

compose nearly the whole substance of a bed of limestone of great thickness, as is the case with the beds of encrinal limestone in Derbyshire, and the limestone called coral-ragg at Steeple Ashton.

The fossil remains of animals not now in existence, entombed and preserved in solid rocks, present us with durable monuments of the great revolutions which our plane has undergone in former ages. We are carried back to a period when the waters of the ocean covered the summits of our highest mountains, and are irresistibly compelled to admit one of two conclusions,—either that the sea has retired and sunk far below its former level, or that some power, operating from beneath, has lifted up the islands and continents, with their hills and mountains, from the watery abyss, to their present elevation above its surface.

These organic remains present also undeniable proofs of another fact equally interesting. Every regular stratum in which they are disseminated was, once, the uppermost rock, however deep it may be below the present surface, or with whatever rocks it may now be covered. This inference is not the less conclusive, whether we suppose that the animals lived and died where their remains occur, or whether they were aggregated and carried by marine currents into their present situation. Hence we learn, that the secondary strata were formed in succession over each other, and thus these fossil remains preserve the records of the ancient condition of our planet, and the natural history of its earliest inhabitants. The unknown causes by which zoophytes and different genera and species of testaceous animals, of reptiles, vegetables, and mammiferous quadrupeds were buried in different strata, have operated in succession at distant intervals of time; we do not find the remains of different classes confusedly intermixed together, except in beds of clay or gravel, near the surface, or in fragments of various rocks which have been broken down and subsequently united. Bones of vertebrated animals, or such as had a brain and spinal marrow, have never been found in the lower strata, except of a few species of fish; nor have the bones of large mammiferous quadrupeds ever been discovered, below the chalk. Hence we acquire a perfect certainty, that the different beds which form the crust of our planet were deposited in distant epochs, and under different conditions of the globe. The animal remains in some of the strata are so delicate, and so regularly deposited, that we can have little doubt that the animals lived and died tranquilly where their remains are now found: in other strata, the remains are dispersed and broken, and the animals appear to have perished by some sudden convulsion.

If the bones of man, or of mammiferous quadrupeds, resembling existing species, have been found casually with fossil remains peculiar to the lower or more ancient strata, I believe a careful examination of all the circumstances, would generally explain the apparent anomaly. I shall state a remarkable fact of this kind, which came to my