

There is of course no doubt as to the fact that some forms of life are more complex than others. It requires no faith to allow that the firstlings or Protozoa are simpler than all the rest; that sponges, which are more or less loose colonies of unit masses imperfectly compacted together, are in that sense simpler than jellyfish, and so on. The animals most like ourselves are more intricate and more perfectly controlled organisms than those which are obviously more remote, and associated with this perfecting of structure there is an increasing fulness and freedom of life.

We may arrange all the classes in series from low to high, from simple to complex, but this will express only our most generalised conceptions. For within each class there is great variety, each has its own masterpieces. Thus the simplest animals are often cased in shells of flint or lime whose crystalline architecture has great complexity. The simplest sponge is little more than a double-walled sack riddled by pores through which the water is lashed, but the Venus' Flower-Basket (*Euplectella*), one of the flinty sponges, has a complex system of water canals and a skeleton of flinty threads built up into a framework of marvellous intricacy and grace. The lowest insect is not much more intricate, centralised, or controlled than many a worm of the sea-shore, but the ant or the bee is a very complex self-controlled organism. More exact, therefore, than any linear series, is the image of a tree with branches springing from different levels, each branch again bearing twigs some of which rise higher than the base of the branch above. A perfect scheme of this sort might not only express the facts of structure, it might also express our notions of the blood-relationships of animals and the way in which we believe that different forms have arisen.

But the wealth of form is less varied than at first sight appears. There is great wealth, but the coinage is very uniform. Our first impression is one of manifold variety; but that gives place to one of marvellous plasticity when we see how structures apparently quite different are reducible to the same general plan. Thus, as the poet Goethe first clearly showed, the seed-leaves, root-leaves, stem-leaves,