

mosphere, and the solid materials of large forests are given out from the earth in an invisible form, or in bubbles rising through the water of springs. Peat-mosses of no slight depth, and covering thousands of square miles, are thus fed with their mineral constituents without materially deranging the constituents of the atmosphere breathed by man. Thousands of trees grow up, float down to the delta of the Mississippi, and other rivers, and are buried, and yet the air, at the end of many centuries, may be as much impregnated with carbonic acid as before.

Coral reefs are year after year growing in the ocean—springs and rivers feed the same ocean with carbonic acid and lime; but we have no reason to infer that when mountain masses of calcareous rock have thus been gradually formed in the sea, any essential change in the chemical composition of its waters has been brought about. We have no accurate data as yet for measuring whether in our own time, or at any remote geological era, the relative supply and consumption of carbon in the air or the ocean causes the amount of those elements to vary greatly; but the variation, if admitted, would not have caused an excess, but rather a deficit of carbon in the periods most productive of coal or peat, as compared to any subsequent or antecedent epochs. In fact, a climate favouring the rank and luxurious growth of plants, and at the same time checking their decay, and giving rise to peat or accumulations of vegetable matter, might, for the time, diminish the average amount of carbonic acid in the atmosphere—a state of things precisely the reverse of that assumed by those to whose views I am now objecting.