

but not with Walker's map. The fall of the Indus he calculates at 16,25 feet per Engl. mile, although he points out the different rate of fall in different sections of the river.

»Gnari-khorsum» or »the three dependent districts», he divides into three parts, of which the southern contains the lakes Rakustál, Mansaráur and Tso Kongkyú and runs parallel to the Satlej valley. The second part is crossed by the Indus, and has on its left or southern side a small mountain range, on which the passes Chóko-la and Bóko-la are situated, whereas on the northern side the river is bordered by the mountain range of Chomoráng. The third part is situated between the Chomorang mountains and the Kara-korum. Guge belongs to the Satlej, Purang to the Ganges and Gar to the Indus.

He knows, probably from Nain Sing, that Thókchen is the last station before the Maryum-la and is situated between the Manasarovar and Gunchu-tso on the river »Som». The Gunchu-tso, or, as he writes the name, Tso Kongkyú, he calls one of the salt lakes, characteristic for Tibet. The two greater lakes have fresh water and are joined by a river-bed, which, however, is not filled with water the whole year round. Here he goes even too far, for he could have added that in some years there is no water at all in the channel. The Tibetan names for the lakes he finds to be: Tso Mápan or Mápham and Tso Lágnaq or Lánag. Further on he seems to have changed his opinion for he says,¹ that in spite of the not insignificant changes of the depth of the lakes in the period of the year, the effluence of water from Manasarovar does not seem to be interrupted, and, quoting Strachey, he says that in high-water times a periodical outflow may exist by which the Satlej would be extended to the lakes.²

At the foot of the Jilkva, a little transverse range,³ which is crossed on the way to Gartok, the Satlej turns more directly west and enters a very great valley which he easily recognises as a former gigantic freshwater lake. Its level was lowered by continued erosion at the place of its outlet and at the same time it was filled by sand, clay and shingle, and so the lake disappeared. In these deposits the Satlej and its tributaries continue to cut down their beds. With this »Guge Lake» he compares the old Kashmir lake which was emptied by the Jhelum. The deposits are horizontal, and of tertiary and diluvial epoch. He estimates these lacustrine deposits at a depth of 1,000 or 1,500 feet, nay, in some places, even at 3,000. Where the Mangnang river joins the Satlej, Adolph Schlagintweit found the depth of erosion to be 1,500 feet. But still the erosion did not go so far down as to the jurassic ground of the former lake basin.

¹ Op. cit. p. 58.

² Lieut. Colonel Torrens is of opinion that the remotest sources of the Satlej are the eastern feeders of Manasarovar, a view that he has got from the reports existing at his time. — *Travel in Ladák, Tartary, and Kashmir*, London 1863, p. 17. He has a very poetical description of the birth of the Satlej, p. 18 *ibidem*.

³ Jerko-la is not a range but a threshold or pass between two ranges.