

course indebted to Messrs. Wright and Buckman for their researches, and if necessary the names of species taken to characterise given zones must be altered in accordance with their determinations. In no department has our nomenclature yet reached perfection, and as Mr. Buckman says, we must effect changes of name as our knowledge increases, but at the same time we must agree upon general systematic principles.

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GLAUCOPHANE IN ANGLESEY.

SIR,—The interesting paper by Prof. Blake, "On the Occurrence of a Glauconite-bearing Rock in Anglesey," which appears in your March issue, suggests a question of nomenclature which is likely to give us some trouble. I am very glad to have Prof. Blake's support in assigning an igneous origin to some of the Anglesey schists; but now that they are schists I should hesitate to call them "igneous." In Prof. Bonney's description (quoted by Prof. Blake) of a specimen from the Anglesey column, the constituent minerals are "probably a species of chlorite," "epidote," "quartz (?)," and "mica"; and they form "a foliated dense felted mass." According to my view, in which I understand Prof. Blake to acquiesce, this rock was once a diorite (hornblende and plagioclase). If so, the change from the eruptive rock to the schist is surely entitled to be called a metamorphosis. If we apply the term "igneous" to a crystalline schist when we can assign to it an eruptive origin, must we call it "aqueous" when we know it was once a sediment? And under what head must we class it when its genesis is unknown to us? I grant that in tracing a diorite or a granite into a schist, we cannot fix a hard boundary-line between the two; but a similar difficulty meets us in the study of metamorphosed sediments, and it is not found to be very serious. However, I write rather to raise a question than to settle it. If we are not to call crystalline schists by the term "metamorphic," how shall we designate them? They would be as sweet to me by any other name.

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THE ATMOSPHERE OF THE COAL-PERIOD.

SIR,—In the review of the 2nd Vol. of my treatise on Geology which appeared in the last number of your MAGAZINE, your reviewer remarks (p. 161), "The author considers that, during the Coal-period, the atmosphere was more dense, and more charged with moisture and carbonic acid, and he is led to conclude that the coal-growth was in all probability one of extreme rapidity, and consisted of woods and plants containing a much larger proportion of carbon than any existing forest vegetation." With regard to the excess of carbonic acid gas, Mr. Carruthers has expressed an adverse opinion, and experiments made on living plants have shown that they are liable to be poisoned, like animals, by an excess of the gas." A footnote to this passage refers to *GEOL. MAG.* 1869, p. 300, and 1871, p. 497. The first is a