

Recent researches in the Pyrenees have revealed a great development of fossiliferous rocks which from their graptolites may be paralleled with the English and Scottish Tarannon sub-group.¹⁰⁴ Three zones with *Monograptus vomerinus*, *M. Becki*, and *M. crassus* are well developed, and are compared by Dr. Barrois with the British zones of *Rastrites maximus*, *Monograptus exiguus* and *Cyrtograptus Grayæ* respectively. The same observer remarks that these graptolitic faunas of the Pyrenees present more resemblance with others found in the south of Europe than with those in the original typical regions of Britain and Scandinavia. The specific types are generally the same as those of Bohemia.¹⁰⁵ Silurian rocks have been recognized at various points on the Spanish table-land, a lower quartzite, with *Cruziana*, *Lingula*, etc., being surmounted by shales containing *Calymene Tristani*, etc. Graptolite-bearing schists occur in the province of Minho in the west of Portugal.¹⁰⁶

Central and Southern Europe.—It is a remarkable fact in the Palæozoic geology of the European continent that while the general facies of the fossils continues tolerably uniform in the northwest and north throughout the Silurian territory first described, that is, from Ireland across the Baltic basin into Russia, a great contrast is to be noted between this northern facies and that of central and southern Europe. The Pyrenean exemplification of the southern type has just been alluded to. But it is in Bohemia that this type is most abundantly developed and most excellently preserved. Out of the many thousands of species obtained in that country very few are found also in the north. Among the forms common to the two regions graptolites are especially prominent, more than a dozen of the characteristic Upper Silurian species of Britain being also found in the southern province.¹⁰⁷

In the important Silurian basin of Bohemia,¹⁰⁸ so admirably worked out by Barrande, the formations are grouped as in the subjoined table:

¹⁰⁴ Caralp, "Études géol. sur les hauts Massifs des Pyrenees centrales," Toulouse, 1888, p. 453.

¹⁰⁵ Barrois, Ann. Soc. Geol. Nord, 1892, p. 127. On the Silurian rocks of the Asturias see Barrois, Mem. Soc. Geol. Nord, 1882.

¹⁰⁶ J. F. N. Delgado, Comm. Trabal. Geol. Portugal, II, fasc. ii. 1892.

¹⁰⁷ Marr, Quart. Journ. Geol. Soc. 1880, p. 603.

¹⁰⁸ See Barrande's magnificent work, "Système Silurien de la Bohême." F. Katzer, "Geologie von Böhmen," 1892, p. 791. J. E. Marr, Quart. Journ. Geol. Soc. 1880, p. 591.