

## CHAPTER I.

### GRUEBER AND DORVILLE.

It can hardly be said to be a difficult task to write the history of exploration in such a part of Tibet as the Central Transhimalaya, for nobody, except the Chinese explorers and myself has ever penetrated this gigantic mountain system; and, judging from the Chinese maps, one could not tell how far these surveyors have seen the country with their own eyes or obtained their information from natives.

Still, however, there is a good deal of literature on the subject; for a few Europeans and Pundits have crossed the limits of Central Transhimalaya near Tengrinor and the sources of the Indus; one early expedition (Desideri and Freyre) and two modern (Nain Sing and Rawling-Ryder) have followed the Tsangpo valley, three expeditions have touched the northern boundaries of the region, namely Nain Sing, Littledale and myself (1901), whilst some other explorers have only touched it slightly, as Deasy, Rawling, Bower, and de Rhins. From his route along the northern shores of Ngangtse-tso and Dangra-yum-tso Nain Sing could see and enter on his map some peaks belonging to the system, and so was also the case with Ryder and Wood, whose determination of the height and situation of several peaks gives a frame of immense value to the whole central system. These two, Nain Sing and Ryder, had approached the Transhimalaya nearer than anybody else. But nobody, except, probably, the Chinese surveyors, whose survey was not always accepted on modern European maps, had ever penetrated or crossed the unknown country which was left blank on the latest European maps.

To write the history of geographical investigation in this region will thus be to trace and analyze all the expeditions which have touched its boundaries, further to analyze what can be got from Chinese sources and, finally, to examine and discuss the result at which European speculation has arrived, a matter which now has only the historical interest of a geographical problem.

Grueber and Dorville are the first Europeans who ever crossed the Transhimalayan system. Desideri and Freyre followed almost the whole length of its southern edge. Van de Putte crossed it twice in the eastern part, delle Penna, Beligatti and all the other Capuchin missionaries crossed its southern ranges on