Transcription, June 2016:

New-York Daily Tribune No. 19893 (4 May 1901): 8b-8c (anon.)

[p. 8b]

‘Alfred Russel Wallace. A Collection of the Scientist’s Miscellaneous Writings.’

Studies Scientific and Social. By Alfred Russel Wallace, LL. D., D. C. L., F. R. S., etc. In Two Volumes. With Numerous Illustrations. Octavo, pp. xv, 532, viii, 535. The Macmillan Company.

Like Lords Kelvin and Lister, both of whom are his juniors, Alfred Russel Wallace has enjoyed a period of existence and activity much longer than that allotted to man by the Scriptures. His researches and writings extend over a period of fully half a century. The range of his study has been wider than that of some scientific man of equal fame; hence the fifty-two papers which are here collected deal with a considerable variety of topics, and, as might be expected, are not of uniform value and interest. Wallace has been distinctively a naturalist. Moreover, as an expounder of the doctrine of evolution, he ranks with Huxley and Herbert Spencer—not, of course, with Darwin. Nevertheless, Darwin and Wallace appear to have hit upon the principle of natural selection independently of each other and almost simultaneously. The five articles on evolution which are now republished were prepared for various periodicals between 1880 and 1896. The heat of controversy had then practically disappeared, and much more information was available than was at Darwin’s disposal. These papers, therefore, constitute a modern statement of the subject, and a masterly and authoritative statement as well.

Pains are taken at the outset to make clear what Darwin did not attempt to do. He did not try to account for the beginnings of life, any more than for the beginnings of matter. He merely indicated how life acted after its first appearance on the earth. The essential propositions of the evolution philosophy are these: What are now different but allied species had a common ancestry; the earlier types of animals were fewer in number, more simple in organization and more general in their forms than the later ones; life became more diverse, more complicated and more abundant as time went on; and in the struggle for existence which at length took place some species survived while others were extinguished, nature conducting a weeding out process on the basis of adaptability to environment. As Spencer put it, there was a “survival of the fittest.”

The fundamental fact to which Darwin, Wallace and their disciples direct attention is that all forms of life show a tendency toward variation from the parental pattern. Heredity is one of the most potent of natural laws, but it does not insure absolute fixity and stability of type. In structure, appearance or other traits all animals and plants show a remarkable disposition to depart more or less from established precedent. Even Buffon insisted that nature was in a state of flux. The proposition has been hotly disputed, but the evidence is overwhelmingly in its favor. The more extensive is man’s observation of mammals, birds, fishes, insects, trees and shrubs the more obvious it becomes that with little changes of environment, and often without any apparent explanation at all, individuals and groups of creatures show surprising modifications of color, size, form or other characteristics as compared with their parents. What causes variation is yet a mystery; but variation itself, a splitting up of species into new ones, is one of the most patent phenomena of biology. This disposition being once recognized, it is easy to understand that kinds of animals which are now distinct, but resemble each other (like cats and tigers, hawks and eagles, or men and monkeys), may have had a common origin. Wallace say, however, that it is much easier to

establish this law in respect to the species of one genus or the genera of a single family than as applied to the broader groups and orders. We can actually are the performance in the former instance. In the latter we can only infer.

Among the causes of variation which have been suggested is the possibility that certain characteristics of a pair of animals which are not derived from their parents, but are acquired during their own lifetime, may be transmitted to their offspring. In other words it has been thought that uninherited intellectual gifts, mechanical skill or strength, keenness of vision or changes of complexion, might be passed along to the next generation. Although Darwin gave this matter no special study and laid no stress upon it, he believed that such a process operated. Herbert Spencer has committed himself still more strongly to that opinion. Weismann, however, denies the possibility. Wallace makes a formidable argument against it. Just now, therefore, the question is an open one. A comparison of types of animal life in different parts of the world was a fascinating task to even the zoologists of the seventeenth and eighteenth centuries. But the pursuit assumes new and immense importance from the probability that these various types had a common parentage, and consequently are related to one another. Interesting questions of time, method and dominating influence are thus excited. Wallace has studied them with acuteness and enthusiasm. He holds that when closely allied species are widely separated geographically one must not conclude that they did not have a common origin. His articles treating of monkeys and their affinities, the protective disguises of insects and the problem of instinct are exceedingly instructive. His emphatic affirmative answer to the question whether white men can live and work in a tropical climate, and his consideration of the derivation of the Polynesian and native Australian races (which he regards as offshoots of the Caucasian stock) will interest Americans much more now than before the battle of Manila.

Points of difference between the forests and flowers of Europe and North America are dis- [p. 8c] cussed in three papers. The facts set forth were partly acquired by direct observation and partly from Gray's writings. The educated botanist is measurably familiar with these diversities, but the average reader will never realize how extensive they are unless he goes into the matter in detail. Two papers of great value are devoted to museums of natural history. One of them pictures an ideal institution of this kind, while the other describes three American museums, in the arrangement of which the writer discovered much to admire. Both those who manage such trusts and those for whom they are administered will find a perusal of these articles profitable.

The time was when geology and biology were unrelated sciences. Now, however, the zoologist and botanist are concerned not merely with life as it exists to-day, but also with the fossil remains of earlier forms for millions of years back. The naturalist must, therefore, turn to the rocks, or to some one who understands them, in order to learn something of the climatic and other changes that occurred in a given region and affected the development of life there. Natural history thus becomes history indeed! Wallace was impelled to study the earth's crust as well as its inhabitants, and in doing so he reached some independent conclusions. He dissents from the view that the great oceanic beds have ever lost their identity since their first formation, although changes of level near the edges have modified their outlines and the status of adjacent continents. Somewhat needlessly, perhaps, he combats the notion that the earth cannot have a molten interior. He traces at considerable length the operations of the great ice sheet during the glacial period, not only in Europe, but also in America, and offers as a solution of the puzzle presented by the Yosemite Valley the theory that that singular chasm was cut through solid granite by water alone, inequalities in the hardness of the stone permitting the observed inequality of effect.

The discriminating reader of Wallace will derive less satisfaction from his sociological studies than from those devoted to natural science. The articles on the disestablishment of the Church, an elective House of Lords, and the limitation of coal exports, though sound enough, will interest few besides Englishmen. He makes some excellent points while discussing the marriage question, when showing the motives which chiefly inspire an agnostic to lead a moral life, and in advising how to civilize savages. But it is to be feared that his scheme for a consistent observance of Sunday by the strict Sabbatarian, like Bellamy's combination of the family and state (which Wallace heartily approves), is impracticable. That criticism applies even more forcibly to his projects for reviving trade during periods of great industrial depression, for reforming the existing system of land ownership, for co-operative farming, and for making loans without interest. Still, these matters occupied a great deal of his thought between 1880 and 1890, and, had his opinions concerning them been omitted from this work, the man would have been inadequately represented. His crusade against vaccination was so lamentable, however, that one cannot but rejoice that his views thereon are not reproduced here. Wallace was also a somewhat conspicuous advocate of spiritualism, but it is noteworthy that he has made only a passing allusion to it in the papers here brought together. Possibly he felt that it did not lie clearly within the limits prescribed by the title which he selected for the present collection. At any rate, there is no reason to suppose that he has modified his beliefs since he wrote his independent volume on the subject.

The Alfred Russel Wallace Page, Charles H. Smith, 2017.