

in the *Encyclopædia Britannica*, from the introduction to his *Anatomy of the Invertebrates* (1870), from the introduction to zoology, entitled *The Crayfish* (1881), from *Man's Place in Nature* (1863), and *American Addresses* (1879).

His more technical scientific memoirs are being republished under the editorship of Profs. Michael Foster and E. Ray Lankester, and among the most important may be noticed those which discuss the anatomy and affinities of the Medusæ (1849) (whence sprang the generalization that the embryonic epiblast and hypoblast correspond to the two layers of a polype's body), the fossil ganoids, the vertebrate skull (including an anatomical demolition of the vertebral theory which lasted from Oken to Owen), the classification of birds (based on the skeletal features of the skull), the union of birds and reptiles in the major group Sauropsida, and of amphibians and fishes in the major group Ichthyopsida.

Two great biological books were completed in 1866, Mr. Herbert Spencer's *Principles of Biology* and Prof.

Hæckel. Ernst Hæckel's *Generelle Morphologie*; and though they are very different in mood and style, they have the common aim of presenting an ordered system of biological generalities. In the *Generelle Morphologie*, we find long discussions on the forms assumed by organic structures and by entire organisms, a subject ("promorphology") to which little attention has been paid since; on the theory and grades of individuality—both physiological and morphological, a subject which was pursued by many till all biologists wearied of it; on the categories of homology and the principles of classification; on the different modes of reproduction; on heredity and evolution. Like its English analogue mentioned above, it presented not only a critical account of the general conclusions which had been reached, but a further development of each, and an orderly arrangement of the whole. To those who seek for a survey of the whole field in the perspective of 1866, which has not been essentially changed since, the two works are invaluable, as also to those who fancy that they have new ideas on the subject.