

The PRESIDENT said: I have now to address to the members of this Society a few observations, as is the duty of him who occupies this chair to do annually. I shall confine myself to as few observations as possible, knowing that we have important business before us.

In closing my address from the chair at our last anniversary, I made reference to a work then approaching publication, and which has been already heralded to the scientific world by that eminent geologist, Sir Charles Lyell, in these terms—"a work from Mr. Charles Darwin, the result of twenty years of observation and experiment in zoology, botany, and geology, will lead us to the conclusion, that these powers of nature, which give rise to races and permanent varieties in animals and plants, are the same as those which, in much longer periods, and in a still longer series of ages, give rise to differences of generic rank. We are told his investigations and reasonings will throw a flood of light on many classes of phenomena connected with the affinities, geographical distribution, and geological succession of organic beings, for which no other hypothesis has been able, or has even attempted to account." This work shortly after made its appearance, and as coming from an author so well known, as a searcher into the recesses of natural history, could not fail to command attention; but as apparently having the stamp and approval of higher scientific authority—treating on subjects of the deepest interest, and in which so much controversy and mystery prevails,—it at once commanded the notice and engaged the criticisms of the whole philosophical and literary world.—No a public organ—quarterly, monthly, weekly, or even daily circulated—but in which Mr. Darwin's origin of species, its aim and scope, its material facts, its deductions and speculations, its reasonings and expressed conclusions, and still more its unexpressed tendencies, and inevitable consequence of its argument have been sifted, discussed, and disposed of according to every phase of scientific and literary, not to say religious bias. In one respect an unusual unanimity pervades all these authorities, most complimentary to Mr. Darwin, although their final sentence—almost equally unanimous—is not such as he may have hoped to have commanded. All ungrudgingly admit the singular excellences of the work itself, the varied knowledge exhibited in almost every page, the attractive and simple beauty of the style, the earnest spirit of investigation displayed, and the general readiness with which objections are admitted and ingenuity exhibited in parrying their force.—But when such are the merits of the work, and talent of the author, it is the more unaccountable that he should have been satisfied with a course of reasoning, so much at variance with his knowledge, and be content so lightly to pass over difficulties, or adopt solutions, the weakness of which it is strange should not be palpable to one of his keen intelligence.—It would be supererogation on my part to add to the criticisms and discussions which the work has so abundantly drawn forth, and I shall only express my concurrence in the conclusion so generally arrived at, that the questions he brings so much knowledge to bear upon, remain just where they were; and the origin of species—that mystery of mysteries as he speaks of it in his introduction—is as much a mystery as ever, and likely to remain so, and still baffle—as seemingly above—all human speculations.—The author's new terms of "natural selection," defined to be the "preservation of favourable variations, and the rejection of ingenious variations," "struggle for existence,"—"divergence of character," varieties described as "incipient species," "transitional varieties," "organic beings varying in several parts of their organization by use and disuse"—"process of modification leading to the formation of genera, by which the early progenitor of the ostrich is imagined to have had the habits of a bustard, and by using the legs more, and the wings less, to have become incapable of flight, "different habits of life graduating into each other"—"modifications of corporeal structure arising from and increased by use or habit, diminished or lost by disuse"—all these and the like are but a new dress of phrases and terms for doctrines and principles that have been advocated, discussed, and discarded over and over again by more than one school of philosophy, only altered to the present state of modern science, and illustrated by his knowledge.—The impression made on my mind by the perusal of this work, more than ever confirms former convictions as to the unchangeable character of all species through the whole period of their geological existence, and that so far from minute investigations favouring anything like a transmutation of organisms in their specific differences, I doubt whether what has often been considered to be mere chance varieties of species ought not in many instances to be set down rather as distinct species themselves. All evidence recorded and accessible from the earliest dawn of our own period of existing creatures, I am bold to assert proves the invariability of their distinctive characteristics as species, not only in the minutest details of organic structure, but as to the superficial markings and pencillings of the outer covering; and as far as the state of things before our eyes will allow us to draw conclusions from the researches made as to fossil remains embedded in the strata of former periods of the earth, all species would appear to have been equally free from all development by transmutation during their term of existence in each period of geological succession.—So far then as the flood of light thrown by Mr. Darwin's investigations and reasonings can assist us, the doctrine of original creations, instead of being abandoned as his ablest supporters contend, must remain for the present in full force, till the wisdom of more enlarged experience can really give it a substantial substitute.—Of the progress in geological science during the past year, it is now my duty to direct your attention to two or three interesting fields.—First the geological structure of the North of Scotland, which has been recently described by Sir