

source of the Indus is in the springs of Senge Khambab (half a mile north of Bokhar Chu), north of Kailas, 53 miles from Barkha. The source of the Brahmaputra is in the Chemayun-dung glaciers, two days' march east of the Kanglung glaciers or 92 miles from Barkha, and the source of the Karnali is at the Mapcha Chungo spring, about 23 miles north-west of Taklakot."

This conclusion will be generally acceptable to future investigators, for it leaves the question open for the adoption of other criteria for fixing river sources after the necessary exact and quantitative estimations have been carried out. Other glaciers, springs and divides may then be regarded as the sources of these rivers, though the change is not likely to be very material in two or three of these rivers. But even when this is done, the terrain in the immediate periphery of Kailas-Manasarowar will still remain the nidus, or cradle of four of India's largest rivers.

A paper containing the resume of Swami Pranavananda's observations was read at a meeting of the Royal Geographical Society, London, and although it aroused curiously little comment at the time, at this one of the world's most important centres of geographical enlightenment, it is apposite to conclude this note with the remarks made at this meeting by Dr. T. G. Longstaff, the celebrated Himalayan explorer and surveyor. While expressing himself in full agreement with Swami Pranavananda's acceptance of the traditional sources of the four rivers the veteran Dr. Longstaff said, "It savours of impertinence for Europeans to assert their views against the usage of other civilizations". And in this tribute by him to the Swami all acquainted with travel in the Himalayas will heartily concur:

"Those who have travelled in Tibet must admire the character of the Swami, displayed by his omission of all reference to the hardships he must have suffered during his winter journeys in this inhospitable region."

BLOOD GROUPS OF THE BHILS OF GUJARAT

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THE Bhils and the Chenchus have been found to be racially akin on the basis of the coefficients of racial likeness worked out from Dr. B. S. Guha's measurements.¹ Otherwise also, the Chenchus are popularly known as the closest relations of the Bhils, but they differ very much in their blood groups. Macfarlane tested 44 bloods from the Bhils of both sexes in the Kannad Taluk of the Aurangabad District in the extreme north-east. She found 31.8 p.c. O, 13.6 A, 52.3 B and 2.3 AB. This result if corroborated should be considered highly significant. "It may be", writes Macfarlane, "that in the Bhils we have one of the reservoirs of group B in India from which it has percolated to higher social castes, for the Bhils have an ancient tradition as soldiers and artisans".² In another paper on "Blood Groups in India"³ Macfarlane has recorded the blood groups of 140 Bhils and she found 18.6 p.c. O, 23.6 p.c. A, 41.4 p.c. B and 16.4 p.c. AB. I do not know where this group was examined, as the reference

given in the paper does not mention it. The large incidence of B, 52.3 p.c. in one case and 41.4 p.c. in another, could be explained if we took the Bhils as a highly heterogeneous group, for according to the data available the B percentage is found higher among mixed groups and may have something to do with hybridization.⁴

At the invitation of the Gujarat Research Society and in collaboration with Dr. G. M. Kurulkar, Professor of Anatomy, S. G. S. Medical College, Bombay,⁵ I have recently done some anthropological investigations among the Bhils of Gujarat (Panchmahal District) and the bloods of 369 Bhils of both sexes were typed by me. The data from the Bhils give the following percentage distribution: 37 p.c. O, 27.5 p.c. A, 26.0 B and 9.0 AB. Macfarlane's estimate of B concentration could not be corroborated and we have therefore to seek for "reservoirs of group B" elsewhere than among the Bhils. The large amount of B among the Bhils living in the hilly

parts of north-west Hyderabad State, may be due to "inbreeding in an isolated community where one fertile family may have a large effect", as has been suggested by Macfarlane herself in the case of the Paniyans who showed 62.4 p.c. A and 7.6 p.c. B only.⁶

Guha, as we have already referred to above, found close connection between the Chenchus and the Bhils.¹ Photographs of Bhils and Chenchus published by Macfarlane² do not show such relationship. The Bhil type was represented by an old man and the Chenchus by a much younger person and comparison is indeed difficult for obvious reasons. As Dr. Guha's data on the Bhils are still unpublished we cannot discuss them. From what we have seen of the Bhils, I think the Bhils of Gujarat do not belong to any aboriginal stock we know of in India. In blood groups, the Bhils do not approximate to any aboriginal group either pure-bred or hybrid. I should think that the time has come when we should revise our entire ethnological nomenclature. The classification of the Bhils with the Kols and Sonthals, I think, has been more for sympathy than for fundamental ethnic similarity; the name Bhil, as we are told, is derived from Tamil 'bil' or a bow which is the principal weapon of offence and defence of the Bhils. In ancient Tamil poetry "villavar" (bowmen) refers to the savages of pre-Dravidian stock. It may be that the Dravidian speaking races have given the Bhils their historic appellation on account of the popular use they make of bow and arrows.

The blood groups of the Bhils of the Hyderabad State (Macfarlane) are found to differ from those obtained by me in Gujarat. If the Bhils of Gujarat are racially different from those of the Hyderabad State, then this disparity can be accounted for. Otherwise we have to attribute the disparity to the nature of the samples investigated. As

all precautions were taken to render the result free from any technical or methodological defects, the size of the samples may have something to do with this disparity. Unless the size of the samples is statistically significant, conclusions based on them must be regarded as unsafe. Although the standard size of blood group samples has not been agreed upon, it is necessary to exercise some caution in interpreting results. The table below will illustrate the point.

Tribe or Caste	O	A	B	AB
Bhils (Macfarlane) (44) <i>J.R.A.S.B.</i> ..	31.8	13.6	52.3	2.3
Bhils (Macfarlane) (140) <i>Am. J. Phy. Anth.</i> ..	18.6	23.6	41.4	16.4
Bhils (Majumdar) (369) ..	37.5	27.5	26.0	9.0

¹ Guha, B. S., *The Racial Affinities of the Peoples of India*, 1935, 1, Pt. 3, Calcutta.

² Macfarlane, E. W. E., "Blood grouping in the Deccan and Eastern Ghats," *J.R.A.S.B.*, 1940, 6, No. 5, Pt. 39-49.

³ Macfarlane and Sarkar, "Blood Groups in India," *American Journal of Physical Anthropology*, December 1941, 28, No. 4.

⁴ Majumdar, D. N., "The Blood Groups of the Criminal Tribes of the U.P.," *Science and Culture*, 1942, 7, No. 7.

"The Blood Groups of the Doms," *Curr. Sci.*, April 1942, 10, No. 4.

⁵ Shah, P. G., "Non-Hindu Elements in the Culture of the Bhils of Gujarat," *Essays in Anthropology Presented to S. C. Roy*. Maxwell Co., Lucknow.

⁶ Aiyappan, A., "Blood Groups of the Pre-Dravidians of the Wynad Plateau," *Curr. Sci.*, 1936, 4, 493-4.

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