

I see by your letter that you cling to the idea of internal vital processes of the earth, that you regard the successive formations as different phases of life, the rocks as products of metamorphosis. I think this symbolical language should be employed with great reserve. I know that point of view of the old "Naturphilosophie;" I have examined it without prejudice, but nothing seems to me more dissimilar than the vital action of the metamorphosis of a plant in order to form the calyx or the flower, and the successive formation of beds of conglomerate. There is order, it is true, in the superposed beds, sometimes an alternation of the same substance, an interior cause, — sometimes even a successive development, starting from a central heat; but can the term *life* be applied to this kind of movement? Limestone does not generate sandstone. I do not know that there exists what physiologists call a vital force, different from, or opposed to, the physical forces which we recognize in all matter; I think the vital process is only a particular mode of action, of limitation of those physical forces; action, the nature of which we have not yet fully sounded. I believe there are nervous storms (electric) like those which set fire to the atmosphere,