

author writes¹: "I never said that chlorite is changed into biotite by contact-action *only*. . . . Chlorite is changed into biotite by contact action *plus* dynamic action."

I will only say in conclusion, that I do not see that the illustrations which Dr. Callaway has given in his July paper strengthen his case. If I understand him, he seems to think (to put the argument shortly) that because chlorite abounds where signs of shearing exist that the hydrous chlorite has been produced by shearing; and secondly, because he has observed cores of mica in the chlorite, that the mica has been produced out of the chlorite by contact-action. "The uniform appearance of mica," he writes, "where the shearing is great and where the granite veins are numerous, while it is nowhere seen where shearing and veins are absent, appear to demonstrate that these are the true causes of the generation of the mica."

I think all the probabilities of the case are opposed to this view. As I said in my last paper, all petrologists are ready to admit that dark mica is a very common product of the contact-action of granite intrusion in diorite; and I think that the subsequent more or less complete conversion of this contact mica into chlorite by aqueous agents that have found ready access to the rock along the lines of crushing and shearing is what one would naturally expect. That there should be cores of mica left in the secondary hydrous chlorite is in accordance with the petrologist's experience in his studies of the conversion of olivine into serpentine and of augite into hornblende. Dr. Callaway's theory involves the supposition that the production of hydrous chlorite should precede the gneiss of the mica; and that portions of the hydrous chlorite should escape unscathed from the burning fiery furnace of contact metamorphism that converted their fellows into anhydrous mica. These, and other difficulties enlarged on in my last paper, have not been met.

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[This correspondence is now concluded.—EDIT. GEOL. MAG.]

CATALOGUE OF THE MESOZOIC PLANTS IN THE DEPARTMENT OF GEOLOGY, BRITISH MUSEUM (NATURAL HISTORY). THE WEALDEN FLORA, PART I. 1894.—A CORRECTION.

SIR,—In adopting the generic name *Nathorstia* for a new type of Wealden fern ("Wealden Flora," p. 145), I was not aware that the late Prof. Heer had previously made use of the same genus.

My thanks are due to Prof. Nathorst of Stockholm for calling my attention to Heer's genus *Nathorstia*, which was instituted in 1880 for the reception of certain fragments of Marattiaceous ferns from the Cretaceous strata of Pattorfik, Greenland (Flor. foss. Arct. vol. vi. 1882. Nachträge zur foss. flor. Grönlands, p. 5, pls. i. and ii.). I propose, therefore, to substitute the generic name *Leckenbya* for the fern described in the Catalogue as *Nathorstia valdensis*.

CAMBRIDGE, July, 1894.

A. C. SEWARD.

¹ GEOL. MAG. July, 1894, p. 320.