

this great department of science. Around the capital of France, the Tertiary and Secondary formations are ranged in orderly sequence, group emerging from under group, to the far confines of Brittany on the west, the hills of the Ardennes and the Vosges on the east, and the central plateau on the south. Not only is the succession of the strata clear, but their abundant fossils furnish a most complete basis for stratigraphical arrangement and comparison.

Various observers had been struck with the orderly sequence of rocks in this classic region. Desmarest tells us that the chemist G. F. Rouelle (1703-1770) was so impressed with its symmetry of structure that, though he never wrote anything on the subject, he used to discourse on it to his students at the Jardin des Plantes, of whom Desmarest himself appears to have been one. He would enlarge to them upon the significance of the masses of shells imbedded in the rocks of the earth's surface, pointing out that these rocks were not disposed at random, as had been supposed. He saw that the shells were not the same in all regions, that certain forms were always found associated together, while others were never to be met with in the same strata or layers. He noticed, as Guettard had done before him, that in some districts the fossil shells were grouped in exactly the same kind of arrangement and distribution as on the floor of the present sea—a fact which, in his eyes, disproved the notion that these marine organisms had been brought together by some violent deluge; but which, on the other hand, showed that the present land had once been the bottom of the sea, and had been