

with dry and warm periods in all parts of European Russia, and that these climatic changes affected the rivers, determining the duration of their ice mantle and the height of their water ; indirectly they affected the vast Caspian Sea, sometimes raising its surface and sometimes lowering it.

In the conclusion of his work Brückner points out that the dimensions of lakes without an outlet, like the extension of glaciers, are a function of the precipitation, for both are dependent on precipitation. Every change in the relation between influx and efflux must produce an increase or decrease both in lakes and glaciers. During the diluvial period glaciers gave place to lakes in the interior of continents. Where glaciers could not be formed lakes came into existence instead. Accordingly in the diluvial age the Great Salt lake was seven times as large as at present, and Gilbert's and Russel's exact investigations show that its water-level changed several times. Brückner has proved that the lakes and glaciers of the present day fluctuate together, and therefore we may be quite certain that the oscillations in the Great Basin, as in all other lakes, synchronised with the advance or retreat of the great ice-sheet.

During the glacial period parts of the deserts, Kizil-kum and Kara-kum, were covered with water, and "it is certain that the area of the Caspian Sea during the diluvial age was somewhat more than double as large as at present, that the area of the Sea of Aral was at least three times as large, and that the Sea of Aral, the Caspian, and Pontus were connected together. In various parts of Asia it is evident that the period immediately preceding the present was remarkable for a great extension of the undrained lakes and a high water-level." Some of them even had temporary outlets. "Wherever we turn we meet everywhere with a very considerable expansion of water in those regions which occupy too continental a position for glacier formation. In fact it seems as if the same climatic variations which caused the glacial period filled in the continental regions the basins of undrained lakes, sometimes to overflowing."

Brückner arrives at the following conclusion: "The