

ferred to were left by the fallen fronds or leaves, and in these it also resembled ferns. We base these inferences on the study of specimens imbedded in the strata associated with the coal. All comprehensive types are primitive and low in rank. The low rank of these plants is evinced also by the absence of flowers and fruit.

But we find here, also, the relics of once animated forms. As the coal was produced on the land; as the vegetation grew on the land, the animal remains would be those of the land. They would be air-breathers. So here they are—Snails—air-breathing mollusks. Every one has noticed the snail crawling about with his house on his back. He lives in damp retired places, and feeds on the leaves of herbs. The situation must have been sufficiently retired ten million years ago in a forest where the woodman's axe never resounded, and foot-step neither of man nor beast was ever heard. But distant as was the age, snail natures were very similar to snail natures in the nineteenth century. Even then, they congregated on the peaty soil in the damp situations about old stumps. They held there their social meetings, and sometimes they found a more secure and congenial retreat in the interior of a stump hollowed by age and decay. In such situations they have been found especially in the enormously developed coal measures of Nova Scotia. We find two types of land-snails in the Coal Measures; one is like our modern genus *Helix*, and the other resembles *Pupa*.

I just now intimated that these humble air-breathers were not disturbed in their retreats by man or beast. This is simply a conclusion from the fossil remains. These are the most important records of the past. Since no bones of human beings nor of any mammals have ever been found fossilized in the Coal Measures, we feel justified in concluding that man and mammals were not in existence while the coal beds accumulated. We have got down to a geological horizon or level which answers to a time when the higher organisms had not appeared. So we see that they have not enjoyed an eternal existence on the earth. But we do find bones of vertebrates—