

Strachey at once observed that the rivers came from glaciers. »From the foot of its nearer extremity the river, even here unfordable, rushes in a turbid torrent out of a sort of cave, the top of which when I saw it was but a few feet above the surface of the water. The end immediately over the source of the river is very steep and of a dull black color.»

He could not make out whether these glaciers had ever varied much from their actual limits. The shepherds of the place believed they were gradually receding. Strachey believed they had formerly reached much further down.

He gives one extract from Lieut. WELLER who had been to see the source of the Goree, one of the main feeders of the Gogra. The place is situated about a mile N.W. of Milum, and Weller described it thus: »The river comes out in a small but impetuous stream, at the foot of apparently a mass of dirt and gravel some 300 feet high, shaped like a half moon. This is in reality a mass of dark-colored ice, extending westward to a great distance, and covered with stones and fragments of rock, which in fact form a succession of small hills.»

This report, together with Hodgson's and his own observations is all Strachey had heard about glaciers in the Himalayas, although he says he occasionally comes across descriptions of snow-beds that seem suspicious. But from what he had seen at a great distance, and from what he had heard of his brother Henry Strachey and others, he was fully satisfied of the existence of many other glaciers in the Himalaya.<sup>1</sup>

He enumerates several rivers, at the heads of which he could positively affirm that glaciers were situated, most of them rising from Tresool and Nanda Devi. Therefore he concludes that at the head of almost every high valley of the Himalayas that descends from perpetual snow, there must be, as in the Alps, a glacier, and that the Himalayas should be one of the most favourable fields for the investigation of glacial phenomena.<sup>2</sup>

It is surprising that less than a hundred years ago glaciers were practically unknown in the Himalayas and that such a scholar as ELIE DE BEAUMONT could deny their possible existence. Here, as in so many other fields of physical geography R. Strachey proved to be clear-sighted and strictly scientific and he gave a strong impetus to subsequent researches. In the Kara-korums the case has been the

<sup>1</sup> »Though many an ardent traveller had preceded him, Thomson was the first who clearly distinguished the glaciers of the Himalayan mountains from the snows whence they issued . . .» Sir R. J. Murchison in his address 1864. *Journal Royal Geographical Society*. Vol. 34. 1864.

<sup>2</sup> Henry Strachey expresses the following view: »The chief reservoir of Tibetan glaciers seems to be in the southern face of the Turkish watershed, which the joint observations of English travellers and native reports prove to be full of them, and many of the first class both for size and formation. The main trunk of the Nubra river issues from two of these, at a place called Kumdan. I myself found the river of Yarma-Nubra issuing fullformed (being 50 yards wide, with an extreme depth of 1½ feet, and very rapid, in the beginning of October) from a large glacier, entirely occupying the head of the valley and (so far as Tibetan information goes) rendering it impassable. The Tulumbuti affluent of the Yarma-Nubra river also rises from glaciers . . .» *Journal Royal Geographical Society*. Vol. 23, 1853, p. 53.