

granted the transmission to other generations of defects and compensating redundancies at once as extreme and accidental as the loss of eyes or limbs, and the acquisition of timber legs or green patches. The snake, for instance, he might regard as a saurian, that, having accidentally lost its limbs, exerted itself to such account throughout a series of generations, in making up for their absence, as to spin out for itself, by dint of writhing and wriggling, rather more than a hundred additional vertebræ, and to alter, for purposes of greater flexibility, the structure of all the rest. And as fishes, when nearly stunned by a blow, swim for a few seconds on their side, he might regard the flounders as a race of half-stunned fishes, previously degraded by the misplacement of their limbs, that, instead of recovering themselves from the blow given to some remote parent of the family, had expended all their energies in twisting their mouths round to what chanced to be the under side on which they were laid, and their eyes to what chanced to be the upper, and that made their pectorals serve for anal and dorsal fins, and their anal and dorsal fins serve for pectorals. But while we must recognize in nature certain laws of disturbance, if I may so speak, through which, within certain limits, traits which are the result of habit or circumstance in the parents are communicated to their offspring, we would err as egregiously, did we take only these into account, without noting that infinitely stronger antagonist law of reproduction and restoration which, by ever gravitating towards the original type, preserves the integrity of races, as the astronomer would, who, in constructing his orrery, recognized only that law of propulsion through which the planets speed through the heavens, without taking into account that antagonist law of gravitation which, by maintaining them in their orbits, insures the regularity of their movements. The law