creatures that were permitted to enjoy it, in the multitude of shells and bones preserved in the strata that were deposited during each of the four epochs we are considering.

M. Deshayes and Mr. Lyell have recently proposed a fourfold division of the marine formations of the tertiary series, founded on the proportions which their fossil shells bear to marine shells of existing species. To these divisions Mr. Lyell has applied the terms *Eocene*, *Miocene*, *Older Pliocene*, and *Newer Pliocene*; and has most ably illustrated their history in the third volume of his Principles of Geology.

The term Eocene implies the commencement or *dawn* of the existing state of the animal creation; the strata of this series containing a very small proportion of shells referrible to living species. The Calcaire Grossier of Paris, and the London clay, are familiar examples of this older tertiary, or Eocene formation.

The term Miocene implies that a minority of the fossil shells, in formations of this period, are of recent species. To this era are referred the fossil shells of Bordeaux, Turin, and Vienna.

In formations of the Older, and Newer Pliocene, taken together, the majority of the shells belongs to living species: the recent species in the newer, being much more abundant than in the older division.

To the Older Pliocene, belong the Sub-apen-