

ing, although, unfortunately, they are far from being universally recognised and fully carried out. Of these we shall only mention two which have been acknowledged by almost all the more eminent philosophical naturalists, as Aristotle, Ray, Harvey, Linnæus, and Cuvier, namely, the doctrine of final causes, not merely as evidence of creative power, but also as a powerful instrument of investigation in discovering the functions of an organ, or restoring the structure of some lost animal, of which only fragments remain. The other doctrine is the permanence of species, which maintains that although the individuals of a species may vary within certain limits, still, when the disturbing force ceases to operate, they all return to the original type, and that no effects of domestication, nor of diversities of climate, however long exerted, nor any results from breeding, can transmute one species into another. These principles, if admitted, place an inseparable barrier in the way of hypothesis and conjecture, and limit our field of investigation within the circle of what is possible to be known.

Many naturalists, men of ingenuity and imagination, have refused to confine their speculations within narrow limits, and have expatiated into regions of cosmogony, where brilliancy of fancy or beauty of diction have afforded some