

water. At some places fresh water springs appear round the swamp. This place is called Putse.

On the north, west and south this depression is bounded by hills. From the Manasarovar it is separated by the ordinary wall of gravel and sand, which, on August 16th, was 6.9 m. above the lake. The distance between the edge of the lake and the nearest shore of the salt swamp was now 406 m., and the surface of the swamp stood 2.35 m. lower than that of the Manasarovar. At the interior or western side of the gravel wall some perfectly clear fresh-water springs came out forming small water courses going to the swamp. The springs had a temperature of  $3.4^{\circ}$  C. or some  $8^{\circ}$  colder than the lake and  $6^{\circ}$  colder than the salt pools. The lake water pierces the filter of the gravel and sand of the wall, but just below the horizon where these springs come out there is a layer of clay which is impermeable. In spite of the fact that the neck between the lake and the depression is so much as 400 m. broad, the water communicates underground through it from east to west. The consistence of the hills and the ground being clay makes it impossible for the water to continue to the Rakas-tal. It evaporates in the depression and only salt and gypsum are left, the latter forming white tables and cubes and making the outlines of the pools very irregular. If the whole neck between the Manasarovar and Rakas-tal were permeable, the water could as easily constantly pour underground from the eastern lake to the western. How far this takes place along one or several lines across the neck I cannot say. At Putse, at any rate, there is no such communication. Putse is rather what the Germans call a »Salzpfanne», and a formation belonging to the same sort as the Kara-bughas of the Caspian. As to the possibility of the water crossing the whole neck this would probably be possible only at one or two places, for most of the neck consists of solid rock. Even when such is not visible it may be hidden by detritus. At the point where the hills rise only 58 m. above the Manasarovar there does not seem to exist any hard rock. The fragments on this part of the neck were graywacke, calcedon and gneiss-granite.

In 1907, the surface of the Manasarovar was only a few inches above the impermeable clay layer. Therefore the springs were not abundant. But when the lake is rising as in 1909 and 1910, the springs must be much more abundant and the pools of the depression larger. If the lake falls below its stand in 1907, the salt pools may perhaps be completely cut off, though, curiously enough, the most abundant springs were not visible near the gravel wall, but at the south-western edge of the depression. The question whether the neck between the two lakes allows water to pass underground or not, does not, however play any important part, for even if such a communication takes place it does not interfere with the functions of the channel.

At Camp 214 there are two beach lines in the hills, the higher being 20.1 m., the lower 8.1 m. above the surface of the lake, on August 16th.

From Camp 214 to Chiu-gompa the solid rock stands steep along the shore, only seldom interrupted by detritus. Higher up, the hills are rounded as usual,