

from 1904 to 1907. On the block pillars between which the wooden bridge is laid, there was, in 1907, a very distinct water-mark 47 centimeters above the surface of the spring-water pools. A Lama who had passed 6 years in the *gompa* asserted that in 1903 the effluent had reached so far, a piece of information which was obviously wrong. The bridge is old and the water-mark may date from 1846 and 1848 when the Stracheys found a strong current in the channel.

On August 24th and 25th, 1907, I surveyed the channel between the Manasarovar and Rakas-tal, using exactly the same method as in 1901 through the desert of Lop, although the distance there was more than eight times as long.¹ As the difference of the altitude between the surfaces of the two lakes will change from year to year and probably from one season to another — especially when there is no outflow from the Manasarovar, I think it would be superfluous to record here all the readings backwards and forwards from theodolite to staff. It will be sufficient to give merely the result of the survey. I used Hildebrand's 'Traveller's Theodolite' and had a 2 m. staff, divided into meters, decimeters and centimeters, black and red. As the ground, both in the bed of the channel and at its sides, is rather soft, consisting of sand and fine gravel with some grass vegetation, the staff was put each time on an iron plate to prevent it from sinking into the ground when turned round 180°.

The distance between staff and theodolite was as a rule 50 m., measured with a tape, sometimes more or less, depending on the configuration of the ground. There are 104 stations in all and 208 readings. The result of all these readings showed that the Rakas-tal then was 13.45 m., or 44.119 feet below the surface of the Manasarovar.

The measured line runs chiefly in the very bed of the channel, only sometimes at its sides. The line, as measured with the tape, is 9,366 m. long. But this line is not straight, especially at its beginning and end it meanders like the channel itself. The neck between the lakes will here be about 9 k.m. broad or a little more than 5½ miles, so Ryder has made it too narrow, estimating its breadth at 3 miles. But Ryder is very near the truth when he estimates the difference in height at 50 feet. In 1909, 1910 and 1911 when the Manasarovar was about two meters higher than in 1907, Ryder's 50 feet were probably perfectly correct.

In the channel, station N:o 4, just at the foot of Chiu-gompa, was the highest level above the surface of the Manasarovar, namely 2.263 m. Thus the lake had to rise 2.263 m. before any water could flow over into the Rakas-tal. Ryder says, in 1904, that »a rise of about 2 feet in the level of the lake would cause water to flow down the channel», which proves that in 1904 the lake was considerably higher than in 1907. Remembering that in 1909 to 1911, an effluent really went out we get a direct value of the considerable oscillations of the level even within a very few years. Only between stations N:o 23 and 24 did I cross a point which was at the same level

¹ Scientific Results of a journey in Central Asia 1899—1902, Vol. II, p. 314 et seq.