

phates: and *bitter lakes*, which are usually distinguished by their large percentage of sodium carbonate as well as chloride and sulphate (natron-lakes), sometimes by their proportion of borax (borax lakes). From a geological point of view they may be divided into two classes—(1) those which owe their saltiness to the evaporation and concentration of water poured into them by their feeders; and (2) those which were originally parts of the ocean.

(a) Salt and bitter lakes of terrestrial origin are abundantly scattered over inland areas of drainage in the heart of continents, as in Utah and adjacent territories of North America, and on the great plateau of Central Asia. These sheets of water were doubtless fresh at first, but they have progressively increased in salinity, because, though the water is evaporated, there is no escape for its dissolved salts, which consequently remain in the increasing concentrated liquid. In Ladâkh, extensive lakes formed by the ponding back of valley waters by alluvial fans, have grown saline and bitter, and have become the site of deposits of rock-salt and soda.²⁰⁰

The Great Salt Lake of Utah, which has now been so carefully studied by Gilbert and other geologists, may be taken as a typical example of an inland basin, formed by unequal subterranean movement that has intercepted the drainage of a large area, wherein rainfall and evaporation on the whole balance each other, and where the water becomes increasingly salt from evaporation, but is liable to fluctuations in level, according to oscillations of meteorological conditions. The present lake occupies an area of rather more than 2000 square miles, its surface being at a height of 4250 feet above the sea. It is, however, merely the shrunk remnant of a once far more extensive sheet of water, to which the name of Lake Bonneville has been given by Gil-

²⁰⁰ F. Drew, "Jummoo and Kashmir Territories."