

renewals of the water-supply, each gypsum zone marking the commencement of a new series of precipitates.

But from what has now been adduced it is obvious that the composition of many existing saline lakes is strikingly unlike that of the sea in the proportions of the different constituents. Some of them contain carbonate of sodium; in others the chloride of magnesium is enormously in excess of the less soluble chloride of sodium. These variations modify the effects of the evaporation of additional supplies of water now poured into the lakes. The presence of the sodium-carbonate causes the decomposition of lime salts, with the consequent precipitation of calcium-carbonate accompanied with a slight admixture of magnesium-carbonate, while by further addition of the sodium-carbonate a hydrated magnesium-carbonate may be eventually precipitated. Hunt has shown that solutions of bicarbonate of lime decompose sulphate of magnesia with the consequent precipitation of gypsum, and eventually also of hydrated carbonate of magnesia, which, mingling with carbonate of lime, may give rise to dolomite.<sup>208</sup> By such processes the marls or clays deposited on the floors of inland seas and salt lakes may conceivably be impregnated and interstratified with gypseous and dolomitic matter, though in the Trias and other ancient formations which have been formed in inclosed saline waters, the magnesium-chloride has probably been the chief agent in the production of dolomite (ante, p. 546).

The Dead Sea, Elton Lake, and other very salt waters of the Aralo-Caspian depression, are interesting examples of salt lakes far advanced in the process of concentration.<sup>209</sup>

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<sup>208</sup> Sterry Hunt, in "Geology of Canada," 1863, p. 575.

<sup>209</sup> The Dead Sea, like the Great Salt Lake, was originally fresh, as proved