

their basins in the following ratio: The Mississippi removes one foot in 6000 years; the Ganges above Ghazipûr does the same in 823 years;<sup>317</sup> the Hoang Ho in 1464 years; the Rhone in 1528 years; the Danube in 6846 years; the Po in 729 years. If these rates should continue, the Mississippi basin will be lowered 10 feet in 60,000 years, 100 feet in 600,000 years, 1000 feet in 6,000,000. Assuming Humboldt's estimate of the mean height of the North American continent, 748 feet,<sup>318</sup> we find that at the Mississippi's rate of denudation, this continent would be worn away in about four and a half million years. The Ganges works still more rapidly. It removes one foot of rock in 823 years, and if Humboldt's estimate of the average height of the Asiatic continent be accepted, viz. 1132 English feet, that mass of land, worn down at the rate at which the Ganges destroys it, would be reduced to the sea-level in little more than 930,000 years. Still more remarkable is the extent to which the River Po denudes its area of drainage. Even though measurements had not been made of the ratio of sediment contained in its water, we should be prepared to find that proportion a remarkably large one, if we look at the enormous changes which, within historic times, have been made by the alluvial accumulations of this river (p. 667). If the Po removes one foot of rock from its drainage basin in 729 years, it will lower that basin 10 feet in 7290 years, 100 feet

---

<sup>317</sup> In my original paper the area of drainage of the Ganges was given as 432,480 square miles. But the area from which the annual discharge of silt was there given was only that part of the Gangetic basin above Ghazipûr, which Dr. Haughton estimates at 143,000 square miles (Proc. Roy. Dublin Soc. 1879, No. xxxix.). Hence, as he has pointed out, the rate of erosion is really much greater than I had made it. I have recalculated the rate from the altered data, and the result is as given above.

<sup>318</sup> Ante, pp. 76, 77, where other and more probable estimates of the height of the land are given. But as the numbers do not affect the argument, those originally assumed are here retained.