

unquestionably fuci, confervæ, and other marine plants, which have become involved in the silicious nodule when it was in a fluid state, by which both the colour and form have been preserved in all the freshness, and disposed in as fine a manner, as if the plants were still living and floating in their native element.\*

I have dwelt at considerable length on the processes by which animal and vegetable structures have been mineralized, and preserved in the strata through indefinite periods of time; and you will not, I trust, consider that this deeply interesting inquiry has occupied too much of our attention. In an earlier stage of our geological argument, I was unwilling to enter upon its consideration, lest our minds should not have been prepared to comprehend or relish an investigation of this nature. I proceed to the examination of the flora of the ancient world, entombed in the carboniferous strata.

32. PLANTS OF THE COAL FORMATION.—The beds of coal, as we have already seen, are wholly composed of fossil vegetables, stems, branches, leaves, &c.; and possibly the different kinds of coal may, as Mr. Reade has suggested, have resulted from original differences in the vegetables whence they were derived. The coal shales, or slates, are highly charged with carbon, a character which M. Goppert's experiments tend to elucidate; and

\* See Geological Transactions, vol. ii. page 510.