

duced if no disturbance took place in the relative levels of sea and land. But in estimating the amount of influence to be attributed to each of the denuding agents in past times, we require to take into account the complicated effects that would arise from the upheaval or depression of the earth's crust. If frequent risings of the land, or elevations of the sea-floor into land, had not taken place in the geological past, there could have been no great thickness of stratified rocks formed, for the first continents must soon have been washed away. But the great depth of the stratified part of the earth's crust, and the abundant breaks and unconformabilities among the sedimentary masses, show how constantly, on the one hand, the waste of the land was compensated by elevatory movements, while, on the other, the continued upward growth of vast masses of sedimentary deposits was rendered possible by prolonged depression of the sea-bed.

When a mass of land is raised to a higher level above the sea, a larger surface is exposed to denudation. As a rule, a greater rainfall is the result, and consequently, also, a more active waste of the surface by subaerial agents. It is true that a greater extent of coast-line is exposed to the action of the waves, but a little reflection will show that this increase will not, on the whole, bring with it a proportionate increase in the amount of marine denudation. For, as the land rises, the cliffs are removed from the reach of the breakers, and a more sloping beach is produced, on which the sea cannot act with the same potency as when it beats against a cliff-line. Moreover, as the sea-floor approaches nearer the surface of the water, it is the former detritus washed off the land, and deposited under the sea, which first comes within the reach of the