

there is so much general analogy as gives a sufficient ground for the observation that all belong to Classes and Families *similar* to those which now exist ; but in Genera and Species there are remarkable differences.

XVII. The earliest are the fewest in number, and the most widely differing from animals and plants of the existing creation, in generic, and of course still more in specific characters.

XVIII. The duration of existence, in both genera and species, presents many remarkable facts. A small number of genera, each genus containing perhaps but one species, or a very small number, are found to have their respective lengths of time for existence, in some single stratum. In general, they extend through several strata ; but then there is a greater multiplication of species, giving proof of periods of remarkable fecundity.

XIX. Each system of strata has species which belong to itself, so that both the mineral formations and those certain species are reciprocally *characteristic*. This fact is among the greatest discoveries of modern times. For it we are indebted to one whose conduct and character should be held up as a model for the imitation of young men, in all the walks of life, that they may aim at the highest excellence and diffusive usefulness ;—Dr. William Smith, to whom by general accord, the designation has been given of the *Father of English Geology*.

Fifty years ago, when a very young man, he began his course ; he quietly and without ostentation pursued it, in the most laborious examinations of the stratified formations throughout England. He announced not his discovery till the patience and perseverance of many years had placed it beyond the reach of doubt. He might, by reserve and management not dishonourable, have built up for himself fortune as well as fame ; by the benefits which his discovery and his practical knowledge conferred upon