

ing it with a chisel afterwards, the natural face of the layers is apt to be marred: whereas it seems to have been often the fact, that the sand and mud which filled the original track, are more firmly concreted than the rock generally, and are thus rendered scarcely fissile at all; and while the rock around the track becomes shaly, so as easily to be cleaved off, the track itself remains unaffected; and thus with care, a fine specimen may be obtained. I doubt not, but the quarrymen, had they known the nature of these relics, might have saved in times past, many specimens of this kind: as I found fragments of this sort among the rubbish thrown out of the quarry.

There is one case, in which we do not see the layers of the rock conforming to the depression produced by the track. It is when the track was made in very fine mud, or clay, and the depression is filled by the same material in a concreted form. If in these circumstances, a layer of coarser materials, is superimposed, this layer often exhibits no traces of the impression beneath. And I can easily conceive how such a change of circumstances, (perhaps a sudden rise of the waters,) as brought on the coarser materials, should have so filled up the depressions as to leave a level surface for the deposition. In such cases, we obtain specimens only in relief.

In descending into the rock in a quarry, by splitting up the successive layers, we first meet with the track in rather an imperfect state, the toes being short and blunt. But by cleaving off a layer or two, the impression becomes larger and more distinct; and sometimes claws are visible. If we continue to cleave off layers beneath where the impression is most perfect, we may find, perhaps, some traces of it; as for instance, the thickest or middle toe; but it is much sooner lost in descending, than in ascending from the layer where it is most perfect.

I early directed my attention to the enquiry, whether these tracks could be traced in succession: that is, whether they were made by an animal in the act of walking; and I have been agreeably surprised to find so many examples of this sort, of the most unquestionable kind. Drawings of some of the most remarkable of these, accompany this paper, (Figs. 1 to 10, with Fig. 15, 16, 17, 23 and 24.) But a particular description of them will come in more conveniently, in another place. In one instance, (Fig. 6.) it will be seen, that no less than ten tracks succeed each other in such a direction, and with so nearly equal intervals, that it is impossible to doubt that they resulted from the continuous steps of an animal. Nor does there