

to lateral pressure, which has also given rise to the great central ridge running from the mountains of Abyssinia and those flanking the Red Sea in the north to the continuation of these same ridges in the shape of the Drakensberg Mountains in the extreme south.

The lakes on the line west of the Victoria Nyanza—Tanganyika, Kivu, Edward, and Albert—drain to the Congo or the Nile, but those on the east and those in the depression north of Lake Rudolf have no outlet to the sea. Properly speaking, the latter should have been referred to along with the lakes of the inland drainage areas of Northern Africa; but as they lie in one of the branches of this gigantic valley system, they are described after the lakes of the Nile, the Congo, and the Zambesi (see p. 618). These lakes were explored in 1893 by J. S. Gregory.<sup>1</sup>

Apart from the seasonal variations in level, most of the lakes of East Africa show periodic fluctuations, while some have supposed that a progressive desiccation of the whole region is traceable, tending to the ultimate disappearance of the lakes. Such a drying-up has no doubt been in progress during long geological ages, but is probably of no practical importance at the present time. The periodic fluctuations in the level of Lake Tanganyika are such that its outflow appears to be intermittent. After rising steadily for some years after 1871, a fall seems to have set in about 1879, which before the end of the century had carried the lake back within its natural bed. Within the same time the neighbouring Lake Rukwa has in great part dried up. Others of the East African lakes have on the contrary risen in level, Nyasa having been unusually high in 1896, and Rudolf in 1896–98; so that, if the fluctuations are due to variations of rainfall, these do not affect the whole lake-region simultaneously in the same direction. In the case of Victoria Nyanza, a variation to the extent of 5 feet has been thought to recur in periods of eighteen to twenty-five years. Since 1896 records of the seasonal variations have been kept at stations north of the lake, the maximum in the year having been so far about 15 inches.

River Nile.

The Nile is a good example of an old river system (see fig. 73), the basin of which has been subjected to various earth-movements, and now, partly as a result of these, partly in consequence of the geological structure of the country through which it flows, presents the somewhat unusual spectacle of a river with two plain tracts at two very distant points and levels in its course. The valleys of the Bahr-el-Jebel and White Nile form the upper plain tract, and the valley of Egypt the lower. The latter is simply a cleft in the desert plateau, and is regarded as having been determined in the first instance by

<sup>1</sup> See *The Great Rift Valley*, London, 1896.