

correctly the geological age of the Magnesian limestone and the Red Conglomerates of Devonshire with the Thuringian Zechstein group and the Red Underlyer series respectively.

Freiesleben, in 1807, gave an excellent systematic description of all the sedimentary rocks of Thuringia between the Red Underlyer and the Muschelkalk, comprising the whole succession under the name of *Kupferschiefer Gebirge* (Copper Slate Series). D'Omalus d'Halloy in 1808 termed the same complex *Terrain Penéen*, intending to give expression to the paucity of fossils in the rocks. Afterwards, in the second edition of his *Elemente der Geologie* (1834), D'Omalus d'Halloy confined the term "Terrain Penéen" to the Red Underlyer, Copper Slates, and Zechstein groups, and transferred the Bunter Sandstones with the Muschelkalk and Keuper series to the *Trias*, a designation for these three younger formations which had been introduced by Alberti.

In 1841, Murchison revealed the fact that a diverse lithological series of rocks, identical in age with the Red Underlyer and Zechstein, covered vast areas in the province of Perm and in the Eastern region of European Russia, and said Russia must be regarded as the typical district for these formations. He therefore proposed to give to the formations in question the name of *Permian System*, and classified the system as the youngest member of the Palæozoic succession. This name rapidly displaced D'Halloy's designation of Terrain Penéen, all the more as Geinitz and Gutbier, in their admirable monograph (1848-49) on the fossils of the German Zechstein and Red Underlyer, strongly recommended the name of "Permian System." On the other hand, Marcou objected to the name proposed by Murchison, on the plea that many of the geological sections of the Russian area were inaccurate, and that the rocks which Murchison had there ascribed to the Permian system were frequently of Lower Triassic age.

Jules Marcou recognised in 1853, for the first time, the Permian age of a series of dolomitic limestones, marls, shales, and conglomerates covering a large territory between the Mississippi and the Rio Colorado. The presence of the same complex was afterwards determined by Shumard (1858) in New Mexico; by Meek, Swallow, and Hawn in Kansas; by Worthen in Illinois, Missouri, and Nebraska; by Cope and White in Texas. Marcou observed two well-marked divisions in the American series just as in the European, and he