

anatomy, useful as it often was in stimulating both research and thought, Cuvier had no sympathy. This should be borne in mind when we consider his antagonistic attitude to men like Lamarck, Etienne Geoffroy St. Hilaire, and Goethe.

Diverse opinions are held as to the value of Goethe's morphological work, but, as Geddes says, "that he discerned and proclaimed, and that more clearly than any of his predecessors or contemporaries, the fundamental idea of all morphology—the unity which underlies the multifarious varieties of organic form,—and that he systematically applied this idea to the interpretation of the most important, most complex, and most varied animal and vegetable structures is unquestionable". "Independently of Vicq d'Azyr, he discovered the human premaxillary bone; independently of Oken, he proposed the vertebral theory of the skull; and before Savigny, he discerned that the jaws of insects were the limbs of the head."

Of greater influence than Goethe, however, was Etienne Geoffroy St. Hilaire, author of the *Philosophie Anatomique* (1818–1823), who elaborated and exaggerated the doctrine of unity of type. Tainted by the transcendentalism of the *Naturphilosophie*, he is perhaps more memorable for his intentions than for his achievements, but he was the first expert comparative anatomist who was at the same time an evolutionist. In his controversy with Cuvier before the Academy of Sciences in Paris (1830), as to the unity of structure which he supposed to obtain between cuttle-fishes and vertebrates, he was utterly defeated; but the defeat, as subsequent progress soon showed, was rather as to the letter than as to the spirit.

Owen (1804–1892) links Cuvier to Huxley and Gegenbaur, occupying a strange midway position; on the one hand, extremely conservative and unappreciative of Darwinism; on the other hand, really believing in the derivation of species from one another.

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