

The fossil tracks on this Plate are all nearly on the same scale: viz. one-twenty-fourth. The recent footsteps are on a larger scale.

four feet from one another. In others the distance varied from four to six feet; the latter was probably the longest step of this gigantic bird while running.

Next in size to these are the footsteps of another enormous bird (Pl. 26^a. Fig. 4.) having three toes of a more slender character, measuring from fifteen to sixteen inches long, exclusive of a remarkable appendage extending backwards from the heel eight or nine inches, and apparently intended, like a snow shoe, to sustain the weight of a heavy animal walking on a soft bottom. (See Pl. 26^b. Fig. 2.) The impressions of this appendage resemble those of wiry feathers, or coarse bristles, which seem to have sunk into the mud and sand nearly an inch deep; the toes had sunk much deeper, and round their impressions the mud was raised into a ridge several inches high, like that around the track of an Elephant in Clay. The length of the step of this Bird appears to have been sometimes six feet. On the other tracks the steps are shorter, and the smallest impression indicates a foot but one inch long, with a step of from three to five inches. (Pl. 26^a. 2. 3. 5—14.)

In every track the length of the step increases with the size of the foot, and is much longer in proportion than the steps of any existing species of birds; hence it is inferred that these ancient birds had a greater length of leg than even modern Grallæ. The steps at four feet asunder probably indicate a leg of six feet long.

In the African Ostrich, which weighs 100lbs, and is nine feet high, the length of the leg is about four feet, and that of the foot ten inches.

All these tracks appear to have been made on the Margin of shallow water that was subject to changes of level, and in which sediments of sand and mud were alternately deposited, and the length of leg, which must be inferred from the distance of the footsteps from each other, was well adapted for wading in such situations. No Traces of any Bones but those of fishes (Palæothrissum) have yet been found in the rock containing these footsteps, which are of the highest interest to the Palæontologist, as they establish the new fact of the existence of Birds at the early epoch of the New Red sandstone formation; and further shew that some of the most ancient forms of this class attained a size, far exceeding that of the largest among the feathered inhabitants of the present world, and were adapted for wading and running, rather than for flight.