

several geologists, amongst others by Krejci, Lipold, Marr, Lapworth, and a controversy began which continued from 1859 to 1881. The contention of Barrande's opponents was that the colonies had been brought into their apparently paradoxical position by tectonic disturbances of the rocks, whereby certain layers of rock had been sliced and fragmented, and slices of them had been carried into new positions during the crust-movements. Several geologists differed from Barrande about the age which he had ascribed to some of the Bohemian deposits. Marr thought the Azoic stage B of Barrande represented a Cambrian deposit, and Emmanuel Kayser, judging from his own study of the oldest Devonian deposits in the Harz mountains, thought Barrande's stages F, G, and H were not of Upper Silurian age, but belonged to the Devonian system. The Harz fossils, which had been described by Beyrich and Lossen as a "Hercynian stage," closely resembled these fossils in the upper horizons of the Silurian series in Bohemia, and Kayser removed this fauna altogether from the Silurian sequence and described it as Lowest Devonian. Many of the best authorities on Palæozoic faunas have subsequently corroborated Kayser regarding the Devonian type of the fauna in Barrande's higher stages.

The Silurian system in Sweden was sub-divided palæontologically by Angelin in 1854 into eight groups, the lowest of which he called Regio I. *Fucoidarum*, and the succeeding seven stages also received distinctive names according to the typical Trilobite genus. All the Trilobite genera occurring in Sweden were described in Angelin's works (1852 and 1854). The more recent memoirs by Lindström, Linnarson, Nathorst, Tullberg, and Holm have supplemented and improved Angelin's researches.

The Norwegian Palæozoic deposits, described in the early years of the nineteenth century by Leopold von Buch, as well as by Hausmann and Keilhau, were revised by Kjerulf (1855-57) and arranged in palæontological sequence after the model of the British "Silurian" district. Newer memoirs have been contributed by Broegger (1882) and Kiär (1897).

The Palæozoic deposits in the Baltic Sea provinces of Russia were first examined by Strangways (1819), and were made the subject of special researches by Pander and Kutorga. Murchison recognised Silurian and Devonian strata during his visit to that area, and Pander afterwards gave excellent descriptions of