

expedition the most interesting portion from the physico-geographical point of view is without contradiction along the north-western shore of the Jamdok-tso. On the Jesuits' map this lake, which they called Pelti or Palti, is represented as a perfect ring, though in this respect it is somewhat modified on d'Anville's map of 1735. Reclus has a reproduction of this last, and when speaking of the Tibetan lakes he says: »Entre autres le Yamdok ou Palti, que l'on représente sur les cartes, d'après d'Anville, sous une forme presque régulièrement annulaire, comme celle d'un fossé entourant une citadelle. L'île, que d'ailleurs quelques descriptions représentent plutôt comme une presqu'île, se dresse à plus de 700 mètres de hauteur au-dessus de la nappe des eaux, qui se trouvait elle-même à 4114 mètres d'altitude.»* Reclus's information belongs to the year 1882, the year in which Chandra Das concluded his journeys. The travelling companion of the last-mentioned, a Buddhist named Ugyen Gyatso, trained in the Survey of India, and clearly an exceptionally intelligent and conscientious topographer, made a map of the Jamdok-tso, which the members of the English expedition were unable to improve upon except in unessential particulars. It possesses also the advantage of including nearly the whole of the lake except the north-eastern shore and peninsula; while, to judge from Landon's and Waddell's maps, the English expedition touched only the north-western shore at the points where Manning also touched it in the year 1811. The subsidiary lake Dumu-tso is plotted in such detail as to suggest that it must have been visited during some side-excursion. The eastern part of the lake does not however appear to have been personally visited, but is copied directly from Ugyen Gyatso, who was the first to prove that the lake does not form a perfect annular sheet of water embracing an island. At the base of the peninsula Ugyen Gyatso shows a deep bay and a small lake, Dumo-tso; but the new map shows two small lakes. This constitutes the real difference between them; nevertheless it does not necessarily prove that the native surveyor was mistaken. The northern subsidiary lake forms the direct continuation of the bay, and is at the present time separated from it by an isthmus that rises but slightly above the water, the whole forming one extensive marsh, dangerous for a man on foot to tread upon and inaccessible to a horse. Probably if the surface of the Jamdok-tso were to rise one or two feet this isthmus would be put under water, and we should then have precisely the same map that Ugyen Gyatso gives us. The journey of the latter dates from 1881, that of the English expedition from 1904; consequently twenty-three years intervene between their respective maps, and I am convinced that there exists no reason why a change should not have taken place such as that indicated by the difference between the two maps. In vast numbers of lake-depressions throughout the whole of Central Tibet, all the way to the Pang-gong-tso, we have observed remarkably striking signs of a progressive desiccation. In some cases we have found that the old strand-ramparts run one above the other like the rows of benches in a Roman circus; in fact, in one place we came across a beach-line 133 m. above the existing level of the lake. Yet there is no need to have recourse to this phenomenon, which is connected with climatic changes affecting the whole of Tibet, in order to account for the difference between the two

* *Nouvelle Géographie Universelle*, VII, p. 47. According to Landon's map the altitude of the lake is 4570 m.