

Every instance of variation in the forms of these important parts of the osseous system, will, in like manner, be found to have a relation to some particular circumstance in the living habits of the animal, and to be subordinate to the general plan of its economy. But, in order to understand the mode in which nature has effected these changes, it is necessary to study the elements of each part of the osseous system; for these constitute the alphabet by which the combinations she presents to us become legible, and by which their origin and progress are unfolded to our comprehension. According as each of these elements of ossification receives different degrees of development, so the different bones they compose acquire their particular shapes and relative dimensions. Sometimes, indeed, we find that one or other of these elements has disappeared; or, at least, we can discover no trace of its development; in other cases, we see it exceedingly expanded, and appearing under forms of greater complication, so as to be with difficulty identified: on some occasions, as we have just seen in the spinous bones of fishes, its accessory structures are multiplied, as if continued efforts were made by the system to repeat the same structures. Amidst all these modifications, the parts that preserve the greatest constancy of form are those which are of most importance, and which are constituent parts of the primordial type of the class to which the animal belongs.

The spinal column is generally prolonged at its posterior extremity into a series of vertebræ, which are sometimes exceedingly numerous; decreasing in their size as they extend backwards, and having continually smaller processes, the one disappearing after the other, till all of them are lost, and nothing remains in those at the extremity of the series but the cylindrical bodies of the vertebræ. Even these become stunted in their growth and ossification, until we find the terminal pieces generally remaining in the state of cartilage. Such is the structure of the osseous support of the tail, as seen in many quadrupeds in its most developed forms. It illustrates the law, that when in any system there occurs a frequent repetition of the same structure, the evolution, in