tin, molybdena, tungsten, and wolfram are ranked as the most ancient metals ; uranium and bismuth stand next, " having been found in veins in transition or second-ary strata." Gold and silver are considered compara-tively new ; copper, lead, and zinc occur in deposits of various ages ; arsenical pyrites ranks as an old product, cobalt as new, magnesia is of intermediate, and iron ores are of all ages.

Though these doctrines of the relative antiquity of the metals must now be greatly modified, the subject of the distribution of metallic ores according to the place of the rocks in the scale of stratification, is still one of the most curious in geology, and valuable in mining. It is certain that such a dependence exists, and probable that the accurate knowledge of it would be important in clearing up some great difficulties in the theory of mining. The variety of metallic and earthy minerals in the veins which traverse primary slates in Cornwall, Cum-berland, and the Lead Hills, is very great and remarkable when compared to the small catalogue of these found in the secondary limestones of Flintshire, Derbyshire, and Durham. While argentiferous lead ore, and salts of lead, copper ore, blende, calamine, pyrites, carbonate of iron, quartz, carbonate of lime, sulphate of barytes, fluor spar, &c., are common to these and the Cornish districts, the latter yield ores of silver, tin, bismuth, cobalt, arsenic, antimony, uranium, &c., opal, jasper, garnet, zoolites, tourmaline, schorl, epidote, asbestus, steatite, &c.

There is a remarkable circumstance in the distribu-tion of metallic veins in the same class of stratified rocks, — a peculiarity depending on local influences ; such, that while the slates of Cornwall near the gra-nitic eruptions, yield tin and copper, and the Snow-donian slates, and those of Coniston Water Head yield copper ; those of Loweswater, Borrowdale, Patterdale, and Caldbeck fells yield lead, or lead and copper. Copper ore and red oxide of iron occur in the lime-stone of Furness ; lead ore and calamine in that of