

"2. It was afterwards imbedded in the cretaceous deposit.

"3. It became petrified: a very slow process.

"4. The Chalk was, by some change of marine currents, washed away, or degraded," [*i. e.* worn away under the atmosphere by the weather and casualties, a process slow almost beyond description,] "and the solid flints and fossils" [thus detached from their imbeddings.] "were rolled into shingles.

"5. Afterwards, these shingles were covered up, and buried under Tertiary deposits.

"In this way of interpretation, a section of *a few perpendicular feet* indicates a LONG lapse of time; and the co-ordinate fact of the entire change of organic types between the beds above and those below, falls in with the preceding inference, and shows the lapse of time to have been VERY LONG. [—But who can say, *how long*? Many thousands of years sink into a trifling period, for the passing through of these processes.—]

"If I travel in Greece, I may find monuments of ancient art perhaps under the foundations of a Turkish house. If I compared these works of art with those of the present day, I should be convinced at once (quite independently of history) that they belonged to a different epoch in the annals of the human race. These changes are partly due to the progress of civilization, the caprice of man's will, and other moral causes; still, however, subordinate to certain laws. In the geological case, the total change in organic forms has been brought about by the slow operation of physical causes, *not under the control of man*. But he can *observe* them; and, because they are LAWS, that is, have the *impress of MIND* upon them, he can *interpret* them. Those who argue against you as some of your opponents do, not only deprive man of his intellectual privilege, but strip the God of nature of his honour."

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See pp. 328 and 333. "The Old Red Sandstone often appears as a new conglomerate, of great thickness, separating the old slate-rocks from the Mountain Limestone. But, even in this form and without fossils, it demonstrates that the older strata were solid and perfected before the existence of the Mountain Limestone.

"Again; there was a *total* change in the inhabitants of the sea, between the Limestone-beds and Coral-reefs of the Silurian and Cambrian periods, and the time when the Mountain Limestone was deposited. Hence, we should conclude that there was a *very long* lapse of time, between the period of the highest Silurian beds and the period of the Mountain Limestone. This inference is confirmed by very