

tical instruments have been improved, and observations have become more acute, the origin of nearly every animal visible to the naked eye has been found to be by ordinary generation. The advocates of the spontaneous production of organic beings, however, still clung to the animalcula and the entozoa. But it is now clearly demonstrated that all the former class have been derived from parents; and that more abundant means are provided for their reproduction than for any of the higher tribes of animals. The same is true of the entozoa — a single individual of which is capable of producing more than sixty millions of progeny; and it would be very strange for nature to take such extraordinary pains for their propagation if it might have been accomplished spontaneously. Not a single certain example, indeed, of the spontaneous production of living beings can be adduced; and if there are a few cases where parentage has not been yet discovered, the past history of the subject makes it almost certain that it needs only more perfect instruments, or more extended observations, to prove that the same great law of reproduction embraces all animated nature. And as to the transmutation of species, geology has shown that it has never taken place; while physiology demonstrates that species are permanent, and can never be transmuted. The individual does, indeed, pass through different stages of development, some of which resemble the perfect forms of species inferior to it in the organic scale. But the limits of these developments are fixed for each species; nor is there a single known instance in which an individual has been able to stop at any particular stage, and thus become another species.

In view of these facts, it is not strange that most of the men best qualified to judge on such a subject — as for instance, Owen, the ablest of comparative anatomists; Ehrenberg, the