

destruction of ancient and the manifestation of recent organisms. A few of these older structures have remained in the midst of more recent species. Owing to the limited nature of our knowledge of existence, and from the figurative terms by which we seek to hide our ignorance, we apply the appellation *recent structure* to the historical phenomena of transition manifested in the organisms as well as in the forms of primitive seas and of elevated lands. In some cases these organized structures have been preserved perfect in the minutest details of tissues, integument, and articulated parts, while in others, the animal, passing over soft argillaceous mud, has left nothing but the traces of its course,\* or the remains of its undigested food, as in the coprolites.† In the lower Jura formations (the lias of Lyme Regis), the ink bag of the sepia has been so wonderfully preserved, that the material, which myr-

\* [In certain localities of the new red sandstone, in the Valley of the Connecticut, numerous tridactyl markings have been occasionally observed on the surface of the slabs of stone when split asunder, in like manner as the ripple-marks appear on the successive layers of sandstone in Tilgate Forest. Some remarkably distinct impressions of this kind, at Turner's Falls (Massachusetts), happening to attract the attention of Dr. James Deane, of Greenfield, that sagacious observer was struck with their resemblance to the foot-marks left on the mud-banks of the adjacent river by the aquatic birds which had recently frequented the spot. The specimens collected were submitted to Professor G. Hitchcock, who followed up the inquiry with a zeal and success that have led to the most interesting results. No reasonable doubt now exists that the imprints in question have been produced by the tracks of bipeds impressed on the stone when in a soft state. The announcement of this extraordinary phenomenon was first made by Professor Hitchcock, in the *American Journal of Science* (January, 1836), and that eminent geologist has since published full descriptions of the different species of imprints which he has detected, in his splendid work on the geology of Massachusetts.—Mantell's *Medals of Creation*, vol. ii., p. 810. In the work of Dr. Mantell above referred to, there is, in vol. ii., p. 815, an admirable diagram of a slab from Turner's Falls, covered with numerous foot-marks of birds, indicating the track of ten or twelve individuals of different sizes.]—*Tr.*

† [From the examination of the fossils spoken of by geologists under the name of *Coprolites*, it is easy to determine the nature of the food of the animals, and some other points; and when, as happened occasionally, the animal was killed while the process of digestion was going on, the stomach and intestines being partly filled with half-digested food, and exhibiting the coprolites actually *in situ*, we can make out with certainty not only the true nature of the food, but the proportionate size of the stomach, and the length and nature of the intestinal canal. With in the cavity of the rib of an extinct animal, the palæontologist thus finds recorded, in indelible characters, some of those hieroglyphics upon which he founds his history.—*The Ancient World*, by D. T. Austed, 1847, p. 173.]—*Tr.*