

some degree, to appreciate the vastness of those cycles by which they were separated. It is further interesting, too, thus to find one antiquity curiously inlaid, as it were, in another. We feel as if, amid the ancient relics of a Pompeii or a Herculaneum, we had stumbled on the cabinet of some Roman antiquary, filled with bronze and granite memorials of the first Pharaohs, or of the old hunter king who founded Nineveh ;—things that in times which we now deem ancient had been treasured up as already grown venerably old.

The Old Red Sandstone underlies the Coal Measures, and is, in Scotland at least, still more largely developed than these, both in depth and lateral extent. In Caithness and Orkney, one of the three great formations of which it consists has attained to a thickness that equals the height of our highest hills over the sea.¹ The depth of the entire system in England has been estimated by Sir Roderick Murchison at ten thousand feet ; and as these ten thousand feet include three formations so distinct in their groups of animal life that not a species of fish has been found common to both higher and lower, it must represent in the history of the globe an enormously protracted period of time.

The scenery of the Old Red Sandstone we find much affected to the south of the Grampians, like that of the Coal Measures, by the presence of the trap rocks ; but in the north, where there is no trap, it bears a character decidedly its own. It is remarkable for rectilinear ridges elongated for miles, that, when they occur in semi-Highland districts, where the primary rocks have been heaved into wave-like hills, or ascend into boldly-contoured mountains, constitute a feature noticeable for the contrast which it forms to all the other features of the scene. In approaching the eastern coast

¹ The Caithness flagstones and their ichthyolites constitute, according to Sir R. Murchison, the *central* portion of the Old Red group.—W. S. S.