
MR. WALLACE ON SCIENCE AND SOCIOLOGY.*

IN these two volumes Mr. Alfred Russel Wallace presents us with the varied fruit of several years of study in the form of numerous essays dealing with problems both in physical and social science. In reading them one is once more impressed with Mr. Wallace's wide research and with his singular power of interesting his readers by an excellent style and a fertile imagination. To know everything of something and something of everything has been defined as the end of culture, and if this is so Mr. Wallace is certainly one of the most highly cultured men on the planet. There are a few essays here, it is true, which will appeal mainly to the specialist, such, *e.g.*, as that on "The Permanence of Oceanic Basins," while few amateurs will follow closely the paper entitled "Are Acquired Characters Inherited?"—a criticism of Weismann. But in the main we may say that whether Mr. Wallace is writing on the Ice Age, on New Guinea, on Human Selection, on Epping Forest, on the Depression of Trade, on Why Live a Moral Life? or on Human Progress, Past and Future, he writes for the average educated man.

To review such a miscellaneous collection in the proper sense of the word is impossible, even were a single reviewer qualified to advance opinions as to the judgment of an expert. We can only give a brief account of some of the "studies" which have attracted us in a peculiar degree. The two papers on Plant Distribution will be found of unusual interest. They both deal with the flora of America. Mr. Wallace says with truth that while numerous travellers have described the cities, rivers, buildings, hotels, and show places of the United States, hardly one has told us of the flowers, and therefore of the actual landscape, which cannot be adequately known save through flowers. We can only recall at present Mr. Grant Allen's fascinating paper on New England flowers as an exception to this rule. Mr. Wallace was struck, on the other hand, by the total absence in America of many of our wild flowers; gorse, broom, snapdragon, mullein, scabious, bugloss, ivy, foxglove, toadflax, true poppies, pimpernel, cowslip,—all these are absent. It is singular (and it affords a problem as to plant distribution) that the indigenous flora not only of the British Isles, but of Europe, of Western Asia, even of China and Japan, should be unrepresented in America. On the other hand, very

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fine phloxes, great varieties of sunflowers, golden-rods and asters, and lovely smilax and wood-lilies, are abundant. The present writer has walked through many miles of country roads in New England bordered with golden-rod, brilliant in the delicious sunshine of the Indian summer. Mr. Wallace made special excursions in the environs of Washington and Cincinnati, finding near the former city handsome sedges, arums, may-apples, and the "spring beauty," a pretty rosy-white flower, with which also the woods near Cincinnati (a very rich and charming region) were carpeted in April; and near the latter city blood-root, white violets, and purple lilies abounded. Mr. Wallace was naturally saddened by the wholesale destruction of forests in the Eastern States; certainly the trees one finds there now do not compare in beauty or grandeur with those of Europe. It is different in the Pacific States, spite of the extensive and reckless vandalism, and Mr. Wallace's account of the noble pines and redwoods of California and Oregon is very attractive. "Many grand and beautiful scenes," he writes, "remain vividly painted on my memory; but if I were asked what most powerfully impressed me, as at once the grandest and most interesting of the many wonders of the Western world, I should answer, without hesitation, that it was the two majestic trees, some account of which I have just given, together with the magnificent and beautiful forests in the heart of which they are found."

In his excellent account of Epping Forest Mr. Wallace proposes that an enclosure should be made there for the planting of specimen trees not only from America, but from various parts of the world, and he suggests with a natural insight fortified by immense knowledge of plant life the methods by which this experiment might be carried out. Such a collection would add immensely to the interest of one of our few extensive forest tracks, and it would stimulate the study of botany in England. Let us hope it will yet be attempted.

We have found none of these essays more interesting than that on New Guinea, a country as large as the Austrian Empire, and yet less known than any in the world save Thibet. There are practically three sets of population in the vast island, but the true inhabitant is the Papuan, tall, strong, muscular, dark chocolate in colour, and as special features having a nose of the Jewish type and a dense mop of glossy crisp hair, often projecting six or eight inches from the skull. In their knowledge of agriculture the Papuans are advanced; they cultivate the coconut, bread-fruit, banana, yam, and sugar-cane, and their gardens are delightful. Ethnologically they are distinguished from the peoples connected with them by the use of the bow and arrow. Although some travellers speak badly of the Papuans, Mr. Wallace found them friendly, particularly honest, and by no means lacking in intelligence. The question is, how does the traveller approach them? His estimate of their character will depend on whether he is hostile or friendly. Of the Polynesian peoples Mr. Wallace thinks highly, as do other observers; their character and intellect are alike of no mean order, but they have been abominably treated by European adventurers far inferior as human beings to themselves. Mr. Wallace agrees with Dr. Keane that, low though the Australian aborigines are, they yet belong to the Caucasian race, judging from physiological evidence. Not the least interesting part of this work is the account, brief though it is, of the wonderful Caucasian civilisation of three thousand years ago developed in South-Eastern Asia, now being brought to light by French explorers. The great temples in Cambodia rivalled those of India. If the shores and islands of the Pacific were the native homes of the human race, all the researches in these regions cannot fail to be of the deepest importance. What Mr. Wallace himself did for zoology in the Malay Archipelago may, perhaps, be done for ethnology in the same quarter of the globe.

All who have seen the wonderful gorge of the Aar near Meiringen should read the account of the glacial formation of that remarkable piece of earth sculpture. The essays dealing with evolutionary theories are perhaps the best short statements of the great problem that we have. People talk of Darwinism without really knowing what it is: here they will find out. Mr. Wallace is a thorough Darwinian as contrasted with a Lamarckian or a follower of Weismann, and his reasoning is supported by immense knowledge. But he does not suppose

any more than did Darwin himself, that the latter had said the last word or had explained fully how animated Nature came to be what it is. In regard to social questions Mr. Wallace is a very advanced reformer; although, singularly enough, he is for a strong Second Chamber. He would also differ from most Radicals in his advocacy of a State Church. But his State Church is rather Coleridge's "National Clericy" than a distinctively Christian institution. He believes in planting the peasant on the soil as a State tenant. As regards ethics he rightly holds that the agnostic, though by training and disposition he may be (as most are) an excellent man, has nevertheless no ultimate ground for leading a good life. Personal choice can be in such a case the sole rationale. An inquiry into the future progress of humanity discloses a reliance on education; but the bewildering problem is treated with too much brevity to be of value.