

sedimentation. Cuvier had already startled the world by his descriptions of some of the extinct quadrupeds entombed in these deposits. In calling attention to the occurrence of these animals, the authors refer to the occasional discovery of fresh-water shells in the same strata, and to the confirmation thereby afforded to the opinion of Lamanon and others, that the gypsum of Montmartre and other places around Paris had been deposited in fresh-water lakes.

They saw the importance of a thin band of marl at the top of the gypseous series which, in spite of its apparent insignificance, they had found to be traceable for a great distance. Its value arose partly from its marking what would now be called a lithological horizon, but even more from its stratigraphical interest, inasmuch as it served to separate a lacustrine from a marine series. All the shells below this seam were found to be fresh-water forms. Those in the seam itself were species of *Tellina*, and all those in the strata above were, like that shell, marine. The two geologists, struck by the marked difference of physical conditions represented by the two sections of the gypseous series, had tried to separate it into two formations, but had not carried out the design.

Higher up in the series, above a group of sands and marine sandstones, an unfossiliferous siliceous limestone, and a sandstone formation without shells, Cuvier and Brongniart found a widespread fresh-water siliceous limestone or millstone, specially characterised by containing *Limnea*, *Planorbis*, and other lacustrine shells.