

seem to be any reason why they may not be traced farther, except that the layer of rock containing them, is not laid bare beyond the tenth track. It is also impossible to doubt that this, and all other continued tracks, were made by a biped. For we search in vain to find any corresponding or parallel row of impressions. They are not, indeed, exactly on a right line; but the alternate tracks deviate a little to the right, and the remaining ones to the left, sometimes more and sometimes less, the toes being ordinarily turned outwards. The interval, also, between the different steps, varies; sometimes several inches in the smaller impressions, and even a foot or two in the layer: just about as much, indeed, as we should expect in an animal moving at different paces.

It has been interesting to observe, in almost every case where the impression is distinct, how easy it is to determine whether it were made by the right or the left foot of the animal. Even in an insulated impression, this can be generally decided; and where the tracks are continuous, it is easy to see that the left and right foot alternate. In the right foot, the toes, especially the middle one, are slightly curved towards the left, so as to make the exterior side of the bow on the right side of the track; an effect resulting from the effort of the animal to throw the body forward. The same effort causes the outer part of the heel in the large tracks to appear as if thrown behind the inner part, and the reverse of all this, is true of the track made by the left foot. (See the plate appended, exhibiting a proportional view of the tracks.)

The inclination, or dip of the rock at the different quarries, varies from  $5^{\circ}$  to  $30^{\circ}$ . Yet the animals seem to have passed over it, while in a plastic state, in every direction with equal facility. At the Horse Race, where the dip is  $30^{\circ}$ , they sometimes appear to have ascended, and sometimes to have descended, and sometimes to have passed diagonally; yet the tracks are not at all changed by the steepness of the declivity. There is no appearance as if the animal had scrambled upwards, or slid downwards, except in one or two tracks of great size, where the mud appears to have been rolled up a few inches before the feet. But in this case, the animal was moving horizontally, that is, along the line of bearing of the strata; and even on level ground, a heavy animal, moving at great speed, will produce this effect upon plastic matter. So that upon the whole, the evidence is quite decisive, that these tracks were made before the rock was elevated to its present situation; that is, while it was hori-