

the remains of the past. It was profoundly argued by Cuvier, that *life* could not possibly have had a chemical origin. "In fact," we find him remarking, "life exercising upon the elements which at every instant form part of the living body, and upon those which it attracts to it, an action contrary to that which would be produced without it by the usual chemical affinities, it is inconsistent to suppose that it can itself be produced by these affinities." And the phenomena of restriction to circle and period testify to the same effect. Nothing, on the one hand, can be more various in character and aspect than the organized existences of the various circles and periods; nothing more invariable, on the other, than the results of chemical or electrical experiment. And yet, to use almost the words of Cuvier, "we know of no other power in nature capable of reuniting previously separated molecules," than the electric and the chemical. To these agents, accordingly, all the assertors of the development hypothesis have had recourse for at least the *origination* of life. Air, water, earth existing as a saline mucus, and an active persistent electricity, are the creative ingredients of Oken. The author of the "Vestiges" is rather less explicit on the subject: he simply refers to the fact, that the "basis of all vegetable and animal substances consists of nucleated cells, — that is, of cells having granules within them;" and states that globules of a resembling character "can be produced in albumen by electricity;" and that though albumen itself has not yet been produced by artificial means, — the only step in the process of creation which is wanting, — it is yet known to be a chemical composition, the mode of whose production may "be any day discovered in the laboratory." Further, he adopts, as part of the foundation of his hypothesis, the pseudo-experiment of Mr. Weekes, who holds that out of certain saline