MEMOIRS OF

TRAVEL, SPORT, AND NATURAL HISTORY

by the late

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CHAPTER III

TOUR IN INDIA, 1870: MADRAS, DARJEELING AND SIKKIM

On January 16th, 1870, I landed at Madras after a bad passage of twenty-eight days from Marseilles in the P. and O. *Mooltan*. I stayed at the Club, where I was introduced to the late Colonel Michael, one of the founders of the Forest Service in the Presidency, and well known as a great hunter. This Club was then the *ne plus ultra* of Anglo-Indian luxury; and I was much amused to find that a servant with a pellet bow was constantly walking about to scare the crows, which were so bold that they often attempted, sometimes with success, to plunder the dishes as they were carried from the kitchen to the dining-room.

I left Madras by train for Trichinopoly, where I had to wait a day for my luggage, and went on by bullock cart to Madura. In those days trotting bullocks, which were changed about every six miles, were the usual means of locomotion on the plains of Southern India, averaging about five miles an hour when the roads were dry and level. At Madura I was hospitably entertained by Mr. Arbuthnot, the Collector, who showed me the temples, which are very large and curious. I was much interested in the civil court where Arbuthnot heard cases daily; he told me that he had great difficulty in preventing the natives employed about the court, and even his own servants, from taking bribes from the suitors to get influence in their favour.

On January 22nd my brother officers and companions, Captain Barne and the Hon. F. Bridgeman, who had gone out a fortnight earlier, returned from the Sherramalay Hills where they had been hunting for a week and had killed three bison. After spending some days in engaging servants, buying ponies and getting camp outfit, in which we were much helped by Arbuthnot, we started on the evening of the 26th for Tirimungalam, about twelve miles out, in a dog-cart, and there found two bullock carts waiting to take us to the foot of the hills. Owing to the muddy rivers which had to be crossed, and in which the carts often stuck, it was a slow night's journey, without much sleep. In the morning we breakfasted at a large village, and rode thence to the foot of a pass which led into the Wursenaad valley, about seventeen miles, where we found our camp pitched in an open spot on the banks of a river.

The Wursenaad valley at that time was mostly filled with thick jungle, and a very favourite place for elephants; it was more or less preserved by the Collector of Madura for the sport of himself and his friends. Native trackers had already been engaged, and gave excellent reports of the number of elephants in the valley.

In those days, when breech-loaders and express rifles were hardly known, heavy rifles or smooth bores were considered the best for elephant hunting, and I had been lent by Colonel Michael a single 4-bore rifle weighing over twenty pounds, which was loaded with round bullet weighing four to the pound, and an ounce of powder. The kick of this rifle was such

that one did not wish to fire it, except at an elephant, as it left its mark on one's shoulder. We had been carefully drilled by Arbuthnot as to the great importance of getting as close as possible before firing, and of aiming only at those spots on the head where a bullet would penetrate the brain. As none of us had any experience in elephant hunting, except our host, he thought it best that we should hunt in couples, drawing lots for first shot, with the understanding that, if the elephant did not fall to the first shot, the other man should fire at once.

On the 28th the trackers, who had been out since daylight, came in to say that there were elephants feeding within two miles of camp. When we drew near the place, it was discovered that there were two distinct herds, but the jungle was so dense that it was impossible to say whether there were any tuskers with them. Arbuthnot and Bridgeman went after one herd, Barne and I took the other. We followed the tracks for a long time, crossing a beautiful stream with sandy pools overhung by large teak and tamarind trees, and finally got near the herd in a place where the ground was soft and marshy. The jungle was so dense that one could not see twenty yards in any direction, but we followed the fresh tracks very cautiously and finally sighted, about twenty yards off in an opening, two cows, one of which had a calf, and a male with moderate tusks. They did not see us, and I took a steady shot with the big rifle at what I believed to be the correct spot in the bull's forehead; but he did not fall, and went off with the cows. I had hit him a few inches too low. Barne tried to cut him off, but missed him in the thick bush, and when we rejoined each other we decided to follow the track, which was slightly marked with blood. I do not mind confessing that, though when the beasts were in sight I was perfectly cool and free from funk, yet when following up a wounded bull, who might charge at any moment through the thick jungle, I was not so comfortable. Colonel Michael had told me of a case when he was charged by a wounded elephant, who actually tried to drive his tusks through him whilst he lay on the ground; by a miraculous chance one tusk was broken and only pressed on his body without breaking the skin, whilst the sound tusk made a hole in the ground beside him. However we never saw our elephant again, and, as the body was never found, I suppose that he recovered from the wound.

For the next week we continued hunting in this valley without much success, for though Bridgeman killed a small tusker, and Barne wounded another, I never had another chance at an elephant; we did not like to shoot at any other game for fear of disturbing the elephants. On one occasion I was so close to a cow that I could see her trunk breaking off branches within five yards of me; but I never saw her body, and when she got my wind she went off with a rush and very nearly ran over Bridegman, who was behind a tree. The salt licks were probably the great attraction for elephants there; the valley, uninhabited except by a few jungle men, is said to be very unhealthy for most of the year.

Early in February, as Arbuthnot had to return to his work, we broke up our camp and marched to a large village called Bodenaikenoor, near which place bison are found on the hills adjoining the Travancore territory. Here we were to meet Mr. Munro, who was in the service of the Rajah of

Travancore as Collector and Magistrate of the Cardamom Hills, which form the southern part of the range known farther north as the Arnamalai Hills. We started before daylight to ascend the pass, about 4,400 feet high, which leads into the Cardamom Hills. At the top of the pass we came out into an open grass country in which the glens or cholahs are wooded, as in the Nilgiri Hills. After a few miles' riding we came to a magnificent forest, in which some of the trees must have been 200 feet high, without a branch for two-thirds of their length and with wide spreading buttresses at their base. In all this country there are wild elephants, but not so many wild birds as in the lower hills, though most of them are of different species. The ground below is fairly open and more or less cultivated in small patches with the cardamom plant which grows here naturally, and is valued for its seeds, at that time worth six shillings a pound. We found Munro at a place called Colapara, where he lived during the season of the cardamom harvest; he had a number of natives employed in gathering the seeds, which at that time were a Government monopoly.

On February 12th I went out early with Bridgeman, who wounded a big sambur stag in the long grass, but we did not succeed in recovering it. After breakfast we heard of some elephants which had been disturbed by our shots, among which there was a big tusker, so we followed their trail for some way down a narrow valley with rocky hills on either side. The herd were evidently not much alarmed, as they had crossed the stream several times, and soon I came in sight of three cows, two calves and a young bull going slowly along in grass eight feet high, about 100 yards off. Then a big tusker, in company with a cow, appeared behind them, but we could not get nearer than within forty yards of him on account of the stream and high grass. As it was Bridgeman's turn for first shot, I waited till he had fired at the ear, and then, as the bull did not fall, I aimed at the heart with the big rifle. He fell, but got up again, getting two more shots as he rushed away and disappeared in the grass. After reloading we climbed a rock, to get a better view of the ground, and we both fell into a deep hole hidden in the long grass. On getting out we thought we heard a low groan, and, approaching carefully, found the big bull lying dead. As all the shots were on the side on which he had fallen and it was impossible to turn the body over, we agreed to divide the tusks, which weighed about forty-five pounds each and were considered a large pair for that district.

Though it is now fifty-two years ago, I cannot remember that this success caused me as much pleasure as several stalks after stags, elk and chamois have since done, and I do not understand, except for the danger and the value of the ivory, why elephant hunting, in India at least, is ranked among the highest forms of big game hunting. For my part, I would not care to shoot another elephant in India, and I have never had the chance in Africa.

A very curious thing happened to Munro on one of his marches in these hills, which I tell exactly as he told it to me. He was riding along on his pony, with his coolies and servants some way ahead, when he heard a great shouting from the men, who had all climbed into trees. A large rogue elephant was standing in the path, with one foot on the case of

Munro's big rifle, the stock of which was broken, and his trunk over the large medicine chest which Munro was in the habit of carrying in order to doctor his numerous coolies. The elephant appeared stupefied, and remained for some time without moving. When at last the animal went off, Munro found that a bottle of chloroform in the chest was broken, and this had apparently affected the elephant. The same animal the next year attacked Lord Waterpark, who was riding in the district, and pursued his pony, which it caught and killed, after the rider had jumped off. We saw the bones of this rogue lying on the hillside, where he had been killed by a native armed with a matchlock, who had crept up close to him and put an iron bullet into his brain.

I had very bad luck one evening when I had gone out alone with my Henry 500 express to look for sambur. I spied a large tusker standing alone in the long grass, and saw that he had very long and very much curved tusks. As I had only two solid hardened bullets with me, I determined to follow the elephant till I got what seemed a chance for a deadly shot, and, after going round to get the wind right, I followed the tracks through grass about eight feet high. The elephant, however, turned back and returned on the other side of a small nullah, parallel to his former track, so that I only saw him when he was pretty close to me. I remained still until he moved on, and then I took what I thought a sure aim at the temple, and fired. The elephant shook his head but did not fall. I remained motionless, expecting a charge; but he moved on into a dense cholah, where I did not dare to follow him alone, as it was now getting dusk. The only thing I could do was to light fires in the grass to keep him from coming out; this I did and returned to camp. Next day we found him gone. Munro sent out trackers who followed his tracks a long way into the low country, where he joined a herd; they either lost the tracks or were afraid to go further. Some time after, Munro heard that an elephant with very long and curly tusks, which was almost certainly my beast, had been found dead with a bullet in his head, and the tusks had been cut out and carried to the Rajah of Travancore. I asked Munro to try and purchase them for me and offered 600 rupees, which was a high price at that date. But they were so much admired for their length and shape that he could not get them, and thus I lost the finest trophy that I ever killed.

We visited several coffee planters who had recently settled in the neighbourhood of Peermaad at about 3,500 feet elevation in the Travancore Hills. Coffee planting was then a very profitable business in this district, as land and labour were cheap, and the crops good, something like ten pounds per acre profit being often realised. Cinchona had just begun to be grown, but tea planting was not started for years afterwards, though I believe that a large part of the forests over which I hunted are now cleared and covered with thriving and profitable tea gardens.

The best book written by a planter that I have ever read is *Experience of a Planter in Mysore*, by R. H. Elliot, now of Clifton Park near Kelso, where he has been as successful in agriculture as he was in planting.

During our stay in this beautiful country I ascended one of the highest mountains in Southern India, which I do not think had then been measured,

but which I made by aneroid 8,200 feet. In March it was quite cold up there, and the cholahs were filled with beautiful rhododendrons in flower (*R. arboreum*), some of which attained thirty or forty feet in height. Another beautiful plant which grew there is *Lilium neilgherrense*, which, through the help of Mr. Morgan of the Forest Department, I afterwards introduced into cultivation, and figured for the first time in my work on "Lilies," but like many other species of lilies it has not proved as easy to keep as it was to introduce. Of birds I made a nice little collection in the Travancore Hills, but I found that collecting and sport do not well combine, as one cannot shoot birds without the risk of disturbing game, to which my companions naturally objected. But though there are a certain number of species peculiar to these mountains, they are nothing like as numerous, as varied or as interesting as the birds of the Himalayas.

After spending six weeks very pleasantly in camp, Bridgeman and I left Peermaad and rode twenty-two miles to the ghaut or pass which goes down to the plains. Sending our ponies back we went on for ten miles to Cumbum in a bullock bandy. From there we went on for thirty-five miles to Periacolum, near the foot of the Palni Hills, where Arbuthnot had a bungalow. We walked up a well-graded path through a beautiful forest to about 5,000 feet, and found a pleasant party of engineer officers in the bungalow. The general features of this group of mountains are very similar to those of the Nilgiri Hills, consisting of grassy downs interspersed with wooded dingles or cholahs. At 7,000 feet Lord Napier had a pretty little bungalow, which commanded a lovely view of the plains, and another man had a garden where some English fruits and vegetables throve very well. Potatoes were as good as in England, and many Australian trees had been planted and grew very fast and well. But at that time there were hardly any residents in these hills, and both sambur, ibex and elephants were fairly numerous. I collected some birds which are peculiar to this range, including a blackbird.

We left Madras by sea and reached Calcutta on March 30th. On landing we were met by a brother officer who was aide-de-camp to Lord Mayo, then Governor-General, and who brought us an invitation to stay at Government House. We remained there a few days and took part in a day's hog hunting with the Calcutta Tent Club. At the Calcutta Museum I found Dr. Anderson, the then Superintendent, who had lately returned from an expedition to Upper Burmah and the frontiers of Yunnan. I consulted him as to the possibility of exploring the Mishmi Hills on the extreme north-east frontier of Assam, where many rare birds and animals were known to exist, and which I had intended to visit if possible. But, owing to the recent murder of two missionaries, Messrs. Krick and Bowie, in those hills, it was considered too dangerous, and Lord Mayo told me plainly that it would not be allowed by the Government, as they had already had a great deal of trouble in punishing the murderers, and had given orders that no one was to be allowed to go beyond the frontier of Assam.

He gave us an introduction to Colonel Haughton, who was then Commissioner of Cooch Behar, and it was arranged that we should accompany a hunting party, which was being arranged by Dr. Brougham in the Terai

near Jelpigori, where the Government elephants were placed at our service. I engaged a native bird-skinner on Dr. Anderson's advice, as I found that in the great heat it was necessary to skin birds the same day they were shot. Though one can rarely trust the determination of the sex to a native, and I always wrote my labels before the skins were made up, it saved an immense deal of time, trouble and dirty work, which I had already found very irksome in Southern India. We left Calcutta with the Viceregal party, who were leaving for Simla on the 8th of April, and got to Sahibgunge at daylight. In those days one had a ferry of thirty miles in a steam tug to Caragola, and from there went in palkis to Purneah, as no carriage could be had. The next night we drove about 100 miles to the foot of the hills at Siligori, where there was a very fair dak bungalow on the banks of the Mahanuddi. This was then the end of the carriage road to Darjeeling.

As we heard from Colonel Haughton that the hunting party would not start for a week, we rode up to Darjeeling, staying for one night at Kursiong, a lovely place at about 4,500 feet on the top of the first steep ascent from the plains. In those days the forest came close up to the little hotel at Kursiong, where I passed some pleasant days in collecting birds, which were very numerous and all quite different from those of the plains. The forest at that elevation was splendid, the trees being covered with ferns, climbing aroids, creeping plants, orchids and mosses. I have never, except in Mexico, been able to collect so great a variety of birds in one place as I did here between 4,500 and 6,000 feet. A short visit to Darjeeling gave me such a good impression of the country that I determined to spend some months there. We were glad to meet Major Barnard, the officer in command of the depot, and Lieutenant Grenfell, of the 60th Rifles, afterwards Field-Marshal Lord Grenfell, who were to be the other members of the tiger-hunting party in the Terai.

I shall say nothing about the beautiful scenery and surroundings of Darjeeling, which has to me always been the most delightful place in India. Though several books have been written about Sikkim, Hooker's *Himalayan Journals* stands out far above all others. In the twenty-two years which had elapsed since Hooker was there, a good deal of clearing had been done for tea-planting, but there were few changes compared to those which have come since the railway was made.

On April 15th we rode down again to Siligori, where we found tents from Jelpigori and the elephants assembled, all ready for work. But as Dr. Brougham had not arrived, it was decided to make a short hunt up to a place called Sivoke, where the Tista river emerges from the hills, and where, in those days, rhinoceros and tigers were abundant. This place is notoriously unhealthy, as is the whole of the Terai at this season, and I believe it was here that many of our men were infected by the malaria which broke up our party later. At that time it was not known that mosquitoes were the cause of our infection. It was supposed that the malaria was produced by the action of the sun on the wet or marshy ground, and that it was to be avoided best by sleeping in a house built on piles some feet above the ground, which was the custom of the Mechis, a tribe who were at one time the only permanent residents in the Terai.

It was also thought that by sleeping in mosquito curtains, and not exposing oneself to the air before dawn or after sunset, it was possible to remain more or less immune. But I have no doubt that, though the constitutions of certain individuals, usually men of dark complexion and spare habit, are much less subject to fever than others, and though the continued use of small doses of quinine tends to weaken if not to keep off attacks of fever, yet no amount of precaution against mosquito bites will ever make it possible for Europeans or natives to live in the Terai during the rainy season without suffering from fever. The amount of illness and mortality which prevailed in all the districts at the foot of the hills, known as the Dooars, when they were first opened up by tea planters, was very serious, both among Europeans and among the coolies, who were mostly immigrants from Bengal.

Our first beat for rhinoceros took place on the other side of the Tista river, which was about a hundred yards wide and at that season was just fordable for elephants. It was very interesting to see how the smaller elephants took advantage of the breakwater formed by the larger ones and packed themselves together just below them in order to avoid the force of the rapid current. The water was almost over the backs of the smaller animals, which would have been washed off their feet if alone, but, feeling every step of the way carefully, all crossed safely.

We then formed a line of elephants at intervals of fifteen to twenty yards in the long grass and reeds which covered the country, and beat it with the flanking elephants rather in advance. There were a good many swamp-deer, but we found it very difficult to hit them, when shooting for the first time from the howdah of a moving elephant, and we only got one.

Later we beat a dry watercourse, 400 yards wide, which was full of dense reeds, so tall that even when standing up in the howdah one could hardly see the next elephant. In these reeds the rhinoceros lay and slept during the day, having regular runs along which they passed without being seen from above. Once or twice there was a rush, and if the elephant was quick enough to follow it up, and the reeds were not too dense, one got a snap shot, but I cannot say that the sport was very successful, or that it is, under such conditions, a sport that attracts me. Once a rhinoceros charged and struck one of the elephants with his horn, causing a regular stampede, and it was very difficult to get them into line again. We also found that a much better knowledge of the ground than any of our party possessed was necessary to beat it successfully for tigers, and the jemadar of the mahouts, on whom we had to depend a good deal, was not very keen about the job in the absence of his own chief, who was unable to join the party as we expected.

The chief interest of this kind of shooting, to me, consists in watching the behaviour and character of the different elephants. It was very curious to watch the way in which the elephants, at the word of command, bend and break down the branches and smaller trees which overhang their path, so as to let the howdah pass under them. They do not, however, seem to be able to break anything really large, and are particularly careful not to disturb any trees on which bees' nests are fixed.

After another day's hunting of the same character, in which a deer and

two wild boars were bagged, and a large bear got away wounded, we returned to Siligori, shooting wild peacocks and jungle fowl on the way. Dr. Brougham had not arrived, so it was decided to form another camp farther from the foot of the hills, where the jungle was not so dense, and tigers were reported to be. On the way we halted at Titalya, where we found Mr. Davis, the police superintendent of the district, who had probably shot more rhinoceros in the Dooars than any man in India. The sepoys of a Gurkha regiment, which had been quartered at Jelpigori after the Bhutan war, were very keen and successful rhinoceros hunters, going out on foot in small parties and creeping along the paths formed by them in the dense reed beds. They had killed no less than seventy in the course of a year or so, and as the horns are highly valued in native medicine, they had made quite a lot of money by their hunting.

On the 23rd of April we got news of two tigers not far off, but the jungle was so much intersected with deep nullahs, full of dense thorns, through which the elephants could not pass, that we did not succeed in surrounding them, and the wild bees were so aggressive that the elephants were fairly driven out of the thicket at the critical point. Grenfell and Barnard both got badly stung, and the mahouts declared that it was impossible to get their elephants back again, as they fear the bees' stings even more than their riders do.

On April 24th we moved camp again to a place which a man-eating tiger was reported to frequent, but, after beating down the Tulma river for three or four hours without finding him, we returned to camp. Barnard and Bridgeman were bathing in a pool close to the tents late in the afternoon, and the elephants were all unsaddled, when a man came rushing up with shouts of " Bagh," and our companions told us that the tiger actually looked out of the thicket close to where they were in the water. We got the elephants ready as quickly as possible, and I was posted down the river some way forward, while Barnard and Bridgeman beat it down from the place where they had seen the tiger. My elephant, a fine large tusker, stood very quietly whilst I listened, and I very soon heard a shot. In two minutes a tiger appeared coming along the other bank of the stream, which was here nearly dried up. A thunderstorm had been brewing and it was getting so dark that I could hardly see my sights when I got my shot. The first barrel turned the tiger from me, up the almost perpendicular bank of the stream. The second seemed to break his back and he fell into the stream, which was there hardly a foot deep, with his four legs kicking in the air. But the storm burst with such extraordinary suddenness and violence that before I could get my elephant to the place where he lay, it was as dark as night, and the water was rushing over the spot where the tiger fell. I had some difficulty in finding my way back to camp, where the tents were flooded, the fires out, and the dinner spoilt.

Next morning I went out early to look for the tiger, but, after a long search, I could not find him. The body was found not far off two days later, when the skin was completely spoilt. It was very annoying to lose my first tiger in this way, especially as I never had a chance of another all to myself.

We found tracks of another that day, and I shot a wild pig through the head, as it rushed past. The elephant nearly ran away, having, like many elephants, a horror of wild pigs, though he was perfectly staunch with tigers and had not moved an inch when I had my shot the day before.

After this we rode into Jelpigori, where we found Colonel Haughton, the Commissioner, a fine old soldier who had been through the Afghan, Bhutan and Khasia campaigns, and had served in Burmah and as Governor of the Andaman Islands. He was living in a large house built entirely of timber and bamboo, and we passed a very pleasant evening with him.

The next day, Bridgeman, Grenfell and I went to a place called Domohni, and camped in a grove of mangoes and areca palms. I added a few birds to my collection every day, though it was fearfully hot, and we began to feel the effects of the climate. Next morning Barnard, having got an extension of leave, arrived, and we went on to Ramshaihat, which was said to be a very good place for rhinoceros; it was a nasty malarious-looking spot, and a large herd of semi-wild buffaloes made it both noisy and odoriferous.

Next day the others went out two hours before daylight, hoping to catch the rhinoceros feeding in the open, but I did not feel fit, and Bridgeman came in very seedy with fever before noon.

Barnard wounded a rhinoceros in the hind leg, and followed it for a long way on his elephant, firing away all his cartridges without bagging the beast.

It was now over 100° in the tent, and as Bridgeman was rather bad, I sent to Jelpigori for a palki to carry him in to the doctor as soon as possible, leaving Grenfell and Barnard in camp, where they shot several rhinoceros in the next few days.

As soon as Bridgeman was well enough to move we returned to Kursiong in the hills, and stayed there and at Darjeeling until the end of May, when he was sufficiently recovered to leave for England. Grenfell also had an attack of fever, no doubt caught in the Terai, but I escaped with a comparatively mild one.

The rainy season now set in for good. For the next two months Darjeeling was almost constantly in a cloud, and the air so damp that I had the greatest difficulty in keeping the collection of bird skins, which I was rapidly accumulating, in fair condition. My bird-stuffer became ill and went back to Calcutta, but I found a Lepcha, a native of Sikkim, who was quite a good collector, and whom I taught to make up bird skins very fairly well. As a rule the morning was clear for about an hour after daylight, when a drizzle set in which gradually turned to rain, continuing all day and night and becoming sometimes very heavy. For seven weeks there was not a single day without rain, and I did not once get a real view of Kanchenjunga, the highest mountain in the world except Mt. Everest, which, like Everest, is visible from near Darjeeling when the weather is clear.

I began to make a collection of butterflies and moths, which are there in greater abundance and variety than perhaps in any other place in the world. Most of them are caught by Lepchas who reside in the warmer valleys beyond Darjeeling, and who have acquired an ability in collecting

which surpasses that of any other uncivilised people with whom I have ever come in contact. The Lepcha language is perhaps richer than any other in names for plants, birds, animals and insects, as the people seem to have a special talent for collecting plants and natural history specimens generally, which has been developed by long practice.

Colonel Mainwaring, a retired officer of the Bengal Army, who had lived at Darjeeling for many years, had studied their language, and had compiled a dictionary, very carefully and neatly written out in manuscript. He told me that there were approximately as many words in it as in Liddell and Scott's Greek Lexicon, and that there were few birds, beasts or insects too minute to be without a name in the Lepcha language. These primitive people have been gradually displaced from their homes by the great number of Nepalese, who have been attracted by the employment on tea plantations and public works, and who have settled in great numbers on the rich land in British Sikkim and Bhutan. These people, being much bolder, more energetic and industrious than the Lepchas, seem likely to overrun the lower hills of the Eastern Himalayas, where they are constantly extending eastward, even as far as Assam.

As I found the climate of Darjeeling too damp and foggy at this season to be suitable for my work, I accepted an invitation to stay at a tea plantation called Ging, 2,000 feet lower down on the road to the Rangit, which was managed by Mr. A. Macdonald for an English company. Finding this much pleasanter, I arranged to live with him until the weather made my expedition into the interior possible. At this plantation we lived in a good bungalow with plenty of room, and I had the advantage of being able to dry all my bird skins, insects and plants in the tea factory, where charcoal fires are constantly kept up to dry the tea. This tea industry, which had been started a few years previously, had then begun to recover from the very severe depression which was due to the extravagant and ill-managed operations of the companies who commenced it. Some of the gardens opened up at first were at too high an elevation, or on land so steep that the terraces were continually washed down by the rains. Many of them had been planted originally with China tea, which, though more delicate in flavour, could not compete in yield or in price with the stronger and more astringent tea made in Assam from the indigenous plant, which was now replacing the China variety everywhere in the district. But though a great deal of money had been lost from mismanagement at a time when almost any European was thought capable of looking after a tea plantation, yet wherever the land and situation were good, the management efficient, and the capital adequate, tea was paying very well indeed, and I have never made a better investment than in a plantation which, at Macdonald's suggestion, we took up a year later.

The planters and civilians were all very hospitable, and though some of the civilians hardly seemed to recognise that the whole wealth of the Darjeeling district was due to the capital and enterprise of the planters, I made several friends among both sets, all of whom, I fear, have passed away. I also visited and spent a few days at the Government cinchona plantation at Mongpo, which was then under the temporary superintendence of Mr. C. B. Clarke, one of the most remarkable men in his way

that I have ever met, with whom in later years I formed an intimate friendship in the Khasia hills.

Thc cinchona gardens were then being rapidly planted with the red barked species, *Cinchona succirubra*, which was found to succeed better at suitable elevations, 2,000 to 4,000 feet, than any other variety that had been tried. Though few of the trees were old enough to produce bark in quantities sufficient for any but experimental purposes, the gardens developed later into one of the most successful and profitable investments that has been made by the Indian Government.

I also made excursions to the valley of the Rangit river, and crossed the Tista by a wonderful suspension bridge nearly 100 yards long and made entirely from rattan canes and bamboo. The Tista valley was then roadless, and the district of British Bhutan on the other side, which had been recently occupied, after the Bhutan war, was nearly all forest, with a few scattered clearings. I went along the ridge as far as Dumsong, a frontier post now abandoned, but the weather at this season was too continuously wet to make collecting profitable. Except for a few barking deer, which frequented only the steepest and most rocky places, there were no terrestrial mammalia or large game in the lower and middle regions of the hills, owing perhaps to the innumerable leeches which abounded during the rainy season.

In July I heard that Mr. William T. Blanford, of the Geological Survey, was desirous of making an expedition into the interior, and as he had the same objects and taste for natural history as myself, and was an experienced traveller in India, I arranged to join forces with him and travel together. I had plenty of time to make the necessary preparations for a journey which had not been attempted since Dr. Hooker's great expedition of twenty-two years before. Though the difficulties of supply and transport were known to be considerable, I had the support and good will of Major Morton, the Deputy Commissioner of Darjeeling, and had acquired sufficient knowledge of the dialect used in the district, a mixture of Hindustani, Nepalese and Bengali. I engaged a Sirdar or headman, a Bhutia named Guruk, a capable and trustworthy man who lived at Darjeeling and knew Tibetan more or less. He had charge of a selected gang of twenty-two coolies, all Bhutias, and I had a Lepcha servant, and two collectors to assist in shooting and skinning and in drying plants. Blanford had his own Hindu chuprassi, and in addition I sent on a party of ten Nepalese, from the higher regions of Nepal, who were to make a depot of rice in the interior; and who, I hoped, would be willing to accompany us in case the Bhutias were afraid to cross the Tibetan frontier.

Each of these coolies was paid at the rate of eight annas a day, and was to provide his own food whenever it was procurable. The loads of rice and other necessaries for ourselves, which we made as few as possible, were all carefully weighed as a maund (eighty pounds) each, and packed in the long bamboo baskets which all these hillmen use, and on the top of which they put their own pots, a blanket to sleep in, and any spare clothing they may have, the whole being topped by a more or less waterproof mat of bamboo, which covers the man's load as well as his head and

shoulders when on the march. Such loads, averaging nearly 100 pounds each, seem heavy for marching over such bad and steep and often slippery paths as we had before us, but the Bhutias and Nepalese often carry much more on their own business; and though they go slowly, and stop to rest often, they will do as long a march as we cared to do ourselves in such a hot and trying climate.

Blanford arrived from Calcutta early in August, and on the 10th I started all the coolies to await us at Dumsong on the other side of the Tista, and on the 12th started on my pony for the cane bridge, over which it was impossible to ride. It was a pouring wet morning, and as I found a bridge broken in the Rangit valley, I had to walk a good deal further than I liked. The eight miles up a steep ascent of 4,000 feet from the Tista bridge was one of the hardest grinds I ever had in a broiling sun, with the thermometer in the valley over 90°. I got in at dark, however, and found the servants waiting and the coolies gone on.

As Blanford had been a little out of sorts and had stayed a day longer at Ging, I managed next morning to borrow a mule from a policeman, which I sent down to meet him at the bridge. I myself followed our coolies, who had gone on about twenty miles along the ridge to a place in the forest where there were a few Bhutia houses, called Pedong, or Phyndong. Here I had my first night in the small tent we had between us, which was much better adapted for cold than for such a warm climate as this, for during the rainy season it is never cold or even chilly in the forest below 10,000 feet. Blanford joined me the next day, and we soon settled down to routine, which we found best suited to our work on the march. Unless the morning was exceptionally wet, or there was reason for delay, we breakfasted at daylight on tea and chupatties fried in ghee, and started the coolies as soon as the tents and baggage could be packed, but they would never start until they had cooked and eaten their first meal, which took at least an hour and often more. I generally got ahead on the path with one of my shikaris, as I found that in the early morning, before anyone had disturbed the path, I was most likely to find birds feeding on or near it. If I saw anything specially good, I would leave my shikari to get specimens and follow on, and after three to five hours on the road I always tried to halt by a river, or in some agreeable place, for breakfast. We selected one of our best coolies to carry a light load and keep up with one of us, so that no time might be lost in waiting for cooking pots and food. We generally had curry of tomatoes and chicken with our rice, and when there were neither pineapples or bananas, we had some jam and biscuits. At the higher elevations we were sometimes able to get mutton or goat, but found that meat was by no means so necessary for hard work as many people suppose.

Mr. Elwes did not leave any account of this interesting and adventurous expedition into what was then a little-known country. But a detailed description of the journey with notes on the fauna was contributed by his companion, Mr. Blanford, to the Journal of the Asiatic Society of Bengal.* Sikkim is bounded on the north, towards Tibet, by the main chain of the Himalayas. It was the object of the travellers to study the fauna of these lofty snow ranges, which no

* Vol. xl., part 2, pp. 367 *seq.*, and vol. xli., part 2, pp. 30 *seq.*