

two main groups : (1) Older argillaceous and arenaceous greywacke ; (2) younger calcareous formations. Whereas Murchison, Sedgwick, and Dumont had regarded the older greywacke complex as Silurian, Roemer referred it to the Devonian epoch and identified it with the Terrain Ardoisier and the lowest division of the Terrain Anthraxifère of Dumont. The fossiliferous limestones of the Eifel, Aachen, Bensberg, Elberfeld, and adjacent areas were identified by Roemer with the *lower* limestone group of the Terrain Anthraxifère, and the limestones in Devonshire and Cornwall. He distinguished as an *upper* member of the group Anthraxifère certain fine shales and greywackes (Lenne shales), between Elberfeld and the Sieg and from Iserlohn to Waldeck, which Murchison had referred to the Silurian.

The Palæozoic formations in Nassau, which Murchison and Sedgwick had ascribed to Silurian and Devonian epochs, were afterwards determined by Beyrich and Roemer to be exclusively Devonian. The brothers Guido and Fridolin von Sandberger made a special study of the district, and in 1847 comprised the strata under the term "Rhenish System." They subdivided the system into three groups—a lower complex of greywacke, Taunus shales, and Wissenbach slates ; a middle complex of Stringocephalus limestone, dolomite, and Cypridina shales ; an upper complex of Posidonomya shales. The fossils of the Rhenish system were admirably described by the brothers Sandberger in a monograph published from 1850 to 1856.

The works contributed by Dumont and Gosselet on the Palæozoic rocks in Belgium provided a thorough groundwork of research in that area. Dumont in 1848 sub-divided the Terrain Ardennais into three groups—Devillien, Revinien, and Salmien ; similarly, the Terrain Rhéнан into three groups—Gedinnien, Coblentzien, and Ahrien ; and the Terrain Anthraxifère above the Terrain Rhéнан into three groups—Eifelien, Condrusien, and Houiller. Dumont took little trouble to draw a comparison between these sub-divisions which he erected for the Belgian area and the palæontological groups which had been determined in other countries. He was strongly of opinion that the same fauna never extends over the whole earth, that there had in all epochs been definite geographical kingdoms of plants and animals, and that consequently the fossil contents of rocks could only be used with extreme