

higher groups in the natural method of classification. He also adds that the earliest recognisable cryptogams are not only the highest now existing, but have more highly differentiated vegetative organs than any subsequently appearing, and that the dicotyledonous embryo and perfect exogenous wood, with the highest specialised tissue known (the coniferous with glandular tissue), preceded the monocotyledonous embryo and endogenous wood in date of appearance on the globe—facts wholly opposed to the doctrine of progression, and which can only be set aside on the supposition that they are fragmentary evidence of a time farther removed from the origin of vegetation than from the present day.\*

It would be an easy task to multiply objections to the theory now under consideration; but from this I refrain, as I regard it not only as a useful, but rather, in the present state of science, as an indispensable hypothesis, and one which, though destined hereafter to undergo many and great modifications, will never be overthrown.

It may be thought almost paradoxical that writers who are most in favour of transmutation (Mr. C. Darwin and Dr. J. Hooker, for example) are nevertheless among those who are most cautious, and one would say timid, in their mode of espousing the doctrine of progression; while, on the other hand, the most zealous advocates of progression are oftener than not very vehement opponents of transmutation. We might have anticipated a contrary leaning on the part of both, for to what does the theory of progression point? It supposes a gradual elevation in grade of the vertebrate type, in the course of ages, from the most simple ichthyic form to that of the placental mammalia and the coming upon the stage last in the order of time of the most anthropomorphous mammalia, followed by the human race—this last thus

\* *Flora of Australia*, Introductory Essay, p. xxi. London, 1859. Published separately.