

## PHYSICAL TYPES OF THE AMUR-SAKHALIN REGION

Chester S. Chard

In two previous papers in this series (1) the writer presented the results of important post-war Russian field work on the anthropometry of the native peoples of extreme northeastern Siberia: the so-called "Palaeo-Asiatics", the Eskimo, and the Lamut. Data on series of Alar Buryat and North Koreans were also included as comparative material. Interesting conclusions on the racial classification of the northern Mongoloids were outlined, based on this and other new material.

Other regions of Siberia have been the scene of similar work, and the results are equally worthy of our attention. The Amur-Sakhalin region, selected for treatment in the present paper, has a probable significance for New World problems second only to northeastern Siberia. In addition it is of interest by virtue of containing two peculiar and isolated racial types (represented by the Ainu and the Gilyak) which seem unrelated to the rest of the Siberian population.

Although previous anthropometric data indicated the racial complexity of this area, any comparative analysis of this material was rendered very difficult by the differences in method among the various investigators. For this reason it seems profitless to devote any space here to a consideration of the older sources. The 1947 field work was designed to remedy this situation by providing a uniform series of measurements and observations on the various tribal groups. The task was carried out by Debets' distinguished colleague M. G. Levin, whose preliminary report has been the major source for the present paper.(2) His objective was realized to a considerable extent, although Levin admits the inadequacy of his Gold sample. In addition, I note that two outlying groups of potential significance, the Orochi and Udehe, were not covered. Represented are the following: Ainu of southern Sakhalin (58 males, 57 females); Gilyak from all three regional subdivisions, totalling 245 males and 209 females; Oroch of Sakhalin (19 males, 39 females); Negidal of the Angun River (52 males, 42 females); Ul'chi (125 males, 106 females); and 50 male Gold who had been transplanted to a collective on the new Russian territory of southern Sakhalin. The group averages for each sex of a series of forty measurements and observations are given in Table 2 below, arranged so as to be comparable in every way to Debets' data on northeastern Siberia published previously in this series.(3)

As one would expect, the Ainu proved to differ markedly from the surrounding Mongoloid population, and clearly constitute a distinct type. They are described as being characterized by swarthy skin color (darkest in the area), dark eyes (over 85%), very stiff hair which in 25% of cases is wavy, great development of beard and body hair, and a rather surprising incidence of epicanthus (35-40%)—although their wider, straighter eye opening results in a general non-Mongoloid appearance. Although the face is flat, the malaris are less prominent than among their flat-faced neighbors, and the facial

dimensions are lower and narrower. The Ainu nose is especially notable. Its average width exceeds that of any other people of Siberia or the Far East; its bridge is considerably higher than that of the Siberian Mongoloids; the spine is straight, there is rather marked projection of the alae, and transverse position of the nostrils is often observed. The average lip thickness in males is the highest recorded for Siberia and the Far East. The Ainu are the only dolichocephalic group in the area, and also stand out by their greater absolute head length.

This is a somewhat peculiar combination of traits. As Levin points out, such features as the epicanthus, stiff hair and flat face belong with the Mongoloid sphere; while the wavy hair, thick lips and wide nose with its transverse nostrils suggest the Australoid types. Still other features (high nasal bridge, hirsuteness and facial dimensions) align them with the Europeoid groups. Levin does not feel that recent Mongoloid admixture can entirely account for the present Ainu appearance, and suggests that it harks back to an ancient undifferentiated stage of racial development in the general region of southeast Asia.

Although an isolated minority in the area, the Ainu type has exerted some influence on its neighbors, particularly the Gilyak. Curiously enough, Ainu features are more pronounced among the mainland Gilyak than among those of Sakhalin who live in more direct proximity to the Ainu. Greater beard development, somewhat darker pigmentation, narrower face, and a tendency toward dolichocephaly all suggest a considerable Ainu admixture among the Gilyak on the mainland. This is also visible among the neighboring Ul'chi. The presence of Ainu slaves from Sakhalin has been suggested to account for this element, and it is certainly a well-established fact that many hundreds were held here in the early 19th century.<sup>(4)</sup> Levin, however, regards as still open the question of when and whence this Ainu element appeared, and does not rule out an earlier time level or a different source.

As the principal racial component of the area, Levin has isolated a type which he labels, appropriately enough, "Sakhalin-Amur". This is described as characterized by straight stiff hair, somewhat darker skin color than the Baikal type (to be discussed shortly), dark eyes and hair, and a marked development of the epicanthus. There is a notable growth of beard (judged by Mongoloid standards). The face is very wide and high. The bridge of the nose, though low, is not as low as in the Baikal type; the spine is usually straight. The lips are comparatively thick. This physical type is most strongly represented among the Gilyak, although it is also a major component in the Ul'chi. Levin believes it to be the indigenous type for the area, representing the original Neolithic population. Unfortunately, there is a complete lack of any prehistoric skeletal material from this region either to prove or disprove this hypothesis. It is certainly at least a possibility.

Certain traits of the Sakhalin-Amur type, such as the darker pigmentation and greater lip thickness, are considered to point towards the southern Mongoloids, with the Koreans viewed as the likely intermediaries. Apparently there are indications (unspecified) of mutual genetic influence between

Korea and the Amur area at some previous time—a situation which should hardly surprise us, and one which is suggested by the archaeological picture.

The remaining groups studied in the Amur-Sakhalin area are all Tungusic-speaking and considered to be relatively late arrivals on the scene. It is hardly surprising that they reveal obvious affinities with their kinsmen, the Northern Tungus and the Lanut, who are the classic examples of what was formerly called the "Palaeosiberian" type, but is now by common consent labelled "Baikal". The Orok sample is admittedly small, but this is offset to some extent by the great homogeneity of the group. They resemble the Negidal closely enough so that the two can be treated as a unit, described as characterized by considerably lighter skin color (in comparison with the Gilyak), much lower percentage of dark eyes and hair, softer hair, weaker growth of beard, very flat face with jutting malar, very low-bridged nose, thinner lips and lower stature. All these features are characteristics of the Baikal type as represented, for example, by the Lanut.(5) However, the Orok and Negidal differ from the latter in their shorter, broader heads. Levin concludes that they are a brachycephalic variant of the Baikal type. This would correspond to the "Angun" type of Debets' Siberian classification system.(6) This type shows up also among the Ul'chi as a minor component, the Sakhalin-Amur type being predominant.

The Gold have evident affinities with the general Baikal type, but Levin does not feel that he has an adequate sample to classify them properly. The group is scattered over a large area, and reports indicate considerable variations in type. (Debets favors setting up the Gold as one of the four sub-types of the Baikal group).

Based on the data presented, we can summarize the probable racial history of the Amur-Sakhalin area as follows. The original population (insofar as it is reflected in the present native inhabitants) was of Sakhalin-Amur type, which has at least some southern links and now survives best among the Gilyak. In relatively recent times, Tungusic peoples entered the area from the northwest bringing the variety of the Baikal type which is characteristic of them today. Mixture with the older population produced the Ul'chi. The Ainu of southern Sakhalin are doubtless immigrants from their homeland in Hokkaido in the not too distant past. Enslavement of many of them in the early 19th century may account for the Ainu admixture visible among the mainland Gilyak.

TABLE 2

GROUPS MEASURED	NUMBER STUDIED	BY AGE GROUPS-%			STATURE	HEAD LENGTH	HEAD BREADTH	CEPHALIC INDEX	MALAR DIAMETER	DIAMETER OF LOWER JAW
		20-25 years	26-39 years	40 and over						
1. AINU	58	15.5	32.8	51.7	1601	197.6	153.6	77.7	144.0	112.6
GILYAK 2. Amur 3. Gulf 4. Sakhalin	79	20.3	35.4	44.3	1606	190.9	154.6	81.2	147.7	115.4
	75	14.6	42.7	42.7	1603	189.1	154.8	82.1	146.2	115.2
	91	13.2	41.8	45.	1614	186.9	159.1	85.2	148.9	114.7
5. OROK	19	21.	21.	58.	1544	186.1	159.3	85.5	147.7	117.
6. NEGIDAL	52	17.3	26.9	55.8	1561	186.7	156.	83.4	146.1	116.4
7. UL'CHI	125	19.2	42.4	38.4	1604	190.3	156.2	82.2	147.4	115.5
8. GOLD	50	8.	52.	40.	1597	188.	153.	81.5	145.6	113.9
MEASUREMENTS FOR FEMALES										
1. AINU	57	19.3	28.1	52.6	1474	188.3	148.5	78.9	136.8	104.7
GILYAK 2. Amur 3. Gulf 4. Sakhalin	54	27.8	50.0	22.2	1508	183.3	149.4	81.5	138.8	107.
	65	24.6	50.8	24.6	1482	179.6	149.4	83.2	138.7	107.4
	90	22.2	46.7	31.1	1497	179.4	153.1	85.4	140.8	107.6
5. OROK	39	43.6	28.2	28.2	1461	178.6	150.5	84.1	138.9	108.3
6. NEGIDAL	42	23.8	35.7	40.5	1473	180.4	152.1	84.1	141.1	109.6
7. UL'CHI	106	21.7	49.1	29.2	1497	182.9	150.8	82.6	139.7	108.4

GROUPS MEASURED	HEIGHT OF NOSE FROM LOWER EDGE OF BROWS	HEIGHT OF NOSE FROM BRIDGE	WIDTH OF NOSE	NASAL INDEX FROM LOWER EDGE OF BROWS	NASAL INDEX FROM BRIDGE	HEIGHT OF CUTANEOUS PORTION OF UPPER LIP	WIDTH OF MOUTH	THICKNESS OF BOTH LIPS	MORPHOLOGICAL HEIGHT OF FACE	HEIGHT OF BRIDGE (7)	TRANSVERSE PROFILE OF NASAL SPINE (8)
<b>MALE</b>											
1.	60.6	51.9	40.0	66.1	77.5	19.7	58.2	20.1	132.6	1.90	2.02
2.	63.0	52.5	37.0	59.2	71.2	18.6	51.5	17.5	137.7	1.24	1.75
3.	63.6	52.9	36.4	57.4	69.0	18.9	51.3	18.5	137.2	1.23	1.96
4.	64.2	52.4	38.6	60.4	73.8	19.9	53.6	20.5	137.1	1.22	1.84
5.	63.9	50.6	38.1	60.1	75.9	19.2	54.3	15.2	133.5	1.05	1.68
6.	64.1	52.9	36.8	57.7	69.5	18.7	51.1	15.9	136.9	1.19	1.69
7.	62.8	52.1	37.0	59.4	71.1	18.7	51.1	17.0	135.1	1.14	1.65
8.	66.0	53.5	38.1	57.7	71.1	20.1	54.2	18.1	137.4	1.12	1.76
<b>FEMALE</b>											
1.	59.3	48.4	35.6	60.9	74.6	18.2	53.6	20.2	127.3	1.44	1.74
2.	59.2	46.7	33.4	56.6	71.9	17.2	45.5	19.2	130.3	1.04	1.20
3.	58.8	46.4	32.8	56.0	70.6	17.1	46.7	18.4	128.5	1.03	1.48
4.	60.5	47.7	35.1	58.4	74.1	18.6	49.5	19.1	129.7	1.00	1.42
5.	61.5	47.9	34.5	56.8	72.2	18.1	48.5	15.1	128.4	1.08	1.49
6.	61.0	47.5	33.6	55.2	70.9	17.7	47.3	16.4	130.2	1.10	1.21
7.	58.6	46.9	34.1	58.2	72.7	16.6	47.2	16.8	128.1	1.06	1.22

GROUPS MEASURED	NASAL SPINE				TIP OF NOSE (9)	POSITION OF AXES OF NOSTRILS (10)	FURROW OF ALAE -- HOW PRONOUNCED (11)	PROJECTION (PROMINENCE) OF ALAE (12)	EYE FOLD (13)		
	CONCAVE %	STRAIGHT %	SINOUS %	CONVEX %					INNER PORTION	MIDDLE PORTION	OUTER PORTION
<b>MALE</b>											
1.	7.0	71.9	17.6	3.5	1.59	1.79	1.74	1.95	1.50	1.62	1.60
2.	21.5	56.8	12.7	8.9	1.52	1.97	1.59	1.85	2.24	2.28	2.27
3.	6.8	63.5	20.3	9.4	1.47	1.97	1.68	1.92	2.29	2.49	2.48
4.	7.9	70.8	15.7	5.6	1.42	1.89	1.61	1.93	2.53	2.56	2.56
5.	26.3	52.6	21.1	--	1.74	1.42	2.00	2.37	2.47	2.79	2.79
6.	9.6	65.4	17.3	7.7	1.58	1.81	1.81	1.85	2.48	2.44	2.40
7.	27.2	60.8	8.8	3.2	1.62	1.90	1.50	1.74	2.36	2.39	2.39
8.	12.0	58.0	16.0	14.0	1.78	1.78	1.92	1.92	1.98	2.14	2.12
<b>FEMALE</b>											
1.	57.9	38.6	3.5	--	1.33	2.11	1.58	1.72	1.33	1.35	1.35
2.	59.3	38.9	1.8	--	1.31	1.94	1.57	1.65	2.52	2.48	2.48
3.	44.6	50.8	4.6	--	1.34	1.97	1.72	2.18	2.36	2.43	2.43
4.	34.8	60.7	3.4	1.1	1.35	1.97	1.48	1.90	2.40	2.44	2.44
5.	28.2	71.8	--	--	1.49	1.77	1.62	1.82	2.55	2.66	2.66
6.	38.1	54.8	7.1	--	1.40	1.83	1.88	1.48	2.50	2.45	2.45
7.	53.8	44.3	1.9	--	1.42	1.80	1.60	1.73	2.48	2.50	2.50

GROUPS MEASURED	WIDTH OF EYE OPENING (14)	INCLINATION OF AXES OF EYES (15)	EPICATHUS %	SLOPE OF FOREHEAD (16)	SUPRAORBITAL DEVELOPMENT (17)	HORIZONTAL PROFILE OF FACE (18)	MALAR PROJECTION (19)	CHIN PROJECTION (20)	PROFILE OF UPPER LIP (21)	LOBE OF EAR (22)	STRAIGHT STIFF HAIR %
<b>MALE</b>											
1.	1.74	2.35	36.2	2.64	1.66	1.02	1.70	1.82	1.14	2.28	63.2
2.	1.49	2.60	49.4	2.44	1.44	1.05	1.58	1.53	1.04	1.42	35.8
3.	1.53	2.55	53.3	2.28	1.52	1.04	1.69	1.28	1.10	1.61	24.1
4.	1.57	2.42	57.2	2.34	1.59	1.04	1.71	1.41	1.04	1.51	44.1
5.	1.26	2.42	31.6	2.22	1.37	1.00	1.42	1.42	1.16	1.74	45.5
6.	1.71	2.54	52.0	2.00	1.48	1.02	1.44	1.27	1.06	1.63	8.9
7.	1.82	2.66	64.8	2.50	1.29	1.02	1.54	1.72	1.06	1.61	40.9
8.	1.38	2.54	44.0	2.66	1.42	1.00	1.34	1.44	1.02	2.04	32.4
<b>FEMALE</b>											
1.	1.74	2.43	39.3	2.98	1.00	1.00	1.26	1.75	1.22	2.26	74.0
2.	1.68	2.68	83.4	2.85	1.00	1.00	1.26	1.25	1.00	1.27	73.6
3.	1.78	2.63	73.9	2.86	1.09	1.00	1.35	1.46	1.02	1.24	52.5
4.	1.54	2.49	73.0	2.79	1.02	1.01	1.35	1.53	1.01	--	41.7
5.	1.26	2.42	60.6	2.56	1.05	1.00	1.38	1.87	1.16	1.37	41.2
6.	1.62	2.70	73.8	2.81	1.00	1.00	1.14	1.43	1.00	1.74	7.3
7.	1.79	2.52	75.2	2.92	1.00	1.00	1.14	1.74	1.01	1.71	46.7

GROUPS MEASURED	WAVY HAIR %	GROWTH OF BEARD (23)	GROWTH OF EYEBROWS (24)	SMARTHY SKIN % (25)	DARK EYES %	BLACK HAIR (no. 27) %
<b>MALE</b>						
1.	26.3	4.33	2.81	75.9	86.0	81.8
2.	20.9	2.11	1.99	44.6	86.0	33.3
3.	9.2	2.10	2.11	71.2	88.0	45.9
4	3.4	1.86	2.08	62.4	80.0	48.5
5.	9.0	1.60	1.63	26.4	44.4	36.4
6.	11.1	1.28	1.60	16.7	59.6	2.3
7.	6.1	1.76	1.90	33.8	74.4	18.5
8.	10.8	1.26	1.67	36.8	52.2	63.9
<b>FEMALE</b>						
1.	6.0	--	2.25	69.6	96.5	79.6
2.	3.8	--	1.50	71.9	96.3	44.2
3.	4.9	--	1.49	81.4	80.0	31.2
4.	1.2	--	1.50	86.4	96.6	34.1
5.	2.9	--	1.31	45.2	86.1	22.8
6.	7.3	--	1.24	25.0	76.2	7.5
7.	7.6	--	1.82	26.9	94.1	17.7



## NOTES

- (1) Chard, 1951; 1954
- (2) Levin, 1949; additional discussion in Levin, 1950.
- (3) I have converted Levin's figures to the nearest one-tenth millimeter (whole millimeter in the case of stature) in order to bring his metrical data into conformance with those of Debets.
- (4) See Harrison, 1954.
- (5) For comparative data on the Lanut, see Chard, 1951 (tables).
- (6) Debets divides the Baikal type into four local varieties. One, differentiated by its brachycephaly (and geographic location) is represented by the Orok and Negidal. The name "Angun" is derived from the river along which the Negidal live. For an outline of Debets' classification, see Chard, 1954.
- (7) Graded 1-3.
- (8) Graded 1-3.
- (9) Graded 1-3; 1 = raised.
- (10) Graded 1-3; 1 = transverse.
- (11) Graded 1-3; 1 = weak.
- (12) Graded 1-3; 1 = weak.
- (13) Graded 0-3.
- (14) Graded 1-3; 1 = narrow.
- (15) Graded 1-3; 3 = outer corner higher.
- (16) Graded 1-3; 1 = very sloping.
- (17) Graded 1-4.
- (18) Graded 1-3.
- (19) Graded 1-3; 1 = very prominent.
- (20) Graded 0-3; 0 = negative to plane of lower jaw.

- (21) Graded 1-3; 1 = prokheiliia.
- (22) Graded 1-3; 1 = attached (or grown together).
- (23) On males over 25 years of age; graded 1-5.
- (24) Graded 1-3.
- (25) Inner surface of arm, No. 10 and darker.

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