain sheep	ti-pi	tE'pi	—
lake trout	sipai'i	sā'pai	sapai'
snake	tlosHo'	tlarasE'ñ	tlagE's
bear berry	ti'nEH	tî'niH	tEnî'H
horn	(atē)	atē'	atē
arrow	k·e	k·a	k'a
child	(qe)	k·ēi	—
take it!	ētltcot (I may give you)	ēntltcū't	yigē'itltcut

These words agree very closely on the Nicola Valley dialect and in Chilcotin. Only three among these twelve words differ in a manner which cannot well be explained by difference of perception and transcription. They are the following:

	Nicola:	*Chilcotin*:	*Nētcā'ut'in*:
ewe of mountain sheep	tpai	ç̣ôpai'	spai'a.
snake	tlosHo'	tlarasE'ñ	tlagE's.
lake trout	sipai'i	sā'pai	sapai'.

Since three words were collected from more than one individual, and by three different collectors, it seems likely that there existed an actual difference between these dialects in regard to these words.

The following words of the Nicola Valley dialect was not understood by either Chilcotin or Nētcā'ut'in when read by me. In a number of cases I obtained the equivalents of the English words in the two last-named dialects.

Nicola Valley	English	Chilcotin	Nētcā'ut'in
t-haeh	*man*	tînnē, ta'yañ	tîne'
tet'-hutz	*man*	—	—
thatc	*man*	—	—
nootl	*man*	—	—
hûlhûltu'täi	*a fish*	—	—
taki'nktcin	*a fish*	—	—
zûlke'ke	*ground-hog*	tētî'ñy	têtni'
tsho	*buck of deer*	nēsi'ny	yêsts'ētîne'
tEqo'ztz	*soap-berry*	nō'ruc	nawa'c
notl-ta-ha't-se notlqa'tzi qtlona'zi	*wild currant*	tqaltsE'l (?)	—
ta-ta-ney,' tēt-ta-ā-nē' ta-a'-ni	*knife*	palâ'	alî's
tsaē	*spoon*	k·ā'niH	sE'nts'atl
ska-kil-ih-kane	*rush mat*	gultl'i's	hutlE's
naltsi'tse	*arrow-head*	dūñtai'	nū'ntai
tlutl	*packing line*	qētlā'nt'iy	qētlā't'iy
ti-li-tsa-in	*give me the spoon!*	nnan tē k ā'niH	—
n-shote	*give it to me!*	nna	te
pin-a-lē-ēl-ī-ītz	*take care!*	sōtsêlnē'tlē	wô'nli
a'we qe	*come here, child*	- -	

I have omitted the numerals in the comparison, because I suspect that those recorded by Mr. Mackay (*l.c.*, p. 33) are not numerals, but various words which the informant enumerated as known to him. I think that this is the case, because many of them agree nearly or quite accurately with other words of our list. Mr. James Teit, who collected a number of words from the Indians, first called my attention to this fact. The following list shows these agreements:

Numerals	Other words
one, sa-pe	sa-pie, *trout*.
two, tun-ih	tin-ih, *bear-berry*.
three, tlohl	tlotl, *packing line* (Teit).
four, na-hla-li-a	—.
five, e-na-hlē	—
six, hite-na-ke	—
seven, ne-shote	n-shote, *give it to me!*
eight, k-pae	t-pae, *ewe of mountain sheep*.
nine, sas	sass, *bear*.

These agreements and the fundamental differences between these numerals and those of all other Tinneh dialects make the series more than doubtful.

Although the apparent differences of a small vocabulary like the present have no great weight, I am inclined to think that there was a difference between the Chilcotin and the Nicola Valley dialect. The language was, however, evidently very closely related to the Chilcotin, while it differed considerably from the Carrier dialects.

V. *Summary of the Work of the Committee in British Columbia.* *By* FRANZ BOAS.

At the time when the Committee instituted their investigations, the inhabitants of the Pacific coast of Canada were less known than those of any other part of the North American Continent, with the exception, perhaps, of the tribes of California. What little we knew was based on the brief descriptions of early travellers, or on indirect information obtained from investigators who had been working in the regions to the north and to the south. The only noteworthy work done in recent times was that by Dr. G. M. Dawson during his frequent geological expeditions to British Columbia. But three important problems remained to be solved; the numerous languages of the coast were still unclassified, and the number of their dialects was not definitely known; the physical characteristics of the tribes had never been investigated; it was not known if they represented one homogeneous type, or if several types were found in the Province. Finally, the study of the customs of the various tribes offered a number of difficult problems in regard to the origin and significance of several phenomena.

Material advance has been made by the efforts of the Committee in all these directions. The number of languages and dialects is now known, and it does not seem likely that additional ones will be discovered. The following languages are spoken in British Columbia:—Athapaskan or Tinneh in eight dialects; Tsimshian in three dialects; Haida in two dialects; Wakashan in two divisions, the Kwakiutl with three dialects, and the Nootka with two dialects; the Salish in four main divisions with eleven dialects, and the Kootenay. In this enumeration, dialects which may be classed as well developed and pronounced provincialisms have not been counted, but only such dialects as show distinct differences in vocabulary and grammar, so that intercommunication between the tribes speaking them is, even in the case of the most closely affiliated dialects, not easy. We count, therefore, in all, thirty dialects, which have been here classed, according to their affinities, under six linguistic stocks. Grammatical sketches of all these dialects have been obtained; but a few only are known tolerably well. These are the Kwakiutl and the Tsimshian. All the others require much fuller investigation than they have heretofore received.

While the present state of our knowledge of these languages does not permit us to assume that the number of stocks to which they belong is smaller than the number given above, we may call attention at this place to the morphological relations of some of these languages, which suggest the desirability of further inquiries into their early history.

Haida and Tlingit—which latter is spoken in southern Alaska—have a number of morphological traits in common. While all the other languages of the North Pacific coast use reduplication for grammatical purposes, no trace of reduplication is found in these two languages. There is no gender, and no well-defined form for a plural or distributive. Compound nouns are very numerous, the composition being effected by juxtaposition. Words of two, three, and more components, which do not modify each other, occur. Local adverbs, which always retain their independent forms, frequently enter into compound words of this kind. In both languages there are four forms of the personal pronoun. In the

independent pronoun, the selective and the ordinary forms may be distinguished. The pronoun of the transitive verb differs from that of intransitive verbs, the latter being identical with the objective form of the former. In this respect there is a close analogy between the Haida and Tlingit, and the Siouan languages.

The Tsimshian presents an entirely different type of language. We find a plural based largely on reduplication. The pronouns are suffixed to the verb. Words are formed almost exclusively by means of prefixes. The system of numerals is very complex, as there are different sets of numerals for various classes of objects.

The southern group of languages—the Kwakiutl, Salish, and Chemakum (which last is spoken in the northern part of the State of Washington)—have a series of very peculiar traits in common. Most prominent among these is the occurrence of what Trumbull has called 'substantivals,' which play so important a part in the Algonkin languages. Such are, primarily, parts of the body; furthermore, designations of localities, of fire, water, road, blanket, domesticated animals (*i.e.*, in olden times, the dog), and many others. These substantivals do not occur in any other northern language, and must be considered one of the most important characteristics of the languages in question. All these languages use reduplication and diæresis for forming collective forms and plurals of verbs. The demonstrative pronoun is used very extensively, and serves for distinguishing locations of object or action according to the three forms of the personal pronoun; namely, such as are located near the first, second, or third person. Besides these, a great many locative suffixes are used. Whenever an adverb accompanies the verb, the former is inflected, while the verb remains unchanged. When a transitive verb is accompanied by an adverb, the latter always takes the suffix of the pronominal subject, while the verb takes that of the pronominal object.

The Kootenay presents still another type of language. It incorporates the object in the same way as the Mexican does, the noun itself being embodied in the verb. It has very few substantivals, if any, but forms compounds by verbal composition, like the Tinneh (Athapascan) and Siouan. While in the preceding class we find, for instance, compounds expressing states of the hand, of water, fire, &c., we find here compounds expressing actions done with the hand, the foot, or other instrumentalities; and in the water, the fire, or in other localities. It seems that there is no reduplication.

It is worth remarking that these types of language are characterised by a few very general features that they have in common, and that distinguish them from the other groups that are found in contiguous areas. The Haida and Tsimshian are spoken in the extreme north; the Kwakiutl, Salish, Chemakum, in the whole southern portion of the Province, and they adjoin the Algonkin, with whom they have a few peculiarities in common. The Kootenay is not far separated from the Shoshonean languages, which resemble it in several particulars. We may therefore well say that the languages of the North Pacific coast belong to several morphological groups, each of which occupies a continuous area.

The investigation of the physical characteristics of the Indians of British Columbia has resulted in establishing the fact that the people are by no means homogeneous. As compared to the Indians east of the Rocky Mountains and farther south, they have in common a lighter complexion and lighter hair; but the shapes of their heads and faces differ

considerably. Three types may easily be distinguished—the northern type, represented by the Haida, the Indians of Nass River, and the Tsimshian ; the Kwakiutl type ; and the Thompson River type.

These types may be characterised by the following measurements :—

—	Northern Type		Kwakiutl Type		Thompson River Type	
	Average	Mean Error	Average	Mean Error	Average	Mean Error
			I. *Men.*			
	mm.		mm.		mm.	
Stature. . . .	1675	± 7·40	1645	± 5·90	1634	± 7·90
Length of head . .	194·6	± 0·80	188·7	± 1·19	186·5	± 0·55
Breadth of head . .	160·6	± 0·67	159·0	± 1·00	155·9	± 0·52
Breadth of face . .	153·7	± 0·85	151·4	± 0·54	147·4	± 0·41
Height of face . .	121·6	± 0·87	128·0	± 0·67	120·3	± 0·71
			II. *Women.*			
Stature. . . .	1542	± 5·70	1537	± 5·90	1540	± 5·00
Length of head . .	185·6	± 0·88	186 9	± 1·64	179·5	± 0·53
Breadth of head . .	153·2	± 0·90	154·3	± 1·44	150·0	± 0·41
Breadth of face . .	143·9	± 0·80	144·3	± 0·64	138·8	± 0·40
Height of face . .	114·3	± 0·93	119·3	± 0·82	112·5	± 0 54

They may be described as follows : All these types are of medium stature, and their arms are relatively long, their bodies short. Among the northern type we find a very large head. The transversal diameter is very great. The same may be said of the face, which has an enormous breadth. The height of the face is moderate, and therefore its form appears decidedly low. The nose is often concave or straight, seldom convex. The noses of the women are decidedly concave. Its elevation over the face is slight. The point of the nose is short.

The dimensions of the head of the Kwakiutl are similar to those of the northern types, but the head seems to be slightly smaller. The face shows a remarkably different type, which distinguishes it fundamentally from the faces of all the other groups. The breadth of face is nearly the same as that of the northern type, but its height is enormous. The same may be said of the nose, which is very high and comparatively narrow. The point of the nose is short : its elevation is also very great. The nasal bones are strongly developed, and form a steep arch, their lower ends rising high above the face. For this reason convex noses are found very frequently among this type. Convex noses also prevail among the women, and for this reason the difference between the female form of the Kwakiutl and the female form of the northern type is very great.

The Thompson River type is characterised by a very small head, both diameters being much shorter than those found on the coast, while the proportions are nearly the same. The transversal diameter of the face is much shorter than that of the coast Indians, being nearly the same as that found among the Indians on the plains. The face is much lower than that of the Kwakiutl type, and also slightly lower than that of the northern type. The nose is convex and heavy. Its point is much longer and heavier than the point of the noses of the coast types.

There are good indications of the existence of a few other types, but they cannot be distinguished with certainty from the types enumerated

here. It is probable that further measurements will show that the tribes of Harrison Lake and the Gulf of Georgia represent a fourth type.

The distribution of the types of man in British Columbia has an important bearing upon the much discussed question of the classification of mankind; while some anthropologists have maintained that all classification must be based upon considerations of language, others maintain as rigorously that the main consideration must be that of physical type. The data collected by the Committee show clearly that neither of these contentions is entirely correct. We have seen that certain tribes—such as the Bilqula, who linguistically belong to the Salish group—physically belong to another group. This shows that the two phenomena do not go hand in hand, but that they constantly overlap. The classification of mankind according to physical characteristics takes into consideration only the effects of heredity and environment upon the physical type of man. Race mixture, isolation, and effect of environment will be reflected in the results of these classifications. But there are evidently cases in which a slow infiltration of foreign blood takes place, while language and customs remain unaltered or changed to but a slight extent. The Bilqula branched off from the Coast Salish at an early time, and retain the Salish language; but there has been an infiltration of Kwakiutl blood and of Athapaskan blood, which has entirely changed the physical features of the tribe. With this infiltration of foreign blood came foreign words and foreign cultural elements, but they were not sufficiently powerful to change the original speech of the people.

It is clear, from these considerations, that the three methods of classifying mankind—that according to physical characters, according to language, and according to culture—all reflect the historical development of races from different standpoints; and that the results of the three classifications are not comparable, because the historical facts do not affect the three classes of phenomena equally. A consideration of all these classes of facts is needed when we endeavour to reconstruct the early history of the races of mankind.

It will be sufficient to point out in this place a few of the more general results of the studies conducted by the Committee on the cultures of the primitive people of British Columbia. In the Reports of the Committee only brief abstracts were given of the mythologies and traditions of the tribes, but full collections were made; and a comparison of these has led to the following results:—The culture of the coast tribes of the Province is quite uniform. It has reached its highest development in the district extending from Queen Charlotte Islands to northern Vancouver Island. As we depart from this region, a gradual change in arts and customs takes place, and together with it we find a gradual diminution in the number of myths which the distant tribes have in common with the people of British Columbia. At the same time a gradual change in the incidents and general character of the legends takes place.

We can in this manner trace what we might call a dwindling-down of an elaborate cyclus of myths to mere adventures, or even to incidents of adventures, and we can follow the process step by step. Wherever this distribution can be traced, we have a clear and undoubted example of the gradual dissemination of a myth over neighbouring tribes. The phenomena of distribution can be explained only by the theory that the tales have been carried from one tribe to its neighbours, and by the tribe which has newly acquired them in turn to its own neighbours. It is not

necessary that this dissemination should always follow one direction ; it may have proceeded either way. In this manner a complex tale may dwindle down by gradual dissemination, but new elements may also be embodied in it.

It may be well to give an example of this phenomenon. The most popular tradition of the North Pacific coast is that of the raven. Its most characteristic form is found among the Tlingit, Tsimshian, and Haida. As we go southward, the connection between the adventures becomes looser, and their number less. It appears that the traditions are preserved quite fully as far south as the north end of Vancouver Island. Farther south the number of raven-tales which are known to the Indians diminishes very much. At Nahwitti, near the north point of Vancouver Island, thirteen tales out of a whole of eighteen exist. The Comox have only eight, the Nootka six, and the Coast Salish only three. Furthermore, the traditions are found at Nahwitti in the same connection as farther north, while farther south they are very much modified. The tale of the origin of daylight, which was liberated by the raven, may serve as an instance. He had taken the shape of the leaf of a cedar, was swallowed by the daughter of the owner of the daylight, and then born again ; afterwards he broke the box in which the daylight was kept. Among the Nootka, only the transformation into the leaf of a cedar, which is swallowed by a girl and then born again, remains. Among the Coast Salish the more important passages survive, telling how the raven by a ruse compelled the owner of the daylight to let it out of the box in which he kept it. The same story is found as far south as Grey's Harbour in Washington. The adventure of the pitch, which the raven kills by exposing it to the sunshine, intending to use it for calking his canoe, is found far south, but in an entirely new connection, embodied in the tradition of the origin of sun and moon.

But there are also certain adventures embodied in the raven myths of the north, which probably had their origin in other parts of America. Among these may be mentioned the tale of how the raven was invited and reciprocated. The seal puts his hands near the fire, and grease drips out of them into a dish, which he gives to the raven. Then the latter tries to imitate him, but burns his hands, &c. This tale is found, in one or the other form, all over North America, and there is no proof that it originally belonged to the raven myth of Alaska Other examples may be found in the collection of traditions published by F. Boas.[1]

The proposition that dissemination has taken place among neighbouring tribes will probably not encounter any opposition. Starting from this point of view, we may advance the following considerations :—

If we have a full collection of the tales and myths of all the tribes of a certain region, and then tabulate the number of incidents which all the collections from each tribe have in common with any selected tribe, the number of common incidents will be the larger the more intimate the relation of the two tribes, and the nearer they live together. This is what we observe in a tabulation of the material collected on the North Pacific coast. On the whole, the nearer the people, the greater the number of common elements of traditions ; the farther apart, the less their number.

[1] *Indianische Sagen von der Nord-Pacifischen Küste Amerikas*, pp. vi–363. Berlin, 1895.

But it is not the geographical location alone which influences the distribution of tales. In some cases, numerous tales which are common to a certain territory stop short at a certain point, and are found beyond it in slight fragments only. These limits do not by any means coincide with the linguistic divisions. An example of this kind is the raven legend, to which reference has been made. It is found in substantially the same form from Alaska to northern Vancouver Island ; then it suddenly disappears almost entirely, and is not found among the southern tribes of Kwakiutl lineage, nor on the west coast of Vancouver Island, although the northern tribes, who speak the Kwakiutl language, have it. Only fragments of these legends have strayed farther south, and their number diminishes with increasing distance. There must be a cause for such a remarkable break. A statistical inquiry shows that the northern traditions are in close accord with the tales of the tribes as far south as the central part of Vancouver Island, where a tribe of Salish lineage is found ; but farther they do not go. The closely allied tribes immediately south do not possess them. Only one explanation of this fact is possible, viz., lack of assimilation, which may be due to a difference of character, to continued hostilities, or to recent changes in the location of the tribes, which has not allowed the slow process of assimilation to exert its deep-acting influence. The last may be considered the most probable cause. The reason for this opinion is, that the Bilqula, another Salish tribe, who have become separated from the people speaking related languages, and who live in the far north, still show in their mythologies close relations to the southern Salish tribes, with whom they have many more traits in common than their neighbours to the north and to the south. If their removal had taken place very long ago, this similarity in mythologies would probably not have persisted, but they would have been quite amalgamated with their new neighbours.

We may also extend our comparisons beyond the immediate neighbours of the tribes under consideration by comparing the mythologies of the tribes of the plateaus in the interior, and even of those farther to the east, with those of the coast. Unfortunately, the available material from these regions is very scanty. Fairly good collections exist from the Athapaskan tribes, from the tribes of Columbia River, and—east of the mountains—from the Omaha, and from some Algonkin tribes. When comparing the mythologies and traditions which belong to far-distant regions, we find that the number of incidents which they have in common is greater than might have been expected ; but some of those incidents are so general that we may assume that they have no connection, and may have arisen independently. There is, however, one very characteristic feature which proves beyond cavil that this is not the sole cause of the similarity of tales and incidents. We know that in the region under discussion two important trade routes reached the Pacific coast—one along the Columbia River, which connected the region inhabited by Shoshonean tribes with the coast, and indirectly led to territories occupied by Siouan and Algonkin tribes ; another one which led from Athapaskan territory to the country of the Bilqula. A route of minor importance led down Fraser River. A study of the traditions shows that along these routes the points of contact of mythologies are strongest, and rapidly diminish with increasing distances from these routes. On Columbia River the points of contact are with the Algonkin and Sioux ; among the Bilqula they are with the Athapaskan. This phenomenon can hardly

be explained in any other way than by assuming that the myths followed the line of travel of the tribes, and that there has been dissemination of tales all over the continent. The tabulations which have been made include the Micmac of Nova Scotia, the Eskimo of Greenland, the Ponca of the Mississippi Basin, and the Athapaskan of Mackenzie River ; and the results give the clearest evidence of extensive borrowing.

The identity of a great many tales in geographically contiguous areas has led to the assumption that, wherever a great similarity between two tales is found in North America, it is more likely that it is due to dissemination than to independent origin.

But without extending these theories beyond the clearly demonstrated truths of transmission of tales between neighbouring tribes, we may reach some further conclusions. When we compare, for instance, the legend of the culture hero of the Chinook, and that of the origin of the whole religious ceremonial of the Kwakiutl Indians, we find a very far-reaching resemblance in certain parts of the legends, which makes it certain that these parts are derived from the same source. The grandmother of the divinity of the Chinook, when a child, was carried away by a monster. Their child became the mother of the culture-hero, and by her help the monster was slain. In a legend from Vancouver Island a monster, the cannibal spirit, carries away a girl, and is finally slain by her help. Their child becomes later on the new cannibal spirit. There are certain intermediate stages of these stories which prove their identity beyond doubt. The important point in this case is that the myths in question are perhaps the most fundamental ones in the mythologies of these two tribes. Nevertheless, they are not of native growth, but —partly at least—borrowed. A great many other important legends prove to be of foreign origin, being grafted upon mythologies of various tribes. This being the case, it follows that the mythologies of the various tribes as we find them now are not organic growths, but have gradually developed and obtained their present form by accretion of foreign material. Much of this material must have been adopted ready made, and has been adapted and changed in form according to the genius of the people who borrowed it. The proofs of this process are so ample that there is no reason to doubt the fact. We are therefore led to the opinion that, from mythologies in their present form, it is impossible to derive the conclusion that they are mythological explanations of phenomena of nature observed by the people to whom the myths belong, but that many of them, at the places where we find them now, never had such a meaning. If we acknowledge this conclusion as correct, we must give up the attempts at offhand explanation of myths as fanciful, and we must admit that also explanations given by the Indians themselves are often secondary, and do not reflect the true origin of the myths.

It may be well to explain this point of view a little more fully. Certainly the phenomena of nature are the foundation of numerous myths, else we should not find that the sun, moon, clouds, thunderstorm, the sea, and the land play so important a part in all mythologies. But it seems that the specific myth cannot be simply interpreted as the result of observation of natural phenomena. Its growth is much too complex. In most cases the present form has undergone material change by disintegration and by accretion of foreign material, so that the original idea is at best much obscured.

Perhaps the objection might be raised to this argument that the simi-

larities of mythologies are due, not only to borrowing, but also to the fact that, under similar conditions which prevail in a limited area, the human mind creates similar products. While there is a certain truth in this argument, so far as elementary forms of human thought are concerned, it seems quite incredible that the same complex product should originate twice in a limited territory. The very complexity of the tales and their gradual dwindling down, to which reference has already been made, cannot possibly be explained by any other theory than by that of dissemination. Wherever geographical continuity of the area of distribution of a complex ethnographical phenomenon is found, the laws of probability exclude the theory that in this continuous area the complex phenomenon has arisen independently in various places; but they compel us to assume that the distribution of this phenomenon in its present complex form is due to dissemination, while its composing elements may have originated here and there.

In the Old World, wherever investigations on mythologies of neighbouring tribes have been made, the philological proof has been considered the weightiest; that is to say, the proof of borrowing has been considered the most satisfactory whenever, together with the stories, the names of the actors have also been borrowed. We cannot expect to find such borrowing of names to prevail to a great extent in America. Even in Asia the borrowed names are often translated from one language into the other, so that their phonetic resemblance is entirely destroyed. The same phenomenon is observed in America. In many cases the heroes of myths are animals, whose names are introduced in the myths. In other cases, names are translated, or so much changed, according to the phonetic laws of various languages, that they can hardly be recognised. Cases of transmission of names are, however, by no means rare. We will give only a few examples from the North Pacific coast.

Almost all the names of the Bilqula mythology are borrowed from the Kwakiutl language. A portion of the great religious ceremony of the Kwakiutl has the name 'tlōkoa'la.' This name, which is also closely connected with a certain series of myths, has spread northward and southward over a considerable distance. Southward we find it as far as the Columbia River, while to the north it ceases with the Tsimshian; but still farther north another name of a part of the ceremonial of the Kwakiutl is substituted, viz., 'nō'ntlEm.' This name, as designating the ceremonial, is found far into Alaska. But these are exceptions; on the whole, the custom of translating names and of introducing names of animals excludes the application of the linguistic method of investigating the borrowing of myths and customs.

We will next consider the social organisations of the coast tribes in connection with certain peculiar customs which have been described in the Reports of the Committee, viz., the secret societies.

The northern tribes have maternal institutions, and are divided into a number of clans, which have animal totems. The clans are not considered descendants of the totem animal, but claim that the ancestor of each clan had a meeting with the totem animal, in which the latter became his friend and helper. The Kwakiutl are divided into a number of clans, most of which have animals for their totems. Most of these totems are explained in the same manner as those of the northern tribes, while others are considered direct descendants of the totem animal. Among the

Kwakiutl we find a mixture of paternal and maternal institutions, but the son is not allowed to use his father's totem ; he acquires the right to his totem by marriage, receiving at that time the totem of his wife's father. When, later on, his daughter marries, the right to the totem descends upon her husband. In this manner the totem descends in the maternal line, although indirectly. Each clan has a certain limited number of names. Each individual has only one name at a time. The bearers of these names form the nobility of the tribe. When a man receives the totem of his father-in-law, he at the same time receives his name, while the father-in-law gives up the name, and takes what is called 'an old man's name,' which does not belong to the names constituting the nobility of the tribe.

Among the Kwakiutl and Bilqula this social organisation holds good during the summer, while during the winter ceremonials it is suspended. During this time the secret societies take the place of the clans. According to tradition, these societies have originated in the same manner as the clan originated. One of the ancestors of the clan met the presiding spirit of one of the societies, and was initiated by him. This seems to be the general form of tradition explaining the origin of secret societies among all North American tribes. All those who have been initiated by the same spirit, and who have received from him the name, privileges, and secrets of the ceremonial, form a secret society. The most important among the societies on the North Pacific coast are those of the cannibals, the bears, the fools, and the warriors. The number of names composing a secret society is limited in the same manner as the number of names composing the clan. Membership in a secret society may be obtained in two ways : by marriage, in the same way as the acquisition of the totem ; and by killing the owner of a certain name. Totem and secret society are not connected inseparably ; but the one may be transferred to one person, the other to another.

In order to understand this curious system clearly we must remember that the Salish tribes which are found south of the Kwakiutl are divided into village communities ; while their northern neighbours—the Tsimshian, the Haida, and the Tlingit—are divided into maternal clans. The Kwakiutl have been strongly influenced from both sides.

The traditions explaining the totems and the secret societies refer, as stated before, to the initiation of the ancestor of the clan. They are analogous to the traditions of the acquisition of the Manitou. All the tales referring to this subject have approximately the following incident : A youth undergoes a ceremonial fasting and purification, and thus acquires the faculty of seeing a spirit, who becomes his protector. The traditions of the coast tribes explaining the origin of clans have the same contents. There is only one difference : the protecting spirit has appeared to the ancestor of the clan, and is now inherited by their descendants without personal initiation. In this respect the similarity between the traditions of the secret societies and those referring to the Manitous is much closer, since it is necessary that each new member be initiated by the presiding spirit of the society. Therefore every new member has to undergo the same ceremonies which other Indians undergo at the time of reaching puberty. The beliefs of the Chinooks of Columbia River are similar to those of the northern tribes, although among them the idea of the acquisition of the totem has been more clearly preserved. They believe that a man can acquire only that spirit who belonged to his ancestors in the paternal line, but the relation

of this spirit to the individual is identical with that of the Manitou to the eastern Indian.

It can be clearly shown that the development of the family Manitou into the family totem has taken place owing to the influence of the northern tribes. In order to make this clear, it is necessary to consider for a moment the clans of the Kwakiutl somewhat closely. In examining the names of the tribes, it will be seen that very often the name of the tribe is the collective form of the name of its ancestor. At the same time a subdivision of the tribe, one of its clans, may have the name 'The Family of the Ancestor,' while the other clans have different names. It seems that this proves that the first clan formed the original stock of the tribe, and that the other clans joined it later on. This theory is strengthened by two considerations: first, it is stated that each clan originally had its village at a certain place, which it left later on in order to join others. Almost all these places can be proved to be ancient village sites. Secondly, many clans have names which may be translated, as 'Inhabitants of such and such a place,' while nowadays they live with the rest of the tribe in the same village, and have no distinct claims to the territory the name of which they bear. This seems to prove that the present social organisation of the tribe is a late development, and that originally the Kwakiutl were in the same stage of development as their southern neighbours, among whom the social unit is the village community, and who have no crests.

The northern tribes have clearly defined totems, which are inherited in the maternal line, and which have animal names and animal crests. While among these tribes the totem of the whole clan is founded on the tradition belonging to the whole clan, the subdivisions of the latter are explained in exactly the same manner as those of the Kwakiutl clans. The artistic bent of these people has taken hold of these traditions, and has thus formed the crest for the clan and for its subdivisions. There is little doubt that the plastic art of the northern tribes was a most important factor in developing their social system. In the south, where this art begins to disappear, the village community takes the place of the clan with animal totem, while among the tribes located between these two groups, among whom the plastic art is well developed, although not as highly as in the north, there is an intermediate form of social system. It is therefore likely that the development of the social system discussed here has taken place in the northern part of British Columbia.

The northern tribes of Kwakiutl lineage show clearly that their ideas have been influenced by the animal totem of the northern tribes. They have adopted to a great extent the maternal descent and the division into animal totems of the northern tribes. The social organisation of the Hē'iltsuk', one of the most northern tribes of Kwakiutl lineage, is similar to that of the Tsimshian, while their southern neighbours, the inhabitants of Rivers Inlet, who speak the same dialect, retain the more complex organisation of the Kwakiutl; but they have mainly maternal descent.

It is an interesting fact that a great many of the clan legends of the Kwakiutl are very insignificant, while others have important mythical bearings by which they are closely connected with the mythological concepts of the people. It seems probable that clan legends first found their way to the Kwakiutl by marriages with women of northern tribes, whose traditions, according to the customs of the northern region, were inherited by the woman's children. This must have given an important

impulse to acquiring or inventing similar traditions on the part of other clans, since their possession was undoubtedly considered a prestige. Probably the fastings of young men and the subsequent hallucinations have furnished the greater part of the material for these legends.

It is necessary to consider at this place a few characteristic traditions which belong to the cannibal society of the tribes of the northern and central parts of the coast. The most widely diffused tradition on this subject seems to have originated among the Hē'iltsuk·, but it has spread southward to the Kwakiutl. It is told that a young girl was carried away by the cannibal spirit. Her four brothers searched for her, and with difficulty escaped the pursuing cannibal spirit. Finally, they succeeded in killing him, and his ashes were transformed into mosquitoes. In the course of their visit to their sister the brothers learned the songs and secrets of the cannibal society. This tradition is given in most cases as the origin of the secret society. A number of other members were initiated in other ways, one by stealing the cedar-bark ornaments of the bathing cannibal spirit, another one by ascending the sky and obtaining the secrets of the society.

These customs have also spread to the northern neighbours of the Hē'iltsuk·, the Tsimshian. They have the following tradition in regard to the origin of the society:—A hunter pursued a bear, which finally led him into the interior of a rock. Inside he saw people performing the ceremonies of the society, and he was instructed by their chief to repeat the same ceremonies at home. In all the traditions of the Kwakiutl the cannibal spirit presides over the society, while he does not appear in the Tsimshian tradition. This shows that different traditions are used for explaining the same ceremonial.

In connection with these facts we will consider the conclusions which were drawn from a consideration of the mythologies of the tribes of British Columbia. We saw that none of these could be considered as the product of a single tribe. All the traditions were full of foreign elements, which it was possible to trace over wide areas. If, therefore, the same ritual is explained by different traditions, we may conclude that the ritual preceded the tradition; that the former is the primary phenomenon, the latter the secondary.

It seems that the development of the ritual, as well as of the traditions connected with it, is founded in the prestige given by membership in a secret society. There must have developed a desire to become a member of a society, which led, wherever the number of societies was insufficient for the tribe, to the establishment of new ones. It is not meant, of course, that the Indians intentionally invented new traditions, but that the desire stimulated their fancy and excited their mind, and that in this manner, after proper fastings, occasion was given for hallucinations, the material of which was naturally taken from the ideas found among the tribe and its neighbours. Similar phenomena have been treated, from a systematic point of view, by Stoll in his book on Suggestion, and by Tarde in his book on the Laws of Imitation.

It is easily understood how the exciting ceremonial of the cannibal society may have given rise to hallucinations in which a young man thought to see the same spirit under new conditions, and that after his return from the solitude he told his visions. Since the opinion prevailed that the spirit which appeared in this manner had a tendency to reappear to the descendants of the person to whom it once appeared,

opportunity was given for the formation of a new place in the secret societies. We may assume, therefore, that, psychologically, the development of the complex system of membership in the secret societies must be explained as due to the combined action of the social system and the method of acquiring guardian spirits.

While these considerations may explain the variety of form of the secret societies, and show that the myths on which a ritual is founded are probably secondary, they do not explain the origin of the societies themselves and of the peculiar customs connected with them. There are, however, indications which lead to the opinion that these societies developed from methods of warfare. First of all, it is important to note that the deity Winā'lagyilis of the Kwakiutl presides over the whole ceremonial. This name means 'the one who makes war upon the whole world,' and his spirit controls the mind of the Indians also during the time of war. For this reason the secret societies are in action also on war expeditions, no matter at what season of the year they may occur. All the oldest songs of the secret societies refer to war. The cannibal, as well as the bear dancers and the fool dancers of the Kwakiutl, are considered warriors, and go into ecstasies as soon as an enemy has been killed. All this indicates that originally the secret societies were closely connected with war expeditions.

One thing more must be considered. The customs which we observe to-day are evidently the modern development of ancient forms. It is known that the ceremonial cannibalism, which nowadays is the principal part of the whole ceremonial, has been introduced very recently among all the tribes. The Kwakiutl state that this custom was introduced among them not longer than sixty years ago, and that it originated among the Hē'iltsuk·. We also know that the custom spread from the Hē'iltsuk· to the Tsimshian not longer than a hundred and fifty years ago. Therefore there is no doubt that the custom was originally confined to the small territory of the Hē'iltsuk·. Among the southern tribes the cannibals originally confined themselves to holding with their teeth the heads of enemies which had been cut off.

The form in which the cannibalism spread from the Hē'iltsuk· is mainly the following :—A slave was killed by his owner, then he was torn to pieces and eaten by the cannibals ; or pieces of flesh were bitten out of the arms and the chest of people ; or, finally, corpses which had been prepared in a particular way were devoured by the cannibals. The first of these customs clearly bears some relation to war. A slave was obtained in war by the relative of a cannibal, and by killing him the owner celebrated the victory before the assembled tribe. It is not possible to prove definitely that the secret societies developed in this manner from customs related to war expeditions, but the close relationship of the two cannot be doubted.

We may say, therefore, that the investigations of the Committee have proved that dissemination of cultural elements has taken place all along the North Pacific coast, and also that the most distant parts of the American continent, and probably even parts of the Old World, have contributed to the growth of the culture of the Indians of British Columbia. This fact shows that we cannot accept the sweeping assertion that sameness of ethnical phenomena is *always* due to the sameness of the working of the human mind, but that it is necessary to consider in all

anthropological investigations the important element of dissemination of cultural elements.

The decorative art of the Indians of the North Pacific coast differs from the arts of other primitive people in that the process of conventionalisation has not led to the development of geometric designs, but that the ornaments mostly represent animals. It is generally assumed that all the animal representations found on totem poles or on decorations of household utensils and of wearing apparel represent the totems of the various clans. While it is certainly true that in most cases the artists decorate the objects with the totem of the owner, there are a number of cases in which the reason for applying certain animal designs is founded on other considerations. This is very evident in the case of the fish-club, which is used in despatching halibut and other fish before they are hauled into the canoe. Almost all the clubs that I have seen represent the sea-lion or the killer-whale—the two sea animals which are most feared by the Indians, and which kill those animals that are to be killed by means of the club. The idea of giving the club the design of the sea-lion or killer-whale is therefore rather to give it a form appropriate to its function, and perhaps, secondarily, to give it by means of its form great efficiency.

Another instance in which a close relation exists between the function of the object and its design is that of the grease dish. Small grease dishes have almost invariably the shape of the seal, or sometimes that of the sea-lion ; that is, of those animals which furnish a vast amount of blubber. Grease of sea animals is considered a sign of wealth. In many cases abundance of food is described by saying that the sea near the houses was covered with the grease of the seal, the sea-lion, and whales. Thus the form of the seal seems to symbolise affluence.

Other grease dishes and food dishes have the form of canoes, and here, I believe, a similar idea has given rise to the form. The canoe symbolises that a canoe load of food is presented to the guests, and that this view is probably correct is indicated by the fact that in his speeches the host often refers to the canoe filled with food which he gives to his guests. The canoe form is often modified, and a whole series of types can be established forming the transition between canoe dishes and ordinary trays. Dishes of this sort always bear a conventionalised face at each short end, while the middle part is not decorated. This is analogous to the style of the decoration of the canoe. The design represents almost always the hawk. I am not certain what has given origin to the prevalence of this design. On the whole, the decoration of the canoe is totemistic. It may be that it is only the peculiar manner in which the beak of the hawk is represented which has given rise to the prevalence of this decoration. The upper jaw of the hawk is always shown so that its point reaches the lower jaw and turns back into the mouth. When painted or carved in front view, the beak is indicated by a narrow wedge-shaped strip in the middle of the face, the point of which touches the lower margin of the chin. The sharp bow and stern of a canoe with a profile of a face on each side, when represented on a level or slightly rounded surface, would assume the same shape. Therefore it may be that originally the middle line was not the beak of the hawk, but the foreshortened bow or stern of the canoe. This decoration is so uniform that the explanation given here seems to be very probable.

On halibut hooks we find very often decorations representing the squid. The reason for selecting this motive must be looked for in the fact that the squid is used for baiting the hooks.

I am not quite certain if the decoration of armour and weapons is totemistic or symbolic. Remarkably many helmets represent the sea-lion, many daggers the bear, eagle, wolf, and raven, while I have not seen one that represents the killer-whale, although it is one of the ornaments that are most frequently shown on totemistic designs.

I presume this phenomenon may be accounted for by a consideration of the ease with which the conventionalised forms lend themselves to decorating certain parts of implements. It is difficult to imagine how the killer-whale could be represented on the handle of a dagger without impairing its usefulness. On the other hand, the long thin handles of ladles made of the horn of the big horn sheep generally terminate with the head of a raven or of a crane, the beak being the end of the handle. This form was evidently suggested by the slender tip of the horn, which is easily carved in this shape. The same seems to be true in the cases of lances or knives, the blades of which are represented as the long, protruding tongues of animals; but it may be that in this case there is a complex action of a belief in the supernatural power of the tongue, and in the suggestions which the decorator received from the shape of the object he desired to decorate.

To sum up, it seems that there are a great number of cases of decoration which cannot be considered totemistic, but which are either symbolic or suggested by the shape of the object to be decorated. It seems likely that totemism was the most powerful incentive in developing the art of the natives of the North Pacific coast; but the desire to decorate in certain conventional forms once established, these forms were applied in cases in which there was no reason and no intention of using the totemistic mark. The thoughts of the artists were influenced by considerations foreign to the idea of totemism. This is one of the numerous ethnological phenomena which, although apparently simple, cannot be explained psychologically from a single cause, but are due to several factors.

The treatment of the animal design is very peculiar. We may distinguish two principles which govern the form of representation: First, the animal is characterised by a number of symbols; secondly, the artist does not endeavour to render a perspective view of the animal, but rather to show the whole animal.

The first of these principles is probably founded largely on the difficulty encountered in designing realistic representations of various animals which would be clearly recognised as specific animals. For this reason the most characteristic peculiarities of each species become the symbols by which it is recognised. Thus the beaver is always symbolised by two large incisors and a scaly tail; the dog-fish, by an elongated forehead, a mouth with depressed corners, and five curved lines (the gills) on each cheek; the killer-whale, by its tail, flippers, and its large dorsal fin; the sculpin, by two spines which rise over the forehead; the hawk, by a large beak, which is turned backward so that it touches the chin. Probably all these symbols were originally applied to characterise a portion of a quadruped, bird, or fish; but in course of time they came to be considered as sufficient to call to mind the form of the whole animal. We find, therefore, that gradually the symbols were to a great extent substituted

for representations of the whole animal. A dorsal fin worn on the blanket of a dancer, or painted on his face, indicates that the person so decorated personates the killer-whale. A strongly curved beak painted on a gambling-stick symbolises that the stick is meant to represent the thunder-bird. A protruding tongue painted on the chin symbolises the bear.

The second principle seems to be quite opposed to the first one. When the artist decorates any object with the representation of an animal, he distorts and dissects the animal in such a way as to show the whole body on the decorative field; but a closer examination of this tendency proves that it originates mainly in the necessity felt by the artist of introducing all the symbols, which are distributed over the whole body of the animal, in the decoration. To give a few instances, bracelets are decorated in such a way that the animal is split along its back, and then represented in such a manner as to make it appear as though the arm were pushed through the opening. On tattooings the animals are shown as split through along their backs or along their chests, and then flattened out, so that a symmetrical design results. Carvings on totem poles must be interpreted in the same way, the animal being represented as bisected along the rear side of the totem pole, and extended so that the two margins of the cut appear on the borders of the carved portion of the pole. The distortion and section of animals is nowhere carried further than in representations on boxes, on slate dishes, and on Chilcat blankets; but in all these decorations we recognise the endeavour to bring such forms of the animal into view as are essential for an understanding of the design—that is to say, all those parts of the animal are represented which serve as its symbols.

So far as I am aware, the process of conventionalising has not led to the formation of geometrical designs, which are exceedingly rare on decorated objects from the North Pacific coast. They are found only in certain kinds of basket work and in mattings.

Finally, it may be well to add a brief explanation of the economic system prevailing among these Indians, which was fully set forth in the Fifth Report of the Committee. This system finds its expression in the so-called 'potlatch.' The meaning of this custom has been much misunderstood, and the recent enactment of a law making the potlatch a criminal offence is probably in great measure due to a misconception in regard to its meaning.

The economic system of the Indians of British Columbia is largely based on credit, just as much as that of civilised communities. In all his undertakings the Indian relies on the help of his friends. He promises to pay them for this help at a later date. If the help furnished consisted in valuables, which are measured by the Indians by blankets as we measure them by money, he promises to repay the amount so loaned with interest. The Indian has no system of writing, and therefore, in order to give security to the transaction, it is performed publicly. The contracting of debts, on the one hand, and the paying of debts, on the other, is the potlatch. This economic system has developed to such an extent that the capital possessed by all the individuals of the tribe combined exceeds many times the actual amount of cash that exists; that is to say, the conditions are quite analogous to those prevailing in our community: if we want to call in all our outstanding debts, it is found that there is not

by any means money enough in existence to pay them, and the result of an attempt of all the creditors to call in their loans results in disastrous panic, from which it takes the community a long time to recover.

It must be clearly understood that an Indian who invites all his friends and neighbours to a great potlatch, and apparently squanders all the accumulated results of long years of labour, has two things in his mind which we cannot but acknowledge as wise and worthy of praise. His first object is to pay his debts. This is done publicly and with much ceremony, as a matter of record. His second object is to invest the fruits of his labour so that the greatest benefit will accrue from them for himself as well as for his children. The recipients of gifts at this festival receive these as loans, which they utilise in their present undertakings, but after the lapse of several years they must repay them with interest to the giver or to his heir. Thus the potlatch comes to be considered by the Indians as a means of insuring the well-being of their children if they should be left orphans while still young. It is, we might say, their life insurance.

The sudden abolition of this system—which in all its intricacies is very difficult to understand, but the main points of which were set forth in the preceding remarks—destroys therefore all the accumulated capital of the Indians. It undoes the carefully planned life-work of the present generation, exposes them to need in their old age, and leaves the orphans unprovided for. What wonder that it should be resisted with vigour by the best class of Indians, and that only the lazy should support it, because it relieves them of the duty of paying their debts?

But it will be said that the cruel ceremonies connected with some of the festivals make their discontinuance necessary. An intimate knowledge of the Indian character leads me to consider that any interference with these very ceremonials is unadvisable. They are so intimately connected with all that is sacred to the Indian that their forced discontinuance will tend to destroy what moral steadiness is left to him. It was during these ceremonies that I heard the old men of the tribe exhort the young to mend their ways; that they held up to reprobation the young women who had gone to Victoria to lead a life of shame; and that they earnestly discussed the question of requesting the Indian Agents to help them in their endeavour to bring the young back to the good, moral life of old.

And the cruelty of the ceremonial exists alone in the fancy of those who know of it only by the exaggerated descriptions of travellers. In olden times it was a war ceremony, and captives were killed and even devoured; but with the encroachment of civilisation the horrors of the old ceremonies have died out. An old chief has been heard addressing his people thus: 'How lovely is our time! No longer do we go in fear of each other; peace is everywhere. No longer is there the strife of battle; we only try to outdo each other in the potlatch,' meaning that each tries to invest his property in the most profitable manner, and particularly that they vie with each other in honourably repaying their debts.

The ceremony of the present day is no more and no less than a time of general amusement, which is expected with much pleasure by young and old. But enough of its old sacredness remains to give the Indian, during the time of its celebration, an aspect of dignity which he lacks at other times. The lingering survivals of the old ceremonies will die out quickly, and the remainder is a harmless amusement that we should be slow to take away from the native, who is struggling against the overpowerful influence of civilisation.

Papers based largely on Investigations carried on for the Committee on the North-Western Tribes of Canada.

1.—Reports I.–XII. of the Committee on the North-Western Tribes of Canada.

2.—Alex. F. Chamberlain. Der Wettlauf. Eine Sage de Kitonaqa. *Am Ur-Quell*, Bd. III. (1892), S. 212–214.

3.—Einige Wurzeln aus der Sprache der Kitonaqa-Indianer von Britisch-Columbien. *Verh. d. Berl. Anthrop. Ges.* (1893), S. 419–425.

4.—Notes on the Kootenay Indians. Bd. I. The Name. *Amer. Antiquarian*, vol. xv. (1893), pp. 292–294.

5.—Notes on the Kootenay Indians, their History, &c. Bd. II. Linguistic Data. *Ibid.*, vol. xvi. (1894), pp 271–274.

6.—Notes on the Kootenay Indians. Bd. III. Mythology and Folk-lore. *Ibid.*, vol. xvii. (1895), pp. 68–72.

7.—Sagen vom Ursprung der Fliegen und Moskiten. *Am Ur-Quell*, Bd. IV. (1893), S. 129–131. Contains abstracts of Kootenay legends.

8.—The Coyote and the Owl (Tales of the Kootenay Indians). *Memoirs of Intern. Congr. of Anthrop.* (1893), Chicago, 1894, pp. 282–284.

9.—A Kootenay Legend: The Coyote and the Mountain-Spirit. *Journ. Amer. Folk-lore*, vol. vii. (1894), pp. 195, 196.

10.—Words Expressive of Noises in the Kootenay Language. *Amer. Anthrop.* vol. vii. (1894), pp. 68–70.

11.—New Words in the Kootenay Language. *Ibid.*, pp. 186–192.

12.—Beitrag zur Pflanzenkunde der Naturvölker Amerikas (list of Kootenay Plant-names, with notes on their use). *Verh. der Berl. anthrop. Ges.* (1895), S. 551–556.

13.—Alex. F. Chamberlain. Sulle significazioni nella lingua degli indigeni americani detti Kitonaqa (Kootenay) dei termini che denotano gli stati e le condizioni del corpo e dell' animo: saggio di psicologia filologica. *Arch. per l' Antropol.* (Firenze), vol. xxiii. (1893), pp. 393–399.

14.—Incorporation in the Kootenay Language. *Proc. Amer. Ass. Adv. Sci.*, vol. xliii. (1894), pp. 346–348.

15.—Word-formation in the Kootenay Language. *Ibid.*, vol. xliv. (1895), pp. 259, 260.

16.—Kootenay Indian Personal Names. *Ibid.*, pp. 260, 261.

17.—Franz Boas. Development of the Culture of North-West America. *Science*, vol. xii. p. 194.

18.—Petroglyph on Vancouver Island. Traditions of the Kootenay. *Verhandlungen der Gesellschaft für Anthropologie* (Berlin, 1891), S. 158–172.

19.—Vocabularies from the North Pacific Coast. *Proc. Amer. Phil. Soc.* (1891), pp. 173–208.

20.—Chinook Jargon. *Science*, vol. xix., No. 474.

21.—Vocabulary of the Kwakiutl Language. *Proc. Amer. Phil. Soc.* (1892), pp. 34–82.

22.—Classification of Languages of the North Pacific Coast. *Memoirs of the International Congress of Anthropology.* Chicago, pp. 339–346.

23.—Bella Coola Texts. *Proc. Amer. Phil. Soc.* (1895), pp. 31–48.

24.—Indianische Sagen von der nord-pacifischen Küste Amerikas (Berlin, Asher & Co., 1895), S. vi + 363. Map.

25.—The Social Organization and Religious Ceremonials of the Kwakiutl Indians. *Rep. U.S. Nat. Mus.* (1895), pp. 311–736.

26.—Sprachen-Karte von Britisch-Columbien. *Petermann's Mittheilungen* (1896), No. 1. Map.

27.—The Decorative Art of the Indians of the North Pacific Coast. *Bulletin American Museum of Natural History* (New York, 1896), pp. 123–176.

28.—Franz Boas. Die Entwicklung der Geheim-Bünde der Kwakiutl Indianer. Bastian-Festschrift (1896), S. 435–444.

29.—Songs of the Kwakiutl Indians. *Internat. Archiv für Ethnog.*, Supplement (1896), pp. 1–9.

30.—Traditions of the Ts'etsā'ut. *Journ. Amer. Folk-lore* (1896), pp. 257–268; and 1897.

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Females										
42	43	44	45	46	47	48	49	50	51	52
Mary	Mary	Caroline	Lucie	Lucie	—	Agathe	Lucie	Anne	—	Mathilde
Pemberton Meadows	Anderson Lake	Seton Lake	Anderson Lake, Nk'ä'it	Anderson Lake	Seton Lake	Anderson Lake, Nk'ä'it	Seton Lake	Seton Lake	Anderson Lake, Nk'ä'it	Seton Lake
F.	F.	F.	F.	F.	F.	F.	F.	F.	F.	F.
30	31	33	35	40	50	50	50	55	60	70
mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
1,542 [3]	1,482 [3]	1,598	1,621	1,479 [3]	1,556	1,507	1,463	1,474	1,429	1,348
1,286	1,240	1,334	1,347	1,239	1,326?	1,238	1,186	1,226	1,180	1,096
666	655	707	699	633	756	592	636	688	682	631
1,604	1,546	1,604	1,666	1,526	1,668	1,522	1,461	1,588	1,539	1,464
804	800	789	836	791	800	799	744	762	718	666
328	330	350	385	348	310?	361	323	330	335	345
177	175	181	184	173	181	180	172	178	188	183
153	152	147	146	164	148	157	157	155	151	148
109	120	113	120	111	106	124	120	101	118	139
134	139	138	142	147	145·5	147	139	137	142	110
46	45	49	44	49	50	56	55	49	53	53
32	34	34	38	39	38	38	32	37	39	36
86·4	86·9	81·2	79·3	94·8	81·8	87·2	91·3	87·1	80·3	80 9
81·3	86·3	81·9	84·5	75·5	72·8	84·4	86·3	73·7	83·1	79·2
69·6	75·6	77·3	86·4	79 6	76 0	67·9	58·2	75·5	73·6	67·9
43·2	44·3	44·2	43·1	42·8	48·5?	39·2	43·6	46·8	48·0	46·7
104·1	104·3	100·4	102·8	103·2	107·2	101·0	100·0	107·8	107·7	108·6
52·5	54·1	49·3	51·6	53·4	51·3	52·9	51·0	51·8	50·6	49·3
21·4	22·3	21·9	23·8	23·5	19·9?	23·9	22·1	22·4	23·6	25·6

[1] with shoes on spruce boughs.

[6] Father of No. 41.

b.

72	73		97	98	99	100	101	102	103	104	105
Ko'ciQ	Tsk'ai		Stuwitlka'tkoa	Anne	Annie	Adèle	K'stōni'nek	Elizabeth	Sä'ltkoa	Aline	Caroline
Bridge River	Bridge River		Bridge River	Bridge River	Fountain	Fountain	Fountain	Fountain	Fountain	Lillooet	Lillooet
B.	B.		B.	F.	B.	B.	B.	B.	B.	F.	B.
60	60	5	40	60	60	60	60	65	65	70	70
mm.	mm.	m.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
585	1,586	50	1,570	1,328	1,487	1,517	1,563	1,480	1,492	1,480	—
315	1,322	97	1,274	1,056	1,205	1,241	1,281	1,226	1,229	1,194	—
715	748	74	662	584	675	671	667	634	654	676	—
,600[6]	1,733	81	1,560	1,375	1,571	1,555	1,560	1,456	1,508	1,545	—
818	815	35	866	708	764	793	792	760	746	720	—
350	369	44	372	295	340	319	348	313	336	332	—
190	195	186	186	164	176	183	190	178	182	180	189
164	158	159	150	153	151	148	159	153	155	148	154
121	119	119	118	101	109	114	113	126	114	113	109
151	153	149	142	133	140	140	150	144	141	143	144
57	54	51	45	45	52	45	54	54	52	48	50
37	44	32	37	36	35	33	44	37	38	41	40
86·3	81·0	35·5	80·6	93·3	85·8	80·9	83·7	86·0	85·2	82·2	81·5
80·1	77·8	79·9	83·1	75·9	77·9	81·4	75·3	87·5	80 9	79·0	75·7
68·5	81·5	62·7	82·2	80·0	67·3	73·3	81·5	68·5	73·1	85·4	80 0
45·0	47·1	43·5	42·2	43·9	45·3	44·1	42·8	42·8	43·9	45·7	—
—	109·2	02·0	99·4	103·6	105·6	102·5	100·0	—	101·1	104·4	—
51·4	51·3	53·9	55·2	53·2	51·3	52·2	50·8	51·4	50·1	48·6	—
22·0	23·2	22 2	23·7	22·2	22·8	21·0	22·3	21·1	22·6	22·4	—

Father of No

Mother of No. 56

II. Females					
11	12	13	14	15	16
Andresi	Athanasie	Christine	K'ēqpā'tkoa	Kultsi'qa	Nicapa'tko
F. Stlā'tliumH M. Stlaqā'yuQ	F. St'ā'tliumH M. Ntlakyapamuq'ō'e	F. Shuswap M. Stlā'liumH	F. Shuswap M. Stlā'tliumH	F. ½ Shuswap ½ Stlā'tliumH M. Stlā'tliumH	F. ½ Stlā'tliumH ½ Stlemqō'lequmq M. Stlā'tliumH
B.	B.		B.	B.	B.
11	19	23	40	45	55
mm.	mm.	mm.	mm.	mm.	mm.
1,343	1,587	1,553	1,612	1,503	1,592
1,080	1,285	1,263	1,360	1,220	1,310
586	682	690	681	672	662
1,373	1,643	1,625	1,618	1,612	1,605
711	786	794	860	800	793
284	372	332	328	337	354
170	174	174	174	186	185
149	147	147	143	148	157
107	116	114	120	103	106
128	136	133	137	141	145
45	48	48	54	47	46
29	34	34	41	36	36
87·6	84·5	84·5	82·1	79·6	84·8
83·6	85·3	85·7	87·6	73·0	73·1
64·4	70·8	70·8	75·9	76·6	78·3
43·7	42·9	44·5	42·3	44·8	41·6
02·2	103·5	104·6	100·4	107·3	100·8
53·1	49·4	51·2	53·4	53·3	49·9
21·2	23·4	21·4	20·4	22·5	22·3

	45	46	47	48	49	50	51	52	53	54	55	56
	Chief William	Tea	Stanislas	Charlie	Jim Pelyon	Alexis	William	Maurice	Abraham	John	Joe	Adam
	Soda Creek	Canoe Creek	Canoe Creek	Alkali Lake	F. Dog Creek M. Alkali Lake	Soda Creek	Canoe Creek	High Bar	Canoe Creek	Williams Lake	Williams Lake	Canoe Creek
	F.	F.	B.	F.	B.	F.	F.	B.	B.	F.	F.	B.
	50	50	50	50	50	55	55	55	55	55	55	58
	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
44	1,683 [10]	1,648 [11]	1,668	1,640	1,633	1,690	1,662	1,630	1,638	1,639	1,578	1,640
38	1,354	1,333	1,377	1,319	1,340	1,336	1,361	1,336	1,320	1,351	1,254	1,333
33	740	718	746	741	722	764	771	707	700	704	703	735
07	1,752	1,708	1,717	1,744	1,718	1,647	1,774	1,680	1,600	1,704	1,666	1,696
31	838	846	846	830	864	852	863	854	822	850	846	807
73	334	370	381	391	403	358	375	378	351	375	353	369
82	183	189	185	185	192	186	189	187	191	179	190	178
57	157	161	159	165	168	155	157	148	157	161	158	155
1	118	122	118	117	118	133	127	115	115	110	120	118
52	149	154	146	153	158	143	150	147	144	152	147	148
3	53	52	49	55	54	56	55	48	53	49	51	53
5	39	38	40	42	44	38	40	39	40	42	43	42
2	85·8	85·2	85·9	89·2	87·5	83·3	83·1	79·1	82·2	89·9	83·1	87·0
0	79·2	79·2	80·8	76·5	74·7	93·0	84·7	78·2	79·9	72·4	81·6	79·7
0	73·6	73·1	81·6	76·4	81·5	67·9	72·7	81·3	75·5	85·7	84·3	79·2
4	44·0	43·5	44·7	45·2	44·3	45·2	46·4	43·4	42·7	42·9	44·5	44·9
1	104·1	103·6	102·9	106·3	105·2	97·5	106·7	103·1	97·7	104·0	105·6	103·4
0	49·9	51·3	50·7	50·6	53·0	50·4	52·0	52·4	50·1	51·8	53·5	49·2
2	19·9	22·8	22·8	23·8	24·7	21·2	22·6	23·2	21·4	22·9	22·3	22·5

[10] Father of No. 15.

[11] Father of No. 84.

N8	79	2	103	104	105	106	107	108	109	110	111	112	113
Susanne	Katie		Lucy	Cecile	Amy	Madeline	Mary	Anne	Qulēsti'ks	Sarah	Mary	Bridget	Aimée
Soda Creek	Alkali Lake		Canoe Creek	Canoe Creek	Dog Creek	High Bar	Alkali Lake	Canoe Creek	Canoe Creek	Canoe Creek	Sugar Cane	High Bar	Canoe Creek
B.	F.	.	F.	F.	B.	B.	F.	B.	B.	F.	F.	B.	F.
12	14	0	50	50	50	50	55	55	58	60	65	65	70
nm.	mm.	n.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
449	1,436	89	1,534	1,506	1,470	1,510	1,551	1,520	1,617	1,614	1,495	1,525	—
166	1,142	89	1,240	1,232	1,208	1,245	1,238	1,234	1,323	1,332	1,226	—	—
649	599	21	670	664	703	665	708	686	707	751	670	—	—
536	1,410	38	1,540	1,507	1,570	1,550	1,621	1,571	1,633	1,644	1,520	1,543	—
735	806	66	808	792	769	780	812	800	842	790	750	807	—
310	323	45	331	333	318	314	328	330	332	345	312	337	—
177	174	82	178	172	180	174	178	178	183	175	170	187	190
154	153	57	154	145	150	149	154	153	146	155	143	149	155
102	108	17	114	112	110	111	114	115	117	117	108	109	120
139	138	44	139	137	135	136	137	139	137	147	138	141	139
43	47	49	50	49	50	45	51	50	54	52	43	52	48
35	35	36	37	35	32	35	37	39	38	37	39	35	41
87·0	87·9	6·2	86·5	84·3	83·3	85·6	86·5	85·9	79·8	88·6	84·1	79·7	81·5
73·4	78·3	1·2	82·0	81·8	81·5	81·6	83·2	82·7	85·4	79·6	78·3	77·3	86·3
81·4	73·5	3·5	74·0	71·4	64·0	77·8	72·5	78·0	70·4	71·2	90·7	67·3	85·4
44·8	41·6	5·3	43·8	44·0	47·8	44·0	45·7	45·1	43·6	46·6	45·0	—	—
06·0	96·8	3·1	100·4	100·0	106·8	102·6	104·5	103·4	101·0	101·9	101·7	101·2	—
50·8	56·0	4·5	52·8	52·5	52·3	51·7	52·4	52·6	52·0	49·1	50·3	53·4	—
21·4	22·4	1·7	21·6	22·1	21·6	20·8	21·2	21·9	20·5	21·4	20·9	22·3	—

[16] Mother of No. 3.

5. *Stī'atEmQ*

			II. Females							
7	8	9		14	15	16	17	18	19	20
Theresa	Maggie	Bridget		Cecile	Mary	Marianne	Katrine	Julia	Rosalie	Minnie
North Thompson	Kenim Lake	Kenim Lake		Kamloops	Kamloops	Kamloops	Kamloops	Kamloops	Kamloops	Kamloops
F.	F.	B.	.	B.	B.	F.	B.	F.	F.	F.
9	11	12		9	10	12	12	12	13	16
mm.	mm.	mm.	n.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
,351	1,390	1,403	98	1,301	1,245	1,332	1,362	1,490	1,484	1,538
,093	1,130	1,141	45	—	987	1,065	1,080	1,201	1,214	1,255
543	604	636	21	—	521	609	604	671	694	722
,358	1,396	1,448	07	1,352	1,248	1,351	1,403	1,578	1,560	1,632
716	725	745	38	710	681	—	735	790	800	830
340	305	317	73	301	269	—	303	344	351	374
169	169	186	71	173	167·5	182	169	175	180	178
151	143	152	45	145	147	146	145	142	148	151
107	98	108	00	101	103	106	106	117	112	107
134	130	136	24	129	127	126	126	130	135	137
44	41	40	42	40	44	43	42	44	45	47
32	37	39	33	30	33	32	33	35	35	37
89·3	84·6	81·7	·8	83·8	88·2	80·2	85·8	81·1	82·2	84·8
79·9	75·3	79·4	·6	78·3	81·1	84·1	84·1	90·0	83·0	78·1
72·7	90·2	97·5	·6	75·0	75·0	74·4	78·6	79·6	77·8	78·7
40·2	43·5	45·4	·4	—	41·8	46·1	44·1	45·0	46·9	46·9
00·6	100·4	103·2	·7	103·9	100·0	101·4	103·0	105·9	105·1	106·1
53·0	52·2	53·2	·2	54·6	54·5	—	54 0	53·0	54·1	53·9
25·2	21·9	22·6	·8	23·2	21·5	—	22·3	23·1	23·7	24·3

No. 1. [3] Br

7	8	9	10	11
Alfred Manuel	Alec Leonard	Johnnie Peter	Gabriel	Lizzie
F. Kamloops M. ½ Kamloops, ½ White	F. White M. Shuswap	F. French M. Shuswap	F. French M. Shuswap	⅛ White, ⅞ Shuswap
B.	B.	B.	B.	B.
14	15	23	30	6
mm.	mm.	mm.	mm.	mm.
1,422 [6]	1,567	1,737 [7]	1,660	1,053 [8]
1,135	1,270	1,450	1,336	806
635	678	705	744	432
1,493	1,603	1,703	1,760	1,052
750	835	877	895	578
325	347	371	375	231
175	189	195	189	160
157	150	152	162	139
111	115	124	128	91
136	136	141	152	116
43	48	52	57	38
37	35	42	39	27
89·8	79·4	77·9	85·7	86·8
81·6	84·5	88·0	84·2	78·4
86·0	72·9	80·8	68·4	71·1
44·7	43·2	40·5	44·8	41·1
105·0	102·3	98·0	106·0	100·0
52·8	53·2	50·4	53·9	55·0
22·9	22·1	21·3	22·6	22·0

er of No. 1. [3] Brother of N
vel ground; measured with shoes.
r of No. 18. [12] Sister of No

						II. Females					
21	2	45	46	47	48	49	50	51	52	53	54
Charlie Boy	Saibo's	Chinaman	Dick	Louis	Charlie	Sallie	Susanne	Emmeline	Minnie	Josephine	Lucy
Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin
F.	I	F.	B.	F.	F.	B.	B.	F.	B.	F.	F.
25	2	55	55	55	55	6	9	11	12	13	20
mm.	m	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
1,727	1,7	1,580	1,594	1,588	1,635 [1]	1,097	1,320 [14]	1,370 [15]	1,317	1,487	1,580
1,426	1,4	1,283	1,293	1,315	1,353	840	1,037	1,131	1,045	1,210	1,315
755	7	705	708	693	731	454	575	647	596	670	722
1,826	1,7	1,636	1,686	1,591	1,695	1,092	1,348	1,504	1,383	1,518	1,652
912	-	825	835	839	845	618	727	724	717	788	799
372	3	363	380	346	323	245	266	296	298	300	314
187	1	183	186	188	184	167	170	173	169	181	181
157	1	162	158	165	157	140	151	149	146	142	145
130	1	129	112	121	125	92	95	110	112	106	112
151	1	149	150	151	145	117	134	133	127	132	133
55		50	51	54	57	40	40	47	42	42	40
38		41	43	39	40	29	36	34	33	36	36
84·0	8	88·5	84·9	87 8	85·3	83·8	88·8	86·1	86·4	78·5	80·1
86·1	8	86·6	74·6	80·1	86·2	78·6	70·9	82·7	88·2	80·3	84·2
69 1	7	82·0	84·3	72·2	70·1	72·5	90·0	72·3	78·6	85·7	90·0
43·6	4	44·6	44·5	43·6	44·6	41·3	43·6	47·2	45·2	45·0	45·7
105·7	10	103·5	105·8	100·2	103·7	99·5	102·1	109·8	105·0	102·1	104·6
52·7	-	52·2	52·5	52·8	51·5	56·2	55·1	52·8	54·3	52·9	50·6
21·5	2	23·0	23·9	21·8	19·7	22·3	20·2	21·6	22·6	20·1	19·9

No. 1; col0. [14] Daughter of No. 68. [15] Daughter of No. 38.

9b. *Chilcotin, Half-blood.* 10. *Carrier.*

			Male	Males				
73	74	75	76	1	2	3	4	5
Magdalen	Taraik	Atsekulá	George	Êzitô'l	Gɛlɛ'	Tèk·ɛsē'a	Isaac	Jamie
Chilcotin	Chilcotin	Chilcotin	F. American M. Chilcotin	Ntcat'i'n	Ntcat'i'n	F. Têslatat'i'n M. Ntcat'i'n	Alexandria	F. Alexandria (full ?) M. ½ Carrier, ½ White
F.	B.	B.	B.	B.	B.	B.	F.	B.
70	70	75	12	17	18	50	55	13
mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
1,548	—	—	1,495	1,685	1,654	1,775	1,535	1,423
1,288	—	—	1,192	1,364	1,328	1,477	1,265	1,170
710	—	—	658	751	725	717	700	658
1,624	—	—	1,577	1,757	1,702	1,705	1,647	1,495
818	—	—	763	855	862	931	775	765
330	—	—	339	373	363	374	355	248
171	169	175	185	190	185	196	179	180
154	149	149	151	164	156	160	153	159
114	127	106	107	129	121	141	130	112
143	140	136	136	152	146	155	140	131
54	58	53	47	59	51	58	53	44
36	39	39	35	36	37	39	37	32
90·1	88·2	85·1	81·6	86·3	84·3	81·6	85·5	88·3
79·7	90·7	77·9	78·7	84·9	82·9	91·0	92·8	85·5
66·7	67·2	73·6	74·5	61·0	72·5	67·2	69·8	72·7
45·8	—	—	44·2	44·7	43·9	40 3	45·5	46·3
104·9	—	—	105·5	104·3	102·9	96·1	107·3	105·1
52·8	—	—	51·2	50·9	52·2	52·3	50·3	53·9
21·3	—	—	22·8	22·2	22·0	21·0	23·1	17·5

Mother of No. 61.

11g. *amtcī'nEmuQ.*	11h *Nkam mixed Shusu*
Man	Ma
13	1
A'lusken	Tuzl'Exeskt
Nkamtci'nEmuQ	F. Nkamtci'nEmuQ M. $\frac{3}{4}$ Nkamtci'nEmuQ
B.	B.
60	30
mm.	mı
1,670	1,6
1,418	1,3
813	7
1,850	1,7
—	8
385	3
188	1
155	1
106	1
150	1
48	4
37	3
82·4	84
70·7	83
77·1	73
48·7	44
110·8	104
—	53
23·1	23

er of No. 4.

14. *Ts Hēiltsuk.*

ales				II. Females						Half-breed
2		7	8	9	10	11	12	13	14	15
David Starr		Malaqns	Nōnōqns	Nellie Watson	Sakwē'	Susan	Ida	Alakamilq	Jenny	Harry
F. Gyits'alā's M. Gyits'umg'ā'lon		Bella Bella	F. Istaitq M. Bella Bella	Bella Bella	Istaitq	Istaitq	Istaitq	—	Istaitq	M. Bella Bella
B.		F.	F.	F.	F.	F.	F.	F.	F.	F.
23		60	70	20	25	40	50	55	60	35
mm.	r	mm.	mm	mm.	mm.	mm.	mm.	mm.	mm.	mm.
1,732	1	1,568	1,623	1,574	1,414	1,533	1,465	—	1,443	1,613
1,417	1	1,285	1,326	1,301	1,158	1,265	1,210	—	1,181	1,305
781		754	743	718	633	633	640	—	667	733
1,802	1,	1,780	1,774	1,654	1,486	1,528	1,543	—	1,535	1,723
919		—	—	810	—	838	755	—	—	—
381		398	358	375	332	351	360	—	—	393
199		185	190	185	181	179	181	184	186	185
168		170	170	155	153	162	155	167	157	156
128		126	127	112	120	123	113	118	114	124
156		163	159	146	141	155	152	148	150	143
54		58	52	45	50	52	48	49	47	52
41		47	42	37	—	40	38	43	40	33
84·4	8	91·9	89·5	83·8	84·5	90·5	85·6	90·8	84·4	84·3
82·1	8	77·3	79·9	76·7	85·1	79·4	74·3	79·7	76·0	86·7
75·9	6	81·0	80·8	82·2	—	76·9	79·2	87·8	85·1	63·5
45·1	4	48·0	45·9	45·7	44·9	41·4	43·5	—	46·3	45·5
104·0	10	114·2	109·3	105·1	105·1	99·7	105·3	—	106·4	106·8
53·1	5	—	—	51·6	—	54·8	51·4	—	—	—
22·0	2	25·4	22·1	23·9	23 5	22·9	24·5	—	—	24 4

20. *Kwakiutl Men.*

es	18	19	20	21	22	1	2	3
	Tlā'k·oagyi-layuk·oa	Tlā'k·oask·Em	Hé'lēistésEla	Ha'mlitl	K·oē'Hak·as	G·ō'lsElas	Pō'tlas	NE'msk·Emalis
	Awī'ky'ēnôq	Awī'ky·ēnôq	F. ½ Sō'nqulilq, ½ Kwakiutl. M. Awī'ky'ēnôq	Awī'ky·ēnôq	F. Awī'ky'ēnôq. M. ½ Hē'lltsuk', ½ Awī'ky'ēnôq	F. Kwakiutl M Tena'qtaq	F. Kwakiutl M. Tena'qtaq	F. Tena'qtaq M. Awaitlala
	B.	B.	B.	B.	B.	B.	B.	B.
	40	40	40	52	60	35	45	40
	mm.	mm.	mm	mm.	mm.	mm.	mm.	mm.
8 [8]	1,457	1,492	1,508	1,544	1,462	1,540 [9]	1,610 [10]	1,670
4	1,192	1,222	1,223	1,254	1,203	1,242	1,310	1,357
7	619	669	617	692	679	672	745	764
8	1,505	1,551	1,482	1,634	1,558	1,604	1,727	1,793
5	762	800	828	808	784	863	843	806
7	343	308	356	343	340	369	378	390
3 [2]	166 [2]	161 [2]	169 [7]	176 [2]	183 [2]	184 [2]	189 [2]	205 [2]
1 [2]	146 [2]	153 [2]	144 [7]	155 [2]	160 [2]	155 [2]	161 [2]	157 [2]
8	116	114	118	120	119	124	135	130
9	141	138	147	153	150	139	147	157
0	45	49	49	52	54	56	58	53
5	36	35	35	38	36	37	36	42
2 [2]	88·0 [2]	95·0 [2]	85·2 [7]	88·1 [2]	87·4 [2]	84·2 [2]	85·2 [2]	76·6 [2]
2	82·3	82·6	80·3	78·4	79·3	89·2	91·8	82·8
0	80·0	71·4	71·4	73·1	66·7	66·1	62·1	79·2
3	42·4	44·9	40·9	44·9	46·5	43·6	46·3	45·7
9	103·3	104·0	98·3	105·8	106·6	104·2	107·3	107·4
5	52·2	53·7	54·8	52·5	53·7	56·0	52·4?	48·3
0	23 5	20·7	23·6	22·3	23·3	24·0	23·5	23·4

[6] Daughter of Nos. 6, 17. [7] Head flattened behind.

HR
E78
C2
B8
no. 12
Set. 2

1. *Stlatliumh.*

a. *Pemberton Meadows, Anderson Lake, Seton Lake.*

—	I. Males												
Number	1	2	3	4	5	6	7	8	9	10	11	12	13
Name	Albert	Alceste	Tlaspha	Jean Baptiste	William	Samuel Bull	Shimo	Achille	Joseph Ball	Patrick	Joseph	Michel	Joseph
Tribe	Anderson Lake	Anderson Lake	Anderson Lake	Seton Lake (?)	Pemberton Meadows	Anderson Lake, Nk'ä'it	Seton Lake	Seton Lake	Anderson Lake, Nk'ä'it	Seton Lake	Anderson Lake, Nk'ä'it	Seton Lake (?)	Pemberton Meadows
Observer	F.	F.	F.	F.	F.	F.	F.	F.	F.	F.	F.	F.	F.
Age	5	7	8	9	9	11	14	18	19	20	20	25	25
	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
Height standing	1,042[1]	1,089[2]	1,182[3]	1,270	1,279	1,448	1,466	1,654	1,770	1,747	1,580	1,604	1,650
Height of shoulder	835	858	944	1,039	1,016	1,182	1,183	1,353	1,437	1,452	1,282	1,302	1,338
Length of arm	380	400	428	490	471	530	550	658	672	658	624	576	620
Finger-reach	1,035	1,139	1,215	1,270	1,317	1,478	1,527	1,692	1,859	1,849	1,640	1,714	1,692
Height sitting	556	581	604	663	663	738	751	849	874	844	848	830	894
Width of shoulders	270?	248	245	283	293	312	328	390	408	406	382	400	395
Length of head	166	170	162	175	172	177	178	183	189	183	176	177	184
Breadth of head	147	150	152	149	160	157	161	157	157	165	163	156	158
Height of face	89	95	95	113	106	108	110	118	116	120	118	115	119
Breadth of face	118	127	122	134	133	136	141	149	145	146	144	145	143
Height of nose	37	37	36	46	42	44	49	55	48	56	50	52	49
Breadth of nose	31	31	35	36	32	34	36	39	36	38	40	41	40
Length-breadth index	88·6	88·2	93·8	85·1	93·0	88·7	90·5	85·8	83·1	90·2	92·6	88·1	85·9
Facial index	75·4	74·8	77·9	84·3	79·7	79·4	78·0	79·2	80·0	82·2	81·9	79·3	83·2
Nasal index	54·4	83·8	97·2	78·3	76·2	77·3	73·5	70·9	75·0	67·9	80·0	78·8	81·6
Index of arm	43·8	42·0	43·7	43·2	42·6	45·0	43·1	42·1	43·2	45·4	41·6	45·4	43·5
Index of finger-reach	99·6	104·6	102·8	100·0	103·0	102·1	104·1	102·3	105·0	105·8	103·8	106·2	102·5
Index of height sitting	53·5	53·3	51·2	52·2	51·8	50·9	51·1	51·5	49·4	48·2	53·7	51·9	54·2
Index of width of shoulders	26·0?	22·8	20·8	22·3	22·9	21·5	22·3	23·6	23·0	23·2	24·2	25·0	23·9

—	I. Males (continued)															
Number	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29
Name	Jean Baurian (?)	Jimmy	Johnnie	Tommy Jack	Joseph	Major	Edward	Johnnie	John Ball	Paul	—	Bill	Thomas	James	Antoine	Tommy
Tribe	Seton Lake	Anderson Lake, Nk'ä'it	Anderson Lake	Anderson Lake	Anderson Lake	Anderson Lake, Nk'ä'it	Anderson Lake	Anderson Lake	Seton Lake	F. Bridge River, M. Seton Lake	Pemberton Medows	Anderson Lake, Nk'ä'it	Anderson Lake	Anderson Lake, Nk'ä'it	Anderson Lake, Nk'ä'it	Anderson Lake, Nk'ä'it
Observer	F.	F.	F.	F.	F.	F.	B.	F.	F.	F.	F.	F.	B.	F.	F.	F.
Age	27	30	30	30	34	35	40	40	60	65	65	65	70	70	80	80
	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
Height standing	1,636	1,598	1,570[4]	1,581[3]	1,602[5]	1,618	1,700	1,576	1,582[6]	—	1,641[3]	1,536	1,475	1,532	—	—
Height of shoulder	1,322	1,296	1,270	1,330	1,310	1,321	1,396	1,322	1,299	—	1,320	1,266	1,182	1,263	—	—
Length of arm	596	595	554	604	619	594	614	603	572	—	609	523	500	570	—	—
Finger-reach	1,705	1,673	1,725	1,710	1,652	1,722	1,792	1,693	1,681	—	1,685	1,691	1,570	1,618	—	—
Height sitting	819	798	835	854	880	850	865	808	828	—	830?	816	770	778	—	—
Width of shoulders	386	372	390	368	380	415	390	368	365	—	367	380	350?	380	—	—
Length of head	182	183	185·5	182	182	188	192	172	188	190	179	170	183	181	182	176
Breadth of head	157	152	162	164	153	157	158	153	161	164	156	148	157	143	156	157
Height of face	121	121	127	120	115	114	129	110	113	122	119	117	106	110	110	107
Breadth of face	148	147	148	150	143	157	153	144	153	155	148	146	149	143	144	140
Height of nose	50	53	53	47	51	47	50	50	55	57	57	53	52	51	54	52
Breadth of nose	42	40	35	42	38	38	42	39	39	42	37	43	40	41	43	43
Length-breadth index	86·3	83·1	87·6	90·1	84·1	83·5	82·3	89·0	85·7	86·3	87·2	87·1	85·8	79·0	85·7	89·2
Facial index	81·8	82·3	85·8	80·0	80·4	72·6	84·3	76·4	73·9	78·7	80·4	80·1	71·1	76·9	76·4	76·4
Nasal index	84·0	75·5	66·0	89·4	74·5	80·9	84·0	78·0	70·9	73·7	64·9	81·1	76·9	80·4	79·6	82·7
Index of arm	44·3	43·8	45·6	46·0	43·2	44·9	46·0	45·5	46·0	—	43·4	48·3	46·4	45·3	—	—
Index of finger-reach	104·2	104·7	109·9	108·3	103·1	106·4	105·4	107·4	106·3	—	102·7	110·1	106·5	105·6	—	—
Index of height sitting	49·9	49·9	53·2	54·0	55·0	52·5	50·9	51·1	52·4	—	50·6?	53·0	52·4	50·8	—	—
Index of width of shoulders	23·5	23·2	24·8	23·3	23·8	25·6	22·9	23·3	23·1	—	22·4	24·7	23·8	24·8	—	—

—	II. Females											
Number	30	31	32	33	34	35	36	37	38	39	40	41
Name	Susanne	Sallie	Achille	Anne	Agathe	Brigitte	Susanne	Cecilia	Bridget	Bridget	Susanne	Célestine
Tribe	Anderson Lake	Anderson Lake	Seton Lake	Seton Lake	Seton Lake	Seton Lake	Seton Lake	Anderson Lake	Anderson Lake	Anderson Lake	Seton Lake	Seton Lake, Stlaō'c
Observer	F.	F.	F.	F.	F.	F.	F.	F.	F.	F.	F.	F.
Age	8	12	18	20	22	23	27	28	28	28	29	29
	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
Height standing	1,296[3]	1,346[3]	1,582	1,520	1,504	1,493	1,585	1,538	1,491	1,577	1,547	1,498[8]
Height of shoulder	1,035	1,096	1,322	1,258	1,212	1,223	1,323	1,268	1,212	1,305	1,282	1,233
Length of arm	545	614	686	695	644	650	718	677	629	722	709	655
Finger-reach	1,316	1,449	1,622	1,592	1,544	1,508	1,605	1,594	1,558	1,623	1,679	1,515
Height sitting	693	623?	789	839	766	760	838	783	787	811	793	768
Width of shoulders	280	316	373	355	325	364	352	322	350	374	353	343
Length of head	165	171	175	183	169	176	188	186	172	174	183	175
Breadth of head	152	155	148	157	154	147	157	154	147	154	149	161
Height of face	92	90	115	112	109	102	111	106	106	108	112	110
Breadth of face	127	128	139	138	136	139	144	142	135	146	138	134
Height of nose	41	42	47	43	49	41	44	40	49	48	46	44
Breadth of nose	34	32	32	34	31	36	41	41	37	37	39	38
Length-breadth index	92·1	90·6	84·6	85·8	91·1	83·5	83·5	82·8	85·5	88·5	81·4	92·0
Facial index	72·4	70·3	82·7	81·2	80·1	73·4	77·1	74·6	78·5	74·0	81·2	82·1
Nasal index	82·9	76·2	68·1	79·1	63·3	87·8	93·2	102·5	75·5	77·1	84·8	86·4
Index of arm	41·9	45·5	43·4	45·7	42·9	43·6	45·4	44·0	42·2	45·7	45·7	43·7
Index of finger-reach	101·5	107·6	102·5	104·7	102·7	101·0	101·3	103·6	104·5	102·9	108·5	101·1
Index of height sitting	53·3	?	49·9	55·2	51·1	51·0	53·0	50·8	52·8	51·3	51·2	51·2
Index of width of shoulders	21·5	23·4	23·6	23·4	21·7	24·4	22·3	20·9	23·5	23·7	23·8	22·9

—	II. Females (continued)										
Number	42	43	44	45	46	47	48	49	50	51	52
Name	Mary	Mary	Caroline	Lucie	Lucie	—	Agathe	Lucie	Anne	—	Mathilde
Tribe	Pemberton Meadows	Anderson Lake	Seton Lake	Anderson Lake, Nk'ä'it	Anderson Lake	Seton Lake	Anderson Lake, Nk'ä'it	Seton Lake	Seton Lake	Anderson Lake, Nk'ä'it	Seton Lake
Observer	F.	F.	F.	F.	F.	F.	F.	F.	F.	F.	F.
Age	30	31	33	35	40	50	50	50	55	60	70
	mm	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
Height standing	1,542[3]	1,482[3]	1,598	1,621	1,479[3]	1,556	1,507	1,463	1,474	1,429	1,348
Height of shoulder	1,286	1,240	1,334	1,347	1,239	1,326?	1,238	1,186	1,226	1,180	1,096
Length of arm	666	655	707	699	633	756	592	636	688	682	631
Finger-reach	1,604	1,546	1,604	1,666	1,526	1,668	1,522	1,461	1,588	1,539	1,464
Height sitting	804	800	789	836	791	800	799	744	762	718	666
Width of shoulders	328	330	350	385	348	310?	361	323	330	335	345
Length of head	177	175	181	184	173	181	180	172	178	188	183
Breadth of head	153	152	147	146	164	148	157	157	155	151	148
Height of face	109	120	113	120	111	106	124	120	101	118	139
Breadth of face	134	139	138	142	147	145·5	147	139	137	142	110
Height of nose	46	45	49	44	49	50	56	55	49	53	53
Breadth of nose	32	34	34	38	39	38	38	32	37	39	36
Length-breadth index	86·4	86·9	81·2	79·3	94·8	81·8	87·2	91·3	87·1	80·3	80·9
Facial index	81·3	86·3	81·9	84·5	75·5	72·8	84·4	86·3	73·7	83·1	79·2
Nasal index	69·6	75·6	77·3	86·4	79·6	76·0	67·9	58·2	75·5	73·6	67·9
Index of arm	43·2	44·3	44·2	43·1	42·8	48·5?	39·2	43·6	46·8	48·0	46·7
Index of finger-reach	104·1	104·3	100·4	102·8	103·2	107·2	101·0	100·0	107·8	107·7	108·6
Index of height sitting	52·5	54·1	49·3	51·6	53·4	51·3	52·9	51·0	51·8	50·6	49·3
Index of width of shoulders	21·4	22·3	21·9	23·8	23·5	19·9?	23·9	22·1	22·4	23·6	25·6

[1] Son of No. 18; measured bare foot on spruce boughs.
[2] Son of No. 16; measured with shoes on spruce boughs.
[3] Measured with shoes on spruce boughs.
[4] Father of No. 2; left leg short; measured with shoes on spruce boughs.
[5] Father of No. 1; measured with shoes on spruce boughs.
[6] Father of No. 41.
[7] Mother of No. 1.
[8] Daughter of No. 22.

1. *Stlatliumh* (continued).

b. *Lillooet, Bridge River, Fountain, Pavilion.*

—	I. Males																	
Number	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70
Name	Jacob	Hyacinth	Stanislas	Hyacinthe	Joachim	Stephen	Tubil	Jamie Donald	Johnny	Patrick	Henry Andrew	Samson	Skuncto'aQ	Charlie	KEntu'qEn	Jackson	Chief Jimmy	John
Tribe	Lillooet	Lillooet	Lillooet	Lillooet	Lillooet	Lillooet	M. Stlaqā'yuQ F. Lillooet	Fountain	Bridge River	Fountain	F. Ntlakya'pamuQ M. Lillooet	Lillooet	Bridge River	Fountain	Bridge River	Lillooet	Lillooet	Lillooet
Observer	.	F.	F.	B.	F.	B	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.
Age	7	7	9	9	11	11	13½	20	20	23	28	35	35	40	40	40	40	40
	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
Height standing	1,204	1,160	1,275	1,203[1]	1,348	1,296[2]	1,453[3]	1,712	1,603	1,774	1,604	1,645	1,603	1,631	1,569	1,607	1,625[4]	1,670[5]
Height of shoulder	958	926	1,007	960	1,080	1,033	1,190	1,398	1,320	1,451	1,309	—	1,340	1,324	1,266	1,294	1,332	1,354
Length of arm	510	490	567	522	578	550	658	775	715	815	698	—	712	725	691	709	712	711
Finger-reach	1,230	1,156	1,311	1,212	1,380	1,306	1,531	1,813	1,661	1,922	1,666	1,738	1,654	1,679	1,650	1,630	1,720	1,718
Height sitting	593	596	650	622	698	704	736	920	853	923	886	835	840	850	804	875	863	908
Width of shoulders	261	254	298	266	294	294	312	391	380	408	402	382	386	368	385	363	396	384
Length of head	174	168	176	170	173	172	187	182	179	191	180	187	189	192	182	190	192	188
Breadth of head	157	152	160	153	155	149	145	158	162	167	151	156	162	157	147	163	154	159
Height of face	99	101	104	105	105	102	118	120	126	123	118	119	118	123	111	129	123	130
Breadth of face	127	125	127	126	130	131	128	151	148	153	138	150	156	141	139	149	146	147
Height of nose	42	40	50	42	48	44	51	50	52	55	51	55	54	56	50	57	57	57
Breadth of nose	34	31	38	31	38	34	32	42	38	39	38	38	40	38	43	39	34	35
Length-breadth index	90·2	90·5	90·9	90 0	89·6	86·6	77·5	86·8	90·5	87·4	83·9	83·4	85·7	81·8	80·8	85·8	80·2	84·6
Facial index	78·0	80·8	81·9	83·3	80·8	77·9	92·2	79·5	85·1	80·4	85·5	79·3	75·6	87·2	79·9	86·6	84·2	88·4
Nasal index	81 0	77·5	76·0	73·8	79·2	77·3	62·7	84·0	73·1	70·9	74·5	69·1	74·1	67·9	86·0	68·4	59·6	61·4
Index of arm	42·5	42·2	44·6	43·5	42·8	42·3	45·4	45·3	44·7	46·0	43·6	—	44·5	44·5	44·0	44·0	43·7	42·6
Index of finger-reach	102 2	99·7	102·8	100·8	102·4	100·8	105·4	105·9	103·6	108·4	103·9	105·6	103·2	102·9	105·2	101·4	105·8	102·9
Index of height sitting	49·4	51·4	51·2	51·8	51·7	54·2	50·8	53·8	53·3	52 1	55·4	50·6	52·5	52·1	51·2	54·3	53·0	54·7
Index of width of shoulders	21·8	21 9	23·5	22·2	21·8	22·6	21·5	22·9	23 8	23·0	25·1	23·2	24·1	22·6	24·5	22·5	24·3	23·1

—	I. Males (cont.)						II. Females											
Number	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88
Name	Jim	Ko'ciq	Tsk'ai	Tlgape'ê	Capt. Charlie	Pēpayā'	Celestine	Agnes	Therese	Louise	Nancy	Lucy	Mathilde	Rosalie	Francisca	Sophie	Lucy	Angelique
Tribe	Bridge River	Bridge River	Bridge River	Bridge River	Lillooet	Bridge River	Fountain	Fountain	Fountain	Fountain	Fountain	Bridge River	Fountain	Fountain	Pavilion	Fountain	Fountain	Fountain
Observer	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.	F.	B.	B.	B.	B.	B.	B.
Age	58	60	60	60	60	70	5	8	12	13	14	15	16	18	20	20	20	22
	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
Height standing	1,683	1,585	1,586	1,570	1,565	1,643	974	1,174	1,284	1,528	1,520	1,469	1,623	1,570	1,552	1,550	1,470	1,532
Height of shoulder	1,370	1,315	1,322	1,285	1,260	1,376	747	948	1,030	1,243	1,227	1,182	1,317	1,319	1,250	1,296	1,200	1,276
Length of arm	743	715	748	761	700	735	411	502	569	662	687	640	712	684	693	693	651	688
Finger-reach	1,753	1,600[6]	1,733	1,722	1,639	1,681	965	1,163	1,307	1,577	1,583	1,515	1,675	1,602	1,590	1606	1,548	1,617
Height sitting	882	818	815	792	828	845	525	645	690	793	785	749	870	827	780	807	764	813
Width of shoulders	406	350	369	400	355	344	222	258	286	330	342	329	375	356	358	346	345	369
Length of head	197	190	195	192	185	187	164	157	166	181	177	166	185	172	185	181	174	178
Breadth of head	174	164	158	151	157	150	148	139	141	150	153	146	156	155	155	154	156	157
Height of face	124	121	119	119	115	121	91	101	101	112	108	114	119	109	116	112	105	107
Breadth of face	153	151	153	150	153	144	119	116	123	133	131	135	141	144	138	143	138	144·5
Height of nose	53	57	54	54	57	55	38	42	46	44	52	46	51	44	46	46	42	42
Breadth of nose	41	37	44	44	37	38	28	25	26	32	33	36	39	37	36	36	35	36
Length-breadth index	88·3	86·3	81·0	78·6	84·9	80·2	90·2	88·5	84·9	82·9	86·4	88·0	84·3	90·1	83·8	85·1	89·7	88·2
Facial index	81·0	80·1	77·8	79·3	75·2	84·0	76·5	87·1	82·1	84·2	82·4	84·4	84·4	75·7	84·1	78 3	76·1	74·1
Nasal index	77·4	68·5	81·5	81·5	64·9	69·1	73·7	59·5	56·5	72·7	63·5	78·2	76·5	84·1	78·3	78·3	83·3	85·7
Index of arm	44·2	45·0	47·1	48·5	44·9	44·8	42·2	42·9	44·5	43·3	45·2	43·5	44·0	43·6	44·7	44·7	44·3	45·0
Index of finger-reach	104·2	—	109·2	109·7	104·7	102·3	99·0	99·4	101·8	103·2	104·1	103·1	103·2	102·0	102·5	103·6	105·3	105·6
Index of height sitting	52·5	51·4	51·3	50·4	53·1	51·5	53·9	55 1	53·9	51·8	51·6	51·0	53·7	52·7	50·3	52·1	52 0	53·1
Index of width of shoulders	24·2	22·0	23·2	25·5	22·8	21·0	22·8	22·1	22·3	21·6	22·5	22·4	23·1	22·7	23·1	22·3	23·5	24·1

—	II. Females (cont.)																
Number	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105
Name	Atsiqa'a	Helena	Ethel	Célestine	Susanne	Cécile	Pauline	Louise	Stuwitlka'tkoa	Anne	Annie	Adèle	K'stōnī'nek	Elizabeth	Sā'ltkoa	Aline	Caroline
Tribe	Bridge River	Pavilion	Bridge River	Lillooet	Lillooet	Bridge River	Bridge River	Fountain	Bridge River	Bridge River	Fountain	Fountain	Fountain	Fountain	Fountain	Lillooet	Lillooet
Observer	B.	B.	B.	B.	B.	B.	F.	B.	B.	F.	B.	B.	B.	B.	B.	F.	B.
Age	22	22	23	25	26	30	30	35	40	60	60	60	60	65	65	70	70
	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
Height standing	1,533	1,606	1,532[7]	1,575	1,558[8]	1,503	1,494	1,550	1,570	1,328	1,487	1,517	1,563	1,480	1,492	1,480	—
Height of shoulder	1,282	1,328	1,280	1,320	1,282	1,252	1,238	1,297	1,274	1,056	1,205	1,241	1,281	1,226	1,229	1,194	—
Length of arm	672	675	697	716	689	689	618	674	662	584	675	671	667	634	654	676	—
Finger-reach	1,603	1,667	1,600	1,646	1,614	1,600	1,485	1,581	1,560	1,375	1,571	1,555	1,560	1,456	1,508	1,545	—
Height sitting	823 ?	831	808	794	804	774	808	835	866	708	764	793	792	760	746	720	—
Width of shoulders	316	370	360	382	380	338	336	344	372	295	340	319	348	313	336	332	—
Length of head	176	181	181	168	181	179	173	186	186	164	176	183	190	178	182	180	189
Breadth of head	149	149	149	146	156	148	150	159	150	153	151	148	159	153	155	148	154
Height of face	111	117	117	108	118	113	112	119	118	101	109	114	113	126	114	113	109
Breadth of face	140	134	140	135	142	141	139	149	142	133	140	140	150	144	141	143	144
Height of nose	46	48	49	39	45	46	49	51	45	45	52	45	54	54	52	48	50
Breadth of nose	34	33	33	34	34	36	36	32	37	36	35	33	44	37	38	41	40
Length-breadth index	84·7	82 3	82·3	86·9	86·2	82·7	86·7	85·5	80·6	93·3	85·8	80·9	83·7	86·0	85·2	82·2	81·5
Facial index	79·3	87·3	83·6	80·0	83·1	80·1	80·6	79·9	83·1	75·9	77·9	81·4	75·3	87·5	80 9	79·0	75·7
Nasal index	74·0	68·8	67·4	87·2	75·6	78·3	73·5	62·7	82·2	80·0	67·3	73·3	81·5	68 5	73·1	85·4	80 0
Index of arm	43·9	41·9	45·6	45·6	44·2	45·6	41·5	43·5	42·2	43·9	45·3	44·1	42·8	42·8	43·9	45·7	—
Index of finger-reach	104·6	103·8	104·4	104·5	103·6	106·3	99·7	102·0	99·4	103·6	105·6	102·5	100·0	—	101·1	104·4	—
Index of height sitting	53·8	51·6	52·8	50·6	51·5	51·3	54·2	53·9	55·2	53·2	51·3	52·2	50·8	51·4	50·1	48·6	—
Index of width of shoulders	20·7	23·0	23·5	24 3	24·4	22·4	22·6	22 2	23·7	22·2	22·8	21·0	22·3	21·1	22·6	22·4	—

[1] Son of No. 93. [2] Son of No. 69 [3] Son of No. 70. [4] Father of No. 58. [5] Father of No. 59. [6] One hand stiff. [7] Daughter of No. 10 (II.). Mother of No. 56

1. *Stlatliumh.*

c. *Stlatliumh Half-bloods.*

2. *Stlatliumh mixed with Shuswap and other Tribes.*

——	Males		I. Males										II. Females					
Number	1	2	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Name	Dick Terry	Louis	Duncan	Peter	Liniéz	Johnnie Edward	Daniel	Saul	Billy Bones	Harry	Michel	Qā'tca	Andresi	Athanasie	Christine	K'ēqpā'tkoa	Kultsi'qa	Nicapa'tko
Tribe	F. English M. Stlā'tliumh	F. (?) M. Stlā'tliumh	F. Stlā'tliumh M. Carrier	F. Stlā'tliumh M. ½ Shuswap ½ Stlā'tliumh	F. Shuswap M. Stlā'tliumh	F. ½ Shuswap ½ Stlā'tliumh M. ½ Shuswap	F. Shuswap M. Stlā'tliumh	F. Shuswap M. Stlā'tliumh	F. Shuswap M. Stlā'tliumh	F. Shuswap M. Stlā'tliumh	F. Shuswap M. Stlā'tliumh	F. Shuswap M. Stlā'tliumh	F. Stlā'tliumh M. Stlaqā'yuq	F. Stā'tliumh M. Ntlakyapamuq'o'e	F. Shuswap M. Stlā'tliumh	F. Shuswap M. Stlā'tliumh	F. ½ Shuswap ½ Stlā'tliumh M. Stlā'tliumh	F. ½ Stlā'tliumh ½ Stlemqō'lequmq M. Stlā'tliumh
Observer	F.	F.	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.		B.	B.	B.
Age	7	25	9	11	15	20	24	30	30	40	65	70	11	19	23	40	45	55
Height standing	mm. 1,146[1]	mm. 1,592	mm. 1,240	mm. 1,347	mm. 1,582	mm. 1,702	mm. 1,771	mm. 1,679	mm. 1,603	mm. 1,609	mm. —	mm 1,495[2]	mm. 1,343	mm. 1,587	mm. 1,553	mm. 1,612	mm. 1,503	mm. 1,592
Height of shoulder	901	1,298	—	1,098	1,294	1,398	1,462	1,390	1,290	1,293	—	1,222	1,080	1,285	1,263	1,360	1,220	1,310
Length of arm	471	671	—	604	704	718	759	765	682	677	—	686	586	682	690	681	672	662
Finger-reach	1,160	1,606	—	1,390	1,659	1,750	1,834	1,764	1,627	1,645	—	1,586	1,373	1,643	1,625	1,618	1,612	1,605
Height sitting	636	864	635	704	830	900	940	864	880	873	—	783	711	786	794	860	800	793
Width of shoulders	253	392	274	297	377	378	410	394	382	385	350	350	284	372	332	328	337	354
Length of head	176	184	170	177	185	182	191	186	185	191	187	186	170	174	174	174	186	185
Breadth of head	145	165	151	158	156	164	157	160	163	157	156	156	149	147	147	143	148	157
Height of face	91	117	96	105	114	116	122	123	131	119	132	111	107	116	114	120	103	106
Breadth of face	122	147	127	138	139	151	149	149	145	145	150	146	128	136	133	137	141	145
Height of nose	35	52	44	43	45	46	49	53	55	51	53	51	45	48	48	54	47	46
Breadth of nose	31	35	33	31	40	43	39	39	35	39	39	38	29	34	34	41	36	36
Length-breadth index	82·4	89·7	88·8	89·3	84·3	90·1	82·2	86·0	88·1	82·2	83·4	83·9	87·6	84·5	84·5	82·1	79·6	84·8
Facial index	74·6	79·6	75·6	76·1	82·0	76·8	81·9	82·6	90·3	82·1	88·0	76·0	83·6	85·3	85·7	87·6	73·0	73·1
Nasal index	88·6	67·3	75·0	72·1	88·9	93·5	79·6	73·6	63·6	76·5	73·6	74·5	64·4	70·8	70·8	75·9	76·6	78·3
Index of arm	41·0	42·2	—	44·7	44·6	42·2	42·9	45·5	42·6	42·0	—	46·0	43·7	42·9	44·5	42·3	44·8	41·6
Index of finger-reach	101·2	100·9	—	103·2	104·9	102·8	103·6	105·1	101·5	102·2	—	106·1	102·2	103·5	104·6	100·4	107·3	100·8
Index of height sitting	55·3	54·3	51·2	52·1	52·5	53·0	53·1	51·4	55·0	54·2	—	52·6	53·1	49·4	51·2	53·4	53·3	49·9
Index of width of shoulders	22·0	24·7	22·1	22·0	23·9	22·2	23·2	23·5	23·9	23·9	—	23·5	21·2	23·4	21·4	20·4	22·5	22·3

[1] Son of No. 37 (I. a).

[2] Father of No. 91 (I. b).

I. Males

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Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Name	François	Thomas	Edward	Edward	Willie Dixon	Theodore	Ambrose	James	Henry Dixon	Paul	Sandy	Alex	Johnnie	Basil
Tribe	Williams Lake	Alkali Lake	High Bar	Alkali Lake	Alkali Lake	Soda Creek	Pavilion	Soda Creek	Alkali Lake	Canoe Creek	Soda Creek	Soda Creek	Alkali Lake	F. Canoe Creek M. Alkali Lake
Observer	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.
Age	6	8	8	9	9	10	10	12	12	13	14	14	15	15
	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
Height standing	1,175	1,145	1,236 [1]	1,246	1,277 [2]	1,284 [3]	1,347	1,363 [4]	1,447 [5]	1,407	1,560 [6]	1,511	1,450	1,512
Height of shoulder	918	920	960	983	987	1,023	1,076	1,115	1,187	1,150	1,280	1,213	1,181	1,212
Length of arm	514	507	510	519	541	563	573	620	636	606	706	658	657	670
Finger-reach	1,218	1,182	1,203	1,243	1,301	1,326	1,340	1,452	1,483	1,402	1,636	1,573	1,504	1,547
Height sitting	606	651	628	698	698	672	677	705	778	719	834	770	780	798
Width of shoulders	285	265	263	275	263	285	300	303	272	304	328	289	312	335
Length of head	165	160	168	176	178	173	171	179	182	178	188	178	177	173
Breadth of head	143	151	155	151	156	147	146	155	154	150	148	155	154	156
Height of face	96	93	103	96	110	99	104	101	109	103	114	114	111	108
Breadth of face	124	128	126	128	132	130	130	134	134	128	139	142	134	138
Height of nose	39	37	46	42	49	40	41	42	48	44	48	43	49	45
Breadth of nose	32	34	34	31	35	36	34	36	35	32	37	37	38	38
Length-breadth index	86·7	94·3	92·8	85·8	87·6	84·9	85·4	86·6	84·6	84·2	78·7	87·0	87·0	90·1
Facial index	77·4	72·7	81·7	75·0	83·3	76·1	80·0	75·4	81·3	80·4	82·0	80·2	82·8	78·3
Nasal index	82·1	91·9	73·9	73·8	71·4	90·0	82·9	85·7	72·9	72·7	77·1	86·0	77·6	84·5
Index of arm	43·6	44·5	41·1	41·5	42·3	44·0	42·4	45·6	43·9	43·0	45·3	43·6	45·3	44·4
Index of finger-reach	103·6	103·2	97·3	99·8	101·8	103·3	99·5	106·5	102·5	99·6	104·9	104·1	103·7	102·3
Index of height sitting	51·4	57·1	50·6	55·8	54·5	52·5	50·1	51·8	53·7	51·0	53·5	51·0	53·8	52·8
Index of width of shoulders	24·1	23·2	21·2	22·0	20·5	22·3	22·2	22·3	18·8	21·6	21·0	19·1	21·5	22·2

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Number	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Name	Antoine	Anton	Stone	Jack	John	Felix	Ta'ngEn	Edward	Nâsa	E'toEn	Johnson	Siksi	Maurice	Alec
Tribe	Soda Creek	Alkali Lake	Soda Creek	Dog Creek	Canoe Creek	Pavilion	Alkali Lake	Dog Creek	High Bar	Canoe Creek	Alkali Lake	High Bar	Canoe Creek	Sugar Cane
Observer	F.	B.	F.	B.	B.	B.	B.	B.	B.	B.	F.	B.	B.	B.
Age	16	17	18	20	20	20	21	22	24	26	27	30	32	35
	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
Height standing	1,706 [7]	1,536	1,659	1,640	1,642	1,703	1,696	1,612	1,730	1,642	1,670	1,666	1,665	1,663
Height of shoulder	1,408	1,245	1,356	1,364	1,330	1,375	1,404	1,318	1,440	1,352	1,348	1,370	1,373	1,367
Length of arm	774	707	753	744	714	747	786	685	735	716	731	722	734	737
Finger-reach	1,786	1,665	1,716	1,732	1,713	1,755	1,869	1,606	1,744	—	1,770	1,697	1,695	1,713
Height sitting	858	837	875	890	864	894	867	885	908	860	882	904	862	893
Width of shoulders	362	373	381	367	381	402	406	360	422	378	421	379	398	380
Length of head	189	180	182	183	183	192	179	186	187	184	184	184	187	186
Breadth of head	153	149	157	158	160	158	164	163	161	160	159	163	160	153
Height of face	121	117	115	120	115	128	124	119	130	118	120	124	120	113
Breadth of face	143	139	143	150	144	144	153	148	154	146	148	150	148	147
Height of nose	49	48	47	51	49	57	55	51	61	52	48	54	51	52
Breadth of nose	38	41	40	42	42	41	42	44	42	37	37	40	39	42
Length-breadth index	80·9	82·7	86·2	86·3	87·4	82·3	91·6	87·6	86·1	86·9	86·4	88·6	85·6	82·3
Facial index	84·6	84·2	80·4	80·0	79·9	88·9	81·0	80·4	84·4	80·8	81·1	82·7	81·1	76·9
Nasal index	77·6	85·4	85·1	82·4	85·7	71·9	76·4	86·3	68·9	71·2	77·1	74·1	76·5	80·8
Index of arm	45·3	45·9	45·4	45·4	43·5	43·9	46·2	42·5	42·4	43·7	43·8	43·2	44·0	44·4
Index of finger-reach	104·7	108·3	103·4	105·6	104·3	103·0	110·2	99·8	100·8	—	106·0	101·9	101·8	103·0
Index of height sitting	50·2	54·4	52·7	54·3	52·7	52·6	51·0	55·0	52·4	52·4	52·8	54·1	51·6	53·8
Index of width of shoulders	21·2	24·2	23·0	22·4	23·2	23·6	23·9	22·4	24·4	23·0	25·2	22·7	23·8	22·9

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Number	29	30	31	32	33	34	35	36	37	38	39	40	41	42
Name	Capt. Johnnie	Jack	Chief William	Peter	Jean Baptiste	Johnnie	James	Billy Harry	Charlie	K'pōtn	William	Auguste	Billy	Johnnie
Tribe	Canoe Creek	Sugar Cane	Sugar Cane	Alkali Lake	Sugar Cane	F. Dog Creek M. Alkali Lake	High Bar	F. Dog Creek M. Alkali Lake	Soda Creek	Canoe Creek	Alkali Lake	Soda Creek	Alkali Lake	Canoe Creek
Observer	F.	B.	B.	B.	B.	B.	B.	F.	B.	F.	B.	F.	F.	F.
Age	35	35	36	37	38	40	40	40	40	40	45	45	45	45
	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
Height standing	1,675	1,614	1,710	1,560	1,690	1,617	1,627	1,681 [8]	1,711	1,743	1,637	1,656	1,680	—
Height of shoulder	1,340	1,322	1,430	1,266	1,380	1,370	1,325	1,358	1,355	1,422	—	1,339	1,360	—
Length of arm	720	709	764	710	772	737	739	757	708	766	—	740	745	—
Finger-reach	1,739	1,700	1,812	1,697	1,797	1,748	1,699	1,750	1,782	1,780	1,711	1,744	1,796	—
Height sitting	860	849	942	815	900	859	870	891	929	920	885	866	848	—
Width of shoulders	378	369	367	377	406	395	350	395	364	396	374	400	373	—
Length of head	187	184	184	187	196	190	189	192	191	182	189	187	185	187
Breadth of head	156	149	161	162	157	155	162	161	157	157	153	148	156	154
Height of face	120	110	123	125	120	122	118	124	128	123	125	119	131	117
Breadth of face	148	138	148	146	151	151	155	153	153	145	142	145	144	143
Height of nose	47	49	51	55	52	55	50	52	55	50	51	46	55	50
Breadth of nose	40	40	44	35	43	42	43	39	39	41	41	37	37	38
Length-breadth index	83·4	80·9	87·5	86·6	80·1	81·5	85·7	83·8	82·2	86·2	80·9	79·1	84·3	82·3
Facial index	81·1	79·7	83·1	85·6	79·5	80·8	76·1	81·0	83·7	84·8	88·0	82·1	90·9	81·8
Nasal index	85·1	81·6	86·3	63·6	82·7	76·4	86·0	75·0	70·9	82·0	80·4	80·0	67·3	76·0
Index of arm	42·9	44·0	44·7	45·5	45·7	45·5	45·3	45·1	41·4	44·0	—	44·6	44·3	—
Index of finger-reach	103·8	105·3	106·0	108·8	106·3	108·1	104·4	104·1	102·5	102·1	104·5	105·3	106·9	—
Index of height sitting	51·2	52·7	55·1	52·2	53·3	53·0	53·4	53·0	54·3	52·9	54·0	52·2	50·5	—
Index of width of shoulders	22·5	22·9	21·5	24·2	24·0	24·4	21·5	23·5	21·3	22·8	22·8	24·1	22·2	—

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Number	43	44	45	46	47	48	49	50	51	52	53	54	55	56
Name	Antoine	Samson	Chief William	Tea	Stanislas	Charlie	Jim Pelyon	Alexis	William	Maurice	Abraham	John	Joe	Adam
Tribe	High Bar	Alkali Lake	Soda Creek	Canoe Creek	Canoe Creek	Alkali Lake	F. Dog Creek M. Alkali Lake	Soda Creek	Canoe Creek	High Bar	Canoe Creek	Williams Lake	Williams Lake	Canoe Creek
Observer	B.	B.	F.	F.	B.	F.	B.	F.	F.	B.	B.	F.	F.	B.
Age	45	48	50	50	50	50	50	55	55	55	55	55	55	58
	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
Height standing	1,560 [9]	1,544	1,683 [10]	1,648 [11]	1,668	1,640	1,633	1,690	1,662	1,630	1,638	1,639	1,578	1,640
Height of shoulder	1,260	1,238	1,354	1,333	1,377	1,319	1,340	1,336	1,361	1,336	1,320	1,351	1,254	1,333
Length of arm	672	683	740	718	746	741	722	764	771	707	700	704	703	735
Finger-reach	1,558	1,607	1,752	1,708	1,717	1,744	1,718	1,647	1,774	1,680	1,600	1,704	1,666	1,696
Height sitting	828	831	838	846	846	830	864	852	863	854	822	850	846	807
Width of shoulders	336	373	334	370	381	391	403	358	375	378	351	375	353	369
Length of head	181	182	183	189	185	185	192	186	189	187	191	179	190	178
Breadth of head	158	157	157	161	159	165	168	155	157	148	157	161	158	155
Height of face	121	111	118	122	118	117	118	133	127	115	115	110	120	118
Breadth of face	151	152	149	154	146	153	158	143	150	147	144	152	147	148
Height of nose	52	53	53	52	49	55	54	56	55	48	53	49	51	53
Breadth of nose	39	35	39	38	40	42	44	38	40	39	40	42	43	42
Length-breadth index	87·3	86·2	85·8	85·2	85·9	89·2	87·5	83·3	83·1	79·1	82·2	89·9	83·1	87·0
Facial index	80·1	73·0	79·2	79·2	80·8	76·5	74·7	93·0	84 7	78·2	79·9	72·4	81·6	79·7
Nasal index	75·0	66·0	73·6	73·1	81·6	76·4	81·5	67·9	72·7	81·3	75·5	85·7	84·3	79·2
Index of arm	43·1	44·4	44·0	43·5	44·7	45·2	44·3	45·2	46·4	43·4	42·7	42·9	44·5	44·9
Index of finger-reach	99·9	104·1	104·1	103·6	102·9	106·3	105·2	97·5	106·7	103·1	97·7	104·0	105·6	103·4
Index of height sitting	53·1	54·0	49·9	51·3	50·7	50·6	53·0	50·4	52·0	52·4	50·1	51·8	53·5	49·2
Index of width of shoulders	21·5	24·2	19·9	22·8	22·8	23·8	24·7	21·2	22·6	23·2	21·4	22·9	22·3	22·5

[1] Son of Nos. 43 and 94. [2] Brother of No. 9. [3] Brother of Nos. 8 and 69. [4] Brother of Nos. 6 and 69. [5] Brother of No. 5. [6] Brother of No. 73. [7] Son of No. 45. [8] Father of No. 1 (IV.). [9] Father of No. 3. [10] Father of No. 15. [11] Father of No. 84.

3. Stlemqō'lequmq (continued).

—	I. Males									II. Females				
Number	57	58	59	60	61	62	63	64	65	66	67	68	69	70
Name	Penoit	Charlie	Johnnie	Charlie	Tē'lkœn	Casimir	Bob	Chief	Thomas	Angelique	Nancy	Susanne	Juliana	Louisa Robbins
Tribe	Canoe Creek	High Bar	Alkali Lake	Canoe Creek	Chimney Creek	F. Alkali Lake M. Dog Creek	Williams Lake	Pavilion	F. Sugar Cane M. Alkali Lake	Alkali Lake	Soda Creek	Williams Lake	Soda Creek	Alkali Lake
Observer	B.	B.	B.	F.	B.	F.	F.	B.	B.	B.	B.	B.	B.	B.
Age	60	60	60	60	65	65	65	68	75	5	6	7	8	9
	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
Height standing	1,718	1,512	1,545	1,591	1,704	1,528	1,662	1,660	—	1,018	992	1,084[10]	1,185[11]	1,226
Height of shoulder	1,422	1,185	1,279	1,305	1,397	1,298	1,349	1,362	—	781	754	860	934	969
Length of arm	759	692	704	723	735	737	722	731	—	396	407	451	514	521
Finger-reach	—	1,683	1,602	1,673	1,703	1,595	1,681	1,692	—	998	985	1,104	1,194	1,245
Height sitting	901	767	785	833	855	774	816	865	—	572	544	592	636	647
Width of shoulders	361	356	339	380	358	368	376	361	—	220	210	227	273	271
Length of head	189	177	176	193	181	195	188	193	194	157	159	166	173	172
Breadth of head	160	159	157	166	151	165·5	149	166	164	145	141	148	143	149
Height of face	120	113	113	122	121	117	117	114	123	79	91	91	93	92
Breadth of face	153	149	150	153	148	153	149	147	157	114	116	121	126	127
Height of nose	52	55	54	55	51	—	56	59	57	32	39	37	36	37
Breadth of nose	44	40	41	41	38	—	44	43	47	31	29	31	33	33
Length-breadth index	84·7	89·8	89·2	86·0	83·4	85·1	79·3	86·0	84·5	92·2	88·7	89·1	82·6	86·6
Facial index	78·4	75·8	75·3	79·7	81·8	76·5	78·6	77·6	78·3	69·3	78·4	75·2	73·8	72·4
Nasal index	84·6	72·7	75·9	74·5	74·5	—	78·6	72·9	82·5	96·9	74·4	83·8	91·7	89·2
Index of arm	44·1	45·8	45·7	45·5	43·2	48·2	43·5	44·0	—	39·2	41·0	41·4	43·2	42·4
Index of finger-reach	—	111·3	103·7	105·2	100·0	104·4	101·1	101·9	—	98·0	99·3	101·8	100·7	101·5
Index of height sitting	52·4	50·8	51·0	52·4	50·3	50·6	49·2	52·1	—	55·9	54·8	54·8	53·4	52·6
Index of width of shoulders	21·0	23·6	22·0	23·9	21·1	24·1	22·7	21·7	—	21·6	21·2	21·0	22·9	22·0

—	II. Females													
Number	71	72	73	74	75	76	77	78	79	80	81	82	83	84
Name	Agnes	Eliza	Anastase	Therese	Christine	Ellen	Nellie	Susanne	Katie	Marianne	Margaret	Aberé'n	Pauline	Annie
Tribe	Alkali Lake	Sugar Cane	Soda Creek	Alkali Lake	Alkali Lake	Williams Lake	Alkali Lake	Soda Creek	Alkali Lake	High Bar	Canoe Creek	Alkali Lake	Alkali Lake	Alkali Lake
Observer	B.	F.	F.	B.	F.	B.	B.	B.	F.	B.	B.	B.	B.	F.
Age	9	9	9	10	11	11	12	12	14	15	16	17	17	17
	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
Height standing	1,164	1,175[12]	1,174[13]	1,233	1,273	1,454	1,364	1,449	1,436	1,480	1,553	1,570	1,554	1,590[14]
Height of shoulder	917	921	945	967	986	1,184	1,107	1,166	1,142	1,219	1,293	1,280	1,256	1,256
Length of arm	487	505	503	544	544	672	603	649	599	661	704	688	702	706
Finger-reach	1,184	1,214	1,219	1,276	1,288	1,522	1,413	1,536	1,410	1,538	1,645	1,590	1,673	1,689
Height sitting	628	652	636	657	670	767	735	735	806	793	822	826	812	826
Width of shoulders	261	256	268	273	290	318	310	310	323	342	362	340	372	365
Length of head	168	167	170	175	173	174	175	177	174	170	180	175	182	185
Breadth of head	144	141	146	158	152	148	154	154	153	145	157	146	149	156
Height of face	96	98	91	102	102	103	102	102	108	110	114	116	115	121
Breadth of face	122	128	123	134	134	132	139	139	138	132	146	138	137	143
Height of nose	37	35	39	45	40	46	41	43	47	44	46	45	47	50
Breadth of nose	29	34	34	35	34	38	38	35	35	38	38	37	38	35
Length-breadth index	85·7	84·4	85·8	90·2	87·8	85·0	88·0	87·0	87·9	85·2	87·2	83·4	81·8	84·3
Facial index	78·7	76·6	73·9	76·4	76·1	78·0	73·4	73·4	78·3	83·3	78·1	84·1	83·9	84·6
Nasal index	78·4	97·2	87·2	77·8	85·0	82·6	92·7	81·4	73·5	86·4	82·6	82·2	80·8	70·0
Index of arm	42·0	42·8	43·0	44·2	42·8	46 3	44·3	44·8	41·6	44·7	45·4	43·8	45·3	44·4
Index of finger-reach	101·7	103·3	103·8	103·5	101·1	104·7	103·6	106·0	96·8	103·9	105·9	101·3	107·7	106·2
Index of height sitting	54·1	55·3	54·4	53·4	52·8	52·9	54·0	50·8	56·0	53·6	53·0	52·6	52·4	52·0
Index of width of shoulders	22·5	21·7	22·9	22·2	22·8	21·9	22·8	21·4	22·4	23·1	23·4	21·7	24·0	23·0

—	II. Females													
Number	85	86	87	88	89	90	91	92	93	94	95	96	97	98
Name	Catherine	Mary	Marguerite	Mathilde	Mary	Margaret	Marianne	Louise	Agathe	Florentine	Cecile	Marianne	Anne	Louise
Tribe	High Bar	Canoe Creek	Canoe Creek	Alkali Lake	Soda Creek	Alkali Lake	Soda Creek	High Bar	Canoe Creek	High Bar	Alkali Lake	Alkali Lake	High Bar	High Bar
Observer	B.	F.	F.	.	F.	F.	F.	B.	F.	B.	F.	B.	B.	B.
Age	18	20	20	22	22	23	25	28	30	35	35	40	40	40
	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
Height standing	1,615	1,586	1,581	1,471	1,545[15]	1,459	1,622	1,530	1,582	1,555[16]	1,580	1,453	1,505	1,526
Height of shoulder	1,324	1,288	1,286	1,204	1,260	1,170	1,325	1,250	1,306	1,297	1,275	1,168	1,242	1,258
Length of arm	746	694	717	681	665	675	709	665	694	709	679	634	625	650
Finger-reach	1,703	1,620	1,658	1,566	1,553	1,538	1,674	1,570	1,600	1,597	1,606	1,501	1,490	1,581
Height sitting	833	850	825	802	817	779	855	780	836	786	847	797	836	825
Width of shoulders	365	357	345	355	336	357	378	354	348	358	362	337	332	375
Length of head	178	173	174	174	166	180	184	181	186	183	181	174	190	181
Breadth of head	144	157	153	147	146	149	158	150	154	157	154	153	152	152
Height of face	108	111	107	106	105	112	119	111	118	120	123	105	125	117
Breadth of face	134	135	133	134	133	140	147	143	143	135	145	139	141	141
Height of nose	44	46	45	47	43	45	47	46	48	54	52	45	55	49
Breadth of nose	33	34	33	33	30	39	37	35	35	35	39	34	34	38
Length-breadth index	80·8	90·7	87·9	84·5	87·9	82·2	85·9	82·8	82·8	85·8	85·0	87·9	80·0	83·9
Facial index	79·8	82·2	80·4	79·1	78·9	80·0	81·0	77·6	82·5	88·9	84·8	75·5	88·7	83·0
Nasal index	75·0	73·9	73·3	70·2	69·8	86·7	78·7	76·1	72·9	64·8	75·0	75·6	61·8	77·6
Index of arm	46·3	43·6	45·4	46·3	42·9	46·2	43·8	43·5	43·9	45·7	43·0	43·7	41·4	42·5
Index of finger-reach	105·5	102·1	104 9	106·5	100·5	105·4	103·2	102·6	101·1	102·7	101·6	103·3	99·0	103·6
Index of height sitting	51·7	53·5	52·2	54·6	52·7	53·4	52·8	51·0	52·9	50·7	53·6	55·0	55·4	53·9
Index of width of shoulders	22·7	22·5	21·8	24·1	21·7	24·4	23·3	23·1	22·0	23·1	22·9	23·2	22·0	24·5

—	II. Females														
Number	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113
Name	Julie	Mary	Therese	Agathe	Lucy	Cecile	Amy	Madeline	Mary	Anne	Quĕsti'ks	Sarah	Mary	Bridget	Aimée
Tribe	Canoe Creek	Soda Creek	Williams Lake	Alkali Lake	Canoe Creek	Canoe Creek	Dog Creek	High Bar	Alkali Lake	Canoe Creek	Canoe Creek	Canoe Creek	Sugar Cane	High Bar	Canoe Creek
Observer	B.	F.	F.	F.	F.	F.	B.	B.	F.	B.	B.	F.	F.	B.	F.
Age	42	45	45	50	50	50	50	50	55	55	58	60	65	65	70
	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
Height standing	1,596	1,619	1,573	1,589	1,534	1,506	1,470	1,510	1,551	1,520	1,617	1,614	1,495	1,525	—
Height of shoulder	1,310	1,308	1,271	1,289	1,240	1,232	1,208	1,245	1,238	1,234	1,323	1,332	1,226	—	—
Length of arm	691	785	696	721	670	664	703	665	708	686	707	751	670	—	—
Finger-reach	1,638	1,693	1,648	1,638	1,540	1,507	1,570	1,550	1,621	1,571	1,633	1,644	1,520	1,543	—
Height sitting	819	821	828	866	808	792	769	780	812	800	842	790	750	807	--
Width of shoulders	345	345	375	345	331	333	318	314	328	330	332	345	312	337	—
Length of head	169	171	183	182	178	172	180	174	178	178	183	175	170	187	190
Breadth of head	147	146	152	157	154	145	150	149	154	153	146	155	143	149	155
Height of face	118	119	120	117	114	112	110	111	114	115	117	117	108	109	120
Breadth of face	136	134	150	144	139	137	135	136	137	139	137	147	138	141	139
Height of nose	54	58	48	49	50	49	50	45	51	50	54	52	43	52	48
Breadth of nose	34	32	36	36	37	35	32	35	37	39	38	37	39	35	41
Length-breadth index	87·0	85·4	83·0	86·2	86·5	84·3	83·3	85·6	86·5	85·9	79·8	88·6	84·1	79·7	81·5
Facial index	86·8	88·8	80·0	81·2	82·0	81·8	81·5	81·6	83·2	82·7	85·4	79·6	78·3	77·3	86·3
Nasal index	63·0	55·2	75·0	73·5	74·0	71·4	64·0	77·8	72·5	78·0	70·4	71·2	90·7	67·3	85·4
Index of arm	43·2	48·5	45·3	45·3	43·8	44·0	47·8	44·0	45·7	45·1	43·6	46·6	45·0	—	—
Index of finger-reach	102·6	104·6	104·8	103·1	100·4	100·0	106·8	102·6	104·5	103·4	101·0	101·9	101·7	101·2	—
Index of height sitting	51·2	50·7	52·7	54·5	52·8	52·5	52·3	51·7	52·4	52·6	52·0	49·1	50·3	53·4	—
Index of width of shoulders	21·6	21·3	23·9	21·7	21·6	22·1	21·6	20·8	21·2	21·9	20·5	21·4	20·9	22·3	—

[10] Sister of No. 72. [11] Sister of Nos. 6 and 8. [12] Sister of No. 68. [13] Sister of No. 11. [14] Daughter of No. 46. [15] Daughter of No. 7 (IV.) [16] Mother of No. 3.

4. *Stlemaōʻlequmq and Other Tribes mixed* 5. *Stlʻatemq* 6. *Kamloops.*

	I. Males							II. Females				I. Males				II. Females																				I. Males											II. Females							
Number.	1	2	3	4	5	6	7	8	9	10	11	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Name	Alec	Thomas	Joseph	Pierre	Alec	Timo'tkem	Capt. Charlie	Louise	Aline	Louise	Rose	George	Mike	Tom	Narcisse	Helene	Celestine	Theresa	Maggie	Bridget	Augustine	Julie	Lisette	?	Celestine	Margaret	Gabriel Narcisse	George Alexis	Cyprian	Alec Joseph	Harry Duncan	Casimir Michel	Adolph William	Alexander Bob	Allen Edward	Cyprian Antony	Benjamin Thomas	Bob Pavilion	Juliana	Cecile	Mary	Marianne	Katrine	Julia	Rosalie	Minnie
Tribe	F. Alkali Lake M. Kenim Lake	F. Alkali Lake M. Kenim Lake	F. Williams Lake M. Kenim Lake	F. Alkali Lake M. Kenim Lake	F. Stlemqo'lequmq M. Canoe Creek	F. Kenim Lake M. Dog Creek	F. Soda Creek M. Buonaparte	F. Alkali Lake M. Kenim Lake	F. Alkali Lake M. Chilcotin	F. Carrier M. Soda Creek	F. Kenim Lake M. Soda Creek	Kenim Lake	Kenim Lake	Kenim Lake	Kenim Lake	Kenim Lake	Kenim Lake	North Thompson	Kenim Lake	Kenim Lake	North Thompson	North Thompson	North Thompson	Kenim Lake	Kenim Lake	Kenim Lake	Kamloops	Kamloops	Kamloops	Kamloops	Kamloops	Kamloops	Kamloops	Kamloops	Kamloops	Kamloops	Kamloops	F. Kamloops M. Buonaparte	Kamloops	Kamloops	Kamloops	Kamloops	Kamloops	Kamloops	Kamloops	Kamloops
Observer	F.	B.	B.	B.	B.	F.	F.	B.	F.	F.	F.	B.	B.	B.	B.	F.	F.	F.	F.	B.	B.	B.	F.	B.	B.	B.	B.	B.	F.	F.	B.	B.	B.	B.	B.	F.	B.	B.	B.	B.	B.	F.	B.	F.	F.	F.
Age	12	16	16	20	35	40	55	13	33	55	65	10	12	12	13	8	9	9	11	12	14	16	18	25	38	60	10	11	11	13	13	13	14	14	14	15	50 (?)	40	8	9	10	12	12	12	13	16
Height standing	mm. 1,443[1]	mm. 1,580	mm. 1,611	mm. 1,630	mm. 1,690	mm. 1,676	mm. 1,656[2]	mm. 1,453	mm. 1,605	mm. 1,567	mm. 1,450	mm. 1,313[1]	mm. 1,285	mm. 1,413[2]	mm. 1,414[3]	mm. 1,145	mm. 1,255[4]	mm. 1,351	mm. 1,390	mm. 1,403	mm. 1,455	mm. 1,550	mm. 1,466	mm. 1,559	mm. 1,514	mm. 1,425	mm. 1,238	mm. 1,365	mm. 1,230	mm. 1,382	mm. 1,436	mm. 1,367	mm. 1,370	mm. 1,426	mm. 1,453	mm. 1,445	mm. 1,700	mm. 1,619	mm. 1,198	mm. 1,301	mm. 1,245	mm. 1,332	mm. 1,362	mm. 1,490	mm. 1,484	mm. 1,538
Height of shoulder	1,159	1,290	1,318	1,334	1,395	1,384	1,358	1,203	1,312	1,281	1,177	1,060	1,040	1,132	1,145	905	1,009	1,093	1,130	1,141	1,170	1,244	1,184	1,280	1,234	1,175	1,000	1,100	970	1,118	1,172	1,076	1,105	1,150	1,172	1,132	1,390	1,333	945	—	987	1,065	1,080	1,201	1,214	1,255
Length of arm	673	702	748	751	737	770	740	678	682	706	700	596	595	627	622	485	554	543	604	636	672	669	653	710	633	655	520	587	556	640	634	584	583	644	636	620	768	722	521	—	521	609	604	671	694	722
Finger-reach	1,498	1,637	1,764	1,711	1,755	1,752	1,691	1,546	1,602	1,571	1,540	1,353	1,356	1,487	1,435	1,174	1,288	1,358	1,396	1,448	1,542	1,554	1,529	1,675	1,603	1,470	1,248	1,403	1,290	1,444	1,443	1,393	1,373	1,462	1,500	1,507	1,800	1,665	1,207	1,352	1,248	1,351	1,403	1,578	1,560	1,632
Height sitting	728	836	880	893	908	871	839	770	806	755	748	735	696	733	753	625	705	716	725	745	812	873	810	833	804	731	663	711	—	715	755	737	738	754	750	746	885	875	638	710	681	—	735	790	800	830
Width of shoulders	340	378	354	358	378	375	336	343	355	306	320	293	281	323	298	268	286	340	305	317	347	323	330	381	357	314	268	303	290	296	311	294	293	294	331	326	380	388	273	301	269	—	303	344	351	374
Length of head	178	182	188	189	185	192	175	174	175	180	177	178	176	182	178	167	171	169	169	186	179	183	185	189	179	171	173	176	173	183	180	181	171	185	181	175	191	187	171	173	167·5	182	169	175	180	178
Breadth of head	148	154	159	163	159	161	165	148	157	146	150	155	150	159	158	148	150	151	143	152	146	153	156	151	152	151	155	153	146	150	147	153	153	155	153	148	158	161	145	145	147	146	145	142	148	151
Height of face	111	108	122	124	115	119	120	105	107	109	105	99	111	108	99	89	98	107	98	108	113	122	114	113	110	112	106	112	97	121	117	105	104	110	114	103	122	130	100	101	103	106	106	117	112	107
Breadth of face	134	143	145	152	152	150	147	138	139	137	144	131	131	143	145	127	135	134	130	136	136	138	143	142	145	134	127	131	127	134	129	134	136	132	138	128	153	149	124	129	127	126	126	130	135	137
Height of nose	45	44	50	58	51	50	51	43	46	52	48	44	47	39	41	37	40	44	41	40	47	51	44	48	44	48	44	51	37	45	49	43	42	48	49	43	56	57	42	40	44	43	42	44	45	47
Breadth of nose	38	38	41	42	37	39	38	32	34	35	37	35	35	38	40	34	35	32	37	39	34	35	33	41	40	40	34	33	31	31	32	33	36	35	36	34	41	38	33	30	33	32	33	35	35	37
Length-breadth index	83·1	84·6	84·6	86·2	85·9	83·8	94·3	85·0	89·7	81·1	84·7	87·0	85·2	87·9	88·7	88·6	87·8	89·3	84·6	81·7	81·5	83·6	84·3	79·9	84·9	88·3	89·6	86·9	84·4	81·9	81·6	84·5	89·5	83·8	84·5	84·5	82·7	86·1	84·8	83·8	88·2	80·2	85·8	81·1	82·2	84·8
Facial index	82·8	75·5	84·1	81·6	75·7	79·3	81·6	76·1	76·9	79·6	72·9	75·6	84·7	75·5	68·3	70·1	72·6	79·9	75·3	79·4	83·1	88·4	79·7	79·6	75·9	83·6	83·3	85·5	76·4	90·3	90·7	78·4	76·4	83·3	82·6	80·4	79·7	87·2	80·6	78·3	81·1	84·1	84·1	90·0	83·0	78·1
Nasal index	84·5	86·4	82·0	72·4	72·6	78·0	74·1	74·4	73·9	67·3	77·1	79·6	74·5	97·4	97·6	91·9	87·5	72·7	90·2	97·5	72·4	68·6	75·0	85·4	90·9	83·3	77·4	64·7	83·8	68·9	65·3	76·7	85·7	72·9	73·5	79·1	73·2	66·7	78·6	75·0	75·0	74·4	78·6	79·6	77·8	78·7
Index of arm	46·7	44·4	46·5	46·1	43·6	45·8	44·6	46·8	42·4	45·0	48·3	45·5	46·1	44·5	44·1	42·5	44·0	40·2	43·5	45·4	46·0	43·2	44·4	45·5	41·9	45·8	41·9	42·8	45·2	46·4	44·0	42·6	42·6	45·0	43·5	42·8	45·2	44·6	43·4	—	41·8	46·1	44·1	45·0	46·9	46·9
Index of finger-reach	103·8	103·6	109·5	105·0	103·8	104·5	102·1	106·4	99·8	100·3	106·2	103 0	105·5	105·2	101·5	102·5	102·6	100·6	100·4	103·2	106·0	100·3	104·3	107·4	105·9	103·1	100·7	102·8	104·8	104·5	100·5	101·9	100·2	102·5	103·2	104·3	105·9	102·8	100·7	102·9	100·0	101·4	103·0	105·9	105·1	106·1
Index of height sitting	50·5	52·9	54·7	54·8	53·7	51·8	50·5	53·1	50·1	48·1	51·6	56·1	54·0	52·0	53·4	54·8	56·0	53·0	52·2	53·2	55·6	56·3	55·2	53·4	53·2	51·1	53·5	51·9	—	51·8	52·4	53·8	53·9	52·7	51·7	51·4	52·1	54·0	53·2	54·6	54·5	—	54·0	53·0	54·1	53·9
Index of width of shoulders	23·6	23·9	22·0	22·0	22·4	22·3	20·2	23·7	22·0	19·5	22·1	22·4	21·8	22·9	21·1	23·5	22·7	25·2	21·9	22·6	23·8	20·8	22·4	24·4	23·6	22·0	21·6	22·1	23·6	21·4	21·6	21·5	21·4	20·6	22·8	22·6	22·4	24·0	22·8	23·2	21·5	—	22·3	23·1	23·7	24·3

[1] Son of No. 36 (III.) [2] Father of No 89 (III.) [1] Brother of No. 3. [2] Brother of No. 1. [3] Brother of No. 6. [4] Sister of No. 4.

7. *Buonaparte.*

8. *Shuswap Half-bloods.*

—	I. Males							II. Females				
Number	1	2	3	4	5	6	7	8	9	10	11	12
Name	Pierrez	Hyacinth Jules	Thomas George	Willie Jules	Edward Jules	Spa'laqɛn	Edward Hyacinth	Alice	Pauline	Agathe	Eliza	Victoria
Tribe	F. Pavilion M. Buonaparte	Deadman's Creek	Deadman's Creek	Deadman's Creek	Deadman's Creek	F. Pavilion M. Buonaparte	F. Buonaparte M. ½ Buonaparte ½ Cawa'qamuq	Deadman's Creek	Deadman's Creek	Deadman's Creek	Deadman's Creek	Deadman's Creek
Observer	B.	B.	F.	F.	F.	B.	F.	B.	F.	B.	B.	B.
Age	4	9	10	13	15	24	34	9	10	11	13	13
Height standing	mm. 1,022	mm. 1,155 [1]	mm. 1,198	mm. 1,378 [2]	mm. 1,427 [3]	mm. 1,720	mm. 1,673	mm. 1,183	mm. 1,308	mm. 1,323	mm. 1,414	mm. 1,366
Height of shoulder	755	901	962	1,111	1,142	1,405	1,330	932	1,042	1,058	1,143	1,094
Length of arm	404	496	527	627	641	746	667	510	592	582	630	610
Finger-reach	1,064	1,163	1,245	1,440	1,506	1,800	1,727	1,210	1,328	1,382	1,500	1,445
Height sitting	552	636	633	730	758	913	858	663	722	716	766	727
Width of shoulders	232	266	250	310	325	397	385	274	304	350	332	318
Length of head	161	173	167	174	173	189	181	174	166	171	176	181
Breadth of head	150	149	149	150	155	160	154	145·5	139	151	157	153
Height of face	93	101	96	101	108	127	125	99	108	97	107	106
Breadth of face	124	122	121	128	133	149	141	126	127	131	138	134
Height of nose	43	45	41	43	47	53	55	44	43	43	47	43
Breadth of nose	31	33	32	32	34	41	40	32	32	31	35	34
Length-breadth index	93·2	86·1	89·2	86·2	89·6	84·6	85·0	83·3	83·7	88·3	88·6	84.5
Facial index	75·0	82·8	79·3	78·9	81·2	85·2	88 7	78·6	85·0	74·0	77·5	79·1
Nasal index	72·1	73·3	78·0	74·4	72·4	77·4	72·7	72·7	74·4	72·1	73·5	79·1
Index of arm	39·5	42·8	43·9	45·4	44·8	43·4	39·9	43·2	45·2	44·1	44·7	44·5
Index of finger-reach	104·1	100·7	103 9	104·5	105·5	104·7	103·2	102·2	101·5	104·4	106·1	105·7
Index of height sitting	54·0	54·8	52·8	52·9	53·0	53·1	51·4	56·2	55·1	54·2	54·3	53·1
Index of width of shoulders	22·7	22·9	20·8	22·5	22·7	23·1	23·1	23·2	23·2	26·5	23·5	23·2

—	I. Males										II. Females									
Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
Name	François	Kristwish	Maurice	David Pierez	André Manuel	Basil Fallardeau	Alfred Manuel	Alec Leonard	Johnnie Peter	Gabriel	Lizzie	Laloise	Augusta	Annie Sam	Maggie Fallardeau	Faustine	Lizzie Ignaz	Catherine	Philomena	Anne	Aimée
Tribe	F. Soda Creek M. ¼ White, ¾ Soda Creek	F. ½ Spanish ½ StlEmQo'lEqumQ M. StlEmQo'lEqumQ	F. Soda Creek M. ¼ White, ¾ Soda Creek	F. ½ French, ½ Cree, ¼ Carrier, ¼ Chilcotin M. Soda Creek	F. Kamloops M. ½ Kamloops, ½ White	F. ½ Shuswap, ½ French M. Shuswap	F. Kamloops M. ½ Kamloops, ½ White	F. White M. Shuswap	F. French M. Shuswap	F. French M. Shuswap	½ White, ½ Shuswap	½ White, ½ Shuswap	F. ½ French, ½ Cree, ¼ Carrier, ¼ Chilcotin M. Soda Creek	White blood ?	F. ½ Shuswap, ½ French M. Shuswap	½ White, ½ Shuswap	F. English M. Kamloops	White blood ?	White blood ?	F. French M. Shuswap	White blood ?
Observer	B.	B.	B.	B.	B.	F.	B.	B.	B.	B.	B.	B.	F.	F.	F.	F.	B.	B.	B.	B.	B.
Age	6	7	8	8	11	13	14	15	23	30	6	9	9	11	11	11	13	14	14	22	?
Height standing	mm. 1,037 [1]	mm. 1,277	mm. 1,192 [2]	mm. 1,184 [3]	mm. 1,360 [4]	mm. 1,444 [5]	mm. 1,422 [6]	mm. 1,567	mm. 1,737 [7]	mm. 1,660	mm. 1,053 [8]	mm. —[9]	mm. 1,336 [10]	mm. 1,475 [11]	mm. 1,328 [12]	mm. 1,368	mm. 1,492	mm. 1,601 [13]	mm. 1,510	mm. 1,582	mm. 1,522
Height of shoulder	803	1,033	930	912	1,093	1,162	1,135	1,270	1,450	1,336	806	—	1,074	1,195	1,039	1,102	1,208	1,322	1,211	1,290	1,255
Length of arm	427	541	514	501	607	669	635	678	705	744	432	—	600	662	571	602	685	706	530	706	682
Finger-reach	1,014	1,288	1,205	1,182	1,416	1,545	1,493	1,603	1,703	1,760	1,052	—	1,380	1,467	1,362	1,376	1,573	1,640	1,600	1,645	1,603
Height sitting	585	669	652	665	681	750	750	835	877	895	578	—	702	764	704	739	797	845	797	830	808
Width of shoulders	230	276	244	258	299	311	325	347	371	375	231	—	300	320	292	293	358	353	344	374	331
Length of head	168	174	174	176	180	177	175	189	195	189	160	174	167	177	177	169	181	177	189	182	181
Breadth of head	143	153	144	159	152	152	157	150	152	162	139	147	154	158	148	144	153	157	146	144	158
Height of face	95	97	102	102	105	108	111	115	124	128	91	93	104	106	100	105	107	112	113	110	108
Breadth of face	121	133	123	133	128	126	136	136	141	152	116	124	135	136	127	129	141	139	128	140	140
Height of nose	40	42	46	40	45	41	43	48	52	57	38	38	38	47	42	46	45	47	47	49	51
Breadth of nose	30	36	32	33	34	34	37	35	42	39	27	35	34	36	34	31	37	36	33	34	36
Length-breadth index	85·1	87·9	82·8	90·3	84·4	85·8	89·8	79·4	77·9	85·7	86·8	84·5	92·2	89·2	83·6	85·2	84·5	88·7	77·2	79·1	87·3
Facial index	78·5	72·9	82·9	76·7	82·0	85·7	81·6	84·5	88·0	84·2	78·4	75·0	77·0	77·9	78·7	81·4	75·9	80·6	88·3	78·5	77·1
Nasal index	75·0	85·7	69·6	82·5	75·5	82·9	86·0	72·9	80·8	68·4	71·1	92·1	89·5	76·6	80·9	67·4	82·2	76·6	70·2	69·4	70·6
Index of arm	41·0	42·3	43·2	42·5	44·6	46·5	44·7	43·2	40·5	44·8	41·1	—	44·8	45·0	42·9	43·9	46·0	44·1	46·1	44·7	44·9
Index of finger-reach	97·5	100·8	101·1	99·8	104·1	106·8	105·0	102·3	98·0	106·0	100·0	—	103·3	99·5	102·5	100·8	105·7	102·4	106·0	104·0	105·3
Index of height sitting	56·2	52·3	54·8	56·4	50·0	52·1	52·8	53·2	50·4	53·9	55·0	—	52·4	52·0	52·9	72·9	53·5	52·8	52·8	52·5	53·2
Index of width of shoulders	22·1	21·6	20·5	21·9	22·0	21·6	22·9	22·1	21·3	22·6	22·0	—	22·4	21·8	22·0	21·4	24·0	22·1	22·8	23·7	21·8

[1] Brother of Nos. 4 and 5.
[2] Brother of Nos. 2 and 5.
[3] Brother of Nos. 2 and 4.
[1] Brother of No. 3.
[2] Brother of No. 1.
[3] Brother of No. 13.
[4] Brother of No. 7.
[5] Brother of No. 15.
[6] Brother of No. 5.
[7] Not level ground; measured with shoes.
[8] Sister of No. 12.
[9] Sister of No. 11.
[10] Sister of No. 4.
[11] Sister of No. 18.
[12] Sister of No. 6.
[13] Sister of No. 14.

9a. Chilcotin.

	I. Males													
Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Name	Louis	Willie	Johnnie	Lāsī'z	Baptiste	Isidore	Michel	William	Leo	Tuga'n	Alexander	Timothy	Michel	Jerome
Tribe	Anahem	Anahem	Chizikut Lake	Nimpoh Lake	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin
Observer	B.	B.	B.	B.	B.	B.	B.	B.	B.	F.	B.	B.	F.	B.
Age	6	7	8	9	10	10	11	12	14	16	17	19	20	20
	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
Height standing	1,101[1]	1,030[2]	1,266[3]	1,346	1,298[4]	1,303	1,383	1,276	—[5]	1,654[6]	1,633	1,663[7]	1,553	1,730
Height of shoulders	855	—	1,014	1,094	1,062	1,037	1,120	1,003	—	1,386	1,371	1,338	1,260	1,440
Length of arm	474	—	539	571	566	535	600	536	—	729	716	757	707	752
Finger-reach	1,120	1,026	1,263	1,336	1,335	1,296	1,373	1,314	—	1,728	1,682	1,752	1,624	1,800
Height sitting	606	566	—	735	—	710	724	689	—	857	843	907	848	862
Width of shoulders	251	—	274	279	276	277	285	255	—	332	355	385	355	376
Length of head	163	158	172	176	178	167	175	169	176	190	190	181	187	192
Breadth of head	153	141	152	155	148	152	147	149	152	149·5	156	157	159	161
Height of face	101	96	04	103	104	111	104	98	103	119	110	130	123	126
Breadth of face	127	117	131	129	130	131	130	132	132	142	140	147	145	147
Height of nose	40	36	39	44	43	46	46	39	44	47	44	49	50	53
Breadth of nose	32	30	32	35	31	32	31	35	38	38	34	39	42	39
Length-breadth index	93·9	89·2	88·4	88·1	83·1	91·0	84·0	88·2	86·4	78·7	82·1	86·7	85·0	83·9
Facial index	79·5	82·1	79·4	79·8	80·0	84·7	80·0	74·2	78·0	83·8	78·6	88·4	84·8	85·7
Nasal index	80·0	83·3	82·1	79·6	72·1	69·6	67·4	89·8	86·4	80·8	77·3	79·6	84·0	73·6
Index of arm	43·1	—	42·4	42·3	43·5	41·2	43·5	41·9	—	44·2	43·9	45·6	45·6	43·5
Index of finger-reach	101·7	99·6	99·8	99·3	102·9	99·5	99·3	103·0	—	104·5	103·0	105·4	104·6	104·0
Index of height sitting	55·1	55·0	—	54·4	—	54·6	52·5	53·8	—	51·9	51·7	54·6	54·7	49·8
Index of width of shoulders	22·8	—	21·6	20·6	21·2	21·3	20·7	19·9	—	20·1	21·8	23·2	22·9	21·7

	I. Males													
Number	15	16	17	18	19	20	21	22	23	24	25	26	27	28
Name	Tenachᴇ'z	Charlie	Atati'	Capt. Bobby	Jack	Johnnie	Charlie Boy	Saiha'n	Toby	Benny	William	Jim	Gilpin	Sam
Tribe	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin
Observer	B.	F.	F.	B.	F.	B.	F.	B.	F.	F.	F.	B.	F.	B.
Age	20	20	20	20	25	25	25	25	25	25	28	28	30	30
	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
Height standing	1,722	1,706	1,677	1,633[8]	1,745	1,820[9]	1,727	1,712	1,670	1,652	1,656	1,643	1,610	1,725[10]
Height of shoulders	1,393	1,378	1,367	1,327	1,444	1,505	1,426	1,424	1,379	1,340	1,378	1,353	1,317	1,425
Length of arm	765	735	787	745	789	775	755	762	737	710	723	743	704	747
Finger-reach	1,805	1,752	1,777	1,738	1,832	1,848	1,826	1,773	1,733	1,657	1,724	1,805	1,688	1,763
Height sitting	912	891	877	875	887	949	912	—	868	892	825	870	877	—
Width of shoulders	368	380	360	367	398	406	372	376	366	370	325	372	394	396
Length of head	192	188	184	185	192	190	187	190	181	183	184	183	195	191
Breadth of head	162	160	157	160	163	160	157	153	155	156	150	158	164	166
Height of face	109	137	115	130	120	131	130	127	123	120	132	119	122	123
Breadth of face	151	144	153	147	150	154	151	147	145	144	143	147	148	152
Height of nose	47	53	51	57	56	56	55	49	49	55	55	57	51	52
Breadth of nose	38	38	41	37	38	41	38	38	36	39	41	39	38	38
Length-breadth index	84·4	85·1	85·3	86·5	84·9	84·2	84·0	80·5	85·6	85·2	81·5	86·3	84·1	86·9
Facial index	72·2	95·1	75·2	88·4	80·0	85·1	86·1	86·4	84·8	83·3	92·3	80·9	82·4	80·9
Nasal index	80·8	71·7	80·4	64·9	67·9	73·2	69·1	77·6	73·5	70·9	74·5	68·4	74·5	73·1
Index of arm	44·5	43·0	46·8	45·7	45·3	42·6	43·6	44·6	44·1	43·0	43·6	45·3	43·7	43·2
Index of finger-reach	104·8	102·7	106·0	106·4	105·0	101·5	105·7	103·6	103·8	100·3	104·1	109·9	104·8	102·2
Index of height sitting	53·0	52·1	52·2	53·7	51·0	52·1	52·7	—	52·0	54·1	49·7	53·0	54·5	—
Index of width of shoulders	21·4	22·2	21·4	22·5	22·9	22·3	21·5	22·0	21·9	22·4	19·6	22·7	24·5	22·9

	I. Males												
Number	29	30	31	32	33	34	35	36	37	38	39	40	41
Name	Bob	Tommy	Tommy	Capt. Frank	Chilpat	Quantl	Shimo	Jeff	Smiza	Charlie	Big John	Doctor	Captain
Tribe	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin
Observer	B.	F.	B.	B.	F.	F.	F.	B.	B.	B.	B.	B.	B.
Age	30	30	32	34	35	40	40	40	45	45	45	45	50
	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
Height standing	1,670	1,634	1,770	1,628	1,555	1,679	1,677	1,642	1,583	1,613[11]	1,667	1,665	1,558[12]
Height of shoulders	1,360	1,311	1,445	1,343	1,271	1,378	1,380	1,370	1,324	1,346	1,375	1,376	1,302
Length of arm	812	714	809	679	690	766	735	740	691	722	748	751	682
Finger-reach	1,751	1,698	1,846	1,665	1,607	1,806	1,747	1,733	1,637	1,672	1,774	1,770	1,635
Height sitting	874	872	894	885	850	851	891	803	810	868	910	866	823
Width of shoulders	375	391	370	357	348	351	385	338	355	353	375	380	365
Length of head	188	181	195	188	184	191	194	189	189	181	186	180	179
Breadth of head	161	158	158	166	156	156	155	163	159	148	162	152	156
Height of face	121	117	129	130	121	132	126	130	123	131	126	121	125
Breadth of face	152	153	148	154	137	155	147	149	151	145	147	144	149
Height of nose	55	49	54	56	50	55	52	52	55	55	55	51	52
Breadth of nose	42	42	40	39	34	41	37	37	40	41	44	40	42
Length-breadth index	85·6	87·3	81·0	88·3	84·8	81·7	79·9	86·2	84·1	81·8	87·1	84·4	87·2
Facial index	79·6	76·5	87·2	84·4	88·3	85·2	85·7	87·2	81·5	90·3	85·7	84·0	83·9
Nasal index	76·4	85·7	74·1	69·6	68·0	74·5	71·2	71·2	72·7	74·5	80·0	78·4	80·7
Index of arm	48·0	43·8	45·7	41·7	44·2	45·6	43·7	45·1	43·7	44·8	44·8	45·0	43·7
Index of finger-reach	106·2	103·9	104·3	102·3	103·3	107·6	104·2	105·5	103·4	103·7	106·4	106·3	104·9
Index of height sitting	52·3	53·5	50·5	54·3	54·5	50·7	53·0	49·0	51·3	53·9	54·5	51·9	52·8
Index of width of shoulders	22·5	24·0	20·9	21·9	22·3	20·9	22·9	20·6	22·5	21·9	22·5	22·8	23·4

	I. Males							II. Females					
Number	42	43	44	45	46	47	48	49	50	51	52	53	54
Name	Little Johnnie	Jim	Quoste'n	Chinaman	Dick	Louis	Charlie	Sallie	Susanne	Emmeline	Minnie	Josephine	Lucy
Tribe	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin
Observer	F.	B.	F.	F.	B.	F.	F.	B.	B.	F.	B.	F.	F.
Age	50	50	55	55	55	55	55	6	9	11	12	13	20
	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
Height standing	1,581	1,605	1,540	1,580	1,594	1,588	1,635[13]	1,097	1,320[14]	1,370[15]	1,317	1,487	1,580
Height of shoulders	1,285	1,313	1,285	1,283	1,293	1,315	1,353	840	1,037	1,131	1,045	1,210	1,315
Length of arm	644	733	644	705	708	693	731	454	575	647	596	670	722
Finger-reach	1,580	1,726	—	1,636	1,686	1,591	1,695	1,092	1,348	1,504	1,383	1,518	1,652
Height sitting	843	—	816	825	835	839	845	618	727	724	717	788	799
Width of shoulders	361	362	360	363	380	346	323	245	266	296	298	300	314
Length of head	185	182	178	183	186	188	184	167	170	173	169	181	181
Breadth of head	158	169	155	162	158	165	157	140	151	149	146	142	145
Height of face	120	124	124	129	112	121	125	92	95	110	112	106	112
Breadth of face	144	150	146	149	150	151	145	117	134	133	127	132	133
Height of nose	53	55	57	50	51	54	57	40	40	47	42	42	40
Breadth of nose	36	41	36	41	43	39	40	29	36	34	33	36	36
Length-breadth index	85·4	92·9	87·1	88·5	84·9	87·8	85·3	83·8	88·8	86·1	86·4	78·5	80·1
Facial index	83·3	82·6	84·9	86·6	74·6	80·1	86·2	78·6	70·9	82·7	88·2	80·3	84·2
Nasal index	67·9	74·5	63·2	82·0	84·3	72·2	70·1	72·5	90·0	72·3	78·6	85·7	90·0
Index of arm	40·8	45·5	41·8	44·6	44·5	43·6	44·6	41·3	43·6	47·2	45·2	45·0	45·7
Index of finger-reach	100·0	107·5	—	103·5	105·8	100·2	103·7	99·5	102·1	109·8	105·0	102·1	104·6
Index of height sitting	53·4	—	53·0	52·2	52·5	52·8	51·5	56·2	55·1	52·8	54·3	52·9	50·6
Index of width of shoulders	22·8	22·5	23·4	23·0	23·9	21·8	19·7	22·3	20·2	21·6	22·6	20·1	19·9

[1] Son of No. 18. [2] Son of No. 20. [3] Son of No. 28. [4] Son of No. 48. [5] Hunchback. [6] Son of No. 48. [7] Cousin of No. 18. [8] Father of No. 1; cousin of No. 12; son of Nos. 41 and 67. [9] Father of No. 2. [10] Father of No. 3. [11] Father of No 51. [12] Father of No. 18. [13] Father of Nos. 5 and 10. [14] Daughter of No. 68. [15] Daughter of No. 38.

9a. *Chilcotin* (continued).

——	Females (*continued*)																					Male	Males				
Number	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	1	2	3	4	5
Name	Christine	Lillie	Lucy	Susanne	Betsy	Sēnt'u'n	Minnie	Nancy	Susanne	Nellie	Marie	Betsy	Christine	Tetcôth	Lucy	Lucille	Adèle	Sallie	Magdalen	Taraik	Atsekulá	George	Êzitô'l	Grlé'	Tĕk-esĕ'a	Isaac	Jamie
Tribe	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	Chilcotin	F. American M. Chilcotin	Ntcat'i'n	Ntcat'i'n	F. Tĕslatat'i'n M. Ntcat'i'n	Alexandria	F. Alexandria (full ?) M. ½ Carrier, ½ White
Observer	B.	B.	B.	F.	B.	B.	B.	F.	B.	B.	B.	B.	F.	B.	B.	B.	B.	B.	F.	B.	B.	B.	B.	B.	B.	F.	B.
Age	22	22	25	25	26	30	30	30	35	38	45	47	55	55	58	60	65	65	70	70	75	12	17	18	50	55	13
Height standing	mm. 1,547	mm. 1,621	mm. 1,556	mm. 1,604	mm. 1,575[16]	mm. 1,602	mm. 1,582[17]	mm. 1,571	mm. 1,508	mm. 1,550	mm. 1,555	mm. 1,543	mm. 1,527[18]	mm. —[19]	mm. 1,560[20]	mm. 1,543	mm. 1,540	mm. 1,502	mm. 1,548	mm. —	mm. —	mm. 1,495	mm. 1,685	mm. 1,654	mm. 1,775	mm. 1,535	mm. 1,423
Height of shoulder	1,257	1,322	1,284	1,364	1,303	1,306	1,304	1,294	1,228	1,281	1,308	1,264	1,273	—	1,255	1,264	1,293	1,223	1,288	—	—	1,192	1,364	1,328	1,477	1,265	1,170
Length of arm	694	733	655	756	733	690	691	680	657	683	664	681	674	—	655	692	716	697	710	—	—	658	751	725	717	700	658
Finger-reach	1,590	1,718	1,560	1,618	1,679	1,635	1,609	1,567	1,524	1,639	1,616	1,592	1,586	—	1,576	1,644	1,632	1,595	1,624	—	—	1,577	1,757	1,702	1,705	1,647	1,495
Height sitting	—	861	858	846	852	811	852	836	784	799	813	799	780	—	785	823	778	787	818	—	—	763	855	862	931	775	765
Width of shoulders	348	337	336	332	326	343	373	346	337	362	340	317	350	—	336	345	308	325	330	—	—	339	373	363	374	355	248
Length of head	182	186	179	180	171	176	172	180	183	184	174	171	178	172	183	184	172	176	171	169	175	185	190	185	196	179	180
Breadth of head	163	150	152	149	146	146	162	157	155	161	157	153	153	156	160	157	154	155	154	149	149	151	164	156	160	153	159
Height of face	110	113	108	114	114	117	120	116	114	131	118	116	123	109	117	122	111	129	114	127	106	107	129	121	141	130	112
Breadth of face	150	145	139	138	134	141	146	139	143	148	144	135	139	142	147	144	139	144	143	140	136	136	152	146	155	140	131
Height of nose	49	44	43	45	49	49	56	39	51	51	51	46	52	50	54	53	51	58	54	58	53	47	59	51	58	53	44
Breadth of nose	36	36	37	35	38	30	38	37	36	41	35	32	34	37	40	39	37	37	36	39	39	35	36	37	39	37	32
Length-breadth index	89·6	80·6	84·9	82·8	85·4	83·0	94·2	87·2	84·7	87·5	90·2	89·5	86·0	90·7	87·4	85·3	89·5	88·1	90·1	88·2	85·1	81·6	86·3	84·3	81·6	85·5	88·3
Facial index	73·3	77·9	77·7	82·6	85·8	83 0	82·2	83·5	79·7	88·5	81·9	85·9	88·5	76·8	79·6	84·7	79·9	89·6	79·7	90·7	77·9	78·7	84·9	82·9	91·0	92·8	85·5
Nasal index	73·5	81·8	86·0	77·8	77·6	61·2	67·9	94·9	70·5	80·4	68·6	69·6	65·4	74·0	74·1	73·6	72·5	63·8	66·7	67·2	73·6	74·5	61·0	72·5	67·2	69·8	72·7
Index of arm	44·8	45·2	42·0	47·3	46·4	43·1	43·7	43·3	43·5	44·1	42·8	44·2	44·1	—	42·0	44·9	46·5	46·5	45·8	—	—	44·2	44·7	43·9	40 3	45·5	46·3
Index of finger-reach	102·8	106·0	100·3	100·9	106·6	102·1	101·7	99·7	101·1	105·7	103·9	103·2	103·9	—	101·0	106·6	106·0	106·2	104·9	—	—	105·5	104·3	102·9	96·1	107·3	105·1
Index of height sitting	—	53·1	55·0	52·9	53·9	50·7	53·9	53·2	51·9	51·5	52·5	51·9	51·0	—	50·3	53·4	50·5	52·5	52·8	—	—	51·2	50·9	52·2	52·3	50·3	53·9
Index of width of shoulders	22·5	20·8	21·5	20·7	20·6	21·4	23·6	22·0	22·3	23·4	21·9	20·6	22·9	—	21·5	22·4	20·0	21·7	21·3	—	—	22·8	22·2	22·0	21·0	23·1	17·5

[16] Partly mixed with Carrier. [17] Daughter of No. 69. [18] Mother of No. 18. [19] Mother of No. 50. [20] Mother of No. 61.

—	11c. *Utā'mqt.*	11d. *Utā'mqt and Stlaqā'yuq mixed.*	11e. *Ntlakyapamuq'ō'ē.*	11f. *Ntlakyapamuq'ō'ē and other tribes mixed.*				11g. *Nkamtcī'nEmuq.*	11h *Nkamtcī'nEmuq mixed with Shuswap.*	11i. *Half-blood Ntlakya'pamuq.*		13. *Okanagan.*		13a. *Okanagan half-blood.*	
	Males		Female	Females		Female	Males		Females				Man	Man	Males		Female	Males		Female	Male
Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	1	2	3	1	2	3	1
Name	Philip Felix	Andrew	Christine	Kwa'itkō	Waqani'nik	Marie	Zilaqi'tsa	Nokue'liq	—	Nixpatko	Solpinek	—	A Tusken	Tuzlexeskt	Georgie	Felix	Theresa	Daniel Celestin	Edward Moreno	Julienne	Simon
Tribe	Boston Bar	Skazzy	Skazzy	F. Utā'mqt M. Stlaqā'yuq	F. Utā'mqt M. Stlaqā'yuq	Ntlakyapamuq'ō'ē	F. Nicola Tinneh M. Lytton	½ Ntlakyapamuq'ō'ē ½ Nkamtcī'nEmuq	F. {½ Nkamtcī'nEmuq ¼ Lytton ¼ M. Cawā'qamuq	F. Lytton M. Nicola	F. {½ Lytton ¼ Nkamtcī'nEmuq ¼ Nicola M. {½ Okanagan	F. {½ Lytton ¼ Nkamtcī'nEmuq ¼ Lytton M. {¼ Nkamtcī'nEmuq ¼	Nkamtcī'nEmuq	F. Nkamtcī'nEmuq M. {¾ Nkamtcī'nEmuq ¼ Shuswap	F. ? M. Utā'mqt	F. ? M. Utā'mqt	—	Okanagan	Okanagan	F. Nicola M. Okanagan	½ Okanagan
Observer	F.	F.	B.	B.	B.	F.	B.	B.	B.	B.	B.	B.	B.	B.	F.	B.	B.	F.	B.	B.	F.
Age	14	15	12	60	65+	25	15	65	35	40	50	60	60	30	15	15	14	11	14	13	12
	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
Height standing	1,403	1,402	1,410	1,460 [1]	— [2]	1,540	1,677	1,593	1,573	1,540	1,560	1,467	1,670	1,674	1,412	1,393	1,402	1,292	1,442	1,554	1,432
Height of shoulder	1,137	1,114	1,147	1,205	—	1,278	1,390	1,323	1,282	1,278	1,273	1,185	1,418	1,364	1,142	1,112	1,127	1,024	1,142	1,256	1,172
Length of arm	599	619	595	632	—	707	765	728	690	688	658	624	813	737	609	619	599	564	602	684	634
Finger-reach	1,443	1,465	1,397	1,492	—	1,628	1,733	1,710	1,610	1,600	1,563	1,471	1,850	1,748	1,475	1,434	1,433	1,323	1,452	1,622	1,446
Height sitting	723	731	765	755	—	765	—	830	—	—	844	786	—	893	724	746	739	683	783	836	726
Width of shoulders	333	323	307	306	—	340	375	382	348	338	350	322	385	398	321	320	316	285	296	362	310
Length of head	177	177	173	185	192	173	182	188	184	173	173	183	188	188	186	180	155	183	188	179	176
Breadth of head	152	156	151	145	148	148·5	152	151	151	146	147	153	155	158	153	151	143	150	146	155	146
Height of face	99	101	104	112	120	108	117	121	114	117	122	117	106	119	107	104	99	100	115	110	95
Breadth of face	131	140	130	137	142	133	143	148	140	136	136	136	150	143	132	133	127	128	127	141	129
Height of nose	39	49	43	52	58	48	49	61	53	50	52	49	48	49	43	45	41	42	47	44	43
Breadth of nose	37	37	32	37	37	34	41	40	34	32	34	37	37	36	33	34	29	31	39	32	31
Length-breadth index	85·9	88·1	87·3	78·4	77·1	86·1	83·5	80·3	82·1	84·4	85·0	83·6	82·4	84·0	82·3	83·9	92·3	82·0	77·7	86·6	83·0
Facial index	75·6	72·1	80·0	81·8	84·5	81·2	81·8	81·7	81·4	86·0	89·7	86·0	70·7	83·2	81·1	78·2	78·0	78·1	90·6	78 0	73·6
Nasal index	94·9	75·5	74·4	71·2	63·8	70·8	83·7	65·6	64·2	64·0	65·4	75·5	77·1	73·5	76·7	75·6	70 7	73·8	83·0	72·7	72·1
Index of arm	42·8	44·2	42·2	43·3	—	45·9	45·5	45·8	43·9	44·7	42·2	42·4	48·7	44·1	43·2	44·5	42·8	43·7	41·8	44·1	44·3
Index of finger-reach	102·9	104·5	99·1	102·2	—	105·7	103·3	107·4	102·4	103·9	100·2	100·3	110·8	104·4	104 5	102·9	102·2	102·4	100·7	104·4	101·0
Index of height sitting	51·6	52·2	54·3	51·7	—	49·7	—	52·2	—	—	54·1	53·5	—	53·5	51·3	53·7	52·8	52·9	54·4	53·9	50·8
Index of width of shoulders	23·8	23·1	21·8	21·0	—	22·1	22·3	24·0	22·2	21·9	22·4	21·9	23·1	23·8	22·8	23·0	22·6	22·1	20·6	23·4	21·7

[1] Sister of No. 5.

[2] Sister of No. 4.

12. *Tlingit.*

—	Full-blood	Half-blood
Number	1	2
Name	Annie McKay	G. H.
Tribe	Auk	F. English M. Tlingit
Observer	B.	B.
Age	28	45
	mm.	mm.
Height standing	1,506	1,740
Height of shoulder	1,235	1,430
Length of arm	657	765
Finger-reach	1,555	1,810
Height sitting	847	945
Width of shoulders	359	425
Length of head	179	191
Breadth of head	151	170
Height of face	124	133
Breadth of face	138	155
Height of nose	51	59
Breadth of nose	35	39
Length-breadth index	84·4	89·0
Facial index	89·9	85·8
Nasal index	68·6	66·1
Index of arm	43·5	44·0
Index of finger-reach	103·2	104·0
Index of length sitting	56·1	54·3
Index of width of shoulders	23·8	24·4

13. *Haida.*

—	I. Males									II. Females					
Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Name	Guy	Guy Ts'ā'lōt	John Smith qu'ngola	Wuslē'n (?) Atkô'ng	Samuel	Herbert NEngā'ls	John Robinson Gau'qEns	Joshua Moody Gā'la	Stevens Edison Nuwā'it	Emily	Mary	Susie	Louisa	Ruth Etluga'an	Mary
Tribe	Masset	Masset	Masset	Kaigani	Masset	Masset	Skidegate	F. Kaigani M. Masset	Skidegate	F. Masset M. ½ Masset ½ Skidegate	Masset	Masset	Masset	Masset	Skidegate
Observer	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.
Age	13	14	19	21	30	32	40	40	40	13	14	18	18	28	35
	mm.	mm.	mm	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
Height standing	1,472	1,463[2]	1,654	1,668	1,624	1,640[3]	1,685	1,564	1,542	1,503	1,462	1,590	1,528	1,550[4]	1,550
Height of shoulder	1,200	1,190	1,365	1,362	1,294	1,336	1,360	1,294	1,243	1,230	1,181	1,318	1,232	1,246	—
Length of arm	655	632	718	757	721	728	750	719	680	650	613	713	632	633	—[1]
Finger-reach	1,483	1,486	1,700	1,798	1,723	1,732	1,800	1,663	1,658	1,553	1,501	1,631	1,531	1,554	1,560
Height sitting	800	793	923	890	899	913	910	818	884	762	792	828	810	826	835
Width of shoulders	328	329	382	410	403	387	425	356	398	332	307	356	346	321	—
Length of head	188	188	189	193	195	203	199	190	189	187	188	176	186	185	181
Breadth of head	151	151	163	169	169	161	160	171	158	155	152	147	153	156	148
Height of face	114	111	120	120	115	131	131	121	124	117	116	113	119	118	113
Breadth of face	138	137	149	156	155	154	152	158	153	138	138	140	142	148	139
Height of nose	44	42	52	50	48	55	55	49	48	48	46	46	46	52	45
Breadth of nose	33	35	39	43	40	39	47	39	40	33	33	35	34	36	38
Length-breadth index	80·3	80·3	86·2	87·6	86·7	79·3	80·4	90·0	83·6	82·9	80·9	83·5	82·3	84·3	81·8
Facial index	82·6	81·0	80·5	76·9	74·2	85·1	86·2	76·6	81·0	84·8	84·1	80·7	83·9	79·7	81·3
Nasal index	75·0	83·3	75·0	86·0	83·3	70·9	85·5	79·6	83·3	68·8	71·7	76·1	73·9	59·2	84·4
Index of arm	44·6	43·3	43·5	45·3	44·5	44·4	—	46·1	44·2	43·3	42·0	44·8	—	40·8	—
Index of finger-reach	100·8	101·6	102·8	107·8	106·1	105·6	106·8	106·3	107·5	103·3	102·7	102·6	100·2	100·3	100·7
Index of length sitting	54·4	54·3	55·9	53·3	55·5	55·7	54·2	52·4	57·4	50·8	54·2	52·1	52·9	53·3	53·9
Index of width of shoulders	22·3	22·5	23·2	24·6	24·9	23·6	25·3	22·8	25·8	22·1	21·0	22·4	22·6	20·7	—

14. *Tsimshian.*

—	I. Males		II. Females		
Number	1	2	3	4	5
Name	Joshua McKay	David Starr	Cecilia McKenzie	Jane Bernard	Ida Greene
Tribe	F. Ts'E'mciān M. Gyits'alā's	F. Gyits'alā's M. Gyits'umg'ä'lon	F. Gyits'alā's M. Gyits'ung'ä'lon	F. Gyits'alā's M. Gyispaqlâ'ôts	Gyits'alā's
Observer	B.	B.	B.	B.	B.
Age	21	23	20	45	50
	mm.	mm.	mm.	mm.	mm.
Height standing	1,750	1,732	1,494	1,515	1,563
Height of shoulder	1,443	1,417	1,203	1,220	1,268
Length of arm	764	781	623	668	688
Finger-reach	1,810	1,802	1,545	1,613	1,638
Height sitting	924	919	808	818	826
Width of shoulders	396	381	336	347	369
Length of head	187	199	182	190	187
Breadth of head	167	168	149	155	156
Height of face	127	128	118	115	121
Breadth of face	150	156	137	148	146
Height of nose	56	54	49	51	50
Breadth of nose	44	41	34	39	42
Length-breadth index	89·3	84·4	81·9	81·6	83·4
Facial index	84·7	82·1	86·1	77·7	82·9
Nasal index	78·6	75·9	69·4	76·5	84·0
Index of arm	43·7	45·1	45·8	44·2	44·1
Index of finger-reach	103·4	104·0	103·4	106·5	104·8
Index of length sitting	52·8	53·1	54·2	54·2	53·0
Index of width of shoulders	22·6	22·0	22·6	23·0	23·7

15. *Gyitkshan.*

—	Males									
Number	1	2	3	4	5	6	7	8	9	10
Name	Benjamin Peter Brown	Peter John TlEqEnā'utsq	Richard Dowse	Arthur Wilson	Lazarus Brown Isla'sEn	Albert Dowse	Boston	Charlie Lāts	Mark Greene	Jack Welsh
Tribe	F. Nîsk·a' M. Gyîspayō'ks	Gyîspayō'ks	F. Gyit'anmā'kys M. Gyitwun'lqō'l	Gyitsgyō'ktla	Gyîspayō'ks	Gyîtwuntlqō'l	Gyîspayō'ks	Gyîsg·ag·ā'as	Gyîspayō'ks	Gyîtwuntlqō'l
Observer	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.
Age	22	24	25	26	27	32	45	45	48	50
	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm.
Height standing	1,625	1,629	1,680[5]	1,727	1,616	1,647[6]	1,732	1,607	1,660	1,632
Height of shoulder	1,333	1,297	1,364	—	1,298	1,343	1,423	1,302	1,373	1,310
Length of arm	780	687	719	—	710	751	775	684	773	718
Finger-reach	1,765	1,677	1,722	1,830	1,730	1,732	1,755	1,687	1,828	1,686
Height sitting	817	892	893	953	870	890	890	827	878	905
Width of shoulders	359	373	375	410	377	369	341	354	467	354
Length of head	192	185	190	190	193	189	198	199	194	193
Breadth of head	156	157	164	160	154	159	160	153	156	143
Height of face	131	118	114	114	128	120	119	122	124	113
Breadth of face	150	149	154	150	148	149	159	149	153	145
Height of nose	57	51	50	47	59	50	50	58	50	55
Breadth of nose	39	41	37	38	—	41	39	41	42	40
Length-breadth index	81·2	84·9	86·3	84·2	79·8	84·1	80·8	76·9	80·4	74·1
Facial index	87·3	79·2	74·0	76·0	86·5	80·5	74·8	81·9	81·0	77·9
Nasal index	68·4	80·4	74·0	80·9	—	82·0	78·0	70·7	84·0	72·7
Index of arm	47·9	42·1	42·8	—	43·8	45·5	44·8	42·5	46·6	44·0
Index of finger-reach	108·6	103·0	105·5	106·0	107·0	105·2	101·3	104·3	111·1	103·3
Index of length sitting	50·1	54·7	53·2	55·1	53·7	53·9	51·4	51·4	52·9	55·5
Index of width of shoulders	22·0	22·9	22·3	23·7	23·3	22·4	19·7	22·0	28·1	21·7

16. *Nîsk·a'.*

—	Males	
Number	1	2
Name	Sam Williams	Joseph Ford Latimer
Tribe	Nîsk·a'	F. Ts'E'mcian M. Nîsk·a'
Observer	B.	B.
Age	20	28
	mm.	mm.
Height standing	1,720	1,629
Height of shoulder	1,405	1,304
Length of arm	758	741
Finger-reach	1,773	1,764
Height sitting	922	927
Width of shoulders	366	388
Length of head	182	203
Breadth of head	159	157
Height of face	119	123
Breadth of face	143	151
Height of nose	48	49
Breadth of nose	36	38
Length-breadth index	87·4	77·3
Facial index	83·2	81·5
Nasal index	75·0	77·6
Index of arm	44·1	45·5
Index of finger-reach	103·1	108·3
Index of length sitting	53·6	56·9
Index of width of shoulders	21·3	23·8

17. *Bī'lqula.*

—	I. Males		II. Female
Number	1	2	3
Name	Thomas	Jim	Sallie
Tribe	SātsqmQ	SātsqmQ	SātsqmQ
Observer	F.	F.	F.
Age	30	30	30
	mm.	mm.	mm.
Height standing	1,698	1,679	1,608
Height of shoulder	1,359	1,388	1,324
Length of arm	738	784	701
Finger-reach	1,774	1,816	1,677
Height sitting	884	855	—
Width of shoulders	422	425	372
Length of head	188	191	191
Breadth of head	166	158	159
Height of face	130	124	124
Breadth of face	152	155	146
Height of nose	52	53	49
Breadth of nose	38	41	35
Length-breadth index	88·3	82·7	83·2
Facial index	85·5	80·0	84·9
Nasal index	73·1	77·4	71·4
Index of arm	43·4	46·7	43·5
Index of finger-reach	104·5	108·2	104·3
Index of length sitting	52·0	50·9	—
Index of width of shoulders	24·8	25·3	23·1

18. *Hēiltsuk.*

—	I. Males								II. Females						Half-breed
Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Name	Moquala	Joe	Charlie	Sam	Tsāqola	Waqait	Malaqns	Nōnōqns	Nellie Watson	Sakwē'	Susan	Ida	Alakamilq	Jenny	Harry
Tribe	Bella Bella	Istaitq	Bella Bella	Bella Bella	Bella Bella	Bella Bella	Bella Bella	F. Istaitq M. Bella Bella	Bella Bella	Istaitq	Istaitq	Istaitq	—	Istaitq	M. Bella Bella
Observer	F.	F.	F.	F.	F.	F.	F.	F.	F.	F.	F.	F.	F.	F.	F.
Age	12	40	50	50	55	55	60	70	20	25	40	50	55	60	35
	mm.	mm.	mm.	mm.	mm.	mm.	mm.	mm	mm.	mm.	mm.	mm.	mm.	mm.	mm.
Height standing	1,412	1,676	1,725	1,650	1,637	1,607	1,568	1,623	1,571	1,414	1,533	1,465	—	1,443	1,613
Height of shoulder	1,135	1,373	1,417	1,354	1,332	1,321	1,285	1,326	1,301	1,158	1,265	1,210	—	1,181	1,305
Length of arm	605	737	791	769	746	725	754	743	718	633	633	640	—	667	733
Finger-reach	1,450	1,784	1,825	1,721	1,722	1,701	1,780	1,774	1,654	1,486	1,528	1,543	—	1,535	1,723
Height sitting	—	—	933	844	868	811	—	—	810	—	838	755	—	—	—
Width of shoulders	315	400	301	398	381	376	398	358	375	332	351	360	—	—	393
Length of head	184	190	180	188	183	181	185	190	185	181	179	181	184	186	185
Breadth of head	162	167	167	170	159	168	170	170	155	153	162	155	167	157	156
Height of face	110	129	115	130	124	117	126	127	112	120	123	113	118	114	124
Breadth of face	141	152	153	162	152	154	163	159	146	141	155	152	148	150	143
Height of nose	42	51	51	50	53	51	58	52	45	50	52	48	49	47	52
Breadth of nose	35	42	43	43	44	41	47	42	37	—	40	38	43	40	33
Length-breadth index	88·0	87·9	92·8	90·4	86·9	92·8	91·9	89·5	83·8	84·5	90·5	85·6	90·8	84·4	84·3
Facial index	78·0	84·9	75·2	80·0	81·6	76·0	77·3	79·9	76·7	85·1	79·4	74·3	79·7	76·0	86·7
Nasal index	83·3	82·4	84·3	86·0	83·0	80·4	81·0	80·8	82·2	—	76·9	79·2	87·8	85·1	63·5
Index of arm	42·9	43·9	46·0	46·6	45·5	45·0	48·0	45·9	45·7	44·9	41·4	43·5	—	46·3	45·5
Index of finger-reach	102·7	106·4	105·8	104·3	105·2	105·8	114·2	109·3	105·1	105·1	99·7	105·3	—	106·4	106·8
Index of length sitting	—	—	54·2	51·2	52·9	50·4	—	—	51·6	—	54·8	51·4	—	—	—
Index of width of shoulders	22·3	23·8	17·5	24·1	23·2	23·4	25·4	22·1	23·9	23·5	22·9	24·5	—	—	24·4

[1] Height of point of second finger 610. [2] Son of Nos. 6 and 14. [3] Father of No. 2. [4] Mother of No. 2. [5] Brother of No. 6. [6] Brother of No. 3.

19. *Awī'ky'ēnôx.* 20. *Kwakiutl Men.*

	I. Males										II. Females														
Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	1	2	3
Name	Albert P'ä'sƐla	William Hē'misilak'	Wī'na	Charlie	Jaco'sen Tl'ä'-koaqsē	K·ó'manakula	Tl'ä'k·oagyilagyilis	Mē'tza, Tauastä'lak'a	Moses Ya'k·otlas	Abä'tsƐstē	Tl'ä'litl	Annie, K·aä'-qstalas	Tl'ä'k·oitl	Ky'ä'nitlƐmē	Kuē'qalagyila	ʁä'tlasō	G·uē'kyēlakwa	Tlä'k·oagyilayuk·oa	Tl'ä'k·oask·Em	Hē'leistēsƐla	Hä'mlɨtl	K·oē'ʁak·as	G·ō'lsƐlas	Pō'tlas	NƐ'msk·Emalis
Tribe	Awī'ky'ēnôq	Awī'ky'ēnôq	Awī'ky'ēnôq	Awī'ky'ēnôq	Awī'ky'ēnôq	F. Nō'quntsi'q M. Awī'ky'ēnôq	Awī'ky'ēnôq	Awī'ky'ēnôq	F. ½ Awī'ky'ēnôq, ½ Sō'nqulitq. M. Bī'lqula	Awī'ky'ēnôq	F. ½ Nō'quntsitq, ½ Awī'ky'ēnôq. M. Awī'ky'ēnôq	F. Awī'ky'ēnôq M. Sō'nqulitq	Awī'ky'ēnôq	F. ½ Awī'ky'ēnôq, ¼ Hēiltsuk. M. Awī'ky'ēnôq	F. Sō'nqulitq. M. Sō'nqulitq, ½ Awī'ky'ēnôq	Awī'ky'ēnôq	Awī'ky'ēnôq	Awī'ky'ēnôq	Awī'ky'ēnôq	Awī'ky'ēnôq	F. ¼ Sō'nqulitq, ½ Kwakiutl. M. Awī'ky'ēnôq	Awī'ky'ēnôq	F. Awī'ky'ēnôq. M. ½ Hē'iltsuk; ½ Awī'ky'ēnôq	F. Kwakiutl M. Tena'qtaq	F. Kwakiutl M. Tena'qtaq	F. Tena'qtaq M. Awaitlala
Observer	B.	B.	B.	F.	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.	B.
Age	14	20	28	30	35	40	50	55	60	65	17	20	20	21	30	30	35	40	40	40	52	60	35	45	40
Height standing	mm. 1,560	mm. 1,666	mm. 1,633	mm. 1617 [4]	mm. 1,613	mm. 1,577 [5]	mm. 1,593	mm. 1,500	mm. 1,663	mm. 1,624	mm. 1,532 [6]	mm. 1,520	mm. 1,513	mm. 1,502	mm. 1,572	mm. 1,520	mm. 1,528 [8]	mm. 1,457	mm. 1,492	mm 1,508	mm. 1,544	mm. 1,462	mm. 1,540 [9]	mm. 1,610 [10]	mm. 1,670
Height of shoulder	1,256	1,367	1,304	1,301	1,307	1,293	1,277	1,197	1,345	1,345	1,248	1,240	1,240	1,214	1,304	1,251	1,244	1,192	1,222	1,223	1,254	1,203	1,242	1,310	1,357
Length of arm	673	709	704	775	689	718	701	627	703	743	684	650	640	629	682	676	647	619	669	617	692	679	672	745	764
Finger-reach	1,598	1,688	1,714	1,780	1,682	1,646	1,746	1,593	1,695	1,764	1,608	1,538	1,560	1,520	1,591	1,632	1,588	1,505	1,551	1,482	1,634	1,558	1,604	1,727	1,793
Height sitting	847	918	913	826	893	857	831	846	893	856	840	829	843	834	837	843	865	762	800	828	808	784	863	843	806
Width of shoulders	334	348	387	395	375	375	399	359	371	338	328	323	347	340	326	351	367	343	308	356	343	340	369	378	390
Length of head	179	189	184 [1]	190	186 [2]	196 [2]	185	180 [2]	181 [2]	192 [2]	176	170	176	169 [7]	182 [3]	180 [2]	183 [2]	166 [2]	161 [2]	169 [7]	176 [2]	183 [2]	184 [2]	189 [2]	205 [2]
Breadth of head	149	159	158 [1]	154	157 [2]	156 [2]	158	161 [2]	149 [2]	157 [2]	156	152	150	163 [7]	151 [3]	159 [2]	154 [2]	146 [2]	153 [2]	144 [7]	155 [2]	160 [2]	155 [2]	161 [2]	157 [2]
Height of face	114	126	123	135	134	131	115	128	115	134	111	115	108	113	126	115	118	116	114	118	120	119	124	135	130
Breadth of face	138	147	147	152	153	155	156	154	148	156	140	137	142	139	145	148	149	141	138	147	153	150	139	147	157
Height of nose	46	54	47	56	57	56	53	56	50	57	49	47	40	53	55	51	50	45	49	49	52	54	56	58	53
Breadth of nose	37	37	36	41	40	41	40	43	38	40	33	35	35	31	35	37	35	36	35	35	38	36	37	36	42
Length-breadth index	83·2	84·1	85·9 [1]	81·1	84·4 [2]	79·6 [2]	85·4	89·4 [2]	82·3 [2]	81·8 [2]	88·6	89·4	85·2	96·4 [7]	83·0 [3]	88·3 [2]	84·2 [2]	88·0 [2]	95·0 [2]	85·2 [7]	88·1 [2]	87·4 [2]	84·2 [2]	85·2 [2]	76·6 [2]
Facial index	82·6	85·7	83·7	88·8	87·6	84·5	73·7	83·1	77·7	85·9	79·3	83·9	76·1	81·3	86·9	77·7	79·2	82·3	82·6	80·3	78·4	79·3	89·2	91·8	82·8
Nasal index	80·4	68·5	76·6	73 2	70·2	73·2	75·5	76·8	76·0	70·2	67·3	74·5	87·5	58·5	63·6	72 5	70·0	80·0	71·4	71·4	73·1	66·7	66·1	62·1	79·2
Index of arm	43·1	42·5	43·2	47·8	42·8	45·4	44·1	41·8	42·3	45·9	44·7	42·8	42·4	41·9	43·4	44·5	42·3	42·4	44·9	40·9	44·9	46·5	43·6	46·3	45·7
Index of finger-reach	102·4	101·3	105·0	110·1	104·3	104·4	109·6	106·2	101·9	108·6	105·0	101·2	103·1	101·2	101·2	107·4	103·9	103·3	104·0	98·3	105·8	106·6	104·2	107·3	107·4
Index of height sitting	54·3	55·0	56·0	51·0	55·5	54·2	52·3	56·4	53·8	52 8	54·9	54·5	55·8	55·6	53·3	55·5	56·5	52·2	53·7	54·8	52·5	53·7	56·0	52·4?	48·3
Index of width of shoulders	21·4	20·8	23·3	24·4	23·3	23·7	25·1	23·9	22·3	20·9	20·8	21·2	23·0	22·7	20·8	23·1	24·0	23 5	20·7	23·6	22·3	23·3	24·0	23·5	23·4

[1] Slightly deformed. [2] Deformed. [3] Strongly deformed. [4] Head somewhat asymmetrical. Imbecile? [5] Father of No. 11. [6] Daughter of Nos. 6, 17. [7] Head flattened behind.
[8] Mother of No. 11. [9] Brother of No. 2. [10] Brother of No. 1.