America, South.

Spruce: Wallace. Notes of a Botanist on the Amazon and Andes. By Richard Spruce, Ph.D. Edited by Alfred Russel Wallace. London: Macmillan & Co., 1908. lii + 518; xii + 542. 23 × 15 cm. Price 21s.

In arranging for publication the manuscripts of the late Dr. Spruce, Dr. Alfred Russel Wallace has accomplished a task which, although without doubt undertaken as a labour of love, must have proved one of considerable difficulty. In order to produce this connected narrative of some fifteen years spent in arduous travel and scientific exploration, innumerable notebooks have had to be consulted, the gaps filled in from letters, and the whole thrown into consecutive form by the addition of just sufficient editorial comment to facilitate reading.

Much as it is to be regretted that the continuous ill-health which beset the latter part of the long and useful life of Dr. Spruce rendered it almost impossible for him to prepare his notes for publication in the form evidently designed by him, it is certain that the task could not have fallen to more capable hands than those of the present editor, and Dr. Wallace is to be congratulated, not only on having rendered accessible a valuable contribution to our knowledge of tropical South America, but also on having raised a lasting monument to the memory of his departed friend.

The general reader, who has perforce to pass lightly over much of the admirable botanical descriptive matter, will probably be most of all impressed with the spectacle here presented of an indomitable will housed in a very frail body. That a man whose record in England was one of frequent serious illness should have spent so many years in the Amazon valley and in the elevated region of the Eastern Andes, exposed to all the vicissitudes of a tropical climate or the freezing blasts of the Cordillera, passing days and nights in native canoes when frequently reduced to a diet of uncooked farinha and bad water, and yet should have maintained a high average of bodily efficiency, can only evoke astonishment and admiration.

The date of Richard Spruce's wanderings, 1849-1864, places his work within the "heroic period" of scientific travel in South America. One feels constrained to place the book on the library shelves beside Dr. Wallace's own works, and in such good company as is afforded by the Voyage of the Beagle, Humboldt's Narrative and the writings of Belt and Bates, for the same spirit animates them all.

Although the book, as its title implies, is of primary interest to botanists, students of other branches of science will find much of permanent interest and value in its pages. It was a matter of regret expressed by Spruce himself that he could bestow so little of his attention upon other than the botanical and geographical features of the wonderful country into which he penetrated, but none the less his observations on the native tribes of the great river region should prove welcome to anthropologists. The account he

gives of the wandering peoples of the Amazon and Rio Negro forests, who subsist almost entirely upon the chase and wild fruits, clearly illustrates the reason of the comparative sparseness of population in this vast region, where a single family may wander over wide areas from camp to camp as their foodstuffs become scarce locally. As already mentioned, the author was often reduced to the direct straits for lack of food. Occasionally the natives threw obstacles in the way of his obtaining seeds and other specimens of their common edible plants, evidently suspecting the motives which led the stranger to seek such information.

On more than one occasion the author was present, much against his will, at native feasts, one of which he describes in considerable detail. Of special interest in this connection are his observations on narcotics, with the curious sex-prohibitions attending their use, a matter more fully discussed under a special heading in the second volume. He has much to say, moreover, of the "payes" or medicine men and their customs.

Considerable space is devoted to a description and discussion of the Indian rock-pictures of the Casiquiari and Uaupes rivers, the paper being illustrated with several careful drawings of the figures. Spruce objects to the term "picture-writing" being applied to these works, since after careful study he came to the conclusion that they were in no sense writings or hieroglyphics. The drawings are for the most part exceedingly rude in execution, comparatively few of the objects represented being recognisable even by the natives of the region to-day. Many of the drawings figured appear to the present writer to bear a striking resemblance to the Carib rock-scrivings of the West Indies.

The opinion arrived at by Dr. Spruce in regard to the origin and object of these works of savage art may be given in his own words:—

"Having carefully examined a good deal of the so-called picture writing, I am bound to come to the conclusion that it was executed by the ancestors of Indians who at this day inhabit the region where it is found, that their utensils, mode of life, &c., were similar to those still in use, and that their degree of civilisation was certainly not greater, probably less, than that of their existing descendants. The execution of the figures may have ranged through several centuries, a period which in the existence of a savage people is but a year in that of the highly-civilised nations of modern Europe. In vain shall we seek any chronological information from the Indian who never knows his own age, rarely that of his youngest child, and who refers all that happened before his own birth to a vague antiquity wherein there are no dates and rarely any epochs to mark the sequence of events."

Whilst agreeing in the main with this decision of the author a certain hesitation is felt in assenting to his suggestion that the Indians "amused themselves by scratching "on the rocks any figure suggested by the caprice of the moment." The savage is really a very serious person, whose strangest actions are performed in obedience to some sort of logical impulse, however wild his reasoning may appear from the point of view of civilised man. Unless I mistake, the ethnologists of North America hesitate to dismiss the rudest scrivings of the Red man as mere meaningless scrawls, and in the present instance it would at least be possible that the drawings have some forgotten religious or tribal significance. Perhaps they mark the sites of former feasts or ceremonial gatherings.

It may be mentioned that Dr. Spruce offers an interesting explanation of at least one mysterious forest sound, resembling a gunshot, akin to the famous "midnight axe" that has given rise to so much controversy. A sound unhesitatingly attributed by the Indians to the agency of a certain malign forest sprite was traced to the sudden collapse of a species of palm, which, when dead, gradually rots away, and is ant-eaten until nothing but a mere shell remains. This eventually goes suddenly to pieces with a loud

report, leaving nothing but a heap of dust and splinters to mark the place where a few minutes before it towered among its fellows.

Several beautiful photographs worthily accompany Dr. Spruce's delicate pencil drawings; one of the magnificent cone of Chimborazo calling for special admiration. This brief notice would be incomplete without a reference to the misfortunes which overtook this indefatigable man of science towards the close of his long residence abroad. Whilst engaged in the difficult task of procuring specimens of the valuable "red bark" plants for India, Dr. Spruce's sorely tried constitution gave way, and an illness resulted, which attended him throughout the rest of his life. Shortly afterwards the limited resources which his unselfish labours in the cause of science had permitted him to gather were entirely lost in the failure of a bank in Guayaquil, a failure brought about by the fraudulent dealing of an Englishman. For the remainder of his life he was dependent upon the all-too-scanty pension allowed him by the British, and latterly the Indian, Government. It is some consolation to think that, to him, his work brought its own reward.

OSWALD H. EVANS.