

there is no trace on his map. The part of the country where the river is situated is crossed by a very distinct mountain range starting from the Gurla range and stretching N.E. Everybody who, from the Gossul-gompa, has looked over the lake and the country beyond, will easily understand this mistake.

Although he did not see any superficial water running from the Rakas-tal to form the upper Satlej, he has, on his map, entered that river as starting from the lake. To both lakes he gives a height of 15,250 feet, which is very near the correct height.

Strachey has written a special article: *Explanation of the elevations of places between Almorah and Gangri*,¹ on which we do not need to enter as the heights given have now lost their value. To the map, of which only a part accompanies his paper, he adds an article under the title: *Note on the construction of the Map of the British Himálayan Frontier in Kumaon and Garhwál*.²

Some five years later Henry Strachey published his classical monograph: *Physical Geography of Western Tibet*.³ Here he expresses some perfectly correct views regarding the West-Tibetan rivers in general. Neither the length of the course nor the area of the basin is any sure index to the volume of water. Much more depends upon the position of the sources as regards snow. As the Indian Himálaya has a much greater quantity of snow, the southern rivers are incomparably fuller than those farther north. Therefore he believes that for instance the Singi-tsangpo, after a course of more than 400 miles, scarcely exceeds in volume the upper part of the Lungnak river not 50 miles from its farthest sources. The discharge of the Sanskar river, after running only 200 miles may be tenfold of the water brought

¹ Journ. Asiat. Society of Bengal, Vol. XVII, Part II. 1848, p. 527 et seq.

² Loc. cit. p. 532, where the following passage is important: »In the Trans-Himalayan part of my map, I have copied all of the Indian Atlas N:o 65, which shows the explorations of Moorcroft and Hearsay in 1812, taken, I believe, from actual rough Survey of Hearsay's, though not so acknowledged on the map, and the positions there assigned to Gartokh and all the principal villages, rivers &c., in the route of those travellers, remain unaltered up to longitude 81°, saving the direction of a stream here and there, which I had reason for knowing to be otherwise. East of that longitude, where the Atlas N:o 65 terminates, is the result of my own explorations now recorded, including the lakes with the details of Kailás, and Gángri, the eastern and south-eastward sources of the Sutlej, the sources of the Karnáli, Momonangli and the valley of Pruang, with its numerous villages. — It would have been interesting and useful to compare my delineation of the lakes, and adjacent places, Gangri, &c. with Hearsay's map of the same, but I have not been able to find any authentic copy of the latter, including the parts east of long. 81°, which lie outside of the Atlas N:o 65; the last mentioned map does indeed show the north-western part of Rákas Tal, with an effluent falling into the Sutlej between Tirthapuri and Kyunlung, but this at least, I have proved to be quite wrong, no part of the lake extending so far west, and the river in question being properly the Dárma Yánkti, rising in the Byáns Himálaya . . . In other respects Hearsay's map, as also Moorcroft's narrative, agrees very well with the information I have received from the Bhotias, and I have been able to identify many points of the route of those travellers with the Bothias' description.»

Very modestly he concludes: »My map does not pretend to any accuracy of execution, for which I had neither the requisite mechanical appliances nor sufficient time . . . The Trans-Himalayan ground, nowhere fully explored or accurately surveyed, is of course open to much correction.»

³ Journal Royal Geographical Society, Vol. 23, 1853, p. 1 et seq.