

and half digested fragments of other animals testify. Other tribes have fed only upon herbs or fruits; and some were omniverous, just in fact, as we find the habits of existing animals.

No less certain are we that the processes of digestion and assimilation have ever been unchanged. We find the same organs for these purposes as in existing animals, namely, the mouth, the stomach, the intestines, and the blood-vessels, as the coprolites and the cololites abundantly testify. We infer, therefore, with great confidence, the existence of gastric juice and bile for completing the transformation of the food into blood. Indeed, the discovery by a lady (Miss Mary Anning, of England) of that singular secretion from which the colour called *India ink* is prepared, with the ink-bag of the sepia, or loligo, in a petrified state, shows that the process of secretion existed in these ancient animals; and when we find that in all respects their structure was like that of existing animals, although some of the softer vessels have not been preserved, we cannot doubt but the entire process of digestion, and the conversion of blood into bone, nerve, and muscle, was precisely the same as it now is.

In the fact, also, that we find in fossil specimens organs of respiration, such as lungs, gills, and trachea we learn that the process of a circulation of blood, and its purification by means of the oxygen of the atmosphere, have never varied. Animal heat, too, dependent as it is essentially upon this oxygenating process, was always derived from the same source as at present.

The perfectly preserved minute vessels of vegetables enable us, by means of the microscope, to identify them with the plants now alive; and they prove, too, incontestably, that the nourishment of vegetables has always been of the same kind, and has been converted into the various proximate principles of plants by the same processes.

Again. We have evidence that these ancient animals possessed the same senses as their congeneric races now on the globe. We have one good example in which that most delicate organ, the eye, is most perfectly preserved. It is well known that the visual organ of insects and of crustaceans is composed of a multitude often several hundreds or thousands of eyes, united into one, so as to serve the purpose of a multi-