

which we are entitled to draw the conclusion, that they must have been deposited in inclosed basins of inland waters.

From the beds of coal found in various situations among *Alpine* limestone, as well as in other secondary formations, under similar circumstances, we are at liberty to maintain that they are not indebted for their origin to any universal and sudden revolution.

When we proceed to the second division of coal formations, to brown coal, or to *lignite*, the principal difference we discover is, that the change which the vegetables have undergone, having taken place at a time when the chemical power had lost much of its energy, was incomplete; and besides, we observe in the different brown coal formations the same repetition of single beds alternating with other beds of rocks, the mixture of different minerals, and not unfrequently of upright stems. Some appear to be derived from sea plants, and others from fresh-water plants; but the greater proportion from land plants. They, equally with the beds of black coal, give evidence of a new overflow of water, and the water plants themselves, which never thrive at a great depth, and which frequently appear under prodigious beds of rocks, must have experienced such a change. But that change was scarcely of the kind which we understand by a deluge, and the frequent repetition of deluges indicated, according to some, by the repeated beds of coal from the transition to the newest tertiary periods, is hardly credible. It may be maintained, with more certainty, of *brown coal* than of *black coal*, that they have been formed in land water, and hence in