

been preceded by similar forms connecting them with previous groups; but there is reason to believe that many supposed representative species in successive formations are really only races or varieties.

9. In so far as we can trace their history, specific types are permanent in their characters from their introduction to their extinction, and their earlier varietal forms are similar to their later ones.

10. Palæontology furnishes no direct evidence, perhaps never can furnish any, as to the actual transformation of one species into another, or as to the actual circumstances of creation of a species; but the drift of its testimony is to show that species come in *per saltum*, rather than by any slow and gradual process.

11. The origin and history of life cannot, any more than the origin and determination of matter and force, be explained on purely material grounds, but involve the consideration of power referable to the unseen and spiritual world.

Different minds may state these principles in different ways, but I believe that in so far as palæontology is concerned, in substance they must hold good, at least as steps to higher truths. And now allow me to say that we should be thankful that it is given to us to deal with so great questions, and that in doing so, deep humiliation, earnest seeking for truth, patient collection of all facts, self-denying abstinence from hasty generalizations, forbearance and generous estimation with regard to our fellow labourers, and reliance on that Divine Spirit which has breathed into us our intelligent life, and is the source of all true wisdom, are the qualities which best become us.

But while the principles noted above may be said to be known laws of the apparition of new forms of life, they do not reach to the secondary efficient causes of the introduction of new species. What these may ultimately prove to be, to