

Admitting that a general desiccation is taking place all over Tibet, the next question is: why? What is the cause of this desiccation? We observe the facts and see the obvious results, but where is the agency?

In order to find an answer we may examine some of the researches made in another Asiatic country, the situation and configuration of which may allow us to compare it with Tibet, namely, Persia.<sup>1</sup>

In Persia the question will have to be put thus: are there any evidences of a former pluvial or lacustrine epoch in Persia, which may be supposed to have taken place at the same time as the glacial period in Northern countries? During my last journey through Persia I became convinced that the depressions, Kavir, in the north-eastern part of the country must once have been filled with salt lakes.

Professor E. BRÜCKNER has compiled a most interesting monograph on the changes of level in the Caspian Sea during historical time, and he gives the great occurrences of change in the following table:

Anno 915—921 . . . . .	+ 8.8 metres
XIIth century . . . . .	— 4.2 »
Anno 1306 . . . . .	+ 11.2 »
Anno 1638 . . . . .	+ 4.9 »
Anno 1715 . . . . .	+ 0.3 »

The oscillations of the level of the Caspian run, as Brückner finds, absolutely parallel with the periodicity of precipitation in the regions which drain to that sea. And as he has found that nowadays glaciers and lakes change simultaneously, he has no doubt that the case was the same in Diluvial times. In the interior of the continents where glaciers had no opportunity to form, lakes were formed instead. Thus the area of the Caspian was about twice as great as now, the area of Lake Aral at least thrice, and most of the Kisil-kum and Kara-kum deserts were covered with water.<sup>2</sup>

In 1903 R. PUMPELLY found old Caspian shore-lines near Baku at heights of 300, 500 and 600 feet. ELLSWORTH HUNTINGTON who travelled in eastern Persia near the Afghan frontier down to Seistan, has discovered some unmistakable proofs of a profuse precipitation during an epoch which is supposed to have been equivalent to the glacial period in higher latitudes. The Quaternary deposits and terraces of Persia seem to be the result of a series of climatic oscillations, and in Seistan Huntington reckons as many as 14 or 15 oscillations between dry and moist periods. »At Seistan and probably elsewhere, a series of lakes appear to have occupied the basin during the Glacial period.» At the lake of Kogneh Huntington found river- and lake-terraces showing that fluvial and lacustrine periods have alternated with

<sup>1</sup> I have touched this problem in »Overland to India», Vol. II, p. 208, and »Some physico-geographical indications of Postpluvial climatic changes in Persia», in the work supra cit. of the Geological Congress in Stockholm 1910.

<sup>2</sup> Klimaschwankungen, p. 43 et seq.