

he assumes nothing further regarding the rocks comprised in a "Terrain" than that they originated during a definite great geological period. The "Terrains" are then sub-divided in *Formations* or Groups. Each Formation is said to contain rocks that had been formed under similar or almost identical conditions; and the Formations are again divided into Sub-Formations (*Sous-Formations*), each of which is said to comprise a complex of strata conformably succeeding one another, and having the same fossil fauna or flora. The most valuable part of Brongniart's work is the large number of lists enumerating the characteristic fossils in the sub-formations.

The Terrains are classified under two Periods, the *Periode Jovienne*, with the three youngest, and the *Periode Saturnienne*, with the other six Terrains.

D'Omalus d'Halloy partly accepted Brongniart's terminology, partly altered it, but he followed the sub-division and general arrangement of the Terrains. The Belgian geologist was Brongniart's solitary disciple in the literature. In comparison with the contemporary work in Great Britain, Brongniart's stratigraphical system could only be regarded as a retrogressive step.

The excellent *Geological Manual* of De la Beche (London, 1831) followed the example of W. Smith, Conybeare and Phillips, and adopted their terminology and their arrangement of the formations. That De la Beche showed a special interest in the modern and diluvial formations was only what might have been expected in the author of the *Geological Observer*. In his treatment of the "Group above the Chalk," De la Beche made use of the literature on the Tertiary formations of the Paris basin, Italy, Switzerland, and the other Tertiary basins of Europe, but in spite of the rich material in the literature he failed to construct a precise, chronological table of the succession. For the Cretaceous group, the English sub-divisions are taken as a type; in the Oolitic group, De la Beche made only one or two slight alterations on W. Smith's sub-divisions, and, on the basis of the important works of Merian and Thirria, assigned the Jurassic formations of the Swiss and French Jura to their proper position in the stratigraphical succession. De la Beche included in the group of the "Red Sandstone" the whole series of Keuper, Muschelkalk, Bunter Sandstone, Zechstein, Copper Slate, and Red Underlyer. In the Carboniferous formation he embraced very rightly only the