

little Shotts which present the same phenomena as the greater depressions in the Lower Sahara. The Arabs compare the moving sand to a net; it occupies a fairly extensive zone in both the Lower and the Upper Sahara, but does not cover one-third of the whole Algerian Sahara.

The Sebka of Gurara (lat. 29° N., long. 2° W.) is a saline depression, measuring about 60 miles in a N.N.E. to S.S.W. direction. It seems to be marked by more or less humidity throughout, the moisture being derived from the underground supply, fed by the drainage of the southern slopes of the Atlas, which here comes to the surface. In the course of the whole depression there are three main basins, known as the Shotts of Dahram, Shergi, and Gebli, though even in these there does not seem to be permanent water above the surface.

**Lake Chad** (or Tsad) occupies the centre of a vast area of inland drainage in the Sudan. It lies about 850 feet above sea-level, and varies in area from 7700 to about 20,000 square miles, according to the season. During the rainy season, when the lake is expanding, the water is fresh and limpid; it becomes slightly salt only at the period of low water, *i.e.* in May and June. Numerous lagoons scattered along the shores of the lake are really salt marshes, and, according to Captain Dubois,<sup>1</sup> play a rôle in the economy of the lake analogous to that of Karaboghaz in the Caspian Sea. When the lake expands these lagoons receive an enormous quantity of water, which, once communication is cut off by the receding of the lake in the dry season, concentrates and finally disappears by evaporation, leaving behind a deposit of salts. In this way every year Lake Chad partially clears itself of dissolved salts automatically, and the concentration of the waters by evaporation in the main lake during the dry season is arrested. The chief inflow to the lake is the River Shari, entering from the south-east, but it has no outflow, except when it overflows into the lagoons in the manner mentioned above.

The lake, according to Destenave,<sup>2</sup> is constantly retreating towards the west, and so a continually increasing number of islands is forming in the east, which are becoming more and more populated by tribes formerly settled in Kanem, the arid district to the east of the lake.

A wide valley, called Bahr el-Ghazal, stretches towards the north-east from the south-east extremity of the lake. This valley, which is now waterless, served formerly as an outflow from the lake at times of high floods, the water leaving the lake gradually losing itself by evaporation in the more arid regions of the Sahara. The same name,

<sup>1</sup> See Destenave, "Exploration des îles du Tchad," *La Géographie*, t. vii. p. 425, 1903.

<sup>2</sup> *Loc. cit.*