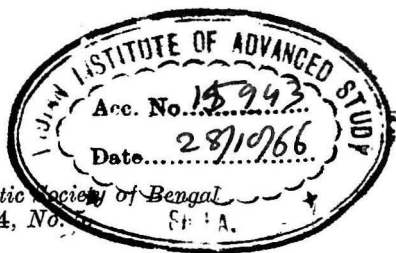


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From the Journal and Proceedings, Asiatic Society of Bengal (New Series), Vol. XX, 1924, No. 1

ARTICLE No. 16.

Physical Characteristics of the Hos of Kolhan.

By D. N. MAJUMDAR, M.A.

This paper contains a preliminary survey of the physical characteristics of the Hos, based on 10 anthropometrical measurements of 200 individuals.

Short stature, dark complexion, short, broad and flat nose, small, dark eyes, wavy to curly hair, beard or moustaches absent, are some of the physical characters of the Hos of Kolhan. The complexion varies from sooty black to dark brown, but often one meets with fair Hos. This may possibly be traced to the fair Rajput traders who tour throughout the district with articles of daily use. The chin is narrow and the lips are medium. Slight prognathism is noticeable. Ears are small and finely developed. Slanting eyes are scarcely noticeable. Formerly they practised tattooing, but the custom has fallen out of favour. Where tattooing is practised, only the fore-limbs, especially the right hand is tattooed. The belief connected with the practice is, that if a woman does not tattoo, she commits a sin, for nothing goes with her to the next world but these marks on the limbs. They do not chip their teeth.

Anthropometry.

Measurements were taken of 200 Hos of different septs and localities, and their cranial, nasal and facial indices worked out. Care has been taken to group the subjects on the basis of homogeneity, i.e., the samples taken for anthropometric tests have common social standards and common traditional origins. For example, the Hos believe that the members of a sept are descended from a common ancestor and marriage is forbidden between them. A man of the Banra sept will not marry a girl of the same sept but of a different sept, say the Kalundi or the Deogam. So as regards tradition and social standing each sept is homogeneous, and for this purpose I have recorded the tests of each sept separately. Another important point to be noted is the possible error in measurements which may be called personal errors. However accurate the field-worker may be, such errors are inevitable, for the conditions of field work do not allow time enough to record the measurements in a way possible in the laboratory. When one has to finish a dozen or more tests in 15 minutes, it is not possible to apply one's instrument a second time to verify the first record. But this can be remedied to some extent, if we

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take a sufficiently large number of subjects of each group, measure them, deduct the personal error which may be ascertained by the laboratory method, and then work out the average. For example, if the first record of head length of an individual be 18·1 cms, the second record, 18·2 cms., the third record, 18·3 cms, the mean record must be 18·2 cms. But instead of making three observations on the same individual, we take three individuals and get the records 18·1 cms., 18·2 cms., 18·3 cms., deducting the personal errors, we may arrive at the same average, *i.e.*, 18·2 cms. for the head-length. For field work the second method is the only method possible, for we cannot make a subject submit to anthropometric tests for 45 minutes.

The comparative anthropometry of some 140 Hos of 11 different septs is given below. It is evident from the table, that the greater the number of subjects in a group, the more the average agrees with the general physical appearance of the tribe. The average indices for the Banra sept of which 44 subjects were measured are, cephalic, 73·6, nasal, 79·1, facial, 92·3, whereas the average indices for the Jamuda sept of which only two subjects were available for measurement are cephalic, 77·9, nasal, 74·6, facial 90. Again only two subjects were measured of Bansia sept, and they gave the following average indices, cephalic, 79·4, nasal, 80·3, facial, 93·1. So, in order to arrive at valid conclusions, on the result of averages, there must be a fair number of subjects in each group.

Cephalic Index.

Of the 200 measurements taken, 63 per cent. were found to be dolichocephalic, 47 per cent. mesocephalic, and 12 per cent. brachy-cephalic. The head-length was measured from glabella to opisthocranium, the point in the median sagittal line of the occiput, which is the farthest point from the glabella. The width was measured between the euryons, the most laterally projecting points on the sides of the head above the Supramastoid and zygomatic crests. The average cephalic index for the Hos is 75·5. The Honhaga sept has the lowest average cephalic index, *i.e.* 73·0 and the Bansia the highest, 79·4. The Banra has 73·6, the Sawaia, 74·3, the Kalundia, 74·7, the Baraimunda, 74·7, the Deogam, 75·2, the Hembrom, 75·9, the Purty, 76·3, the Jamuda, 77·9. Cases of artificial deformation of the head were noticed in the interior of Kolhan. A young man was seen with a well-marked fronto-occipital deformation which showed a lateral increase in the shape of the head. Another was seen with an occipital flattening, the tendency of which is to shorten the head in the antero-posterior direction. The custom of manipulating the head of newborn babies is much prevalent amongst the aborigines, and it is to be ascertained

whether this manipulation of the head, when the bones are in process of ossification, has anything to do with the moulding of the head form.

Nasal Index.

The length of the nose was measured from the nasion, *i.e.*, the point in the median sagittal line where the nasal bones join the frontal bone, to the sub-nasal, *i.e.*, the point where the septum of the nose joins the upper lip. The breadth was measured from alare to alare, *i.e.*, the laterally projecting points on the wings of the nose or nostrils. The point corresponding to the nasion is very vaguely defined and in many instances difficult to find.

The width of the nose is taken at the widest point on the alae by some observers, and at the point where the nose joins the face, by others. As the measurements of both dimensions are very small any small error of observation, seriously affects the average. To add to it, there is the custom of pressing the nose upwards with the fingers against the sides, and of pressing the finger against the hard palate to elevate the long septum of the palate so as to rectify any depression in the bridge of the nose. To come to the averages, the Honhaga sept has the highest nasal index, *i.e.*, 91.1, the Jamuda the lowest, *i.e.*, 74.6. The nasal indices are for the Banra, 79.1, the Kalundia, 77.5, the Deogam, 79.5, the Hembrom, 81.2, the Bansia, 80.3, the Sawaia, 76.0, the Baraimunda, 77.5, the Purty, 78.7, the Lagauri, 86.6.

Facial Index.

The face-length was measured from glabella to gnathion, the lowest point in the middle of the bony chin. The face-breadth was taken as the distance between the zygions, *i.e.*, the most laterally projecting points on the two zygomatic arches. The head-height was measured from bregma, *i.e.*, the point on the head where the frontal bone meets the two parietal bones, to the right earhole. As regards the facial index, the Lagauri sept has the lowest index, *i.e.*, 87.9, while the Kalundia has 94. The facial indices are for the Banra, 92.3, the Deogam, 93.1, the Hembrom, 93.0, the Bansia, 93.2, the Sawaia, 93.2, the Honhaga, 89.1, the Jamuda, 90, the Baraimunda, 89.3, the Purty 90.0.

Stature and Arms' Reach.

The average stature is about 161 cms. The Bansia sept has the lowest stature (average for the sept), *i.e.*, 158.2 cms., while the Sawaia sept has the highest average stature 164.0 cms., and individuals measure 170 cms. or more. The average stature for the Kalundia sept is 161.7 cms., the Deogam, 161.8

cms., the Hembrom, 160.1 cms., the Jamuda, 161.1 cms., the Baraimunda, 159.8 cms., the Purty, 163.7 cms., the Honhaga, 159.5 cms., the Lagauri, 163.6 cms., and that for the Banra is 160.5 cms. At the age of 30 a Deogam was measured to be 177 cms., at the age of 55 a Hembrom measured 149.4 cms. only. So the Hos are below the average as regards stature. The maximum average arms' reach, *i.e.*, 173.5 is noticeable in the case of the Sawaia sept, while the Honhaga sept has only 166.6 cms. The arms' reach is proportionate to the stature, the higher the stature, the greater is the arms' reach, and the difference between the stature and the arms' reach of a man ranges from 7 to 9 cms. The Bansia has an average arms' reach of 169.7 cms., the Lagauri has 172.8 cms., the Baraimunda, 167.9 cms., the Purty, 172.2 cms., the Hembrom, 168.6 cms., the Jamuda, 168.0 cms., the Deogam, 171.0 cms., the Kalundia, 172.0 cms., the Banra, 169.3 cms. The average arms' reach for all the septs is 169.9 cms.

Sept Honhaga.

Name.	Native Village.	Age.	Stature.	A.R.	H.L.	H.B.	N.L.	N.B.	F.L.	F.B.	H.H.	N.C.
Honhaga Miran	.. Sindri ..	.. 16	157.1	160.3	18.2	13.8	4.3	3.6	11.1	12.4	12.3	71
„ Subdia	.. Sonara ..	.. 17	157.8	166.3	19.3	13.7	4.3	4.6	11.1	13.3	12.7	78
„ Bhagirath	.. Bisai ..	.. 17	163.5	173.3	19.3	13.9	4.9	4.2	12.4	13.2	13.9	77
	Average :	..	159.5	166.6	18.9	13.8	4.5	4.1	11.5	12.9	12.9	75

Sept Bansia.

Bansia Moton ..	.. Chiru ..	.. 18	155.5	169.2	17.8	14.2	4.6	3.9	12.5	13.3	11.2	79
„ Mohendra	.. „ ..	.. 48	161.0	170.3	18.2	14.4	5.6	4.4	12.8	13.6	13.0	84
	Average :	..	158.2	169.7	18.0	14.3	5.1	4.1	12.6	13.4	12.1	81

Sept Lagauri.

Turi Lagauri ..	.. Bogeabari ..	.. 19	165.7	171.0	18.4	14.7	4.3	4.2	11.3	13.0	13.3	80
Gopra „ ..	.. „ ..	.. 28	161.6	174.7	18.3	14.0	4.7	3.7	12.1	13.7	12.2	84
	Average :	..	163.6	172.8	18.3	14.3	4.5	3.9	11.7	13.3	12.7	82

Sept Sawaria.

Nripat ..	.. Khaspukuria ..	.. 20	160.9	170.6	19.5	13.9	5.0	4.3	12.3	13.2	13.0	80
Dubro ..	.. Rajabasa ..	.. 26	159.0	171.8	18.9	14.4	4.8	3.6	11.5	13.3	12.9	77
Uli ..	.. Hitu ..	.. 30	167.0	171.7	17.7	13.5	4.7	3.7	11.8	13.2	12.5	82
Hai ..	.. Kokchak ..	.. 35	170.4	186.9	17.4	14.9	5.5	4.1	12.7	13.5	12.6	78
Sivai ..	.. Gumar ..	.. 35	168.6	170.2	18.6	13.5	4.9	3.9	11.9	13.4	12.2	83
Jau ..	.. Kokchak ..	.. 45	157.4	166.6	19.6	14.0	5.9	3.8	12.8	13.3	13.0	88
Gora ..	.. Gundepoa ..	.. 55	165.2	177.0	19.8	13.4	5.3	3.8	14.3	13.6	12.6	83
	Average :	..	164.0	173.5	18.7	13.9	5.0	3.8	12.4	13.3	12.6	81

Sept Baraimunda:

Name.	Native village.	Age.	Stature.	A.R.	H.L.	H.B.	N.L.	N.B.	F.L.	F.B.	H.H.	N.C.
Pradhan ..	Jorapooker ..	22	161.5	168.7	18.8	13.6	4.8	3.9	11.5	13.0	13.0	79
Raman ..	" ..	24	153.0	161.4	18.6	13.6	4.1	3.8	11.6	12.9	12.5	75
Muchia ..	" ..	35	152.6	163.5	17.2	13.3	4.6	3.7	11.2	13.0	12.1	81
Saban ..	" ..	35	162.5	171.3	18.4	14.0	5.4	3.4	11.7	13.5	13.1	77
Lakan ..	" ..	36	161.5	171.9	17.6	13.7	4.8	3.8	11.6	12.9	11.1	80
Modhua ..	" ..	38	154.8	160.4	19.4	13.8	4.9	3.6	12.0	13.1	13.2	82
Birsingh ..	" ..	40	152.0	160.3	18.3	13.6	5.0	4.2	11.5	12.7	12.0	78
Modhua ..	" ..	45	155.6	160.0	17.6	14.0	4.7	3.8	12.4	13.4	12.9	84
Maraki ..	" ..	48	169.9	173.8	18.5	13.6	5.1	4.5	12.6	13.4	12.5	81
	Average: ..		159.8	167.9	18.2	13.6	4.9	3.8	11.7	13.1	12.4	79.6

Sept Purty.

Juria ..	Choyasai ..	17	167.5	178.3	18.0	14.6	5.1	3.5	11.5	13.2	12.8	71
Ghanashyam ..	Tirumbasa ..	18	166.3	173.4	18.2	13.9	4.3	4.0	11.2	12.8	12.0	82
Surji ..	Mundaial ..	34	161.8	174.4	19.0	13.5	4.8	3.5	12.2	13.3	12.0	77
Dibai ..	Pendrasali ..	35	166.1	175.8	18.7	13.9	5.0	3.8	12.6	13.2	12.3	84
Damu ..	Amlabarai ..	45	157.0	159.3	17.1	13.9	4.5	3.9	11.5	13.0	13.1	77
	Average: ..		163.7	172.2	18.2	13.9	4.7	3.7	11.8	13.1	12.4	78

Sept Hembrom:

Antu ..	Nakohasa ..	17	171.7	172.6	19.0	13.5	5.1	3.4	12.0	12.6	12.6	78
Bike ..	Chiru ..	17	157.7	168.3	17.1	14.4	4.6	4.0	11.7	13.2	11.5	76
Mohendra ..	" ..	17	158.3	169.0	17.8	14.5	4.7	4.2	12.2	13.8	11.6	76
Roga ..	" ..	28	158.0	169.3	18.8	14.3	4.9	3.5	12.3	13.5	12.3	78
Kaloman ..	" ..	38	165.9	175.7	19.0	13.5	5.0	3.8	12.0	12.2	12.0	76
Mati ..	Uli-Rajabasa ..	30	158.5	165.0	18.0	13.6	4.8	3.8	12.5	12.8	12.9	80
Durga ..	Chiru ..	42	164.1	168.7	18.8	13.6	4.4	4.4	11.9	12.8	11.8	78
Miorai ..	" ..	44	158.7	167.1	17.9	13.5	5.3	4.0	12.5	12.8	10.2	76
Kanda ..	" ..	55	149.4	161.9	18.2	14.2	5.2	4.0	12.0	13.3	11.3	72
	Average: ..		160.1	168.6	18.3	13.9	4.8	3.9	12.1	13.0	11.8	76

Sept Jamuda.

Name.	Native Village.	Age.	Stature.	A.R.	H.L.	H.B.	N.L.	N.B.	F.L.	F.B.	H.H.	N.C.
Kaira	.. Burigora	.. 16	155.8	161.0	18.2	13.7	4.4	3.6	11.2	12.7	13.7	74
Birsinha	.. Arugundu	.. 46	166.5	175.0	18.1	14.6	5.1	3.5	12.0	13.2	12.2	79
	Average :	..	161.1	168.0	18.1	14.1	4.7	3.5	11.6	12.9	12.9	76.5

Sept Deogam.

Satu	.. Dumbisai	.. 18	159.7	168.8	17.5	13.6	4.6	3.6	11.4	13.0	11.6	74
Siva	.. "	.. 19	156.7	165.0	18.2	13.1	4.5	3.4	12.4	12.6	11.1	77
Bhagaman	.. "	.. 20	167.2	181.0	18.0	13.3	4.6	4.3	12.1	12.9	12.0	85
Durga	.. "	.. 21	166.0	177.5	18.5	13.6	4.7	4.3	11.2	12.7	13.0	77
Gangaram	.. "	.. 22	165.0	178.2	19.1	13.7	5.3	3.7	13.5	13.6	12.2	83
Monai	.. "	.. 25	158.0	162.7	18.5	13.9	4.9	3.3	11.7	12.8	11.8	77
Kanuram	.. "	.. 26	169.2	178.4	18.4	14.3	5.0	4.4	12.2	13.5	12.0	78
Gono	.. "	.. 27	156.0	167.2	17.5	13.2	4.8	3.6	11.6	12.6	11.6	80
Mukia	.. "	.. 27	163.8	172.0	19.1	13.7	4.9	3.9	12.5	13.2	12.9	79.5
Dulu	.. "	.. 28	163.8	167.2	18.3	13.7	4.7	4.0	12.5	13.4	12.0	85
Mahati	.. "	.. 28	157.3	162.7	18.8	13.6	5.2	4.0	12.0	13.1	11.6	79
Mohan	.. Kainjia	.. 30	150.8	159.0	17.5	13.7	5.2	3.7	12.0	13.0	12.6	82
Boguini	.. Dumbisai	.. 30	177.5	187.5	18.4	14.2	4.9	3.9	12.8	13.7	13.1	86
Nanda	.. Kokchak	.. 35	165.0	178.3	18.2	14.7	4.8	4.2	12.3	13.7	12.7	88
Sunua	.. Kainjia	.. 35	159.0	174.7	18.4	13.5	4.9	4.1	12.1	13.7	12.2	84
Gosa	.. Banandia	.. 40	162.0	170.6	18.3	13.8	5.7	3.8	12.8	13.5	11.8	80
Gangaram	.. Dumbisai	.. 40	164.2	169.5	18.0	14.4	5.0	4.0	12.8	13.6	12.8	82
Sidhi	.. "	.. 48	163.1	168.8	17.8	13.7	5.0	4.0	11.8	12.8	11.8	77
Kiti	.. Chiru	.. 50	157.0	163.6	17.8	14.1	4.8	3.8	11.6	13.4	11.0	72
Sambhu	.. Dumbisai.	.. 50	156.4	168.6	18.7	13.7	5.8	4.0	12.8	13.1	12.1	76
	Average :	..	161.8	171.0	18.2	13.7	4.9	3.9	12.2	13.1	12.0	79

Sept Kalundia.

Bamia	.. Kokchak	.. 18	151.0	155.7	18.7	13.3	3.8	3.5	10.9	12.4	12.4	75
Juria	.. "	.. 18	154.4	166.0	18.0	13.5	5.0	3.7	12.1	12.0	13.0	73

Name.	Native village.	Age.	Stature.	A.R.	H.L.	H.B.	N.L.	N.B.	F.L.	F.B.	H.H.	N.C.
Toram
Kiti
Khari
Gandi
Pundu
Dulphu
Chamra
Marakhi
Harichand
Mahati
Muruli
Rango
Hidu
Bejoy
Domra
Jagu
Mukhi
Dumbi
			Average:	..	..	..	..	..	..	..	..	..
			161.7	172.0	18.6	13.9	4.9	3.8	12.4	13.2	12.4	82
<i>Sept Banra.</i>												
Rasi
Dibar
Motai
Kandi
Gumda
Duluram
Sura
Patar
Dibar
"
Rando
			164.2	167.3	18.8	13.1	4.6	3.6	11.6	12.2	13.1	74
			156.0	158.9	18.0	12.3	4.1	3.7	11.7	12.5	12.2	77
			160.2	169.0	19.2	14.0	5.1	4.9	11.6	13.4	12.5	80
			161.0	171.6	18.0	13.1	4.5	3.1	11.1	12.3	12.3	78
			167.7	177.7	18.7	14.3	4.7	4.0	12.0	13.5	12.0	79
			161.9	166.8	17.6	14.1	5.1	4.1	11.7	13.5	12.7	78
			156.6	169.2	18.2	13.8	4.8	3.7	12.7	13.4	11.9	78
			166.0	175.3	17.9	13.4	4.7	3.7	12.7	12.6	11.8	76
			154.5	157.9	18.7	14.3	5.2	4.0	12.1	13.1	11.5	76
			155.8	163.0	19.0	14.4	4.9	3.9	12.3	13.5	13.0	82
			150.7	158.4	18.5	14.6	5.0	3.8	11.5	13.5	12.2	77

Name.	Native Village.	Age.	Stature.	A.R.	H.L.	H.B.	N.L.	N.B.	F.L.	F.B.	H.H.	N.C.
Bejoy	Chiru	25	159.8	173.0	18.8	14.2	5.0	3.5	11.2	12.8	12.2	77
Báji	Rajabasa	27	161.0	168.8	17.8	14.0	5.2	3.7	12.3	13.5	12.5	79
Mangta	Raigutu	27	157.4	168.5	17.8	14.0	4.6	3.6	11.9	13.2	12.0	81
Chakra	Gatuasa	28	157.7	160.2	18.0	13.5	4.8	3.8	12.0	12.8	12.9	79
Ganga	Rajabasa	29	158.5	167.0	18.6	13.8	4.8	3.9	11.5	13.7	12.7	77
Nagen	Unchuri	29	164.2	170.1	17.6	13.3	5.0	3.9	11.5	12.5	12.7	80
Sunu	Kitahatu	29	167.8	170.0	19.1	14.0	4.9	4.0	12.9	13.4	13.2	83
Samu	Chiru	29	162.7	164.3	19.2	13.8	4.7	3.7	11.8	13.8	11.6	83
Dibar	"	30	173.2	186.8	19.5	13.8	5.3	4.0	12.0	12.8	12.3	81
Sakhari	Kokchak	30	156.5	169.8	18.3	13.5	5.3	3.6	13.0	13.6	12.6	79
Udia	Rajabasa	32	164.8	176.7	19.6	14.2	5.2	3.5	12.2	13.5	12.3	86
Selai	Sika	33	154.8	170.2	18.7	13.5	4.6	4.3	11.5	13.0	12.3	80
Marakhi	Chiru	33	161.0	173.5	19.0	14.3	4.7	3.7	12.5	13.1	12.9	73
Sadhu	"	33	161.3	167.8	18.3	14.4	4.6	4.5	12.5	13.2	13.6	82
Diroa	"	34	154.3	162.5	18.4	13.2	4.8	4.0	11.7	12.8	11.5	79
Tuan	"	31	169.2	178.5	19.7	13.8	4.6	3.8	11.8	13.2	13.5	83
Chamro	"	34	156.0	170.0	19.0	14.5	5.2	4.4	12.6	13.7	12.6	73
Turi	Rajabasa	34	167.6	173.0	18.8	13.9	4.8	3.9	11.5	13.5	12.0	81
Bejoy	"	35	155.8	168.8	17.8	13.2	4.8	3.7	11.3	13.0	12.5	79
Maji	"	36	166.8	179.7	19.5	14.1	4.8	3.9	12.2	13.5	12.9	85
Durga	Kitahatu	40	168.8	173.0	19.0	13.9	4.9	4.4	12.5	13.8	12.4	80
Bugi	Chiru	40	158.8	168.5	19.0	13.3	4.6	3.6	12.1	12.2	11.7	75
Pato	"	40	173.3	182.7	19.2	14.5	4.5	4.0	11.8	13.6	12.5	87
Durga	"	42	159.4	168.8	18.1	13.3	4.2	3.6	11.1	12.8	12.4	76
Siba	"	46	152.0	164.8	18.6	13.0	4.8	3.4	11.7	11.8	10.8	73
Kudra	"	48	161.7	168.6	18.6	13.6	5.5	4.0	12.7	13.2	11.5	72
Surju	"	48	160.0	168.0	18.0	12.7	5.2	4.1	12.5	12.6	11.8	72
Burgi	"	50	152.1	158.6	18.2	12.4	4.5	4.0	12.5	12.6	11.5	75
Divai	Kitahatu	55	161.7	170.5	19.0	14.5	5.6	3.8	12.7	13.4	12.6	84
Motai	Chiru	55	156.0	162.0	19.0	13.4	4.7	4.1	12.4	12.8	11.7	78
Purnu	"	58	157.6	174.6	18.2	13.6	5.0	3.5	11.8	11.8	12.8	72
Boy	"	60	158.5	164.6	19.0	13.7	5.3	3.8	12.0	13.2	13.0	71
Average :			160.5	169.3	18.6	13.7	4.8	3.8	12.0	13.0	12.3	78

Issued July 30th, 1925.

