

line of traverse the water was flowing towards the north and north-east, and consequently the surface there inclined in the opposite direction to what it did along our measured line. The contradiction is however only apparent, and I will explain it presently. It proves at all events, that the result I obtained, — 2.282 m., cannot well be too small, but may rather be too great.

The measured line amounts to 81.902 km., and on the whole runs north and south. In the course of that distance the elevation of 346 stations was determined. As I have already said, for the greater part of the way the distance between the staff and the telescope amounted to 100 m., except where the jardangs compelled us either to lengthen it or shorten it; for the latter part of the traverse however the distance was greater, so that the average for the entire journey works out at 118 m.

On the accompanying section (Plate 36) all the 346 stations are shown, together with their respective altitudes relatively to the point of departure at Lâu-lan; but the vertical values are multiplied by 20. Had the true scale been preserved, and the vertical values been given their proper proportions relative to the distance, the sectional line would, at all events to the eye, have been straight, and no depression would have been shown. An idea of the unparalleled flatness of the Desert of Lop, as well as of the unprecedented uniformity with which the surface keeps to the horizontal, may be obtained by imagining the 8.19 m. sectional line of the plate to be prolonged ten times, until it amounts to 81.9 m., the altitudes being preserved as they are now, so as to be strictly proportional to the length. The difference in altitude between the highest station and the lowest throughout the whole of this 81.9 m. long line would not be more than 6.49 mm., and, as I said before, the line would appear virtually straight. The occurrence of so extensive an area as this, with an almost horizontal position, in the heart of a continent may be described as something extremely unusual. Perfectly horizontal lines are characteristic of coasts and sea-shores, but here we have almost the same thing in the middle of Asia; that is to say, a line which in 81.902 km. does not fall more than 2.282 m., equivalent to 2.79 cm. in 1000 m. or 2.79 mm. in 100 m. But the thing that is of special interest is not this fall, which is evenly distributed throughout the whole of the line; it is more remarkable that at a distance of only 1862 m. from the shore of the Kara-koschun we were only 0.380 m. above our point of departure, so that, to adopt the terms we have just used, we may speak of a rise of 0.380 m. in 80.040 km. But the station at which this occurs is 2.662 m. above the level of the Kara-koschun. Hence, if the lake were to rise only 2.662 m. above its existing level, pretty nearly one-half of our measured line would be under water, and our point of departure at Lâu-lan would be covered with water to the depth of 38 cm. In the region immediately west of our survey the conditions are quite different: there no rise of the lake's surface is called for, because the desert is already under water.

It is even more remarkable that, in the northern part of the desert, along the line I surveyed, there are a whole series of stations that lie below the then existing level of the Kara-koschun. These stations are enumerated below: