

Paris, because the greater number of the fossil shells were specifically identical. For the same reason rocks found on the Gironde, in the South of France, and at certain points in the North of Italy, were suspected to be of contemporaneous origin.

A variety of deposits were afterwards found in other parts of Europe, all reposing immediately on rocks as old or older than the chalk, and which exhibited certain general characters of resemblance in their organic remains to those previously observed near Paris and London. An attempt was therefore made at first to refer the whole to one period; and when at length this seemed impracticable, it was contended that as in the Parisian series there were many subordinate formations of considerable thickness which must have accumulated one after the other, during a great lapse of time, so the various patches of tertiary strata scattered over Europe might correspond in age, some of them to the older, and others to the newer, subdivisions of the Parisian series.

This error, though almost unavoidable on the part of those who made the first generalizations in this branch of Geology, retarded seriously for some years the progress of classification. A more scrupulous attention to specific distinctions, aided by a careful regard to the relative position of the strata containing them, led at length to the conviction that there were formations both marine and freshwater of various ages, and all newer than the strata of the neighborhood of Paris and London.

One of the first steps in this chronological reform was made in 1811, by an English naturalist, Mr. Parkinson, who pointed out the fact that certain shelly strata, provincially termed "Crag" in Suffolk, lie decidedly over a deposit which was the continuation of the blue clay of London. At the same time he remarked that the fossil testacea in these newer beds were distinct from those of the blue clay, and that while some of them were of unknown species, others were identical with species now inhabiting the British seas.

Another important discovery was soon afterwards made by Brocchi in Italy, who investigated the argillaceous and sandy deposits replete with shells which form a low range of hills, flanking the Apennines on both sides, from the plains of the Po to Calabria. These lower hills were called by him the Subapennines, and were formed of strata chiefly marine, and newer than those of Paris and London.

Another tertiary group occurring in the neighborhood of Bourdeaux and Dax, in the south of France, was examined by M. de Basterot in 1825, who described and figured several hundred species of shells, which differed for the most part both from the Parisian series and those of the Subapennine hills. It was soon, therefore, suspected that this fauna might belong to a period intermediate between that of the Parisian and Subapennine strata, and it was not long before the evidence of superposition was brought to bear in support of this opinion; for other strata, contemporaneous with those of Bourdeaux, were observed in one district