

the most part recent, with about ten per cent. of extinct species; these beds are subdivided into the newer and older *pliocene*.

2. THE MIOCENE (*denoting less recent*).—Containing a small proportion, about twenty per cent., of recent species of shells.

3. EOCENE (*signifying the dawn of recent*, in allusion to the first appearance of recent species).—Containing very few recent species, perhaps not more than three or four per cent.

The marine are associated with a like number of freshwater formations, and the general characters of the tertiary system are alternations of marine with lacustrine strata. The districts occupied by these beds in Europe, are exceedingly variable in extent, as Mr. Lyell has shown in a very ingenious map of the tertiary seas;* and it appears certain, that during the epoch of their formation, there were areas which were alternately the sites of freshwater lakes and inland seas, and that these changes were dependent on oscillations in the relative level of the land and water.

10. FOSSIL SHELLS.—The geological evidence afforded by the remains of animals and plants has already been fully exemplified; but our remarks have hitherto in a great measure been confined to the fossilized skeletons of terrestrial quadrupeds; the shells of mollusca, however, from their durability, often escape obliteration under circumstances

* Mr. Lyell's Principles of Geology, vol. i. p. 214.