The great excess of the magnesium-chloride shows, as Bischof pointed out, that the waters of these basins are a kind of mother-liquor, from which most of the sodium-chloride has already been deposited. The greater the proportion of the magnesium-chloride, the less sodium-chloride can be held in solution. Hence, as soon as the waters of the Jordan and other streams enter the Dead Sea, their proportion of sodium-chloride (which in the Jordan water amounts to from ·0525 to ·0603 per cent) is at once precipitated. With it gypsum in crystals goes down, also the carbonate of lime which, though present in the tributary streams, is not found in the waters of the Dead Sea. In spring, the rains bring large quantities of muddy water into this sea. Owing to dilution and diminished evaporation, a check must be given to the deposition of common salt, and a layer of mud is formed over the bottom. As the summer advances and the supply of water and mud decreases, while evaporation increases, the deposition of salt and gypsum begins anew.[210] As the level of the Dead Sea is liable to variations, parts of the bottom are from time to time exposed, and show a surface of bluish-gray clay or marl full of crystals of common salt and gypsum. Beds of similar saliferous and gypsiferous clays, with bands of gypsum, rise along the slopes for some height above the present surface of the water, and mark the deposits left when the Dead Sea covered a larger area than it now does. Save occasional impressions of drifted terrestrial plants, these strata contain no organic remains.[211] Interesting details regarding saliferous deposits of recent origin, on the site of the Bitter Lakes, were obtained during the construction of the Suez Canal. Beds of salt, interleaved with laminæ of clay and gypsum-crystals, were found to form a deposit upward of 30 feet thick extending along 21 miles in length by about 8 miles in breadth. No fewer than 42 layers of salt, from 3 to 18 centimetres thick, could be counted in a depth of 2·46 metres. A deposit of earthy gypsum and clay was ascertained to have a thickness of 367 feet (112 metres), and another bed of

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by shells of Melania, etc., found in lacustrine terraces 1300 feet above its present level. Hull, "Mount Seir," 1885, pp. 100, 180.

[210] Bischof, "Chem. Geol." i. p. 397. Roth, "Chem. Geol." i. p. 476.

[211] Lartet, Bull. Soc. Geol. France (2), xxii. p. 450 *et seq.* Below the high terraces, containing lacustrine shells, evidence of shrinkage and concentration is supplied by gypseous marls and a bed of salt (30 to 50 feet), 600 feet above the present water-level.