LANDMARKS IN ANTHROPOLOGY

A series of reprints in cultural anthropology

General Editor: Weston La Barre

NOTES OF A BOTANIST

ON THE

AMAZON & ANDES

By RICHARD SPRUCE

VOLUME I

With a New Foreword by
RICHARD EVANS SCHULTES
EXECUTIVE DIRECTOR AND CURATOR OF ECONOMIC BOTANY
BOTANICAL MUSEUM, HARVARD UNIVERSITY

REVIEW COPY

JOHNSON REPRINT CORPORATION
NEW YORK AND LONDON
1970

The edition reproduced here was originally
published in 1908

© 1970 by Johnson Reprint Corporation
All Rights Reserved

Library of Congress Catalog Card Number: 78-117251

Printed in the U.S.A.

FOREWORD

The botanist who works in plants of the New World tropics is often surprised that so few know of Richard Spruce and his work. Those of us who have travelled and collected where Spruce did—in the northwest Amazon and in the Ecuadorian and Peruvian Andes—find it even harder to believe that he has remained in obscurity.

Spruce never could have written a book about Spruce—he was too self-effacing and humble. But his famous colleague and admirer, Alfred Russell Wallace, took time from a busy life to edit letters and documents and to assemble a truly great tribute to Spruce: the two-volume *Notes of a Botanist on the Amazon and Andes*, published in 1908, fifteen years after the death of this intrepid plant explorer. A work which has kept its appeal through the years, it represents one of the most extraordinary accounts of a true search for knowledge. But now for many years it has been almost a collector's item. In the main, Wallace let Spruce speak for himself in the compilation, doubting that anyone could excel Spruce's depth of perception, Yorkshire wit, and forthright style in recounting his experiences and expounding his philosophy. It has truthfully been said that "everything is to be found in Spruce, and the temptation to quote him is irresistible."

The reprinting of *Notes of a Botanist* . . . greatly pleases me. Long an admirer of Richard Spruce and a botanist who for many years followed his footsteps in the northwest Amazon, I am more delighted in this reissue of his major work than I would be with any other contribution to the history of botany. This is not only because it honors a man who, in his lifetime, had few honors come his way, but also because new generations of plant explorers truly need the stimulus that such a book would provide. Richard Spruce still lives and will live on to fire the heart and shape the thoughts of many a plant explorer as yet unborn.

Spruce deserves to be known both as a man and as a scientist. His researches and discoveries in the plant sciences have benefited mankind in all corners of the earth and have helped to enrich governments and private enterprises in far-flung regions of the globe. Yet, although Spruce's achieve-

ments might be lauded in such widely separated countries as Brazil, Peru, Ecuador, India, Ireland, England, and the Pyrenees regions of Spain and France, his name—even in his native Yorkshire—goes unremembered beyond a limited circle of men of science.

In Spruce, we find perhaps the greatest contrasts ever known in a botanist. A man of extremely delicate health, and plagued by chronic ills, he betook himself to one of the wildest and least known jungle areas of the world, to spend fourteen years in hard physical work, constantly exposed to the tropical elements and diseases, existing on an insufficient diet and with a complete lack of even rudimentary comforts. A scholar with a thorough classical training and of outstanding cultural and scientific attainments, he divorced himself from all centres of culture and lived for long periods amongst Indians and other unlettered peoples. A superb correspondent, he plunged himself into regions where, for months on end, he received not one letter or newspaper. A botanist, whose training and first love concerned mosses and liverworts—the most diminutive of land plants—he carried out painstaking research on some of the most gigantic of tropical trees and lianas, discovering hundreds which had hitherto been unknown to science. A mild-mannered and dignified person, he feared none of the dangers that his expeditions presented and, more than once, he had to take measures to defend his very life. A student whose scientific training had fitted him to handle masses of minute detail, he was able to cope with the endless gross problems attendant on the organization and execution of cumbersome trips, by canoe or on horseback, of months' or even years' duration. And—perhaps most astonishing of all—a naturalist who looked with abhorrence on the philosophy that nothing not immediately beneficial to man was worthy of study, he nevertheless provided science with the first extensive botanical knowledge of *Hevea* rubber (which was just then beginning to attract widespread commercial attention), conducted far-reaching field researches on the quinine tree, and made notes on many native economic plants, including gums and

resins, fibres, foods, drugs, narcotics and stimulants, oils, dyes, and timbers. A poor man himself, through his work on the quinine tree in Ecuador he contributed to the creation of great plantations and fortunes which resulted from the domestication of this plant in the British possessions of the Far East.

Like so many of the European botanical explorers of the nineteenth century, Spruce had an insatiable curiosity about life and nature. His notes, diaries, and letters are replete with references, descriptions, discussions, and even theories concerning not only plants and vegetation but geological, anthropological, linguistic, historical, sociological, zoological, and other aspects of the regions where he travelled, lived, and worked. Consequently, Wallace's collection from Spruce's many manuscripts, correspondence, and field data—so masterfully molded into *Notes of a Botanist on the Amazon and Andes*—has been, over the years, equally as interesting and valuable to anthropologists, geographers, geologists, zoologists, and historical sociologists as it has been to botanists, phytogeographers, and ethnobotanists.

Even a casual glance at *Notes of a Botanist* . . . suffices to show its inclusivity. Many of the plants that Spruce investigated played vital roles in the lives of the natives; and he discussed them ethnobotanically both in the general text and in lengthy chapters in the addendum. He devoted special attention to narcotics and stimulants such as ayahuasca, caapi, coca, guaraná, guayusa, and niopo. The place of plants in Indian life in the manufacture of such artifacts as pottery, hammocks, ropes, bark objects, and blowguns, as well as the role of plants in native agricultural practices and witchcraft, are scattered throughout his notes.

Spruce not only carried out definitive botanical work on the rubber-yielding genus *Hevea*, but also—since his residence in the rubber forests of the Amazon coincided with the beginnings of the feverish wild rubber boom that eventually led to the enslavement, torture, and murder of scores of thousands of defenseless Indians and even the annihilation of whole cultures and tribes—his long description and

analysis of the many aspects of the early years of this nefarious business are basic to any modern economic, sociological, and historical study of the Amazon and of Brazil.

Spruce discussed from intimate knowledge of their life many tribes of Amazon and Andean Indians: the Tukano, Desano, Barra, Guahibo, Maquiritare, Guaharibo, Mayirona, Tikuna, and Cocama; and he also made incidental or comparative references to other tribes, especially to those of eastern Peru. Of unusual interest today are his pencil sketches of native houses and Indian "types" that he saw in various localities, some of which now, a century later, have no Indian populations at all. He offered long lists of names and terms in native languages. He prepared lengthy and detailed essays on such ethnologically basic topics as medicine men and their customs; native beliefs in spirits and demons; religious, festival and magic dances and rituals; Indian rock engravings and paintings; the history of legends of "warlike women" in the Amazon; persistent stories in Peru of buried Inca treasure; and the like.

The sociologist will find the book a rich repository of detailed, accurate, and sympathetic observations on life in the towns and villages of the Amazon and Andes a century ago. Beautiful descriptions of towns—some of them now cities—such as Belém, Manaós, Santarém, Tarapoto, and Ambato are interspersed with valuable source material on topics such as the life of the mestizo population of Tarapoto during the incessant revolutions of the times, local customs and politics in Santarém, and the relationships of missionary activity to the daily life of the mixed racial communities of the areas. Spruce resided for long periods in several of these towns, while he scoured the countryside around for his rich plant collections. He was in Santarém eight months in 1850; in and near Manaós, for eleven months in 1851; in Tarapoto, during twenty-two months in 1855–57; in Ambato and its surrounding regions (where he did his major work on quinine trees) for twelve months in 1859.

Zoology and certain curious relationships between plants and animals likewise occupied Spruce's attention. His notes presented detailed, biologically basic facts and discoveries in

chapters dealing with ants as modifiers of plant structures, animal migrations, and the distribution of fishes and other conspicuously Amazonian animal life.

Geographical and geological specialists can cull a mass of pertinent and valuable information from his ever recurring observations on the land and its features. The geography of the Rio Negro, the Casiquiare Canal, the upper Orinoco, and adjacent regions (where Spruce worked for five years) is discussed and analyzed in unusual depth. Anyone who proposes to study today's problems in this area must perforce go back to Spruce's writings. Wherever he went and worked in eastern Peru and Ecuador, he wrote accounts which are full of information that modern geography and geology must take into account. Before the days of the field camera, Spruce's observations were charmingly illustrated with remarkable pencil sketches of rapids, rivers, rocks, villages, and panoramas—and of especially scientific value are his masterful sketches of the Curicuriarí Range of the Rio Negro, the now famous Mount Duida, the ranges around Tarapoto, and the Volcano of Pichincha.

When all these contributions are combined and added to the vitally important botanical core of Spruce's books, it is easy to imagine the attraction that his writings, jottings, and philosophical musings would have for the interdisciplinary audience of today. Now, more than one hundred and twenty years after these notes were made, one might properly describe this humble man as a timeless and unbounded scientist. I know of no other scientist who, for the regions concerned, has done a more comprehensive and authoritative job. Truly, the botanist is wrong in claiming Spruce wholly for botany. He was more than a botanist. He typified that all-round scientist and man of culture that, unfortunately, in this modern period of overspecialization and compartmentalization, is so sorely missed and so urgently needed.

Such a man was Richard Spruce. He had travelled for fourteen years through the wildest of areas—some indeed so inaccessible that only now, after more than a century, are scientists once again penetrating them. He spent the closing

years of his life in a little cottage in his native Yorkshire, living as simply as he had always lived. Here he kept up a lively correspondence and, while still in spirit wandering his old trails of the Amazon and Andes, produced the greatest work in the annals of South American bryology: *The Hepaticae of the Amazon and the Andes of Peru and Ecuador*—a critical catalogue of some seven hundred species and varieties, five hundred of which were represented in his own collections and four hundred of which were new to science, named and described by Spruce himself. And that simplicity characteristic of his life and philosophy was the keynote of the final memorial to him. On the stone marking his grave, next to his father's, in the little churchyard at Terrington, Yorkshire, are the words: "Richard Spruce—traveller and author of many botanical works. Born at Ganthorpe, September 10th, 1817. Died at Coneysthorpe, December 28th, 1893."

Richard Evans Schultes

NOTES OF A BOTANIST

ON THE

AMAZON AND ANDES