

---

lential vapours, and lightnings decompose and destroy them; but both the one and the other often annihilate the works of man, and inflict upon him sudden death. Well, then, I think I shall be able to show that the volcano and the earthquake, dreadful as they are, as local and temporary visitations, are in fact unavoidable (I had almost said necessary) incidents in a vast system of action to which we owe the very ground we stand upon, the very land we inhabit, without which neither man, beast, nor bird would have a place for their existence, and the world would be the habitation of nothing but fishes.

(3.) Now, to make this clear, I must go a little out of my way and say something about the first principles of geology. Geology does not pretend to go back to the creation of the world, or concern itself about its primitive state, but it does concern itself with the changes it sees going on in it now, and with the evidence of a long series of such changes it can produce in the most unmistakable features of the structure of our rocks and soil, and the way in which they lie one on the other. *As to what we SEE going on.*—We see everywhere, and along every coast-line, the sea warring against the land, and everywhere overcoming it; wearing and eating it down, and battering it to pieces; grinding those pieces to powder; carrying that powder away, and spreading it out over its own bottom, by the continued effect of the tides and currents. Look at our chalk cliffs, which once, no doubt, extended across the Channel to the similar cliffs on the French coast. What do we see? Precipices cut down to the sea-beach,