

THE RIDDLE OF THE UNIVERSE

of sense are strengthened by exercise and frequent use, so, on the other hand, they are liable to degenerate more or less by disuse or suspended exercise. But, although the development of the organs is promoted by exercise and adaptation, they by no means disappear without leaving a trace after neglect; the force of heredity retains them for many generations, and only permits their gradual disappearance after the lapse of a considerable time. The blind "struggle for existence between the organs" determines their historical disappearance, just as it effected their first origin and development. There is no internal "purpose" whatever in the drama.

The life of the animal and the plant bears the same universal character of incompleteness as the life of man. This is directly attributable to the circumstance that nature—organic as well as inorganic—is in a perennial state of evolution, change, and transformation. This evolution seems on the whole—at least as far as we can survey the development of organic life on our planet—to be a progressive improvement, an historical advance from the simple to the complex, the lower to the higher, the imperfect to the perfect. I have proved in my *General Morphology* that this historical progress—or gradual perfecting (*teleosis*)—is the inevitable result of selection, and not the outcome of a preconceived design. That is clear from the fact that no organism is perfect; even if it does perfectly adapt itself to its environment at a given moment, this condition would not last very long; the conditions of existence of the environment are themselves subject to perpetual change and they thus necessitate a continuous adaptation on the part of the organism.

Under the title of *Design in the Living Organism*,