

Occurring in the most ancient fossiliferous strata in small numbers, and of peculiar types; becoming more abundant and varied in the secondary formations; and increasing prodigiously, both numerically and specifically, in the tertiary, these relics are of inestimable value in the identification of a stratum in distant regions, and in the determination of the relative age of a series of deposits. To the solution of the former problem the sagacity of the late Dr. William Smith first suggested their applicability;* while the idea so happily conceived, and so philosophically carried out, by Mr. Lyell, of arranging that heretofore chaotic mass of deposits termed the Tertiary, into groups, by the relative number of recent and extinct species of shells, demonstrated the important aid to be derived from this class of organic remains, in the determination of some of the most difficult questions in geological science.

Many useful tables have been constructed by Professor Phillips,† Mr. Lyell, M. Deshayes, and other eminent observers, to illustrate the geological distribution in the several formations, of the genera and species of fossil shells hitherto described. In the works which we have especially recommended

* An interesting memoir of Dr. Smith has just appeared, from the pen of his distinguished nephew, Professor Phillips.

† A Treatise on Geology; and Art. *Geology*, Encycloped. Metropolitana.