The Tertiary fossils of Italy were made the subject of a masterpiece in palæontological literature, Brocchi's[1] famous monograph, *Conchyliologia fossile subapennina* (Milan, 1814). This work comprises two quarto volumes, and is handsomely illustrated with sixteen plates. It begins with a historical review of the development of palæontology in Italy, depicts in an introductory chapter the structure of the Apennines and the adjoining plains, and distinguishes the Secondary rocks which compose the true mountain-chain from the Tertiary deposits on the lower slopes and plains. The main part of the work is occupied by the specific descriptions of Tertiary mollusca from all parts of Italy. The special locality, the number of specimens, and the particular distribution in sandy or clayey, pelagic, or littoral deposits is accurately recorded for each species; both the descriptions and illustrations are perfect. A special chapter is devoted to the occurrence of land mammals, whales, and fishes.

Brocchi recognises the great similarity of the Tertiary species of mollusca with species still living in the Mediterranean and Adriatic seas, and likewise the difference between the Italian fossil species and the species of the Paris basin, which had been described by Lamarck and Brongniart. He erroneously attributed the dissimilarity of the Italian and French species, not to any difference in the geologic age, but to the separation of the areas of occurrence. At the same time Brocchi fully realised the fundamental difference between the fossil faunas in the Secondary and Tertiary rocks of his native land. The numerous occurrence of Belemnites, Ammonites, Terebratulas, and other generic types in the Secondary rocks, and their complete absence from the Tertiary faunas is explained on the basis of the gradual extinction of the more ancient types during the vast periods of time that elapsed while successive strata accumulated.

Brocchi's ideas about the mode of extinction and period of existence of fossil genera and species are of especial interest.

[1] Giovanni Battista Brocchi (born at Bassano in 1772) studied jurisprudence and theology in Padua, was made Professor of Natural History in Brescia, and afterwards Inspector of Mines for the Kingdom of Italy. He travelled through almost the whole of Italy, and published a large number of mineralogical, geological, and palæontological papers; in 1823 he travelled in the East, visited Lebanon and Egypt, and went as an engineer to the Soudan, where he died in 1826 at Khartoum, a victim to the unhealthy climate.