a ridge of hills to the north of Lake Torrens, with only one low gap in the divide, at a height of 175 feet above sea-level. Lake Eyre receives the water drained from 500,000 square miles of country, and it absorbs it all, for the lake has no outlet. The region has a soil of exceptional richness, an invigorating climate free from malaria and other diseases incidental to most subtropical lands, and given water the country would be fertile as a garden. To effect this it was proposed to cut a canal from the sea at Port Augusta to Lake Eyre, and so flood its vast basin with sea-water, thereby lowering the temperature and increasing the rainfall and the dew. Gregory[1] says this is possible, but the length of the canal would be 260 miles, and as the lake-surface is 39 feet below sea-level, the fall would be little more than an inch to the mile. The channel would have to be cut to a depth of 100 feet for 200 miles, and in one place to 200 feet, and it would have to be large enough to keep pace with the loss of water from evaporation. That this loss would be heavy is evident from the fate of the floods that are carried into Lake Eyre by the Diamantina and the Cooper or Barcoo Rivers. The quantity of water these rivers discharge is enormous, and yet no man has ever seen the lake full or nearly full, so that a sluggish 50-feet canal would not be very successful, and would probably lead to the choking up of the whole lake-bed within thirty years with salt, like a salt-pan, through evaporation, which in the Lake Eyre country is, according to Sir Charles Tod,[2] 100 inches a year, and even sometimes as much as 1 inch per day.

The wind which sweeps across the central plains of Australia has dropped its moisture as rain on the highlands near the coast, and is therefore dry, and capable of absorbing an unusually large amount of moisture. The evaporation from the water-surface of Lake Eyre is said to be equal to from fifteen to twenty times the rainfall.[3]

The evidence is very conclusive that the Lake Eyre region was formerly one of great fertility. At one time it was evidently a vast inland sea. Round such a sheet of water there must have been a heavy dew, and probably the rainfall was also considerable, for the adjacent steppes were well grassed and fertile, and large trees, now represented by their petrified trunks, grew on the plains. The waters of this lake were fresh, and it was about three times the size of the present one. The rainfall dwindled, the water-level sank, and the lake decreased in size. The discharge from the lake was no longer sufficient to keep open its channel, which the warping of the surface and the accumulation of debris continually tended to close.

There is no outlet from the deep central basin of the Lake Eyre

[1] See *The Dead Heart of Australia*, pp. 345 *et seq.*, London, 1906.

[2] Cited by Gregory, *op. cit.*, p. 347.

[3] Gregory, *op. cit.*, p. 325.