

the mineral, performing a sort of commissary function in behalf of the animal. The animal—even the carnivorous animal—implies the vegetable—requires the vegetable. All things considered, we are led to believe that plant life had a history upon our earth a full epoch before the existence of the lowest animals. There must have been a real AZOIC AGE. This deductive conclusion receives some support from inductive data. Petroleum, when existing in a state of wide or general distribution through a formation, is found to be traceable to vegetable organisms, generally marine plants, that have been reduced to a pulp and mingled with argillaceous mud before deposition. Petroleum is thus found in every formation, from the very latest down to the primeval gneiss. The actual presence of petroleum in gneissic strata affords a material prop to the doctrine of præzoic vegetation—a doctrine of no inconsiderable importance in establishing the harmony of the Mosaic and geologic records.

But a few months since geologists were equally ignorant of the existence of vegetable and animal remains through the entire series of Laurentian and Huronian strata, unless, perchance, the so-called “Cambrian” rocks of the Old World be of the same age as the Huronian—a conclusion which the eminent geologist, Dr. Bigsby, disinclines to accept. Geologists, it is true, drew the same inferences as now from the same data in reference to the existence of vegetable organization; but no actual or recognizable remains had been found, nor have they to this day. Greatly to the astonishment of the whole geological world, however, the abundant remains of animals have been discovered in strata which long antedate the most ancient in which a vegetable form has been descried. It was not by any means a rich fauna, but a single species, which populated the sea even in the Laurentian period. The faint tracery