will advance. During a dry period the lakes will be, at least superficially, cut off, and the glaciers enter a period of retreat.

The parallelism will, however, not be complete, for the advance of the glaciers will always be delayed several years, whereas the Manasarovar will begin to rise the very first year of a rainy period.

Further periods of low order which can easily be followed in the lakes would altogether disappear in the movements of the glaciers. In the lakes we may read the finest oscillations possible, and we can distinguish between the Manasarovar periods with effluence only from the eastern lake, and Rakas-tal periods with effluence also from the western. Such fine distinction would be swallowed up along the length of a great glacier. To this should be added that the advance and retreat of glaciers are also influenced by other agencies than precipitation only, and that the topography of their surroundings may interfere and cause irregularities.

That periodical variations exist in the glacier movements is clearly shown by the instance of the Kumdan and Aktash glaciers. A great amount of more or less reliable information has also been gathered by different travellers. A few examples may be sufficient. VIGNE heard from natives that the snow of the glacier at Arundo was slowly but perceptibly advancing, in 1835. In the Nubra valley THOMSON saw from old moraines that the glaciers had, during some earlier period, advanced much further than in 1848. Similar observations were made by GODWIN AUSTEN, DREW and several others. Longstaff heard that the Chumik glacier had joined the Bilafond about 15 years before his visit. At the snout of the Siachen glacier there were indications of an advance since 1862. The Hassanabad glacier is said to have recently made a very considerable advance. Not long ago the Indian Survey, through the action of DOUGLAS FRESHFIELD and Lord CURZON, has set about measuring typical glaciers in various parts of the Himalaya. In *Les variations périodiques des glaciers* for 1908, published by the International Glacier Commission, we are told that the retreat of glaciers in 1908 is a general phenomenon, embracing the whole earth.[1] MUMM and STEIN declare that Asiatic glaciers have been decreasing during later years. Only the Kara-korum glaciers should make an exception. It would, however, carry us too far to enter into this problem, which is still far from its definite solution.

[1] T. H. HOLLAND, late Director of the Geological Survey of India, says of the general retreat of glaciers north of India: »The second point prominently displayed is the evidence of general retreat shown by the occurrence in nearly all cases of old moraines (sometimes grass-covered) below the present ice. This point does not, of course, necessarily mean that the glaciers are now in retreat, and two well-authenticated cases of recent advance have been found in the Yengutsa and Hassanabad glaciers, both steep transverse ice-streams. Since 1892, the date of Sir M. CONWAY's visit, the Yengutsa glacier has advanced at least 2 miles, nor does this advance appear to have been gradual, as, according to local reports, the ice moved forward suddenly some five years ago, and has since remained stationary. The Hassanabad glacier, according to the statement of the Emir of Hunza, also moved forward suddenly some three years ago, covering in two and a half months a distance variously estimated as from 6 miles to one day's march. Owing to the danger involved to the villages near, it was carefully watched, and the above statements may, we are told, be accepted. It is said that the ice occupied its present position many years ago, and subsequently retreated. It is now apparently stationary.» — Observations of Glacier movements in the Himalayas. Geographical Journal, March 1908, Vol. XXXI, p. 315.