

the Satlej only once a century, the lakes must still be included in the catchment area of the river. Even if it be 150 years ago since water flowed out of the Rakas-tal it does not interfere with this hydrographical law.

I have elsewhere<sup>1</sup> touched upon the question of subterranean drainage from the lakes to the Satlej and I have found it likely that the springs in the old Satlej bed at Dölchu-gompa were fed from the Rakas-tal, as well as other springs situated above that point. It is of course difficult to give such a supposition argumental support. Burrard and Hayden seem, independently, to have arrived at the same conclusion: »Henry Strachey was probably right in thinking that the water of the lakes filtered through the porous soil; examples of such filtration are common in the alluvial valleys of the Himalaya. Rivers disappear and subsequently re-appear at the surface. In the underground observatory of the Trigonometrical Survey at Dehra Dun water accumulates in the subterranean drains after heavy falls of rain in the neighbouring hills, even when no rain has fallen locally; the intervening river bed remains dry, and the water flows along an underground course. These underground systems of drainage seem to follow closely the beds of surface streams. The latter hold water only when the volume of flood is too large to sink into the ground, but when the surface is dry, there is often a flow at a lower level.»<sup>2</sup>

If it is 150 years since the Rakas-tal was cut off, it would appear impossible that its water could still be as fresh as any river water, unless the lake had a subterranean drainage. During those 150 years it has received, as before, affluents, especially from the north, and the channel from the Manasarovar has periodically been in function. It is very likely that underground water has also filtered through the neck of land at one or two places, coming directly from the Manasarovar. Disregarding the smaller periods, the surface of the lake has fallen. Evaporation has been going on. The salts contained in even the freshest river water would have accumulated, and after 150 years there would, probably, have been at least a taste of brackishness, unless the lake were constantly drained and constantly supplied with fresh water.

I had no opportunity to survey the exact height of the culminating point in the old bed of the Satlej above the Rakas-tal. The boiling point gave about 10m., although this value can hardly be used — only one reading being made. If, however, this reading be correct, it should explain the formation of the fluvial terraces along the channel between the lakes. For these terraces are, just below the bridge, up to 2½m. high; then they become lower and lower, 1m. and less, and near the Rakas-tal they are mere edges at both sides of the bed. At periods when the lake stood several metres higher than now, and when it stood at its maximum and had an overflow, the lower part of the channel from the Manasarovar was inundated, and only in its upper part were the fluvial terraces always carved out by running water.

<sup>1</sup> »Trans-Himalaya» Vol. II, p. 178.

<sup>2</sup> Op. supra cit. p. 163.