other persons I have learned, that this river of Ladak passes north from Kasmira; and, if not the chief branch, is at least one of the greatest of those which form the Indus. The river that flows to the east from the lakes is named the Karanali, and, according to Hariballabh, who has seen this part of its course, after flowing a short way in that direction, passes through the southern ridge of snowy mountains and waters Yumila.»

The use he made of the meagre information he obtained, gives great credit to Hamilton's perspicacity, and we must excuse him if he could not quite make out the complicated hydrography. Hariballabh alone is responsible for the contradictions in the statements. When this man says the two lakes are situated between two parallel ridges, and that the water flows from the Manasarovar to the Rakas-tal, he is correct. But when he talks of a river flowing from each end of the Rakas-tal, or rather from each lake, he is wrong, for, of course, either the one or the other must be the case. If he means that one river went out of each lake, he was probably right for the time of his visit. If he is the same man as Moorcroft's old Pundit, he had crossed the channel between the two lakes in 1796. But as he speaks also of the Satlej going out from the Rakas-tal, he may have visited the lakes again. In 1812 both issuing rivers were dry and Hamilton travelled in 1814. A rise may easily have taken place already at that time.

Hamilton does not say from which lake the Karnali starts; it flows to the east from the lakes, by which Hariballabh must simply have meant the neighbour-hood of the lakes. Hamilton finds the Lama map in du Halde to be in perfect accordance with Hariballabh's information so far as the river, which Hamilton correctly recognised as the upper Indus, is concerned. Otherwise the accordance is only a coincidence, as for instance in 1812, the hydrography had a very different appearance to a hundred years before.

On the beautiful map, Pl. V, that accompanies Hamilton's work we find the course of the upper Satlej. The river is shown as issuing from the western end of the Rakas-tal. It receives from the north a small tributary and another from the south. The Karnali is represented as issuing from the southern shore of the Manasarovar. But there is no communication whatever between the two lakes, which is not in harmony with the text, but probably depends upon later and more reliable information from Moorcroft, whose journey was known when the map was drawn for publication. The Kailas is not represented as a peak, but as the "Kailasa Mountains", beginning straight north of the Manasarovar and stretching N. W. along the "Branch of the Indus running to Ladak."

He has some interesting views as to the general hydrography of the Himalayas. He observes that the Himalaya forms the boundary between Hindustan and Tibet and that it is perforated by many rivers, Indus, Satlej, Karnali, Gandaki, Arun,

¹ Op. cit. p. 91.