

difference in altitude 990 m. and the fall as 1:1270. Extremely gentle gradients of fall of the Tibetan rivers are not rare. Along some of my marches in the valley of the Upper Indus between Gartok and Lungkung, I found gradients of 1:3000, 1:2375, 1:2100, 1:3075, 1:4000 and 1:2471¹ but taking the whole distance between the two places mentioned, the fall proved to be 1:712; the distance is here 205 km. and the difference of altitude 288 m. From Umboo on the Upper Tsangpo (4702 m.) to a point opposite to Shigatse, on the river, (3815 m.), the distance is 680 km. and the rate of fall 1:766.

Our store of reliable altitudes from the interior of Tibet is not great. But even those in our possession are sufficient to prove the existence of a remarkable depression from Selling-tso to Panggong-tso, an unexpectedly deep depression crossing the whole of this extensive plateau-land and bordered to the north and to the south by more or less continuous mountain ranges or systems of ranges. In the following list I have entered 10 passes in the mountain system situated just north of the depression in question, from west to east. The names of the travellers responsible for the altitudes are also given:

Marsimik-la (Hedin) 5593 m.	Chardo-mirido (Rawling) . 5029 m.
Demchur-la (Zugmayer) . . 5580 »	Nameless pass (Bower) . . 5209 »
Spanglung (Zugmayer) . . . 5180 »	Jumrang-lopchangs (Hedin) 5032 »
Nameless pass (Deasy) . . . 5051 »	Palou-la (de Rhins) 5134 »
Chukyar (Deasy) 5225 »	Nameless pass (Bower) . . 5718 » ²

The mean altitude of these passes is 5275 m. The following list contains the altitudes of 10 passes in the mountain system south of the depression:

Dundok (Deasy) 5090 m.	Nameless pass (Littledale) 5004 m.
Shelkongda (Littledale) . . 4877 »	Rejen-la (de Rhins) 5094 »
Sangchen-la (Hedin) 5356 »	Burben-la (Bonvalot) . . . 5389 »
Kilong-la (Nain Sing) . . . 5550 »	Ta-tsang-la (de Rhins) . . 5050 »
Lamlung-la (Hedin) 5179 »	Tsanyi-la (Bonvalot) . . . 5150 »

The mean altitude is here 5174 m. As the depression itself has an average altitude of only 4464 m. we find that it signifies a very deep valley as compared with the surrounding plateau-land and especially with the mean pass altitudes in the ranges bordering it to the north and south. The northern passes are no less than 811 m. above the depression, and the southern passes 710 m.

It may seem an audacious theory that this long valley should ever have been able to drain off to the Indus. But both the morphology of the surrounding country

¹ Cf. Vol. IV p. 414, of the present work.

² Probably too high.