

Above their remains other races established themselves, and carried on the succession of organised beings.

The third age was one in which the shells were of recent forms, with descendants that inhabit the present seas. The remains of these shells were found in a soft white limestone, but not a trace of ammonite, belemnite, or gryphite was to be seen associated with them. Among the organisms named by the Abbé were limpets, whelks, volutes, oysters, sea-urchins, and others, the number of species increasing with the comparative recentness of the formation. He thought, like Werner, that the most ancient deposits had been accumulated at the highest levels, when the sea covered the whole region, and that, as the waters sank, successively younger formations were laid down at lower and lower levels.

From the occurrence of worn pebbles of basalt in the third limestone, Giraud-Soulavie inferred that volcanic eruptions had preceded that formation, and that an enormous duration of time was indicated by the erosion of the lavas of these volcanoes, and the transport and deposit of their detritus in the white limestone.

The fourth age in the Vivarais was represented by certain carbonaceous shales or slates, containing the remains of primordial vegetation to which it was difficult to discover the modern analogues. Giraud-Soulavie believed that he could observe among these slates a succession of organic remains similar to that displayed by the limestones, those strata which lay on the oldest marble containing ammonites, while the