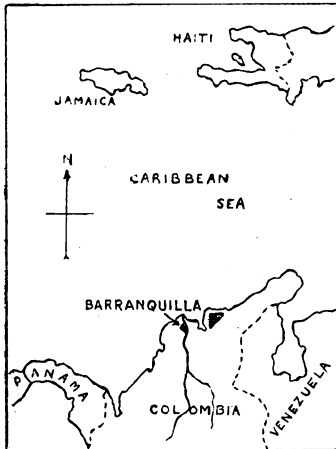


EXPLORING IN THE NORTHERNMOST ANDES

BY

HENRY BUNJE, M.D., M.R.C.P.

I have been lucky enough to go on two expeditions to the Andes, in 1954 and 1957. In 1953, while a lecturer in the University College of the West Indies, I heard a rumour that some people in the University planned a mountaineering expedition to the Sierra Nevada de Santa Marta in Colombia (Map 1). This range, the

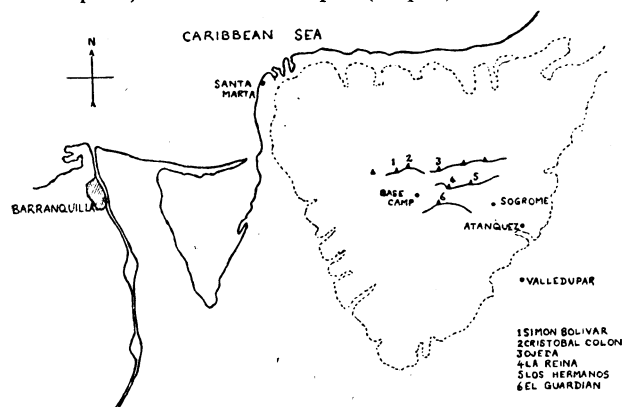


MAP 1.—Map to show Jamaica and Colombia. The black triangle on the northern coast of Colombia marks the area of the Sierra Nevada de Santa Marta, which is shown in more detail in Map 2.

northernmost spur of the Andes, rises to nearly nineteen thousand feet (5,790 m.) within thirty miles of the sea—a unique geographical formation. It is within easy reach of Jamaica, being but ninety minutes' flying-time from Kingston southwards across the Caribbean to Barranquilla, the chief port of Colombia. While still out over the sea, one may see the snow peaks of the range rising from tropical jungles on the coast and from the swampy delta of the Magdalena on their western side. The thought of exploring these mountains and meeting some of the primitive Indians living in the valleys was impelling. With no previous experience as an explorer, no knowledge of surveying, of Spanish, of physiological experiments at altitude or of mountaineering and, come to that, with no head for heights, my qualifications for applying to join the enviable company of mountaineers were meagre. However, I declared that I was prepared to cook, to carry, to take care of the base-camp, to take photographs, and to do as I was told. I was accepted.

First Expedition

This first expedition, led by Dr. Allan Cunningham, consisted of his wife, Dr. John Waterlow, Dr. Philip Hughes, and myself. We left on January 3, 1954, and flew to Barranquilla, then to Valledupar (Map 2) on the south-



MAP 2.—Sierra Nevada de Santa Marta, showing the principal peaks.

eastern side of the mountains in a broad dry valley bounded on the east by a 12,000 ft. (3,660 m.) escarpment overgrown with jungle and the home of the notorious and dreaded Motilone Indians. Along this Sierra de Perija lies the sometimes vague frontier between Colombia and Venezuela.

A truck took us and our baggage from Valledupar to the *mestizo* village of Atanquez—as rough and wild a road as any of us had ever been on. For four hours we lurched and plunged, forded rivers, and groaned up slopes, driven wildly by a youth with the improbable name of Alcibiades. Atanquez used to be an Indian village, but, retiring it is said from the inroads of missionaries, the Indians have left it for distant valleys. It is now the home of farmers, coffee-planters, and cattle-ranchers. It has a local industry in sisal, many emaciated stray dogs and scrawny chickens in the streets, rather more robust-looking pigs, lively children, and no plumbing. We saw last January, on our second expedition, that the growth of Atanquez had been considerable. There were more people, more taverns, more coca-colas, refrigerators, billiard-tables, radios, and juke-boxes, but no more plumbing.

From Atanquez one walks. A long slow climb precedes fording a river—potentially, no doubt, full of piranhas and anacondas, but we saw none. The end of this day's march is at the Indian village of Sogrome (Fig. 1). We had understood plainly that, at best, the Indians would be indifferent to our affairs. Though unlikely to be hostile, they would not be disposed to help us; but one sardonic consul went so far as to say that they would eat us. Thus dispirited, we approached their village for the first time with foreboding. Without their oxen as pack-animals, we could look forward to slogging up and down the valley carrying our own equipment. We found them to be hardy, industrious, quite willing to hire their animals, without qualms about long journeys, and perfectly trustworthy. There was no procrastination or unpunctuality. They inspected our camp, ourselves, and our utensils with a curiosity that was sometimes embarrassing but rarely impolite, and always without trace of "loitering with intent." They always asked permission before they removed even our discarded empty tins. On our second visit, while in camp near their village, we received a message that one of them was anxious to return a torch which we had dropped three years before and which had been kept safely against our possible return.

Second Expedition

On this year's expedition, also led by Cunningham, there were six of us, but only three who had been before. I enjoyed promotion—from porter to deputy physiologist. Waterlow and I had planned to conduct, as best we could, a balance experiment to learn something of possible changes in electrolytes in blood, urine, and faeces as we developed mountain sickness, became acclimatized to altitude, and recovered on the way down. (Incidentally, there is nothing like coming down, out of rarefied atmospheres, to feel increasingly energetic and well to realize that one had by no means "acclimatized" to altitude.) We recorded our food intake and collected nearly all our urine and faeces. It is debatable whether it is more tiresome making these collections "on the march" through the jungle, or when suffering from apathy and listlessness during the first few days at fourteen thousand feet. At our base-camp at this height we certainly had to guard against a befuddled state of mind and an impaired memory by writing results down at once and keeping notes up to date and insisting on an invariable routine to avoid mistakes.

The first time we really unpacked and settled down to several hours' work was in camp near Sogrome. The temperature was over 90° F. in the shade, and Major R. G. H. Allen, R.A.O.C., with the resourcefulness of his Corps, rigged us a shade of groundsheets on saplings. For our titrating, measuring, and labelling we had picked a corner of a hidden grove of *Erythroxylon coca*, the source of cocaine. The Indians deliberately plant these shrubs and tend them carefully. The groves are said to be much



FIG. 1.—A hut in the Indian village of Sogrome. Hugh-Jones was asked to examine the languid young woman on the left. He was obliged to do so in a dark hut while she sat on the floor and refused to remove any clothing. Her fiancé (with the hat) insisted on watching from the doorway. Under his left arm is his bag of coca leaves.

revered. We were a little concerned that they might resent our scientific mysteries amongst their coca, but they did not seem to mind our being there. The leaves are dried and the men carry them in bags slung across their shoulders (see Fig. 1) and chew handfuls of them all day long. It is a habit widespread throughout the Andes and, in our experience of observing these Arhuaco Indians, it certainly appears to impart a stamina enabling them to go for long marches without much sleep or food and without showing signs of flagging. A hill people, they are of necessity trained to this sort of energetic life, and have, indeed, a partly nomadic life moving up and down the valleys from village to village. Custom and not coca is probably the chief reason for their evident hardiness.

We set up the base-camp laboratory about fifty yards from our tents and close to a gentle stream which drained one lake into another. Here the two of us did our work with a calculated air of aloofness; we insisted that nothing should upset our routine lest we make mistakes. While at work we

made it a rule, before embarking upon discussion or posing questions, to ask permission to speak. We believed this lessened our errors and enabled us to overcome our lethargy and make the initial effort required to work when suffering from even minor degrees of mountain sickness. It was apparent that the three of us who had been before were this year less seriously affected by altitude than the newcomers. It is difficult to understand why. The facility for more rapid acclimatization in those of experience is well known, though the mechanism is not understood. It was of particular interest to notice it in the three of us who had been within a few hundred feet of sea level for the whole of the three years since our previous visit in 1954. It was not only that we seemed to fare better than the others, we felt that we were better than we had been the first time. There is little chance that our physiological studies will in any way tell us why.

The Mountains

The main purpose of the expedition on both occasions was to explore the peaks and, more particularly the second time, to survey peaks on two unexplored eastern ranges. In 1954 Cunningham made the first solo climb of

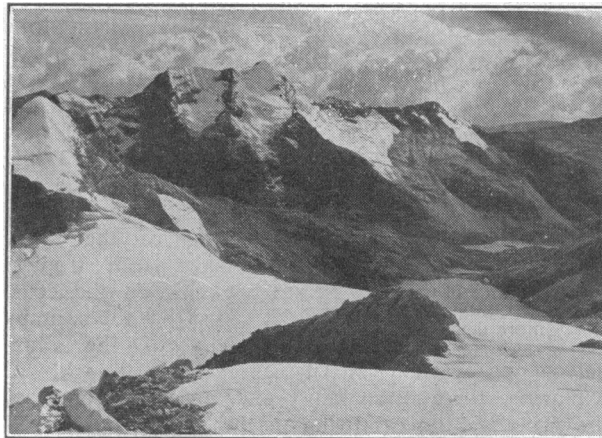


FIG. 2.—On the glacier approaching the summit of Ojeda. The distant peak is El Guardián. The base-camp was to the left of the furthestmost of the three lakes in the foreground.



FIG. 3.—Panorama of the range explored in 1957 (4-5 on Map 2). Los Hermanos is the peak second from the left. On the right is La Reina—18,160 ft. (5,535 m.)

El Guardián (Fig. 2) of 17,175 ft. (5,235 m.). This year he and his brother, Mr. Frank Cunningham, scaled for the first time a peak of similar height to the east of the main group and which they have called Los Hermanos (Fig. 3). From the summit the north face drops over a thousand feet nearly sheer into an unexplored valley the far side of which rises to another unknown range. Beyond that this mountainous wall faces the Caribbean, which can be seen through the haze across lesser rock peaks and the jungle of the coast. The same impressive range, also with an exceedingly steep north face, is part of the longest mountain barrier of the Sierra Nevada de Santa Marta and rises westwards to three named peaks. These are Ojeda and, the highest pair of the lot, Cristobal Colón and Simon Bolívar, of 18,947 ft. (5,775 m.). The range takes its name from the port of Santa Marta on the Caribbean. It is less often known as the Sierra Nevada de Los Taironas, after the people of that name who were contemporaries of the Inca. The remains of their buildings, causeways, and carved stones, now overgrown by jungle, may be seen on the northern coastal slopes.

There have been fewer than a dozen expeditions to these mountains. In their valleys live tribes of Indians of singular dress and language, their numbers dwindling and upon whom civilization fast encroaches. Lost cities and legendary treasures of the Taironas await discovery. Unclimbed peaks and unmapped territory challenge the mountaineer, the surveyor, and the explorer. Our other colleague, Mr. A. D. Scott, claims the discovery of what may be referred to as "mineral wealth." The speed of access from Jamaica and the ease with which one may return to a fully equipped laboratory in the University there greatly assist the study of the effects of altitude—at any rate, up to 18,000 feet (5,490 m.). The scenery and climate are wonderful. Can it be wondered at that a third expedition is planned by the same company?

Nova et Vetera

ROYAL MYSTERIES

The Princes in the Tower and Other Royal Mysteries.
By Sir Arthur Salusbury MacNalty, K.C.B., M.A., M.D.,
F.R.C.P., F.R.C.S. (Pp. 212. 18s.) London: Christopher
Johnson. 1955.

Sir Arthur MacNalty has long occupied some of his learned leisure in exploring certain byways of history. Many of these can be traced only by those who combine experience in practical medicine and in critical biography. The number of those who have both skills can be counted almost on the fingers of one hand. On several occasions, such works by Sir Arthur have been noticed in these columns. In this work he surveys nine mysteries and on each throws some light. He gives most space to that monster, Philip II of Spain. For over 40 years (1556–98) he misruled his vast empire, which included Spain and its American possessions, Sicily, Naples, and Southern Italy, the Duchy of Milan in northern Italy, the Netherlands, and Franche Comté. He approached his great task with the mind of a petty and spiteful police official, jumped by a turn of the wheel of fortune to direct one of the largest empires in history. Yet he busied himself with the most minute details of office administration, loved writing and reading dispatches, but using murder as a regular instrument of policy. By meticulous religious observance he concealed from his Spanish subjects—and doubtless from himself—his innumerable misdeeds. Among these was his doing to death of his insane son and heir. Sir Arthur devotes considerable attention to this and certain other of Philip's atrocities. They are characterized by an extraordinary indifference to human life, difficult to reconcile with his apparently sincere attachment to his religion.

Despite all this, and although his policy in the end brought his empire to ruin, Philip was the idol of his countrymen.

In many matters he was a parallel to Henry VIII. (Sir Arthur has himself carefully analysed the medical history of Henry.) From Henry's policy England was happily rescued by his great daughter, Elizabeth. Philip had no such heir and the power of Spain suffered a steady decline which has lasted to our time.

Of Sir Arthur's other cases, the most interesting to English readers is perhaps Queen Caroline Matilda of Denmark, youngest sister of George III. She was transported at 15 into an atmosphere of madness, political intrigue, and vice. She imperilled her reputation, became a State prisoner, went into exile, and died at the moment when there were prospects of recall to her throne and children. Surrounding Caroline Matilda were some thoroughly sinister figures, most of them without any redeeming feature. Yet the central villain of the caste had at least a wish for the betterment of the Danish people, though it was just this trait in his character that brought his downfall.

Caroline Matilda was born posthumously in 1751. She was the youngest of a large family. Her eldest brother later ascended the throne of England, Scotland, and Ireland as George III. The little princess was reared strictly and in comparative seclusion by her mother. There was an entire lack of sympathy between mother and daughter, and, in addition, the princess came to lose all respect for her mother. In 1760 George III became King, and, as sister of the reigning monarch, Caroline Matilda became a political pawn in the game of international diplomacy. Five years later a proposal for a marriage between Caroline Matilda and Christian, Crown Prince of Denmark, was put forward. King George at first considered Caroline Matilda too young and suggested her older sister, Louisa Anna, who was about the same age as the prospective bridegroom. The Danish ambassador found that this lady's health was poor, and advised his sovereign to press for Caroline Matilda. George III at last agreed but postponed the marriage by reason of her youth.

At that time most European Courts were modelled on that of Versailles, and Denmark's also was a clumsy imitation. It was idle and dissolute. The King spent large sums on the arts and science, but his administration was corrupt, the peasants were little but serfs, and the monarch often indulged in bouts of drinking and other unseemly behaviour. Yet like some even worse sovereigns, such as Philip and Henry, he remained popular with his oppressed subjects.

In 1766, the young King Christian VII of Denmark, aged 17, at last married Caroline Matilda, aged 15. Christian was a perverted, restless, vicious, and schizophrenic dwarf, and the marriage was most unhappy from the first. There were intrigues at Court, of which the demon of the piece was the King's German medical adviser, Johann Friedrich Struensee. He was an able physician but of a character born for plot and counterplot. He ultimately obtained political ascendancy in Denmark and personal ascendancy of that country's unfortunate queen. Both relationships ended in tragedy. The one bright spot in the melancholy drama is the gallant good sense of the British ambassador to Copenhagen, who did all that was possible to avert disaster. The poor young queen was separated from her children and she died in exile and almost in solitude. These and several other historical tragedies are related in Sir Arthur's sombre but most readable collection. They induce the reflection, "Who would be a monarch, and, above all, an absolute monarch?"

CHARLES SINGER.

Dust in Card Rooms, the Third Interim Report of the Joint Advisory Committee of the Cotton Industry, has been issued by the Ministry of Labour and National Service. The report discusses the results of tests made on a device for removing dust from carding engines before that dust is able to enter the atmosphere. The results are analysed statistically, and photographs of the machines under test are included. The report is obtainable from Her Majesty's Stationery Office (price 2s. 6d. net).