

sessing siliceous or calcareous organizations, have been preserved in deposits of all ages. Of the Coelenterates, those which, like the corals, secrete a calcareous skeleton are important rock-builders. The Echinoderms have been so abundantly preserved that their geological history and development are better known than those of most other classes of invertebrates. The Annelids, on the other hand (except where they have been tubicolar), have almost entirely disappeared, though their former presence is often revealed by the trails they have left upon surfaces of sand and mud. Of all the marine tribes which live within the juxta-terrestrial belt of sedimentation, unquestionably the Mollusca stand in the front rank, as regards their aptitude for becoming fossils. In the first place, they almost all possess a hard durable shell, composed chiefly of mineral matter, capable of resisting considerable abrasion, and readily passing into a mineralized condition. In the next place, they are extremely abundant both as to individuals and genera. They occur on the shore up to high-water mark, and range thence down into the abysses. Moreover, they appear to have possessed these qualifications from early geological times. In the marine Mollusca, therefore, we have a common ground of comparison between the stratified formations of different periods. They have been styled the alphabet of palæontological inquiry. It will be seen, as we proceed, how much, in the interpretation of geological history, depends upon the testimony of sea-shells.

Turning next to the organisms of the land, we perceive that the abundant terrestrial flora has a comparatively small chance of being well represented in a fossil state; that indeed, as a rule, only that portion of it of which the leaves, twigs, flowers, fruits or trunks are blown into lakes, or swept