such species as the minute Protococcus, several hundred thousands of which occupy a space no larger than a pin's head. At the highest stage we marvel at the gigantic Macrocysts, which attain a length of from 300 to 400 feet, the longest of all forms in the vegetable kingdom. It is possible that a large portion of the coal has been formed out of Algæ. If not for these reasons, yet the Algæ must excite our special attention from the fact that they form the beginning of vegetable life, and contain the original forms of all other groups of plants, supposing that our monophyletic hypothesis of a common origin for all groups of plants is correct. (Compare p. 83.)

Most people living inland can form but a very imperfect idea of this exceedingly interesting branch of the vegetable kingdom, because they know only its proportionately small and simple representatives living in fresh water. The slimy green aquatic filaments and flakes of our pools and ditches and springs, the light green slimy coverings of all kinds of wood which have for any length of time been in contact with water, the yellowish green, frothy, and oozy growths of our village ponds, the green filaments resembling tufts of hair which occur everywhere in fresh water, stagnant and flowing, are for the most part composed of different species of Algæ. Only those who have visited the sea-shore, and wondered at the immense masses of cast-up seaweed, and who, from the rocky coast of the Mediterranean, have seen through the clear blue waters the beautifully-formed and highly-coloured vegetation of Algæ at the bottom, know how to estimate the importance of the class of Algæ. And yet, even these marine Algæ-forests of European shores, so rich in forms, give only a faint idea