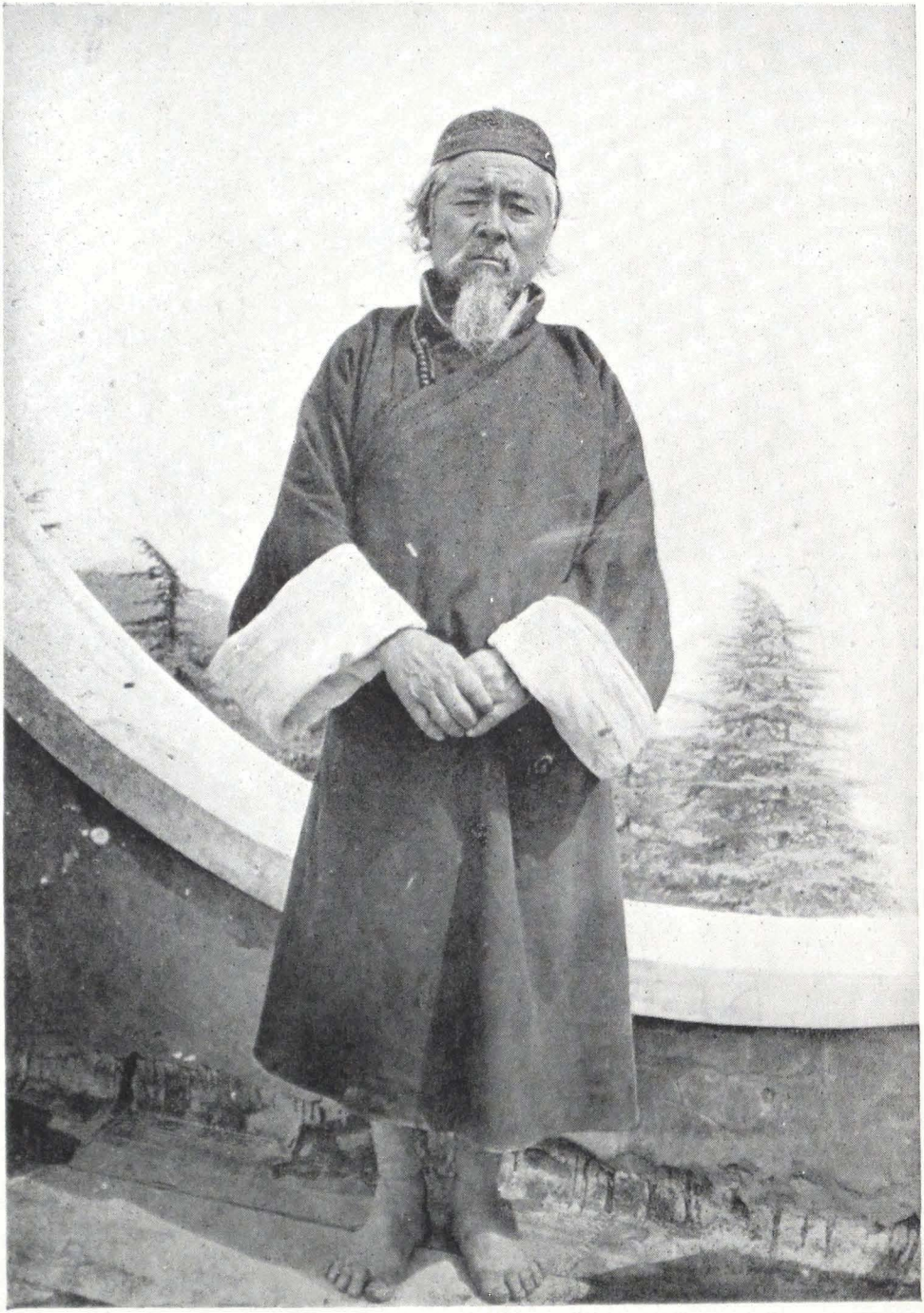


KINTUP

Photo by Sir Gerald Burran

China–Tibet–Assam

A Journey, 1911

by

Lt.-Col. F. M. Bailey, C.I.E.

Gold Medallist of the Royal Geographical Society
Livingston Gold Medallist of the Royal Scottish Geographical Society

Jonathan Cape
Thirty Bedford Square
London

FIRST PUBLISHED 1945

JONATHAN CAPE LTD. 30 BEDFORD SQUARE, LONDON
AND 91 WELLINGTON STREET WEST, TORONTO

THIS BOOK IS PRODUCED IN COMPLETE CONFORMITY WITH THE AUTHORIZED ECONOMY STANDARDS

PRINTED IN GREAT BRITAIN IN THE CITY OF OXFORD
AT THE ALDEN PRESS
BOUND BY A. W. BAIN & CO. LTD., LONDON

CONTENTS

ILLUSTRATIONS

CHAPTER I

THE PROBLEM OF THE TSANGPO

A GLANCE at the map of the country north of Burma, about the 28th parallel, will disclose a peculiar physical formation. Flowing from north to south, in close proximity to each other, are three enormous rivers. These are the Yangtse, Mekong and Salween. Further west we find debouching into the plains of Assam from the north, three more rivers of considerable size, the Lohit, Dibong and Dihang. If we now look at Tibet we shall see a large river, the Tsangpo, flowing due east through the southern and most populous part of the country. For many years the early geographers were puzzled to know where the waters of the Tsangpo eventually flowed. They might have gone to swell the waters of any of these rivers or of the Irrawaddy. A solution of this question had been sought for many years. Sir Joseph Hooker, writing in *Himalayan Journals* published in 1854, mentions that Mr. Hodgson and Major Jenkins, Commissioner of Assam, sent up a travelling mendicant, but the poor fellow was speared on the frontier by savages. Speculation was finally put to rest in the following manner: Between the 'sixties and 'eighties of last century the Survey of India organized the collection of information regarding the countries lying to the north of the Himalayas, and trained agents, mostly from the Tibetan-speaking peoples, who inhabit the Indian side of the Tibetan frontier. The exception was S.C.D. (Sarat Chandra Das), C.I.E., an educated Bengali whom Kipling brought into *Kim* as Hari Chunder Mukerjee. He, together with another famous secret explorer, U.G. (Lama Ugyen Gyatso) formed the board which passed me in my Tibetan examination many years ago. These wonderful explorers, sent to map and report on these regions, travelled for years on end, counting their paces, and brought back most useful reports at the risk of their lives. While admiring their courage and perseverance we must

not forget to give credit to the officers of the Survey of India who so successfully initiated and organized these reconnaissances, selected and trained the men, and finally gave their information to the world.

One of the best known of these explorers was Krishna, better known as A.K., the secret sign under which he worked. In 1879 A.K. travelled through Nepal to Lhasa, thence north to Mongolia, thence south-east to the borders of China, whence he turned south-west to Rima, intending to reach India down the valley of the Lohit. During this part of his journey, he crossed from the left to the right bank of the Yangtse, Mekong and Salween. He found the road to India closed to him owing to the unfriendliness of the Mishmis, a savage tribe who inhabit the hills south of Rima, and who some years previously had killed two French priests, Fathers Krick and Bourry. They are probably the people who speared Hodgson's and Jenkins' travelling mendicant. A.K. was consequently obliged to make a large circuit north and west until, passing Lhasa, he reached the left bank of the Tsangpo, crossed it and finally reached Darjeeling.

It is obvious that this journey definitely proved that only the Dibong or Dihang could possibly be the lower reaches of the Tsangpo. After placing himself on the *right* bank of the Yangtse, Mekong and Salween rivers, he found himself on the *left* bank of the Tsangpo, south of Lhasa, and he had not recrossed any of these rivers to the left bank on the way. There still appears to have been some doubt as to the identity of these rivers, and in November 1885 Rinzing Namgyal (whose secret sign was R.N.), one of the landlords of Sikkim and a close friend of mine to the day of his death, left on a journey with orders to determine whether the Tsangpo formed the headwaters of the Brahmaputra or of the Irrawaddy. Owing to tribal and political complications he failed in this, but brought back useful topographical information about Bhutan.

Doubt as to the identity of these rivers persisted for many years, and even as late as 1911 the instructions to General Bower when in command of the Abor Expedition directed him to settle

'the question of the identity of the Tsangpo and Brahmaputra rivers'.

Later, in reviewing the results of the expedition after its return, the report of the Government said: 'The identity of the Dihang with the Tsangpo, though not absolutely proved, was at any rate practically established.'

Again, at the meeting of the Royal Geographical Society at which Mr. Bentinck gave an account of the geographical results of the Abor Expedition, the question was again raised. A careful study of the report of A.K. should, however, have set all doubts at rest.

A.K.'s (Krishna) travels had decided that the Lohit could not be the Tsangpo, but there were two large rivers, the Dibong and Dihang, debouching on to the plains of Assam which were rivals for this honour.

The Tsangpo, which collects throughout its great length in Tibet the melting snows of the northern slopes of the Himalayas, was bound to have the larger quantity of water. Captain Harman, of the Survey of India, carefully measured these rivers where they left the hills and entered the plains. He found that the Dihang discharged 56,500 cubic feet per second against only 27,200 for the Dibong. Thus it was known with certainty that the Tsangpo of Tibet and the Dibong of Assam were one and the same river.

Although no one knew where the source of the Dibong was and whether it also came from Tibet, it could not be so long as the Tsangpo; and it was eventually found that the Dibong was only a local river rising in the Mishmi hills. The heavy rainfall gave it an appearance comparable with the much larger Dihang. It was only by actual sounding and measurement that the Dihang was proved to be twice the size.

Having decided this question another problem remained. The river where it lost itself in the impenetrable tangle of mountains in south-east Tibet was known to be between nine and ten thousand feet above sea level, while it flowed out into the Assam plains at a height of about 500 feet. The distance in a straight

line between the two known points was some 120 miles, and the fall in the river 9000 feet. How did a river of this size accomplish this descent? Were there great falls or a series of rapids? Was Niagara going to take a back seat? Did the river wind in a much more lengthy course than was supposed? What course did the river follow through this unknown tract? The valley of the Dihang is inhabited by Abors, a savage tribe akin to the Mishmis who had killed the two French missionaries, and it was impossible to send men up from India into these countries, so the only alternative was to follow the river down from Tibet as far as possible. For this purpose the Survey officers dispatched one G.M.N., 'Namsring' of the Survey reports (but in reality Nyima Tsering, an ordinary Tibetan name which means 'Sunday Long Life'). He was a native of Sikkim and took with him as his servant Kintup (K.P.). This journey, undertaken in 1878, had disappointing results, and the travellers returned having only traced the river as far as Gyala.

Not discouraged, the Survey officers determined on another attempt, and for this purpose sent a Mongolian lama, with Kintup as his servant. Every Tibetan pilgrim, and many other people in Tibet carry a small cylinder with a weight attached on a short chain. This contains the sacred formula 'Om Mani Padme Hum' printed thousands of times on thin tightly rolled paper. The words mean 'Hail to the Jewel in the Lotus' and refers to Buddha who is usually portrayed seated in a Lotus flower. A turn of the wheel is equivalent to repeating the prayer the number of times it is printed in the prayer wheel. Larger wheels are fixed to walls to be turned by passing travellers and pilgrims, while still larger ones several feet high are found in many monasteries. Prayer wheels are turned by wind or water and I suppose it is only a question of time before electric and other modern machinery is called in the good work. The usual equipment of the secret service explorer in Tibet included a dummy prayer-wheel which contained a prismatic compass and a roll of paper for making notes; they also carried a rosary of a hundred beads with which the explorer could count his paces. The real Tibetan rosary had

108 beads. These simple articles which are carried by most pilgrims would excite no suspicion. In addition to these instruments the lama and Kintup were also provided with a drill and with small metal tubes containing written papers. They were to fix these metal tubes into logs of wood and send the logs thus marked floating down the river while the Survey of India were to have men looking out for the logs in Assam. This journey proved to be one of the most interesting and exciting of all, and Kintup, uneducated though he was, proved to be one of the staunchest of the gallant men sent out on these hazardous enterprises.

The travellers reached Gyala, opposite to which a small tributary joining the left bank of the Tsangpo falls down in a series of cascades among dark caves and overhanging rocks. In one of these falls a benevolent demon named Shingje Chögye was supposed to be chained. I once visited this place. A figure of the demon is carved or painted on the rock behind the waterfall and can be seen when the water is low in winter. I was there in the summer when melting sow had increased the fall and I was not able to see anything of the figure.

The travellers followed the river a short distance further until they reached the small lamasery of Pemaköchung, beyond which they were unable to penetrate. Near here the Tsangpo falls in a steep rapid for some fifty yards and the following description of this fall appears in the official account of Kintup's journey:

> The Tsangpo is two chains distant from the monastery and about two miles off it falls over a cliff called Sinji-Chogyal from a height of about 150 feet. There is a big lake at the foot of the falls where rainbows are always observable.

It will be seen that this rapid on the main river has got mixed up with the demon fall on the small tributary stream. Whether this mistake was made by Kintup or by the translator it is now not possible to say. I had an opportunity of questioning Kintup about this, and he certainly made no suggestion that it was other than on the tributary. The travellers then retraced their steps

with the intention of making a circuit north of the river and striking it further down. To do this they were obliged to enter an unknown and semi-independent tract of country called Po Me.

Here the Mongolian lama decided that he had had enough of it and determined to return to his home. When he reached Tongkyuk Dzong on the confines of Po Me, he made friends with the local officer. One day he told Kintup that he was going away and would be back in two or three days, and instructed him to await his return at the officer's quarters. Kintup waited more than two months and then began to suspect that the lama was never coming back at all. During this time he worked as a tailor. As pilgrims they could not have much money, and in any case robbery was a frequent danger, so that the two men had at times to work to earn enough to carry on their task.

Then one day a man told Kintup that the lama had sold him to the officer as a slave and gone back to his own country. He was now ordered to work in the Dzongpen's house as his slave. He worked thus for seven months before he found an opportunity to escape, and then, instead of making the best of his way home as many would have done in like circumstances, he determined to continue his quest and succeeded in rejoining the Tsangpo, at a place which he calls Dorjiyu Dzong. He followed it down until he was overtaken at Marpung by men sent by his master to recapture him. He then went to the head lama of the Marpung monastery, fell at his feet, and explained that he was a poor pilgrim who had been treacherously sold by his companion, and begged for help. The lama took pity on him and bought him for fifty rupees and kept him as his slave for four and a half months. Kintup all through his slavery had managed to save some of the metal tubes, though he had lost the drill. He now determined to make an attempt to accomplish the task which he and his treacherous companion had been sent out to perform. He accordingly asked his master the lama for permission to travel down the river to a holy mountain called Kondü Potrang, for which permission was readily granted. He was unable to fix the

tubes into the logs owing to the loss of the drill, but he opened the tubes and tied the metal on to the outside of the logs with strips of bamboo, hid the logs in a cave and returned to his master. It would have been useless to throw the logs into the river without warning the Survey officers to be on the look-out, and so, after serving two months more he asked for permission to go on a pilgrimage to Lhasa. His master, who seems to have been of an easy-going temperament, again acquiesced, and off Kintup started on his three months' journey to Lhasa. Being a devout man, he took the opportunity to perform the meritorious pilgrimage to Tsari on the way and brought back much useful information of the country traversed.

At Lhasa he dispatched a letter to Namsring, the companion of his first journey, asking him to inform the 'Head of the Survey of India' that fifty marked logs would be thrown into the river daily from a certain date.

Now being free and comparatively near his own country of Sikkim, he must have been sorely tempted to return to the home which he had not seen for two and a half years rather than to return to certain slavery and run the risks he was bound to incur if permitted again to pursue his task. But he was made of stout stuff, and having despatched his letter he returned to his master and served him nine months more, when the date approached on which he was to throw the marked logs into the river, and he again asked for leave to go on a pilgrimage. His master then, in the words of the official report, addressed him thus: 'I am glad to see you visiting the sacred places, so from to-day I have given you leave to go anywhere you like.' Kintup, being now free, went down the river, threw the logs in as arranged, and then tried to reach India down the valley of the river. He was unable to pass through the Abor country and returned to Lhasa and thence to India, where he found to his disappointment that Namsring had died, and his letter had never been delivered, consequently no look-out was kept for his marked logs, which must have floated unnoticed into the Bay of Bengal. Kintup reached India in 1884, and from that time on his report consti-

tuted the sole basis of our knowledge of the river. Kintup was disbelieved by many people on his return and finally disappeared from ken.

In 1913 the late Colonel Morshead and I had an opportunity of following in Kintup's footsteps. Realizing what superb courage and perseverance Kintup had displayed, I made great efforts to find him and he was eventually discovered working as a tailor in Darjeeling. I suggested that he be given such a pension as would free him from want and anxiety for the few remaining years of his life. This was refused by the financial authorities in India. 'Who can say how long a pensioner will live? The country might be ruined', etc. etc. He was, however, granted a lump sum of a thousand rupees. Very shortly after receiving this he died, I hope not *post hoc, ergo propter hoc.*

With the knowledge we gained in following his footsteps I was able in conversation with him to elucidate his journey and to amplify the rather bald official account which was written when he returned. It should be remembered that Kintup's reports were written down on his return in 1884, four years after he commenced his journey, that he was illiterate and spoke from memory. Is it to be wondered at that he occasionally misses out a day's march or gets his estimates of distances muddled? Which of us could from memory describe a journey in detail three years after it had been made with anything like the accuracy of Kintup? The marvel is that he was able to remember so much. I have often noticed that illiterate Tibetans can with great accuracy give the marches on a road that they have travelled only once years previously, where we, who make written notes, have to a great extent lost the power of memory.

In 1904, during our occupation of Lhasa under Younghusband, a party was organized with credentials from the Lhasa Government to attempt to follow the river right down to India, but this expedition was abandoned at the last moment. The unknown portions of the river could not be approached from Assam. The Government of India have always been reluctant to encourage any form of exploration which they believe may involve some

risk and consequently give them trouble. The savagery of the Abors and other tribes resulted in very definite orders against the crossing of the frontiers of Assam, and for various reasons it was difficult to enter Tibet and follow the river downstream, but it appeared possible to approach it from the east through China. This route had been attempted in 1899 by Major Davies, Captain Ryder and their party, but they had been turned back by the Tibetans. It seemed to me possible that a single traveller with only one servant who was not dependent on interpreters might succeed in reaching the desired goal without attracting too much attention and, in the event of failure, knowledge for a more fully organized expedition might be obtained.

The journey described here was, therefore, carried out in a very modest way at a time when, and in a place where problems still remained that could be to some extent dealt with by a traveller taking the minimum of equipment. Nowadays an expedition is expected to consist of specialists in different branches of science and a large amount of equipment is necessary. I travelled with my one servant and brought back a map and some natural history specimens, mostly butterflies, which are easily collected, light, and take up little room. I regret always that I did not allow myself at least one load for plants. I was too early in the year for seeds, but a collection of pressed plants would have been of great interest. When I travelled again in Tibet I saw to it that some mistakes made on this journey were corrected. For example, I carried more boots, some spare butterfly nets and fewer European stores.

As a young lieutenant in the 32nd Sikh Pioneers I had accompanied the Younghusband Expedition to Tibet in 1903, and in the early days at Kamba Dzong, before the peaceful mission had become a military expedition, I had gained some knowledge of colloquial Tibetan, and knew something of the ways and thoughts of the people. In this I had been encouraged by Sir Francis Younghusband himself and perhaps even more by Sir Frederick O'Connor, secretary and interpreter to the Mission, a man with unique and almost uncanny influence over Tibetans. The

'Kusho-Sahib' they nicknamed him, 'Kusho' being the Tibetan equivalent of 'Sahib'.

After the treaty had been successfully negotiated and signed in Lhasa in September 1904, I had been appointed as interpreter to a small expedition under Captains Ryder and Rawling. Captain Ryder was a distinguished and experienced officer of the Survey of India, and was accompanied by Captain Wood as his assistant.

Captain Wood had been selected for this work as he had recently been to Nepal to establish the identity of Mount Everest as a separate peak from Gaurishankar. The German scientist Schlagentweit maintained that Gaurishankar was the Hindu name for the highest peak in the world and had priority over the English name Everest. Captain Wood proved that Gaurishankar was on a separate range, and that Everest as seen from the hills above the Katmandu valley was an inconspicuous peak with no name at the point from which the Germans had seen it. Captain Wood's survey of the peaks of the Nepal Himalayas from the south was bound to be useful in surveying the same peaks from the north.

Our expedition travelled from Lhasa direct to Simla, a cold journey along the high country north of the Himalayas. Views of Mount Everest and other giant peaks from the north were some consolation for the hardships of winter travel at heights up to 18,700 feet above sea and temperatures as low as twenty-five degrees below zero — fifty-seven degrees of frost — which had to be endured, not in heated houses but in draughty tents.

Subsequent to this, by three and a half years spent in Gyantse and Chumbi in Tibet, I acquired further experience of the country, not to mention the friendship of no less a person than the Tashi Lama, who was considered by many even more holy than the Dalai Lama, but who had resolutely refused to touch temporal power in the country. On the rare occasions when the two great prelates meet they take precedence by age.

During these years in Tibet I read almost every book about the country and formed the resolution to solve the question of the falls on the great river.

CHAPTER II

SIBERIA—PEKING—YANGTSE

In January 1911, I set out for China via the Siberian railway. The Royal Geographical Society lent me a sextant with artificial horizon, a prismatic compass and a hypsometer; the latter is an apparatus for calculating the altitude above sea level from the temperature at which water boils. I was delayed a week in St. Petersburg owing to trouble with the Customs over my firearms. This was not time wasted as I received valuable advice from the late Mr. Rockhill, United States ambassador, an experienced Tibetan traveller, and a Gold Medallist of the Royal Geographical Society. Among other works on Tibetan travel and ethnology he wrote *The Land of the Lamas*, one of the best books on Tibet.

In Moscow I found a friend, Capt. Morgan, who had served with me in Tibet. He was learning Russian. The train for Peking left at midnight. We went to the ballet at the Balshoi Teatre but left in plenty of time to catch the train. The hotel porters were to take my luggage and put it in my compartment. Morgan and I drove to the station and went into the restaurant for caviare and beer. In Moscow the railway time differed from the civic time, and as we sat down we asked the waiter whether the Siberian train left at midnight by the restaurant clock, and were told that it did. Twenty minutes before twelve we got up and thought that we would find the train and see that everything was all right. The waiter then calmly informed us that the Siberian train certainly left at the railway time, which was that in the restaurant, but that of course everyone knew that this was not the station, and he had never said that it was! The station was at the other end of the city. We jumped up, hailed a sledge and drove as fast as possible to the other station, urging our *isvoschik* on with promises of huge rewards. On arrival we found we had no change with us, so, pressing into his hand a five-rouble gold piece, we rushed into the station, leaving the man protesting loudly in the belief that

we had only given him a silver piece. We tore on to the platform to see our train slowly leaving the station while the attendants were passing the baggage from my compartment to porters on the platform. There was nothing to be done but to return to the hotel and wait a week for the next train. I was glad of the opportunity to see something of the city and its surroundings. I have missed trains since, but never one that entailed a week's delay.

During the winter of 1910-11 pneumonic plague was raging in Manchuria, and there was talk of not allowing any trains to run, and rumours of quarantine. I did not alter my plans, but decided to push on until I was stopped. In fact, at various points on this and subsequent journeys I was told that it would be impossible to proceed; I refused to be turned by such unpleasant advice and went on until definitely stopped. We had a dull journey through Siberia but an uncrowded train was a compensation. Little of the country could be seen in mid-winter owing to frost on the windows, and our only amusement was to go out and photograph the engine at each stop. Among my fellow travellers were several river pilots. These men had to be present the moment the ports were ice-free. Were they not, they might lose their clientele; ships' captains who were accustomed to employ them might pick up a pilot who was present, like him, and employ him regularly in future; but their work enabled them to spend a large part of each winter in their homes in the north of England. At one station a Russian got into their compartment. They preferred to be alone and said to me, 'You see how we will persuade this man to go elsewhere'. All they did was, all three, to light pipes of very strong tobacco. I must say that the resulting fumes in the closed carriage soon drove both the Russian and myself out of their compartment.

At Chungchuan we changed from the Russian to the Japanese train, and the rumour on board was that we were to be hermetically sealed up in the train and run through the plague-stricken area without being permitted to leave for an instant. As we approached the stricken districts we saw from the train deserted villages, the inhabitants of which had either all died or fled;

patrols of Japanese cavalry dressed in plague suits moved up and down the line, while infantry similarly clothed guarded each station. The plague clothing consisted in a cotton overall and a plague mask, the latter made of netting covered with gauze which was kept soaked in disinfectant. The overall was removed and disinfected whenever a soldier came off duty. At Mukden, contrary to our expectations we were allowed to leave the train and spent a night in the Yamato Hotel, splashing through mats soaked in carbolic to reach the inner rooms. The next day we continued our railway journey up to Shan-hai-kwan, where we were finally decanted into the Railway Hotel, which had been turned into a quarantine station. Here we, three Europeans and forty Chinese, were kept for ten days. We were in the charge of a French doctor for the first few days, but later in the hands of a Chinese doctor. We had a fair-sized garden to walk about in, but the gate and every wall was guarded by an armed Chinese soldier who took great delight in loading his rifle when we climbed on to the wall to take a look at the country outside our prison!

Dr. Morrison, the *Times* correspondent, who came out by the Siberian Railway shortly after this, made inquiries into the causes of this fearful disease. The Mongols and local inhabitants carried on a big trade in marmot skins. This was so profitable that Chinese came to take part in the trade. Regularly at certain times of year the marmots were affected with a disease. The local people knew that this was dangerous and avoided touching the animals at this time of year; not so the over-eager and ignorant Chinese, with the result that they caught the disease which spread rapidly and with extreme malignity.

Man will do a great deal to obtain furs. The fur trade was largely responsible for Russian expansion in Siberia and for British and French colonization in Canada.

The Great Wall of China, which here reaches the sea, was guarded by Japanese infantry, and proved an excellent barrier to keep the plague from reaching the large towns of northern China. During this fearful epidemic, when whole districts were depopulated, no words of praise can be sufficient to describe the

conduct of Dr. Christie and his collaborators, American, Chinese and British Mission doctors. Many of them sacrificed their lives in trying to save people. The man who really kept the plague from passing south of the Great Wall was the conductor of a train of refugees, an ex-soldier of the Dorset Regiment, who had been one of the stormers of Dargai in the Afridi Expedition of 1897. This man on his own responsibility turned the train round, and sent it back before any quarantine orders had been issued. Had this trainload of refugees passed through the Wall and the passengers been allowed to scatter over the country the disease would probably have reached Peking, Tsientin, and other large towns.

The quarantine was not strictly enforced. One night a Colonel Kornilov of the Russian Army arrived. It was he who, in 1917, as a General, appeared to be the only man capable of keeping the Russian army in line against the Germans; but owing to the intrigues of Kerenski and others he failed, and finally met a soldier's death from a stray Bolshevik shell, as his Turkoman A.D.C., who was in the room at the time, recounted to me some years later during a journey from Bokhara to Meshed across the Turkestan desert.

It seemed to me rather peculiar that we should be kept in this strict quarantine while a Russian colonel was able to travel from the infected areas, come in and dine with us at the quarantine station, and take the next train on to Peking. It was, however, explained to me that it was the British and French who had pressed the Chinese Government to institute the quarantine, and that, as the Russians had not worried the Chinese in the matter, they allowed Russian subjects to pass through!

At length our quarantine was finished and we were allowed to proceed. After a few days in Tientsin I reached Peking. Here I met Putamdu, my Tibetan servant, who on a cablegram from me had, with the assistance of Thomas Cook & Sons, travelled from Tibet via Calcutta and taken his first sea voyage thence to Shanghai and Peking. I was overjoyed to see him, as I was by no means certain that, at the age of sixteen, he would launch himself

on the world on receipt of the cable; and it was a great asset and comfort to me to have at least one person whom I knew and trusted, so that I was not to be entirely dependent on people picked up locally.

In anticipation of this journey I had taken him to Bombay, where he was taught to skin birds and other natural history specimens at the Bombay Natural History Society. On his voyage he had been very glad to see and speak to Indian soldiers at Singapore and Hong Kong. Arriving at Hankow he was confronted with a problem. I had told him to meet me in Peking on March 1st. The only way this could be done would be by taking the special weekly train which did the journey in a day and a half but which only carried first- and second-class passengers. He demanded to see the Consul-General, refusing to deal with junior members of the Consul-General's staff. After some difficulty this was arranged, and he explained that I, his master, was a very important person, that I had ordered him to be in Peking on the 1st and he dared not be late. At the same time I would not be pleased were I to be presented with a bill for a second-class ticket. This matter was satisfactorily settled but seemed to have turned his head as, on my arrival in Peking, I found that he had taken a room in the best hotel! Here he was living in style as befitted the henchman of an important personage. Unfortunately, he continued to wear his Tibetan clothes, and this had a curious and, for me, nearly a disastrous consequence.

I was naturally anxious to conceal my plans from the Chinese as, in the disturbed state of their Tibetan border, they would not welcome a foreigner travelling there, but I could not resist a visit to the famous Lama Temple in Peking, although to converse with the inmates in Tibetan was to risk exposure of my plans. One day, in company with two Italian naval officers, Grazioli-Lante and Spagna, and letting it be thought that I was a Frenchman interested in Buddhism, I visited the temple. Grazioli-Lante was learning Mongolian from one of the lamas. This lama had told him that he knew Tibetan and had lived in Lhasa. When

we met I spoke to him in Tibetan. He did not understand a single word and was obliged rather shamefacedly to confess to his pupil that he had never been to Tibet at all!

I was surprised to find that there were only five Tibetan monks living in the temple, and of these only one was at home. Most of the lamas are Mongolians. We called on the Tibetan and found he was an inhabitant of Litang on the Chinese side of the border. We talked in Tibetan and I told him that I had studied the language and religion in Darjeeling. He at once said: 'Then you would be interested to meet the British officer who is living with a Tibetan servant in the big hotel, and who is going into Tibet to raise the people against the Chinese'! This was enough for me, and I told my companion that I thought it time to move. I have no idea how the rumour reached the temple, but if this sort of thing was being said before I started, things did not look well for the success of the enterprise.

The distance from Peking to Hankow was covered in thirty-six hours. Once a week a through train ran, but on other days the trains travelled only by day and remained at a station all night while the travellers had to leave the train and sleep the night in an inn. I received special permission through the courtesy of the French director to remain in the train all night. On arriving in the evening I was anxious to stretch my legs, and both nights I managed to persuade a coolie to take me to a piece of water where I enjoyed some flight shooting, bagging duck and teal. Before daylight I repeated the performance and returned to the train at seven, just as it started.

I was held up in Hankow four days, waiting for a steamer, and finally, on March 23rd, 1911, embarked on the *Tachimaru*, a Japanese steamer. The journey up the Yangtse was remarkable for the thousands of duck in the river who flew out in a regular fan in front of the steamer. They were nearly all the common wild duck and had paired. Anxious to hurry over the early part of the journey I had telegraphed for a wupan to be got ready for me in Ichang to ascend the gorges and rapids on the river. A wupan (five planks) is a boat slightly larger than a sampan (three

planks), and though uncomfortable for a journey of several days, is quicker than a kwadze or house-boat.

Our four days' journey from Hankow to Ichang was not devoid of incident. Once we ran aground, and once were carried up against the bank by a whirl in the current and only escaped an accident by dropping anchors.

On the steamer I made friends with a young officer of the Chinese Customs, Osland-Hill, who later rose to a high post in that efficient service. Osland-Hill had been ordered to Chungking and was to travel up the river by kwadze, and he suggested that I might share it with him.

I was only too glad of this opportunity to travel with a pleasant companion who had an extensive knowledge of the language and country; I would also enjoy greater comfort in the larger boat. Many years later he and his charming wife, Nora Waln, authoress of the *House of Exile* (the best book in English on Chinese life), *Reaching for the Stars*, and other books, entertained my wife and myself in Tientsin.

In Ichang I changed my plans, cancelled the orders I had sent for a wupan, and Hill and I had a kwadze hurriedly prepared. This change turned out to be unfortunate in some ways, as will appear. The boat, according to the captain's certificate, was of twenty-seven tons and contained one room about ten feet square which held a table and our two camp beds. The captain lived in a den in the stern which our servants used as a kitchen, while the crew of two or three lived on the deck forward. A steamer, the *Shantung*, made several journeys up the gorges in the year but could only cross the rapids when the water was at a certain height. When in Hankow I made inquiries and heard she was being repaired in Shanghai and was expected immediately. I, however, decided not to wait, but to try and board her if she overtook me, which, as it turned out, she never did.

We reached Ichang on March 26th. Ichang was the terminus of the projected Ssuchuan Railway, and in order to be able to show something to the (largely compulsory) shareholders, ten miles of dead flat from the river bank to the hills had been

partially constructed and engines squelched slowly over the fields along unballasted rails to the delight of the populace, while a fine station was in course of construction. No work had been done in the difficult hilly sections, which included the greater part of the proposed line, with the exception, some miles up the river, of a small section of isolated earth cutting on which was one solitary railway signal but no rails. This no doubt impressed travellers on the river with the energy with which this, a purely Chinese undertaking with no foreign aid, was being pushed forward.

In Ichang I heard a rumour that a British officer was going to Tibet to report on a road by which the British could invade Tibet from India. I wondered whether the unfortunate rumour which I had heard in the Lama Temple at Peking could be accompanying me.

We left Ichang on March 28th, the house-boat of Major and Mrs. Goldschmidt, who were touring in out-of-the-way parts of the world, accompanying ours; but, having made their arrangements beforehand, they soon drew away from us in a better boat. This is not the place to give a description of the Yangtse Gorges, about which so much has been written, but my impression was that the Ichang Gorge, the first one you reach, is as fine as any, and a traveller in search of scenery might, if in a hurry, save himself the trouble of going the whole way through the mountains. In early April blossom of peach, almond and other fruit trees added to the beauty and wonder of the scenery. The journey up the river from Ichang to Chungking by house-boat may take anything from ten to fifty days according to the wind, and may be exciting. When there is an upstream breeze a sail is set to the accompaniment of much singing, and you go along fairly well, but when there is no wind or the wind is contrary, long oars are employed, not used as we use them, but flapped about in the water almost parallel to the course of the ship in a most inefficient way, by means of which the boat crawls slowly along. The boatmen have a peculiar call which they use to bring the wind when it dies down, and after shouting they would

frequently point out a ripple coming up the river in response and try to convince us sceptics that they had caused it. Large whirlpools come swinging down the river, and if the boat is caught she spins round, and dashes downstream until she can be taken out into the steadier water. This happened to us once, and we lost half a mile of hard-earned distance. We passed many large junks coming downstream. For the journey they are dismantled and everything movable lashed firmly out of the way, and about six or eight of the crew hold each long oar and twist it about, singing at the top of their voices, just managing to keep up steerage way, as the large boat dashes down. The captain, who steers, must have nerves of iron to keep his head in places, and most of the many accidents occur to boats coming downstream, when it is easy for them to get out of control.

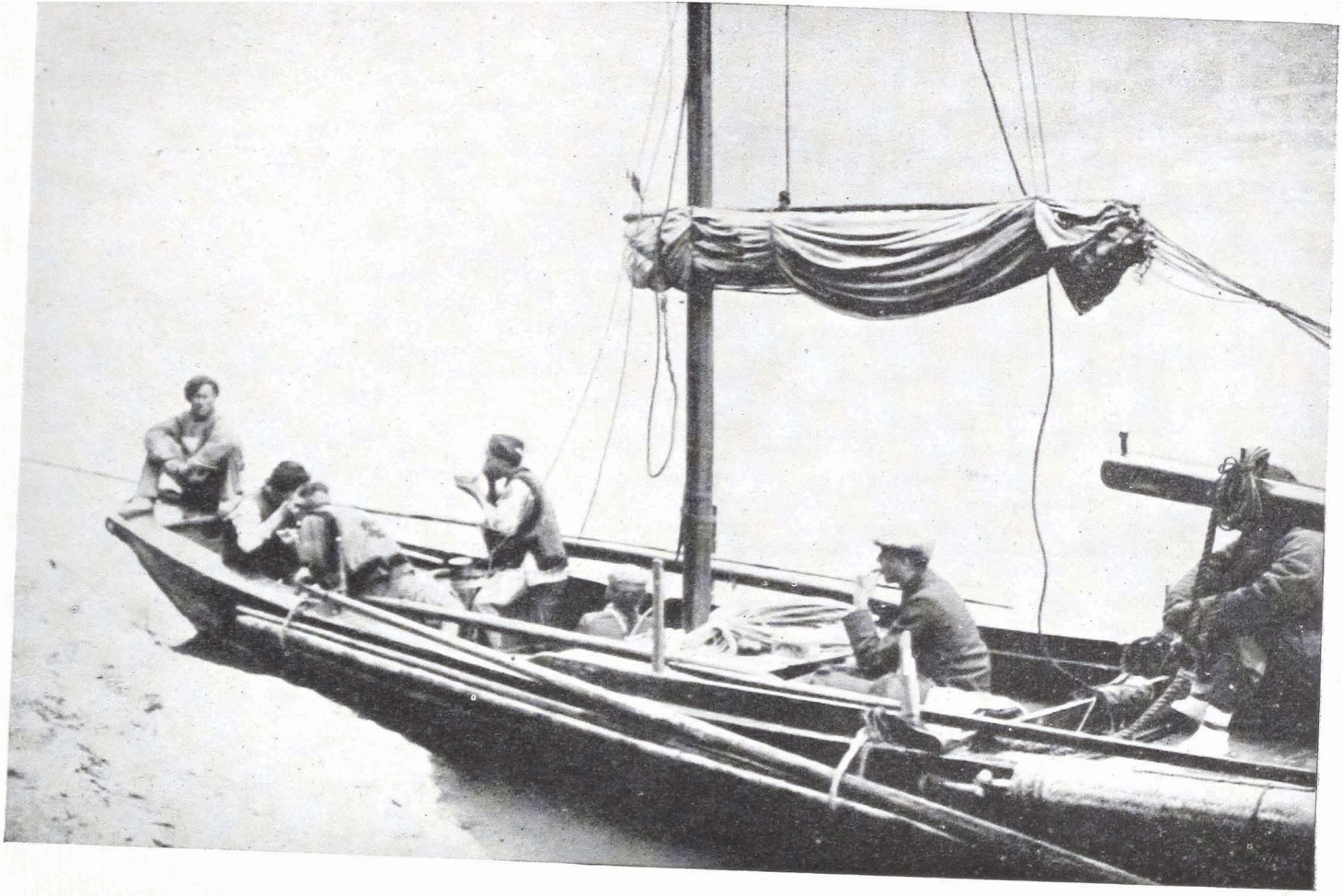
In one rapid a large junk just in front of us broke loose and it looked as though she would be carried down on top of us, but by very skilful management she was kept off and passed just clear of us.

We were accompanied by a 'Red boat'. These are official life-saving boats which hang about the rapids to pick up the unfortunate ones. The story goes that originally the boatmen were paid one dollar for every corpse they recovered, but for a live man only what he could afford to give, consequently men were held under by the life-savers until they were worth a dollar for certain! The 'Red boat' is an extremely useful adjunct and travels much faster than the kwadze, so that we were able to travel ahead in one of these, get a run ashore and catch up the kwadze as she passed. At Pingshiangpa we passed a Chinese Customs post where our papers were examined by a Norwegian in the Customs service; he told me that if I went on to Lanto in the 'Red boat' I might shoot some reeves and golden pheasants and rejoin the house-boat later. I did this but saw no pheasants, but a small deer came out of one covert and the people showed me some skins of golden pheasants which they wanted to sell. I was joined in my sport by an old Chinese hunter with the queerest gun with a pistol stock. There was no trigger but a touch-hole

in the side of the barrel to which he applied a glowing piece of string which he held in his right hand.

On reaching a rapid there is usually a mass of all kinds of craft, from sampans to junks, crowding, like people going to a football match, for the bottle-neck where the rapid can be passed. Lines of coolies, called 'trackers', on the shore attach themselves to long bamboo ropes and bodily lift the craft up the steep incline of water, and where these ropes have for hundreds of years passed over the rocks, they have cut grooves several inches deep. The captain signals to the trackers from the boat by beats on a drum. In the Shantung rapid we had an accident. We had two thick ropes fastened to our boat and were being pulled up by the coolies when one of the ropes broke. Our captain with great presence of mind seized an axe and cut through the other rope, and this saved all the coolies who were attached to the sound rope from being pulled back into the water, and all that happened to them was that they fell flat on their faces, as though they had been shot. Our boat was carried down half a mile before we could right ourselves, and we had to work our way back and await our turn in the queue among all the other craft. On one occasion a small trader was going up in a sampan loaded with his goods. Something went wrong in the management of the boat, and instead of being pulled up on the surface, the sampan was pulled through the water. It was both ludicrous and pitiful to see the man sticking to his boat when half full of water, but finally he gave it up, and sprang on board our boat while all his goods were washed downstream.

The proportion of wrecks in these rapids was said to be one in ten and we were one of the unlucky ones. We did not actually see what happened as we were having a run ashore, a thing we usually took the opportunity of doing in the rapids. At the entrance to the 'Windbox' gorge our boat had passed the most dangerous parts, and we were walking up the bank watching a fisherman with a hand net scooping up small fish. Our boat was, except for the mast, hidden by a small rocky headland, and on looking up, we noticed that the mast was remarkably still and



OSLAND-HILL ON OUR BOAT ON THE YANGTSE

at a curious angle. We moved on and were greeted by the sight of our boat a few feet from the shore, jammed on to some rocks, her bows in still water, while the rapid current washed round her stern. The case was hopeless as the boat was old and rotten to begin with, and the rocks had come right through her timbers. The hold, in which was all we possessed for our long journeys, was full of water. She had been an unserviceable boat when we left Ichang, and already a day or two earlier the hold had filled with water from leaks, and many of our things had been spoilt. I suffered for having changed my plans, and having abandoned the small boat that was ready for me for one which had not been carefully selected for the journey, and whose only quality was that she happened to be available. We were told that our boat had touched a rock in the third rapid, and to prevent her sinking in deep water the captain had tried to beach her, but had only succeeded in jamming her on to some rocks a few feet from the shore. The boat herself seemed firmly fixed, and we got a plank out and went on board. The captain clearly showed that he had no hope of saving the boat, and was engaged in the thrifty occupation of salving everything movable even to small strands of rope from the rigging. There was a strong current flowing under the stern of the boat and a high wind, and it appeared probable that the combined forces of wind and water might move her, so we quickly got all our things on shore. We were in an isolated part of the river, some distance above the trackers' huts at the rapid. There was no house anywhere near, and it looked as though we should have to sleep in the open. This would have been unpleasant as the strong breeze blew up clouds of sand; so, thinking it was quite safe, we returned on board to sleep, propping our beds level with pieces of wood. At about 1 a.m. I fell violently out of bed and found myself rolling down to Osland-Hill's side of the boat. We realized that something had happened, and rushed for the shore; in the darkness and hurry I fell into the hold, which was full of water, chest-deep and got soaked. What had happened was that the rapid current

under the stern had shifted the boat and given her an increased list. It was a mercy that she did not slide back into the deep, rough water and drown us both. We waited a few minutes to see whether she was going to move again, and then went on board and salved our beds and the few remaining things. I finished the night sleeping on the shore in a sandstorm, with my head in one of our boxes in an attempt to avoid the driving sand. To complete our discomfort, at 4 a.m. it began to rain and continued to pour all the morning. Our captain managed to get us a couple of sampans from somewhere, in which we placed our things and covered them with sails and bamboos which, however, were soon soaked through. After one of the most uncomfortable nights I have ever passed, we continued our journey in pouring rain and reached Kwei-chow-fu at 10 a.m. on April 3rd.

Here we were entertained by Mr. Liu, a Chinese postal official, who was a friend of Osland-Hill's, and we were obliged to wait a day to arrange for a boat in which to continue the journey. We spent the time pleasantly enough being entertained by Mr. Liu and other Chinese officials, and dropping in accidentally for a Chinese dinner party of nineteen guests at two round tables. We also visited a rich man named Bao, who had a beautiful house standing in a pretty garden where doves and other birds made one quite forget that one was in the middle of a dirty town.

As is the custom in China, we had signed a contract with our captain and given him an advance of money to put the boat in order for the journey; later a balance that was due to us owing to this accident was refunded. This system of contracts seems to be universal in China, and the guild see that the contractor either fulfils his contract or returns the money, a very honest and satisfactory proceeding. On April 4th we left Kwei-chow-fu at 1.30 and at 6.30 p.m. on the 6th we reached Wanhsien, the end of my river journey.

CHAPTER III

SSUCHUAN TO TATSIENLU

At Wanhsien we were hospitably entertained by Mr. and Mrs. Ortolani of the postal service, and I spent three days getting my money changed, boxes made, and a contract arranged for the carriage of my things to Chengtu. Here also I said good-bye to my companion, Mr. Osland-Hill, who left for Chungking in a wupan. I had never travelled in a chair, and did not at all like the idea, and tried to buy a pony at Wanhsien but was unable to do so. Ponies and mules are very little used about here, and it was not till I was four days' march from Chengtu that I came on pack animals. They were mostly carrying coal. Eventually I was persuaded by Mr. Ortolani that it would add to my prestige, and thus facilitate my journey, if I took a chair even though I might not use it very much. Dr. Morrison in *An Australian in China* explains how, in spite of receiving similar advice, he insisted on travelling on foot. He quotes Baber, who is most emphatic on the necessity of maintaining prestige by travelling with a chair. I also had paper lanterns with my name and rank on them. I found it necessary also to have chairs for my two servants — the rather useless Peking boy and Putamdu. On April 9th, my first day out from Wanhsien, I walked nearly the whole way, only getting into my chair during a shower of rain. Later I travelled in the chair more, but I could never accustom myself to being carried up a steep hill and walked in such places. A foreigner was sufficiently a rarity to attract some notice and I found it best to travel in the chair when passing through towns, as the people would crowd round me and even touch my clothes out of curiosity. Sometimes they would even surround my chair and stare in at me, and I used to pull down the blind in front when this happened. Once a man had the impertinence to come up and push aside the blind to see the 'foreign devil'. I saw that he was going to do this, and as soon as he looked in, I gave such a roar that he fled in terror, much to the amusement of the good-

natured crowd. By the contract system the coolies were to carry me and my baggage from Wanhsien to Chengtu, a distance of nearly 450 miles, in an agreed number of days for an agreed price. When their shoulders became sore they in their turn engaged local men to carry the loads, and I was free of all responsibility. Once when for this reason the chairmen had hired local men to carry, they asked me to get into the chair as they did not see why they should pay men for carrying an empty chair!

The distance from Wanhsien to Chengtu took me fourteen days. I had twenty-one coolies, including nine for the three chairs (four for my own, three for my fat Peking boy, and two for Putamdu). I used to start at between five and seven in the morning, travel till ten or twelve, when I would arrive at some town and stop an hour or two to have a meal at an inn and rest the carriers. I would then continue until between three and six in the evening, when I would reach my destination and put up in an inn. The road is in many places paved with slabs of stone. These are ruinous to boots and I wish I had taken some spare hobnails. They would have taken little space or weight and would have saved me a deal of trouble, discomfort and some sickness. It was mainly owing to wear at this part of the journey that I reached India with my feet wrapped up in pieces of a Willesden canvas bath instead of boots. The country consisted of flat plains alternating with ranges of low hills. I crossed nothing higher than 3500 feet above sea level according to my instruments. On the flats the crops were rice, rape and beans; on the hills bamboo and forest trees.

Travel over the flats was monotonous and the ranges of hills were a great relief. The cultivation is mostly irrigated and they have various ingenious devices for lifting the water. What I took to be one of these puzzled me very much. A very large wheel on which was wound a great length of bamboo rope let a weight drop into a hole four or five inches in diameter. Later I discovered that this was a boring for bringing up brine, which is evaporated to obtain salt. Some of these borings are of the scarcely credible depth of 3000 feet as noted by Mr. Archibald

Little, and, according to the same writer, may take up to thirty years to bore. I passed loads of cotton, pepper and coal, all being carried into Wanhsien. I regretted that I had not brought a coolie load of soda-water; even one bottle a day would have been welcome. The water was nowhere good and I drank it mostly in the form of tea. I lived on what I could buy at the inns. The only meat was pork and chicken; potatoes were nowhere procurable. I saw no game except a few snipe in the bean fields near Chengtu. Occasionally in towns the officials would ask for my visiting card, but never for my passport.

I reached Chengtu on April 22nd and went to a Chinese hotel. I was told that in a restaurant close by I could get 'foreign food'. This turned out to be at a large table furnished with a white cloth laid with knives and forks, but the food was the same as the Chinese customers were eating at the other tables. I realized this when I found a starfish floating in the soup. Mr. (later Sir William) Wilkinson was our Consul-General, and he very kindly invited me to move over to the Consulate which I was very glad to do. Chengtu was a walled town of 450,000 inhabitants, the distance round the walls being about eight miles. There were a few rather pretentious shops where I noticed field-glasses, thermos flasks and other such things exposed for sale. I bought a very inferior safety razor to replace one my boy had dropped into the Yangtse, and I also bought the only tin of Huntley and Palmer's biscuits which I could find. These were pink sugar wafers, not exactly what I should have chosen had there been a large selection, but later I was glad, as, after they had been reduced to powder by being shaken on yaks and other animals, and when I could get nothing but Tibetan food to eat, I found a sprinkling of this powder took the place of sugar, of which I had none. I was also able to get a good suit of khaki drill made here.

Chengtu, when I saw it, was a great military centre, and everywhere soldiers of the new Chinese Army could be seen, many drilling with a very Prussian goose-step. They appeared to have rather a larger establishment of buglers than we do, who were proportionately noisy.

I heard a curious story of the attempt to employ a military balloon here; I cannot vouch for the accuracy of the details. The balloon was designed by an old man of sixty, who had never seen one, but worked entirely from descriptions. When completed no one would consent to go up in it, so an orphan was seized and put in it. To everyone's surprise, and the terror of the miserable orphan, the balloon rose, but crackers which had been tied to it to celebrate the event set fire to the balloon, which exploded. A second balloon was made and sent up without crackers. After rising a few feet this flopped heavily into a pond. A third attempt was more successful and the balloon is said to have risen a thousand feet, from which height it fell and damaged the roof of the Foreign Bureau. After this orders were given that no future attempts should be made. A curious wheelbarrow is used here with the wheel sticking up in the centre; on these the opulent would loll being trundled into town. Numbers of squealing pigs and sacks of coal were also taken to market tied on to these wheelbarrows. While I was in Chengtu a paragraph appeared in a local paper to say that a foreigner had been heard speaking Tibetan in the town. I never knew whether this referred to me or to one of the missionaries stationed here, some of whom knew Tibetan; but I always felt that the rumours in the Lama Temple at Peking and the similar story in Ichang might be accompanying me.

In Chengtu my Peking boy tried to get me to send him back. I had brought him as an interpreter, and, as neither Putamdu nor I knew Chinese, it was necessary to have someone with knowledge of the language and customs of the country, who could buy food and generally look to things. I had explained to him in Peking that I was going to Tatsienlu on the Tibetan frontier and would send him back from there, but in my ignorance of the custom I did not get a written agreement from him. Even at Wanhsien he began to feel homesick, but I soon let him see that he was not going to be allowed to leave me in the lurch there. When we got to Chengtu he made another effort. 'Ta' is the Chinese for 'big', and he tried to make out that he had under-

stood in Peking that he was to go to Ta-Chengtu, the 'big Chengtu', and not to Ta-tsienlu, and that as he had got there, he now proposed to go back. I had some difficulty in getting him to come on in the absence of a written contract.

In Chengtu I bought some rather curious embroideries, figures in silk on red flannel, having their hair, beards and moustaches of human hair sewn into the embroidery.

After five days of delightful rest spent with Mr. Wilkinson, I left Chengtu on April 27th. The next day we were interested to see on the road a party of Chinese who were riding on ponies with Tibetan saddles and saddle-cloths, the first sign we had seen that we were approaching Tibet. That night I dined with Mr. and Mrs. Olsen, of the China Inland Mission, at Shing-ting-hsien, where I slept in a temple. After leaving Chengtu I frequently put up in temples, which were much cleaner than the inns. If the priest made unpleasant noises with drums, bells, etc., he was always willing to put off his service when he saw that it disturbed me.

On April 31st I reached Yachou. Here I met Dr. and Mrs. Shields, of the American Baptist Mission, and with their help I was able to see one of the big concerns which export tea especially prepared for the Tibetan market. The Tibetans are enormous tea drinkers, and it is believed that the population, estimated at three millions, consumes twenty million pounds a year. They have a rooted objection to any but the brands of China tea especially made for them from the coarsest leaf mixed with twigs. So strong is this infatuation that this coarse tea, which no Chinese would dream of drinking, is carried on coolies and yaks a distance of 1500 miles, and drunk by Tibetans among the tea-gardens of Darjeeling. This tea is also carried still further to Ladakh and Kashmir. I saw quantities of this coarse tea piled up in the verandas of the houses, and I also saw some being dried in the sun in the dirty village street with dogs lying on it. The amount required for each brick is weighed carefully, and after being slightly steamed to make it stick together, it is placed in a wooden tube and pressed down by hand. The packing is a complicated

process. There are various wrappers of yellow and red paper, one of which I saw being printed with a rough wooden block with Chinese and Tibetan characters; outside all are seals and patches of gold leaf which indicate the quality, and, apparently, the purchasers are very particular about these matters. When the bricks are properly wrapped, they are packed in a tube of bamboo matting. These tubes usually hold four bricks placed end to end, and this weighs about 24 lbs.; some smaller tubes of only two bricks are made for children to carry. In each of these bamboo-mat tubes the packers place a little bundle of tea twigs without leaves, and this, I was told, was a medicine and was taken out and pounded up, and eaten in case of illness on the road. The coolies who carry this tea to Tatsienlu must be some of the most wonderful carriers in the world. The usual load that I saw on the road was seven to nine tubes which weighed between 168 to 216 lbs., but apparently the weaker coolies drop out and let the stronger ones carry on with the loads, for, as we approached Tatsienlu, we noticed that the loads got bigger and heavier, until I actually saw a man carrying sixteen tubes, about 384 lbs., a weight one would not ask even two mules to carry. At one place I saw ponies and mules carrying this tea; they were loaded with from seven to nine packages — half the weight one man carries. The men were not particularly strong or big. They travelled about ten miles a day on steep, paved, hilly roads and, of course, take frequent rests, when they use a T-shaped stick to take the weight off their backs. They also make longer halts at the many teashops along the road. A man leans against the wall, and is then untied from his load. I found that I could not move these heavy loads away from the wall. When he wishes to proceed, the man is again tied to his load, and some friends pull it out from the wall until the weight comes on to his back. Incredible as these loads are, several travellers have seen even heavier ones. Both Mr. Rockhill and General Davies saw seventeen tubes, while Captain Gill reports a load of eighteen, a weight of 432 lbs. On arrival at Tatsienlu the tea is unpacked and the bricks sewn up in bundles in raw hide, and

PLUCKING TEA IN SSUCHUAN

is thus carried to Lhasa or further. This bundle is called in Tibetan a 'Cha-gam' or 'tea-chest' and has almost the value of currency. I passed through a village called Minshen, famous for the best tea, where they allege that they have bushes two thousand years old.

Between Yachou and Tatsienlu I saw two curious methods of fishing: one man had tame cormorants each with a string tied round its neck to prevent swallowing. These birds were diving around his boat, and when they caught a fish they swam to him, and he lifted them into the boat with a pole on which they perched; the fish were then taken out of their mouths, and they were returned to the water to fish again. The other method was just as curious, for the men were using primitive 'Malloch' reels. The reel consisted of a hollow section of bamboo about six inches in diameter, which the man held in his left hand. He cast the line underhand with his rod in his right hand, at the same time letting it run off the reel exactly as with a 'Malloch', and then reeled in by twisting his reel round, and taking up the line upon it. As he did this he gave the rod great jerks of which I could not understand the object until I examined his cast, which was made of a fine root. I then discovered that his flies were black feathers tied some inches above the hooks. When the fish was following the fly these jerks foul-hooked the fish in the body.

At Yachou I saw some peculiar rafts on the river which obtained their buoyancy by the airtight sections of enormous bamboos. These bamboos were gathered together at the thinner end and turned up into a prow like a boat, but there was no gunwale. They are flexible and give when passing over boulders in the rapids of the river.

I passed men on the road carrying loads of the 'white wax insect'. This is an apparently lifeless thing like a dried currant to look at. A twig bearing some is placed on trees, and the creatures soon increase and spread along the branches, which are cut off and boiled to extract the wax from which lacquer is made. Each load was surmounted by a small red flag which has some connection with a tax or Government monopoly.

On May 3rd I crossed a pass, the Ta-hsiang-ling, which my hypsometer showed to be 9367 feet. Here I saw some red and white rhododendrons in flower, while below the summit were some pale mauve ones. The country seemed dryer after crossing the pass, with the result that the town of Ching-chi-hsien, where I spent the night, was the cleanest place I had seen in China. The town was surrounded by a wall in the form of an equilateral triangle, each side about three-quarters of a mile in length, with the houses clustered under the middle of the northern wall, while the rest of the enclosure was under cultivation. In this town I caused some consternation by sending a registered letter home. The postmaster was so perturbed that he came to see me about it. As the registered number was '1', I don't suppose he had much experience of such things!

On May 5th I crossed another pass, the Fei-yueh-ling, about 9350 feet in height, on either side of which were numbers of Lady Amherst pheasants (*Thaumalea amherstiae*), and being anxious to get some specimens I halted the next day at Hua-lin-ping. At first I tried to drive them, but found that they would not give me a shot this way, and so stalked through the jungle where many were calling, and succeeded in shooting two cocks. I could have shot many more in this way as they are both noisy and conspicuous. They are magnificent birds, the tail of one I shot being nearly forty inches long, but nothing will persuade them to fly. The representative of the common pheasant here (*Phasianus elegans*) is a good flyer, and I brought down a hen with a nice overhead shot and heard cocks calling.

Here I felt the lack of my knowledge of Chinese. The few words I did know had been picked up at dinner parties and other social occasions with the Chinese in Tibet. The few expressions were, therefore, of the most courteous description. One of my chair coolies stood by me while his companions were driving out the Amherst pheasants. I wanted him to squat on the ground so that he would not be seen. The only words I knew were the politest possible which might be translated: 'Pray take a seat'. This he entirely failed to understand.

On this day I also caught a number of butterflies, including one new variety, *Zinaspa todara neglecta.*

I had seen a few signs of my approach to Tibet. A Tibetan saddle-cloth on a mule was the first. Then at last I came on a 'Chöten' or Tibetan shrine, surrounded by prayer-wheels which Putamdu turned. Our last two days into Tatsienlu were hot and dry. Although at a lower elevation, the country reminded me of parts of Tibet. Lizards were sitting on the rocks catching insects. I caught a specimen of a large and gorgeous butterfly with several tails, *Bhutanitis thaidina*, forms of which also are found in Bhutan, and also many other species which were feeding in a dirty gutter in the village of Liuyang. So intent were they on their meal that I was able to pick them up in my fingers. The people kept bees in a crude hive made of a thick log of wood cut in half down the middle, hollowed out and the two halves placed together, a small entrance being made for the bees. I have seen similar hives in Tibet. I saw a large amount of tea being carried up to Tatsienlu. The tea carriers took another road from mine, and I had not seen any for some time till I rejoined their road a day before Tatsienlu. Previous travellers along the road which I had followed in Ssuchuan have been struck by the quantity of opium poppy grown, but I did not see a single plant.

I had lived mostly on the food of the country, which was good. I had a small reserve of tinned food which I took occasionally as a change. A week or two later I would have had fruit but it was not ripe so early in the year. I did get mulberries, but walnuts, peaches and other fruit were not ready. At one place I bought some oranges which had been kept fresh by being buried in damp sand.

CHAPTER IV

SOUTH IN SEARCH OF TAKIN

I REACHED Tatsienlu on May 9th. The Chinese Government have changed many place names recently, and Tatsienlu is now called Kangting. One comes on the Tibetan race here with surprising suddenness. Apart from the isolated shrine a day's march before and a few Tibetan prayer-flags, one sees no sign of Tibet until one enters the town, which has a very Tibetan appearance. I made the altitude to be 8500 ft. by hypsometer, which agrees fairly well with the observations of previous travellers.

The country was like a rather drier version of the Chumbi Valley which lies between Sikkim and Tibet, the similarity increased by the presence of 'dzos'. This is a cross between a yak and ordinary cattle and they are able to exist and work at lower elevations than the pure yaks of high Tibet.

I was greeted here with a note from Mr. Cunningham, of the China Inland Mission, who was touring to the north, offering me the Mission house, but by this time I had got so used to the rough quarters available in Chinese towns that I should have felt out of place with my rough servants in a decent house, so I accepted his kind hospitality to the extent of using a very nice room over the porch leading into his garden.

I was now among a Tibetan population with whom I could speak. I sent back from here, with much relief, the Pekingese boy whom I had been obliged to keep so far as an interpreter, in spite of his many attempts to return and my strong desire to see the last of him. In his place I engaged a local man named Wongshi who spoke his own queer dialect of Tibetan and some Chinese, and who could understand my Lhasa Tibetan. In Lhasa and central Tibet words are not pronounced as written; for instance, the word for wolf is pronounced 'Changu' and spelt (and pronounced near Tatsienlu) 'Spyangku'. I was told that each valley in this neighbourhood has a different dialect, but the fact that many

people go to Lhasa as pilgrims, or as monks spend some years in the large monasteries, makes it possible to travel easily with a knowledge of Lhasa Tibetan. Tibetan is a difficult language to pick up colloquially as it is complicated by having an honorific form for nearly every word, so that in speaking to servants, the people with whom one is more continually talking, one has to use the ordinary form of the word when speaking of oneself, while the servant will always use the honorific form in his reply. For instance, if I say 'Bring water', I use the word 'Chu' for water, while my servant in replying uses the word 'Chap'. In this way there are two words for my horse, bridle, saddle, house, clothes, head and every part of my body, the road I travel, the difficulties I experience on it, etc.; as also for my coming, going, giving, sitting, etc. When it is realized that the spelling of these is quite distinct from the pronunciation and that a third and entirely different form is frequently used in writing, the difficulties may be imagined. To take an example: I refer to my servant as 'Yok-po', spelt 'Kyok-po', but he refers to himself in conversation with me as my 'Shapchi', spelt 'Shaps-chi'.

Tatsienlu is the headquarters of a French Catholic Mission and the seat of the Bishop, at the time of my visit Mgr. Girondeau, on whom I called. He received me as a Chinese officer would have done. The room was Chinese, his clothes were Chinese and he smoked a long Chinese pipe. He had been with the Mission since 1878. A very interesting book, *La Mission au Tibet*, gives an account of this Mission and of the wonderful courage of the French priests in persisting in their efforts after numerous massacres. It is a point of honour for these Frenchmen never to return home after they have once undertaken this work. The story of one of these missionaries, M. Desgodins, is more wonderful than any romance. Leaving France as a young man in 1855 he attempted to reach Tibet through Darjeeling, but did not succeed. An attempt made shortly before this by two of his colleagues, Krick and Bourry, to enter from Assam through the Mishmi Hills, failed, and both priests were killed by the Mishmis. M. Desgodins then tried to enter western Tibet. On the way across India he

came in for the Indian Mutiny, and was for some time held up in Agra. When he was at length able to leave he penetrated the mountains beyond Simla, but when on the threshold of Tibet, he and his companion, much to their disappointment, were recalled by letters from their superiors. They returned to India and, as the Mutiny was still in progress, Desgodins joined a British force as chaplain and marched with them to Calcutta. He recorded his deep gratitude for the help and generous treatment he received from the British of all ranks and was especially thankful for his salary which saved his Mission the cost of his journey to China.

From Calcutta he sailed for China, and thence again essayed the entry into Tibet and remained on the Tibetan frontier for many years, by good fortune always escaping from the massacres to which the Mission was from time to time subjected, until, as a very old man, he returned to end his days at Pedong on the frontier of Sikkim, where I met him. He died in 1918 at a great age, denying himself to the last the sight of his native France.

The French priests in China had official Chinese rank, and all dressed in Chinese clothes and lived in Chinese style. Once a British missionary, also in Chinese clothes, accompanied me on a visit to a French priest. They greeted each other exactly as two Chinese officials would do, and their conversation was carried on in Chinese, the only language they had in common. The French priests exercise magisterial powers over the converts. This is probably of great assistance to them in China in making converts (but whether converts at heart is more than doubtful), but this official rank is a positive disadvantage in dealing with Tibetans. Nothing struck me more than the way in which these French, and many other missionaries, had adopted the Chinese attitude towards Tibet. They appeared to consider the Tibetans utterly uncivilized barbarians, and were looking forward to the time when they should be subdued by Chinese arms, and missionaries would be allowed into the country. This attitude must account for the hostility of Tibetans, especially on the Chinese frontier, to missionary enterprise. From my own experience of

three years at Gyantse I held a diametrically opposite opinion. My experience had always been that the Tibetan officer was not a less gentlemanly, pleasant and reliable fellow to deal with than the Chinese officers I had met in Tibet, and, holding these views, I was able to travel in parts of Tibet which the Chinese were in the act of subduing, where a Chinese would have been promptly murdered and where a missionary holding the Chinese point of view would probably have suffered the same fate. At the time of my visit one of the priests, M. Ouvrard, was superintending the construction of a fine church in Tatsienlu.

During my stay at Tatsienlu an American lady, Miss Kendall, arrived unexpectedly from Yunnan and we dined together. She afterwards published an account of her journey entitled *A Wayfarer in China*. In this she expressed surprise that anyone could have anything good to say of the Tibetans—another case of the rapid adoption of the Chinese point of view.

For the earlier stages of my journey I had brought a few European tinned stores, but I was anxious to get rid of these cumbersome luxuries, and to get down to the food of the country, which, in my experience, one very soon gets used to and one does not miss things which in the heart of civilization appear to be necessaries; an excellent opportunity occurred with the presence of a guest at dinner. Miss Kendall, in describing our little dinner, says: 'I was impressed, as often before, by the comfort a man manages to secure for himself when travelling. If absolutely necessary, he will get down to the bare bones of living, but ordinarily the woman, if she has made up her mind to rough it, is far more indifferent to soft lying and high living, especially the latter, than the man'! Such was the effect produced by my last tins of sausages and sardines.

In Tatsienlu I paid a call on the King of Chala who did not impress me favourably. He was the representative of the former ruling race, but at the time of my visit a mere puppet in the hands of the Chinese. He was in Chinese dress but spoke a difficult form of Tibetan. Sir Reginald Johnston met him five years before my visit, and in his book *From Peking to Mandalay* says: 'If

in another five years the King is still swaying the fortunes of his little monarchy he will deserve a good deal of credit for his skilful manipulation of affairs during a very trying period.'

Shortly after my visit, to be exact in August, the King of Chala, along with some thirty other local chiefs, was deprived of all power and rank by Chao Êrh-fêng, the Warden of the Marches, and made to hand over his seals to the Chinese authorities. Soon after this, at the time of the revolution, he was further deprived of all his private property.

His actual death occurred in 1922. During troubles about that time the king was suspected of intriguing against the Chinese and was imprisoned by them. One night his friends made his gaolers drunk, and it was arranged that he should then dig his way out of his prison while his friends dug from the outside to help him. Unfortunately, they did not know that the level of the prison floor was above the outside ground level, so that his friends were simply boring through under his feet. As this digging out did not succeed, the king climbed over the wall and tried to escape over the roof, but the alarm was given and his confederates from outside fled, and he was left to wander about with one boy all night. In the morning he was found dead, and is believed to have died of heart failure. His son and wife then fled to the hills, but later were persuaded by the Chinese to return and were well treated.

Perhaps one of the rarest game animals of the world is the takin (*Budorcas taxicolor*). This is a clumsy animal, in appearance something between a goat and a cow, with horns resembling those of the musk ox. Large males stand about four foot six inches high at the shoulder. The animal is not actually rare where it exists, and is extremely easy to shoot, but it happens that its habitat is almost unapproachable. It occurs along the higher slopes of the eastern Himalayas where access to it is cut off by the impossibility of penetrating through Bhutan or through the savage Mishmi, Abor and other tribes who dwell on our northern Assamese frontier. The animal is also found in several parts of China. Many years ago a wandering sportsman, Captain

Macneil, had shot some to the south of Tatsienlu. I once saw his magnificent collection of rare trophies from all parts of the world in a private museum in Oban.

I was anxious to follow in his footsteps, and to secure some specimens, so I asked the local Chinese official to let me have transport for a trip to the south. This he declined to do, saying that he could only supply transport to take me along the main road to Batang, so I made arrangements privately. After three days' rest at Tatsienlu, I started off on May 13th. The country was looking very lovely and the people were taking full advantage of it and enjoying picnic parties, as Tibetans are very fond of doing. In the fields I saw numbers of pheasants (*Phasianus elegans*), the cocks making their spring call, which is so familiar in our own countryside, while the call of the Lady Amherst pheasant could also be heard in the surrounding woods. I passed many people bringing charcoal and bamboos into the town. I spent the night in the chapel of a private house at Yu-ling-kung (Wali in Tibetan), about nine miles from Tatsienlu and 1800 feet higher in altitude. The brother of the King of Chala was living here in tents. I called on him but he could not see me, and his servants said that he was bathing in a hot spring near by, though I knew that he was in his tent all the time. However, in the evening he sent me a pot of Tibetan buttered tea and some eatables, with a message to say that he wished me well on my journey and that he hoped that I would visit him on my return.

It rained hard in the night and snow was lying a few hundred feet above Yu-ling-kung. I climbed up to the Boi La To (pass) on which there was about a foot of snow. M. Ouvrard, the French priest at Tatsienlu, gave me the Chinese name of Ta-kai-ken for this pass, but the Tibetans did not know this name. Some years previously I had suffered from snow-blindness, and this had left my eyes weak in this respect. My snow glasses were not in my pocket, and when the weather cleared and the sun came out, I tied my green butterfly net over my eyes to protect them. The men with my baggage tore pieces off the prayer-flags on the top of the pass and tied them over their eyes for the same

purpose. From the pass I saw some snowpeaks to the south-west. For these I was given the names of Konga and Bonga, the former three and the latter two days' journey from Liang-ho-kou, my furthest camp in this direction, or, say, fifty and forty miles from the pass. The magnetic bearing of Konga from the pass was 145 degrees. A few miles north-east from the pass was a snow-peak from which glaciers descended. The bearing of this from the pass was 42 degrees. On the ascent to the pass I shot several blood pheasants (*Ithagenes geffroyi*), allied to the better-known blood pheasant of the eastern Himalayas, and also two eared-pheasants (*Crossoptilon crossiptilon*), the latter a magnificent white bird with a black tail and tufts of feathers over its ears. I saw a great many of the blood pheasants, and also numbers of choughs and pigeons, and I heard the call of the Tibetan snowcock (*Tetraogallus tibetanus*).

This is not an important road, but for some reason half-hearted attempts had been made to improve it and some blasting had been done; the blasted rocks had not been removed, with the result that the road was worse than it would have been had nothing been done. As I descended and left the snow I came on some butterflies like our pale clouded-yellow, but rather larger (*Colias hyale poliographus*). I came to a hut called Yatsa and here I noted the altitude by my aneroid as I passed, and it was lucky I did so for, without knowing this, I would have been lost on my return journey. I camped at Liang-ho-kou, after a march of eighteen miles. The next day I spent in fruitless search for takin, which the local Tibetans called 'Ya-go', and the Chinese 'Ye-niu', which simply means 'wild cattle'.

I saw many tracks but all several months old, and I have since learnt that these animals make great seasonal migrations. I had a hard time travelling through rhododendron and dwarf bamboo forests. At one place when scrambling up a stream bed I nearly had an accident which might have been fatal in that out-of-the-way place. I dislodged a huge rock which crushed my leg and which I thought must have killed my companion, a Tibetan hunter, but which only took some skin off his arm and leg.

I came upon a cock and hen Tragopan pheasants but I did not collect them for fear of disturbing the takin. As we had no luck, the Tibetan hunter tried some mysterious divination with his garter. He twisted it up, let it drop on the ground and carefully studied the way it lay, but all this was of no avail. I saw fresh tracks of serow and found a fine yellow poppy which measured more than six and a half inches across the flower. Dense clouds concealed the view during the whole of a tiring and unprofitable day, part of which was spent wading through snow. At Liang-ho-kou I caught many butterflies, mostly whites. Among these was our British Bath white and several veined whites, *Pieris dubernasdi*, *Aporia davidis*, and *A. venata*. The next day I decided to start on my return to Tatsienlu. I had been told that there were bharal (*Ovis nahura*) on the hills, so I decided to do a short march to Yatsa and to try to shoot one on the way. I climbed above my camp up the boulder-strewn bed of a torrent through dripping rhododendrons, and eventually reached the edge of the forest where were patches of grass and dwarf rhododendron. Among these were some pheasants called 'Chana' by the Tibetans, of which I caught a glimpse, but in spite of great efforts I failed to get a shot. From its whistle of alarm I am convinced it was the Chinese monal pheasant (*Lophophorus lhuysi*). I also saw some partridges, and a flock of birds which appeared to resemble chikor. I shot one of the latter, but on going to pick it up it fluttered over the cliff and, to my disappointment, I was not able to say what this bird was. Some years later the very same thing happened to me in another part of Tibet, and I still did not know what bird was thus eluding me. Then, later, I found what I recognized to be the same bird in Sikkim and shot a specimen which proved to be the snow partridge (*Lerwa nivicola*). I also saw tracks of musk deer and serow but no sign of bharal, the main object of my day on the hill. This was not surprising as most of the time I was enveloped in mist. I must have been at about the eastern limit in this latitude of this the commonest of the Himalayan wild sheep. Further north in Kansu and Shen-Si they are found further to the eastwards. The western limit is found

among the valleys south of the Pamirs where there are a few herds.

On going along the hillside in a thick mist we got completely lost. We knew that we had been travelling along above Yatsa, where my baggage was waiting for me in the hut, so, knowing that my aneroid had read 11,700 feet at the hut, I decided to descend the hill until I came to that height, and, if I came to the road before that altitude, I would have to walk down it back to the hut; while if I reached that altitude without reaching the road I should have to travel towards the pass, keeping on the same level, when I must strike the hut. It turned out that I was straight above the hut, and on descending some distance I came on some mules grazing, and soon through the mist caught sight of the hut where I spent a miserable wet night, huddled up with my coolies while rain streamed through cracks in the roof in all directions. This day I obtained a new variety of the tail-less rat, known as a mouse-hare, which is so common in Tibet. This new variety was named *Ochotona roylei chinensis*. The next day I returned to Yu-ling-kung, but from the pass I made a detour away from the road in the hope of seeing some game. I came on a small lake on which was a Brahmini duck, and I put up a couple of snipe. I also found a flock of that beautiful blue bird, Hodgson's Grandala (*Grandala coelicolor*), and shot a specimen. I saw some snowcock (*Tetraogallus tibetanus*) and shot some more of the large white eared-pheasants. I also got a woodcock and found the eggs of Gould's thrush (*Turdus rubrocamus gouldi*), a bird which occasionally visits North India but whose eggs had never before been seen. My coolies collected a curious Chinese medicine which they sold at the rate of two for one copper cash; this was a dead caterpillar, out of whose head a sprout of green was growing. The scientific name is *Cordyceps chinensis*. The Tibetans have a picturesque portmanteau name for this, 'yar-tsa gum-bu', which means 'summer-root winter-maggot'. The caterpillar picks up the spore of the fungus when feeding. When the time comes for it to pupate the caterpillar buries itself in the earth; the spore then develops and, in a way, mummifies the caterpillar

which becomes a solid mass of the fungus — much as a petrified tree becomes a solid mass of stone. A smaller species of cordyceps *C. militaris*, occurs in England where its habits are similar.

From a point a couple of miles north of the pass I got a bearing of 310 degrees to the Gi La, a pass I was to cross a few days later, after leaving Tatsienlu. Altogether a useful and interesting day.

I was wakened on the morning of May 18th by the call of many pheasants among which I recognized that of a tragopan. I went out at 4.45 but did not see this bird, of which I had not been able to get a specimen. I returned to my quarters for my breakfast, and then continued my journey, passing the house of the King of Chala's brother, a short distance below his tents which I had visited before. In response to his invitation on my previous visit, I went in. I did not see him, but his servants pressed me to take a meal. The house was built over a hot spring, and besides having hot water everywhere there was a large bath and small swimming pool always full of hot water.

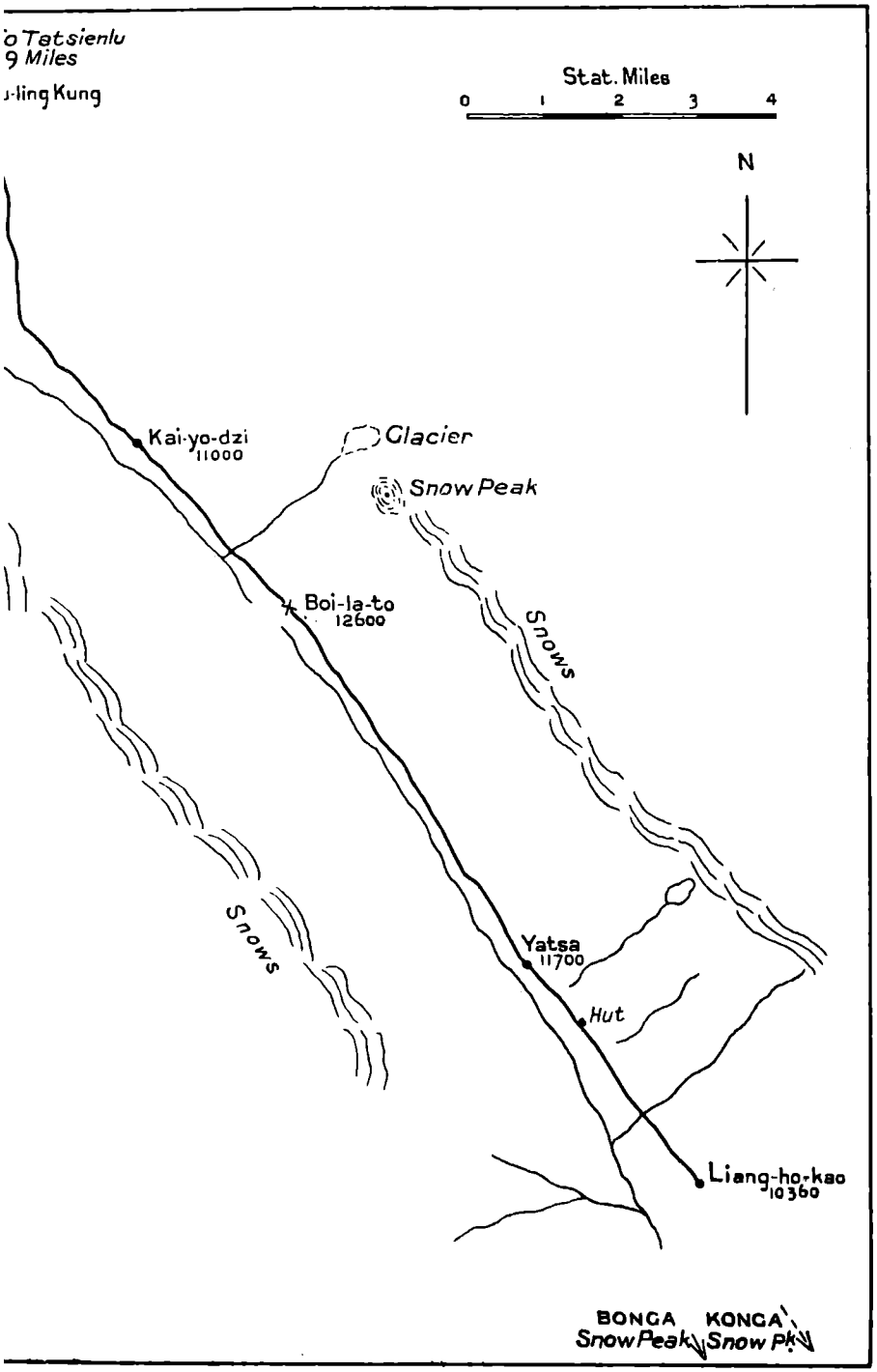
I think that perhaps the king's brother thought that a visit from me might displease his Chinese masters, for he had avoided meeting me personally but had otherwise been most polite. He was killed by the Chinese a year later. Takin horns were hanging on the walls of the courtyard, and he had a bear and three stags in captivity at the house.

The late Mr. Elwes had asked me especially to find out all I could about the different stags which lived near Tatsienlu, and I obtained the following information for which, however, I cannot vouch from personal observation. It is to be hoped that some traveller will go into this question thoroughly and obtain specimens of the different varieties.

There are three varieties of stags whose horns are brought in for sale to Tatsienlu, called in Tibetan 'Sha-na', 'Sha-me' and 'Sha-jia'. The 'Sha-na' is said to be dark in colour and to have only six points to the antlers. I saw horns of this stag which appear to be those of a kind of sambur. These stags are found two days south of Litang. The 'Sha-me' is reddish brown and has twelve points to the horns. They are found at a place called Yara-

tsurong-kar, two days to the north-west of Tatsienlu. The 'Sha-jia' is grey with twelve to sixteen points to the horns and is found three days west of Tatsienlu at a place called La-li-shi. I bought specimens of all of these horns, but later I was obliged to throw them away owing to transport difficulties. This day I had a misfortune which affected my comfort during the rest of my journey, especially in the damp Mishmi valleys, namely the loss of my waterproof, which fell off the pony. I bought a Chinese raincoat to replace it, but it was very inefficient.

In Tatsienlu I caught a 'Camberwell beauty' (*Nymphalis antiopa*). In England this beautiful butterfly is very rare but is plentiful in places on the Continent. It occurs in Bhutan, where I have taken it. I had also found it in the Chumbi Valley, where I believed it to be rare until one day, going up an exposed spur, I saw dozens feeding on the nectar of the wild, cream-coloured scabious.


o Tatsienlu
9 Miles
-ling Kung
Stat. Miles
0 1 2 3 4
N
Kai-yo-dzi
11000
Glacier
Snow Peak
Boi-la-to
12600
Snows
Snows
Yatsa
11700
Hut
Liang-ho-kao
10360
BONGA
Snow Peak
KONGA
Snow Pk

CHAPTER V

TATSIENLU TO LITANG

I LEFT Tatsienlu on May 19th. I was forced to take an escort of two unarmed Chinese soldiers, and I had a similar escort until I entered Tibet. The excuse for sending them was that the road was not safe, but the real reason was, I suspect, to watch me and see that I did not go to places where I was not wanted. I spent the night at Cho-ti in a hut full of Tibetan pony-drivers. Round a large fire in the middle we dried our soaked clothes.

The next day I had to cross the Gi La in falling snow. Water boiled at 186.8 degrees, with an air temperature of 36 degrees, giving an altitude of 13,813 feet. Here I broke one of my boiling-point thermometers. This was a disaster so early in the journey, but luckily the other one lasted me right through to India. On the way up the pass I shot a hare (*Lepus kozlovi*), and saw many of the grey blood pheasants (*Ithagenis cruentus geoffroyi*), besides a few Stones pheasants (*P. elegans*). Across the pass I had the luck to bag three snowcock (*Tetraogallus tibetanus*). On the pass in the snow I heard cuckoos calling. We are not accustomed to hear cuckoos calling in snow. These birds must have been crossing the mountains on migration. Inevitably the Tibetan name for this bird is the same as the English. As I had several birds and animals to skin I spent the night at Tizu rest-house. There were numbers of hares and partridges near the hut.

Some Chinese hunters with a pack of seven dogs and some strange firearms arrived in the night. They were out for anything they could get and game of all sorts was plentiful.

The next day, soon after starting, I saw a herd of twenty-two Tibetan gazelle on the other side of the valley. I crossed the stream, which was about a foot deep, and went after them. While doing so I saw what I took to be a monkey on a rock. I got close to it and found it was a hare asleep. I was able to get within a couple of yards of it. The gazelle turned out to be all of

TIBETANS AT RANUNG STANDING BY MANI WALL

them does. Later I saw a male with nice horns, but made a hopeless mess of the stalk and did not get a shot. These animals are wilder here than in central Tibet. The gazelle had led me a good way off the road and, being near the summit of a ridge, I thought I would go to the top and look over. I saw a broad valley in which yaks, ponies and sheep were grazing. This seems to be good grazing country. The grass was greener than in the parts of Tibet I knew. The thin grass of the dry Tibetan uplands, however, must be very nourishing, for the animals keep fat and the mutton is excellent.

On the top of this hill, miles away from water, I came on a toad. Toads must breed, I believe, in water, and this animal had travelled several miles uphill in search of food. Would he (or she) ever return to breed?

I also obtained some nice pale clouded-yellow butterflies (*Coleas montium*), some fine Parnassius (*P. szechenyii*), besides a form of our British swallowtail (*Papilio machaon*).

I found what I took to be some kind of mole sitting on a bank. It was nearly blind and quite helpless in the bright sunshine. It turned out to be a new species and has been named *Myospalax baileyi*. The skin is now in the Natural History Museum in London.

From Tatsienlu onwards I was in a country where the Tibetan 'ula' system of transport was in vogue. It is the duty of the inhabitants of villages on the road to supply transport required by official travellers free of charge. This is considered a form of taxation. The distance that each village has to carry is laid down, and nothing will persuade the inhabitants to go further for fear of creating a precedent. It thus happens that sometimes transport has to be changed after half a mile, and again after a mile, but nothing will persuade the people to carry the double stage of one and a half miles, and the traveller has the annoyance and delay in collecting animals and changing the loads. The privilege of 'ula' used to be much abused by officials travelling. There was nothing to prevent an officer from demanding twenty animals when only ten were necessary and using the

extra ten to carry merchandise at the expense of the unhappy villagers. It is also the duty of the peasants at each halt to feed the official, his servants and animals, and to supply them with such necessaries as cushions for beds, cooking utensils, fuel, water, etc. They also supply servants if necessary, usually a 'tab-yok' or kitchen servant, who gets fuel, sees to the fire and helps generally, and a 'ta-yok', or horse servant, who helps with the ponies.

'Ula' stages are very irregular. Once in western Tibet, where there were no houses at all, we camped at the edge of a long stretch of uninhabited country. If an official who was entitled to 'ula' were travelling westwards, as we were, the people were obliged to carry for one day; but should the official be travelling in the opposite direction, the people were bound to carry for a fortnight before fresh transport could be obtained. A month away from their homes with their animals was no light form of taxation; and this calamity might occur several times in the year.

At another place in central Tibet the stage was only about a thousand yards. We could see the village across a few fields, but our men refused to carry our things beyond the stage and we were obliged to unload and wait for several hours while transport was collected.

After spending the night at Tong-ngo-lo, I crossed the Kaji La (14,800 feet) in thick mist on May 22nd. The pass, though higher than the Gi La, which I had crossed in snow two days previously, was clear of snow, indicating a drier climate. On the road I saw a number of eared-pheasants of which I shot one with my rifle. I also saw blood pheasants and a couple of musk deer. I took the nest of a redstart which I gave to a woman to carry for me, promising her a reward if she did not break the eggs. Unfortunately she did break them, and thinking, I suppose, that I wanted them for dinner, she tried to appease me with four hens' eggs when she reached camp. On both sides of the pass I found flocks of pheasant-grouse (*Tetraophasis szechenyi*). This grey bird is about the size of a pheasant with a red eye space like that of a grouse. It has a short, fan-shaped, white-tipped tail which it flashes and shows off, reminding one of the habits of a flycatcher.

I spent the night at Oroshi. The next day, May 23rd, I reached the Yalung River at a place called Ho-kou in Chinese, and Nyachuka in Tibetan. Here I found a French engineer, M. Kerihuel, with his assistant, M. Auffrey, building a suspension bridge for the Chinese Government, and I spent the next day with them.

The bridge was to be 136 yards in span. M. Kerihuel was up against many difficulties: for instance, the materials had to be carried on men or animals, so each cable had to weigh less than 440 lbs. Then the material was delayed and M. Kerihuel was obliged to wait nearly a year for it. The time was spent in making the approaches, including a tunnel fifty yards in length which had just been pierced at the time of my visit. He had great difficulty with his unskilled labour which was forced to come from the surrounding villages and was constantly being changed. Many of the workers were women and children. As soon as they had learned to use the tools they would be replaced by others and M. Kerihuel would find a completely new gang to whom everything had to be explained afresh. The skilled men — carpenters, masons, etc. — from Chengtu and Yachou were good. In any case, the bridge was being made on a grand scale to take carts, and the road, and especially the rivers, which had to be crossed before reaching this bridge were not passable for carts.

It was delightful to meet such interesting and hospitable people as these two Frenchmen. I was specially struck by the fact that they seemed to live in greater comfort than our own people would in similar circumstances. Two barrels of French wine aided this impression. I took the opportunity to dry the skins of birds and other animals that I had collected, and M. Kerihuel was astonished that such things could be found in the country he had passed through. We decided to have a day in search of similar treasures, and so the next morning we crossed a tributary stream of the Yalung in a boat, and climbed up some cliffs where I shot a goral, a small wild goat (*Nemorhoedus griseus*), and in the evening I caught some small fish with fly.

M. Kerihuel completed his bridge some months after my

departure, but shortly after the formal opening ceremony the Chinese revolution broke out and the local Tibetans rose and destroyed the bridge. The two Frenchmen and the local Chinese had a fight for their lives and finally escaped with great difficulty. I believe that the bridge was never remade, for in an account of this country in the *American National Geographical Magazine* for June 1944, the author's party had to cross here by ferry-boat. Kerihuel later did some engineering works in the Sudan, but I have always regretted that I never got in touch with him, and was not able to thank him again for his hospitality and assistance.

At Nyachuka I caught a number of butterflies including one new species named *Ypthima putamdui* (after my servant, who, in addition to cooking and doing all work for me, used to sit up sometimes till eleven at night skinning birds), and a new variety of veined white (*Aporia procris extrema*). I afterwards caught more of these in the Salween Valley.

I left Nyachuka on May 25th and spent the night at the hamlet of Ma-ke-dzong. The next day I climbed to the Rama La, the pass on the range between the waters of the Yalung and the Litang rivers.

As I approached the pass the forest thinned out and I travelled off the road for a couple of miles through the woods. I shot a blood pheasant for my dinner and also a pair of the rather rare pheasant-grouse — not for my dinner, I need hardly say. I heard the call of the tragopan and of the eared-pheasant, but did not actually see these birds. Further up on the pass, above tree level, I heard the noisy call of the Tibetan snowcock and saw a pair of partridges (*Perdix hodgsoniae sifanica*). So there was quite a variety of game birds on this march. The people had told me that stags were to be found here. I saw none, which is not to be wondered at, as I found it impossible to walk silently through these woods. I did, however, see traces of musk deer. These are usually shy animals, as the musk pod, which is only found on the male, is worth anything from two to five pounds, and it is easy to imagine what a rough time they must have. Both male and female are hornless, and so no doubt many females are shot on

the chance that they may be males. The male has tushes on the upper jaw, but these are not easy to see. I once had a male staring straight at me at a distance of ten yards; had he turned his head I could have seen the tushes, and being sure of the sex, could have shot it. His suspicions that I boded him no good being confirmed, he galloped off to be shot dead by my companion, who secured a magnificent pod.

The pass, the Rama La, is in three ridges, the highest being 15,270 feet above sea level. To calculate the height of a pass like this I would read my aneroid at each summit and take a boiling-point observation at one as well. This would show me the error of my aneroid and I would apply the error to the reading of the other summits.

On the pass I collected several butterflies; one was a new species of Parnassius which was named *P. acco baileyanus*. I also got some small skippers (*Pyrgus bieti*) and a very small white (*Baltia butleri*), which only occurs at extreme elevations.

I had been told that I should find gazelle on the pass, but in this I was disappointed. A number of people were collecting the curious fungus which grows out of the head of a dead caterpillar, and their presence may have accounted for the absence of big game. I spent the night at Hsi-ngo-lo in a Tibetan house as the rest-house was full of Chinese soldiers escorting treasure. The next day I travelled to Hochuka, crossing three passes. The first (13,700 feet) I crossed in a snowstorm. The last two were called the Derika La and Wongi La. I boiled a thermometer at the latter and got an altitude of 15,100 feet, and I found the former to be 1900 lower by aneroid. I travelled with a treasure escort and witnessed a curious incident. One of the yaks carrying the treasure broke down, and as I passed the Tibetan driver finished it off by holding its nose and mouth with his hand and suffocating it. As soon as the animal was dead, he rushed at the nearest Chinese soldier, dragged him off his pony, and gave him an unmerciful beating with his fists. It was with difficulty that I could prevent one of the two soldiers who formed my escort from going to help his compatriot. My sympathy was with the Tibetan,

and, in any case, I did not want anyone connected with me to be mixed up in an affair of this kind. The people are bound to supply 'ula' animals, but it is only fair to use them properly and not to overdrive them as the Chinese invariably did. Yaks are not fed with grain but pick up what grazing they can on the march. They will subsist at great heights where grass will not grow, and are quite content if they can get the small mosses which they lick with their rough tongues. This being so, it is unfair to expect from them the same work as of a grain-fed mule; the traveller has the advantage that it is unnecessary to carry grain or grass as must be done for mules or ponies. My experience with yaks is that, at a pinch, and for a single day, they will travel twenty miles, but this quite breaks them down and they require a long rest after such a journey. If the same animals have to be used for many days they should not be taken more than eight or ten miles a day. They travel very slowly, occasionally grazing as they go, and will cover this distance in four or five hours. If they are taken like this, they will go for many days without losing condition, and without requiring any food beyond what they can pick up. On reaching camp, say about 1 p.m., the yak should be unloaded and turned lose to graze. The Tibetan prefers to let them graze till the next morning, when it will be found that some are two miles off to the north and some two miles to the south, east and west, and it is simple to work out the number of miles the driver has to travel to drive them all in. It will happen, and has happened to me, that some of them cannot be found at all and a whole day is wasted in looking for the strayed animals. On the other hand, if tied up and not allowed to graze at all, they will rapidly lose condition. I found that the best thing was to turn them loose as soon as they are unloaded and let them have five or six hours' grazing until dark; then have them caught and tied up, and loosed again at three or four in the morning. If this is done they will get four hours' more grazing in the morning and will not have strayed out of reach.

My animals were so pleased with themselves when they got down from the pass on to the green turf that they threw both of

my servants, and a yak kicked off his load and damaged the box in which my sextant was, but the instrument itself came to no harm. The country was beautiful and, in spite of its steepness, reminded me of an English park — lovely green turf with clumps of trees in the hollows, while small flocks of white eared-pheasants looked like sheep on the hillside. In the streams I saw fish which looked as though they would be interested in a fly. Altogether a very pleasant week could have been spent in this neighbourhood.

I shot some of the pheasants and also a specimen of a large black woodpecker (*Drycopus martius khamensis*). A closely-allied form of this black woodpecker has occasionally been reported in the British Isles, but these occurrences are of such doubtful authenticity that it is not considered a British bird. It occurs on the Continent. The flesh of this woodpecker was considered valuable as a medicine by the people, who quarrelled over the meat as the bird was being skinned.

I also found the nest of a bush-chat (*Saxicola maura*) at 14,000 feet. I saw a hare and numbers of marmots and a fox which appeared to be in pursuit of them. The marmot on the open hillside is a most deceptive creature as regards size, which is actually between that of a hare and a rabbit. The first marmot we saw my servant Wongshi thought was a bear! Captain Welby, in his book, *Through Unknown Tibet*, reports marmots the size of men, and I am sure that this is simply another case of an optical illusion caused by the difficulty of estimating the distance in the clear atmosphere on the bare plains and hillsides.

This illusion is even increased on snow. It was very seldom that we had snow at Gyantse, and if it fell it quickly disappeared. One day as I was riding through a patch of thorn after one of our rare snowfalls, I came on a flock of enormous black game birds. They were clearly not snowcock, but something much larger and of a darker colour. I thought that I knew most of such birds of the locality and could not think what they could be. I dismounted and stalked them, when suddenly they flew off, and I saw that they were ordinary Tibetan partridges, birds about the size of our own partridges.

On the road I passed a Chinese captain on his way from Lhasa to Chengtu, with a Tibetan wife from the Chumbi Valley whom Putamdu recognized. On the Derika La I caught some more of the *Parnassius szechenyi* butterflies which I had caught before on the 21st inst. They were very wild and flew long distances, and I had to mark them down with field glasses and follow them up. Climbing from 15,500 to 15,600 is no light job when it has to be done quickly. There is all the excitement of the pursuit of larger game in watching with glasses a Parnassius butterfly, rare, not because they are few and in danger of extermination, but because the habitat is difficult of access — to watch it flutter up the hill and follow it when it settles and finally to capture it adds immensely to the interest of a journey, and I never regretted that I had adopted this speciality. I have never found butterflies above 18,500 feet, but then I have seldom been above that height. On the Naku La, a pass between north Sikkim and Tibet, I saw many small tortoiseshells (*Vanessa ladakensis*) on the top of the pass at 18,200 feet, and they were well up the hillsides on either side of the pass. This butterfly, like its British relative, feeds on the nettle. The Tibetan shepherds make enclosures and shelters of loose stones to protect themselves and their sheep from storms; their mastiffs require no protection. In the sheeps' dung in such places nettles are often found growing. Like our small tortoiseshell, these caterpillars would like to hang themselves head downwards to pupate, but on the high plateaux there is nowhere to do this, and I found that they spin a web among the sprigs of the nettles and hang themselves in this in a small colony. Here the chrysalis gets some shelter from the terrible cold of winter. The tortoiseshell larvæ are not the only consumers of the nettle. It is quite a common sight to see the nomad women picking nettles for their own meal with a bent piece of hoop iron. At these heights it is the only form of green food that the people can get. I have often eaten nettles in similar places myself, and I must say I found them unpleasant. I have seen Parnassius (*acco, simo, epaphus, hannyngtoni*) up to 17,000 feet, *Baltia*, a small white, and some small clouded-yellows (*Coleas dubia*) up to about

the same height; I have even caught the two latter at 18,000 feet in north Sikkim, but for altitude the tortoiseshell beats them all.

The butterflies here and, in fact, generally in Tibet are reminiscent of our British species. Some—for instance, the Painted Lady and the Cabbage White—are identical. Near the pass I saw a ground chough (*Podoces*) building its nest. This is made in a hole in the ground which the bird is said to dig out for itself. The tunnel to the nest is several feet long. I also saw some gazelle on this pass.

The next day, May 28th, I marched to Litang, crossing the Sen-ge La, a low and easy pass of about 14,500 feet in altitude. At the start from Hochuka the ground was white with frost but the sun soon warmed the atmosphere. In a stream bed were a pair of ibis bills (*Ibidorhynchus struthersi*). They evidently had a nest of young birds. This bird, about the size of a pigeon, makes a curious nest of small, flat stones placed on a bed of shingle by a stream. Both the eggs and the freshly-hatched birds are difficult to see, so well do they match the stones. This may be the eastern limit of the habitat of this bird which breeds at Gyantse and is not uncommon in winter in the river beds of the Himalayas south of that place. As I approached the town I came on a fresh emergence of a Parnassius butterfly. I saw that it was something out of the ordinary and caught a good many. It turned out to be a new form of *Parnassius acco* which has been named *P. acco baileyi*. I also caught more of the *Parnassius szechenyi* and a new skipper (*Carterocephalus montana*). My hypsometer gave a height of 13,440 feet for the town. The houses are dirty, and many are built of turf, like those of Phari on the Indian frontier; the latter has the reputation of being the filthiest town in the world. It is about a thousand feet higher than Litang. I put up with a monk who had left Lhasa six years previously and who was able to recognize people in photographs which I had taken there in 1904. The women about here wear an ornament of three chased-silver plates on their heads.

CHAPTER VI

LITANG TO BATANG

I LEFT Litang the next morning, May 29th. A few miles out I passed some hot springs where the abbot of the large Litang monastery was staying. I visited him and found a nice man, twenty-five years of age, who had spent six years at Ganden, one of the three big Tibetan monasteries near Lhasa. I thanked him for the hospitality of his monks and gave him photos of the Dalai and Tashi Lamas, which pleased him very much. I also told him that I had brought photos of these lamas for the monastery at Tatsienlu, but that, as the monks there had not allowed me to enter the temples, I had been unable to present them.

After leaving the abbot I had a bath the temperature of which was 101 degrees. When in the bath I was annoyed to find the water full of tiny worms a quarter to half an inch long, and I made a hurried exit. It seemed strange that these small creatures could exist in such hot water. I spent the night at a rest-house called Tutang in Chinese and Jambu-tang in Tibetan, at an altitude of nearly 15,000 feet above the sea. Major Davies, in his book *Yunnan*, mentions that when he travelled this march he saw many hares. I was hard up for meat and spent some time beating through the dwarf rhododendrons, but saw none, though I was rewarded with a partridge and, on arrival in the evening, I pulled nine fish out of the river with fly.

I passed the post this day — a single runner armed with a spear. He travelled on foot all the way from Batang to Tatsienlu, doing the journey of about 300 miles in ten days.

At the rest-house were ten Chinese soldiers whose duty it was to hunt the robbers who infest the Gara La which I was to cross the next day. Ten men were kept here and ten at Kang-hai-tsu on the other side of the pass for this purpose. They told me that they had seen two stags above the rest-house the previous day.

My escort of two soldiers had been changed at Litang. From

Tutang I crossed the Gara La, 15,950 feet. Water boiled at 183.6, and the temperature in the shade was 44 when I made the observation. The road left the valley of the stream which it had followed from Litang plain, and ascended in a westerly direction among a jumble of hillocks and rocks. Below the pass is a lake, and 300 yards east of this is a rock shaped like an anvil. The legend goes that the large image in Litang monastery was made here on this anvil by a blacksmith who lived inside a rocky conical hill above the lake. 'Gara' is the Tibetan for blacksmith. On the pass I met two Chinese soldiers who told me that they were the patrol sent up each day to see that the pass was clear of robbers.

I left the pass in falling snow which developed into a regular storm, and lower down turned into a very wetting rain with which my Chinese 'waterproof' was quite unable to compete. I saw one flock of eared-pheasants on the west side of the pass. I also came across another pair of that curious bird the Ibis bill (*Ibidorhynchus struthersii*) in a stream bed; by watching it with glasses I discovered that it had two young ones which, at any sign of danger, lay down with their necks stretched out flat on the ground, while the parent tried to attract attention to herself in the usual way.

I saw a pair of snow pigeons (*Columba leuconota gradaria*). This is a whitish bird which lives around the tree level in the Himalayas and, indeed, further west. It is not found in the dry parts of Tibet north of the Himalayas, but I once saw a flock in a well-wooded valley just south of Lhasa.

I came on two pairs of horned larks (*Otocorys*) building their nests. These birds are very tame, and once I was able to take a cinema photo of one going on to its nest at a range of twelve feet. The nest was in the high, open country and there was no cover to hide me. I got a specimen of a large lark (*Melanocorypha maxima*) which I knew well from having seen it frequently and found nests south of Gyantse. Another Tibetan bird of which I shot a specimen was the robin accentor (*A. rubeculoides*). I had found nests of this robin-like bird at 14,500 feet in southern Tibet.

I spent the night at Ranung, also called Lama-Ya. There was a telegraph office here, but as I had seen the posts and wire lying on the ground at many places all the way from Tatsienlu, I was not surprised when the clerk told me that he had nothing at all to do. My escort of two soldiers showed me their rifles, which were of German make dated 1901. One of them took his to pieces, even reducing the bolt to a jumble of screws and strange pieces of iron, and put it together again. We fired some shots at a mark. These two men had the makings of good soldiers. They were careful of their weapons, which they kept clean and oiled, and they shot well.

On May 31st I marched to Rati, a place which the Chinese call Sampa. I had to cross a comparatively low pass, the Ye La, which my aneroid showed to be 13,430 feet. The ascent was gradual as I approached the summit, but the descent was steep. Across the valley northwards was a snowy range including a high peak, Nenda, of 22,000 feet. I caught the pale species of clouded-yellow (*C. montium*) and a form of our swallowtail, also some skippers *Pyrgus bieti* and *Erynnis pelias*.

My servant, Wongshi, told me that on this pass I must not fire a shot nor even look at the hills with field glasses. A missionary who did so died at once and his grave is on the roadside to prove it. I passed this grave inscribed with the name of William Soutter, who had died here in 1898.

I found a wagtail's nest (*Motacilla leucopsis*) in a 'mani' wall on the road. These walls, often of great length, are built down the middle of the road and faced with inscribed stones. In travelling they should always be kept on the right-hand side, the reason being that if the return journey is made by the same road, merit is acquired by completing in the proper, that is the clockwise, direction the circuit of the sacred writings. I arrived at Rati in heavy sleet to find one room of the rest-house locked, being occupied by a Chinese official who was temporarily absent, and the other in the occupation of his two clerks, one of whom was extremely rude. Apart from annoying inquisitiveness one seldom suffers from rudeness in China; at least this is my experience.

NOMAD WOMEN AND BLACK YAK HAIR TENT, NEAR BATANG (Note silver plate ornament on hair)

I endeavoured to find other accommodation, but as I failed in this I returned and shared the room with them.

The next day, June 1st, I crossed the Rongsa La (15,300 feet by hypsometer). The ground was covered in snow. Below the pass the country consisted of beautiful turf on which were belts of firs and willows, among which were pitched the black yak hair tents of the nomad population. I entered one of the tents and spent an hour drinking buttered tea with the owner and his family. My Chinese escort contemptuously refused to join us. The women wore head-dresses of silver plates with large pieces of amber. Besides the nomad inhabitants the tent contained a dozen sheep and goats. About here I caught a new species of Argus butterfly (*Erebia discalis*). On reaching Tasho I found the rest-house occupied by Chinese soldiers, so spent the night with a hospitable Tibetan whose family of about a dozen appeared to be having meals all the afternoon. I reached Batang on June 2nd after crossing the Jaralaka (pass), 16,300 feet by boiling-point thermometer.

On most of the passes between Tatsienlu and Batang I was told that bharal were to be found. I never saw any, but a skull lying on the ground on this pass proved that these wild sheep are to be found in this neighbourhood. Before reaching the town I passed some hot springs. Such springs are common in many parts of Tibet and are usually credited with medicinal qualities. There is a cluster of hot springs at Kambu, at the head of the western branch of the Chumbi Valley; these springs have been led into artificial baths, each of which is supposed to be a cure for a separate disease. Although no one could call the Tibetans a cleanly race, still I think their dirt is to some extent excusable when one considers their climate. It would be interesting to compare them in this respect with the Eskimos who live in a somewhat similar climate, but I myself have never seen an Eskimo. I think there were many British soldiers and officers who spent the winter of 1903-04 at Tuna and Phari who were as averse to a wash as any Tibetan. There was certainly some excuse when troops under canvas are obliged to face temperatures

as low as 27 degrees below zero Fahrenheit. Tibetans delight in bathing when they get the opportunity afforded by hot springs, and even when they don't they are fond of a warm bath. The bath is warmed by throwing into the water stones which have been heated in a fire. These keep the water hot for a long time.

On reaching Batang I first went to the house of Mr. Ogden, an American missionary, who took me to Mr. and Mrs. Edgar, of the China Inland Mission, whose kind hospitality I enjoyed for several days. He was a New Zealander and his wife a Moravian. Mr. Edgar was, in my opinion, typical of the best class of missionary for Tibetan work, not fanatical and prepared to work more by example than by actual teaching in the first instance. I later accompanied him into country where no missionary had ever been, where one mistake or any indiscreet excess of zeal would have done immense harm; in the country through which we travelled he left behind a multitude of friends and the very best impression. After spending his life on the Chinese-Tibetan frontier, and amassing experiences to a unique extent, he died in harness at Tatsienlu in 1935. He was always ready to place his vast knowledge at the disposal of travellers, and I was by no means the only one who had used him to further their plans. He delighted in leaving his home at a moment's notice and travelling with some perfect stranger for days with the idea both of helping him and of obtaining information for his Mission. He spoke and wrote both Chinese and Tibetan. Besides various articles in the *Geographical* and other journals, he wrote a book, *The Marches of the Mantze*, packed with information about this frontier.

At Batang I heard many stories of the cruelties and severities of Chao Êrh-fêng, the so-called Warden of the Marches. There was quite sufficient foundation for these stories, but the accounts became exaggerated in proportion to the distance of the site and time of their occurrence. I had a good example of this near Tatsienlu. I passed a Tibetan lady with a number of people accompanying a coffin. I asked some travellers on the road whose body was in the coffin and was told the following story:

Chao had killed a Tibetan at Batang by tying him up, cutting away the flesh and skin covering his stomach, and nailing a flap of this to his chest, while he amused himself with watching his heart and his interior working until the man expired; after which he ate his head! As this was said to have occurred at Batang I was now able to make inquiries: the truth turned out to be that one of the Tibetan interpreters had been sent to a village north of Batang to collect taxes. He had embezzled the taxes and reported that the village had refused to pay. The villagers were punished in some cruel way and when it was found out what the interpreter had done he was sentenced to be beheaded. There were at this time weekly executions at Batang which the population used to go out to witness. As this man was being led to the execution ground, a grove of trees near the ruins of the monastery which Chao had destroyed, his servant ran out of the crowd and slipped a knife into his hand. With this the interpreter endeavoured to commit suicide by cutting himself in the stomach; he succeeded in injuring himself so severely that there was no hope of his reaching the execution ground alive, so the executioner was hurriedly sent for and cut off his head just before he would have expired. His servant was punished with a flogging of 1500 blows which resulted in his death. This story is terrible enough, but not so gruesome as the garbled version which reached me at Tatsienlu.

I myself went with Edgar to dress the wounds of one of Chao's victims, a lama who had received 1200 blows one day, 300 subsequently, and who was to get some more which he himself told me would certainly kill him. I also met the adjutant of a regiment who had received a thousand blows. M. Bacot, who travelled on the Tibetan frontier in 1907, in his book *Le Tibet Révolté*, states that during the month's siege of Sampiling, a lamasery south-east of Batang, Chao executed 1800 of his own men. As a result of this severity Chao had an efficient army — far more efficient, at any rate, than the republican army that succeeded his, though the latter was better armed and equipped. There is no doubt that Chao was excessively cruel, and it was

surprising to me that Christian missionaries at Chengtu and Tatsienlu should be loud in his praises. Their reason was that they hoped his conquest of Tibet would permit them to carry on their work in that country with the same freedom that they enjoyed in China.

Chao Êrh-fêng eventually met the death he had meted out to so many, and was beheaded at Chengtu at the time of the revolution. At first, for some time he fought against the revolutionaries, who were badly armed and were defeated on every occasion. However, disaffection among his troops and the news of the spread of the revolution in the other provinces of China made his position so difficult that he handed over his seals of office to the republicans. Shortly after this the troops in Chengtu looted the city and foreigners were obliged to leave. Chao was believed to have instigated these disturbances. Meanwhile, one of his subordinate officers was still holding out at Yachou against the republicans and Chao was accused of intriguing with him, and there was a story of an intercepted letter (possibly a forgery). Anyhow, all this was sufficient in those disturbed times to make a case against a man whose cruelties had made him so many enemies. He was beheaded in the presence of an immense crowd; his head was paraded round the city and photos were taken of his body with the head lying beside it. One of these photos, bearing an inscription which confirmed the identity of this horror, was even sent to me. In the later fighting between the Chinese and Tibetans the most revolting cruelties were said to have been perpetrated by the former. One can only hope that these stories were exaggerated, but it is certain that in this fighting the Chinese were in the habit of executing all prisoners.

Among other enterprises in the territory over which the Chinese were strengthening their hold, I was shown a tannery in Batang. The boots made were worse and more expensive than those imported from China; only six Chinese and thirteen Tibetans were employed. I was told that out of 15,000 taels allotted to start this industry, 10,000 had been embezzled by the officials in charge. The tanning was done with poplar bark.

Chao also made an attempt to bring in Chinese settlers, and I visited the farm of one of these colonists and spoke with the people. Alongside was a Tibetan house and the contrast was very striking: the Tibetans lived in a solid, two-storied house of stone while the Chinese were in a miserable mud hovel; the Tibetan land was under fine crops and had every appearance of prosperity while the Chinese farm was dry and parched with a poor, backward crop. There were several reasons for this. In the first place the Tibetans, being the original owners of the land, had made the most of it. All the land easy to irrigate and cultivate was being worked by them. The Chinese colonists had only land which the Tibetans did not think it worth while to till. Tibetans as a race are great irrigators. In their dry country practically the whole of their cultivation is irrigated, and they are very clever in this. Tibetans seldom attempt an irrigation channel more than six feet in width, but with this limit, they fully understand the work. The Chinese colonists had been brought from lower altitudes in Szechuan, where they were accustomed to eat rice and pork, and dumped down on inferior land at 8000 feet, in competition with hardy people who were already in occupation of the best land. They were only able to obtain barley and yak meat and beef to eat, and were thoroughly inefficient and discontented. The probability also is that they were people who had failed to make good in their own land. At the time of my visit only about thirty Chinese colonists were left and traces of abandoned attempts could be seen all around, and there is no doubt that this courageous but ill-thought-out attempt of Chao's must have ended in failure.

Batang was one of the few places where I received a certain amount of discourtesy from the Chinese. This rather pleased me than otherwise, as our intercourse was brief and not so friendly that I needed to go into details about my plans. I had a passport from Peking permitting me to travel in the provinces of Szechuan and Yunnan. This passport I had been showing to the various Chinese magistrates; they in turn gave me a local passport in Chinese and Tibetan ordering the people to assist me. The

Batang magistrate had worded this local passport so that I would have to travel to Yenching and 'thence to Yunnan'. This was not in the terms of my Peking passport. In the terms of that document I had permission to travel about in Szechuan and Yunnan, that is, if on reaching Yenching I so wished, I could return to Batang or visit some other part of Szechuan. It was necessary to get this altered as otherwise some suspicious or obstinate petty official might try to force me to go straight into Yunnan from Yenching. It was Edgar with his knowledge of both Chinese and Tibetan writing who noticed this. I personally visited the magistrate and got this altered; all the magistrate said at that time was that I could not go to Gartok, a town in Tibet.

At Batang a merchant paid me 1137½ Chinese rupees for a cheque on Shanghai of 400 taels. It was a complicated reckoning as we had to work out the exchange from taels into Szechuan dollars and then from the dollars into rupees. I worked out the amount with a pencil and paper while the Chinese merchant did the same with his abacus. His method was certainly rapid but disclosed a difference of fifteen rupees in my favour. He was most contemptuous of the slow and inaccurate foreign way of calculating; as I got fifteen rupees more than I expected, I took it. Next morning, however, he came round and said that I was right after all, and I paid him back his fifteen rupees.

The Chinese rupee is a curious coin struck in Szechuan for the Tibetan trade. The Tibetans of central Tibet trade mostly with India, and small traders take a sum of about 3000 rupees (£200) to Calcutta, where they buy Indian goods for sale in Tibet. Three thousand silver rupees are about one man's load, and, apart from the expense of carrying the money down, there is the danger of robbers. Consequently, the trader prefers to enter the British Post Office at Gyantse and send a money order to himself at Calcutta, which he does at a cost of one per cent. The British-Indian Post Office at Gyantse would not accept any but Indian currency; Chinese and Tibetan currency, therefore, depreciated in value in comparison with Indian. The Chinese sought to overcome this by coining a Chinese rupee which would

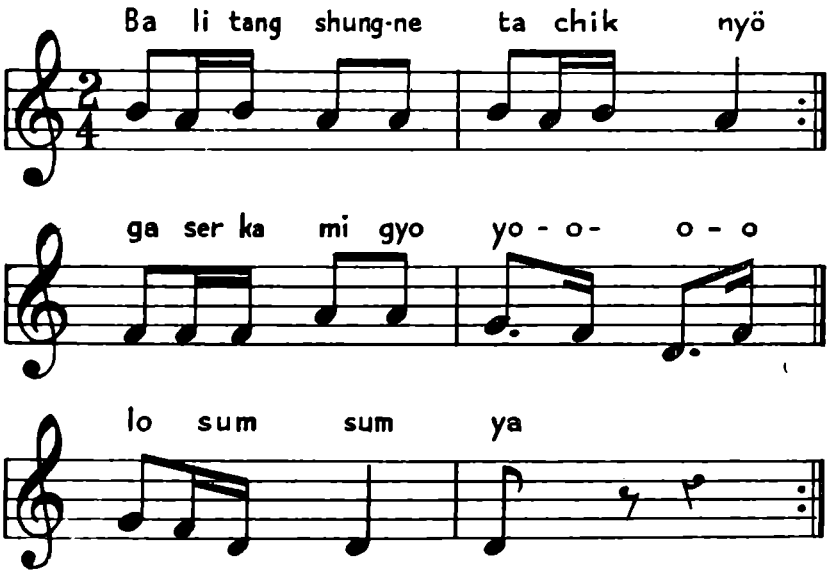
be of value equal to the Indian rupee; but, of course, though similar in size, weight and almost so in pattern, it was still of no use at the Gyantse Post Office and fell in value to twelve annas (three-quarters of a rupee), much to the annoyance of the Chinese. I found that on this eastern border the Chinese rupee, not being influenced by the British Post Office, had a higher value than the Indian coin.

The Chinese rupee is the exact size of an Indian rupee; on one side is the Emperor of China's head, on the other side a Chinese inscription which means: 'Szechuan Provincial Manufacture'.

The ornamentation on the rupee and even on the Emperor's clothes is copied from the Queen Victoria Indian rupee. The people do not understand small change, and would usually give a rupee's worth of small change together with some copper coins for a whole rupee. In the same way they did not like the new King George V or even King Edward rupee, and would give some copper coins with these for a Queen Victoria rupee, to which they were accustomed. A rupee is frequently called a 'Company', which takes us back many years. The Tibetans have curious names for the different rupees: the very old Queen Victoria coin without a crown is called 'Two Tails', referring to the way in which the queen's hair is done; the crowned queen is called the 'Old rupee'; King Edward's coin is called 'Lama's head', as he is supposed to have a shaved head; while King George V's coin is called 'Lopön's head'. Lopön Rimpoche is the Tibetan name for the Indian Saint Padma Sambhava, who introduced Buddhism into Tibet; King George's crown resembles that on the images of this saint. Change is given by boldly hacking the rupee in half. At one place we required change and the rupee was put on a block of wood and an axe placed across the middle, and this was hit three or four times with a heavy stone and I was given my change.

In Batang I bought two ponies at 110 and 112 Chinese rupees each. I wished to be independent of the local transport in case difficulties were put in my way. Later on I bought more ponies whenever a suitable animal was supplied in my 'ula' transport.

The ponies of Batang and Litang are well known and are the subject of a popular Tibetan song which my wife learnt:



TRANSLATION

Let us buy a pony from the Ba-Litang district. It is three years since I have used the golden saddle.

While at Batang I caught many butterflies, including two new species: a skipper *Carterocephalus postnigra* and *Ypthima baileyi.*

From Batang I posted parcels of seeds and other collections back home. In a journey of this kind one develops a maniacal desire to get rid of small things in the hope that in the end a whole load can be reduced, making transport problems easier.

Through the kindness of Dr. Hardy, of the American Mission, I was able to get some mercury to replenish my artificial horizon for use with my sextant. My predecessor, A.K. (Krishna), also lost mercury through leakage, which, owing to the necessity for secrecy, he was unable to replace.

CHAPTER VII

ACROSS THE FRONTIER

I LEFT Batang on June 6th, sorry to part with my missionary friends the Ogdens, Dr. Hardy and Mrs. Edgar. Mr. Edgar accompanied me for some days, and without his assistance at one critical point I should not have been able to have entered Tibet and achieve even a partial success.

A few miles from Batang we crossed the Cho-cho Shan, a low pass of about 9600 feet from which we had glimpses of the Yangtse River which I had left at Wanhsien, on April 9th, nearly two months previously, since when I had travelled nearly a thousand miles. We reached the river at a village called Le, where we lunched among peach and walnut trees which bore fruit as yet unripe. Here I found two children fishing, one with an unbarbed hook, the other with a sharp thorn tied at right-angles to the line and embedded in dough. I bought a fish they had caught and made them a present of some barbed fish-hooks. The Tibetan style of fishing is deadly. The line has hooks attached every foot or so, and at the end is a stone. The fisherman throws the stone out into the stream, leaving a line of baited hooks across the stream bed. The end of the line on shore is then tied to a stone or bush and passed over an upright stick about six inches in height fixed in the ground; on this is balanced a small stone. As soon as a fish takes one of the baits he pulls the line and this shakes off the balanced stone. A man can put out a dozen lines like this, covering a considerable area with baited hooks while he sits by, spinning wool, until he sees that one of the stones has fallen.

The telegraph line had been made as far as Le from Tatsienlu, and materials were lying on the bank of the Yangtse for its onward extension into Tibet, but it was not working beyond Tatsienlu. It had been put up in a cheap and careless fashion. The poles, instead of being embedded in the ground, were placed standing on it propped up by stones, so that any yak who chose to

rub against them must push them down. The porcelain insulators on the telegraph poles appeared to exercise an irresistible fascination over the Tibetan traveller, and even more so over the Tibetan shepherd. The latter drives his flock by slinging stones, and always carries a sling in his hand. With this, while his flocks graze, he amuses himself taking shots at the insulators and sometimes breaks them. The Chinese suffered from this trouble, and our own line between the Indian frontier and Gyantse was frequently damaged from this cause, the metal poles being pock-marked by near misses. The Tibetan line to Lhasa suffered in the same way. This damage can be reduced by placing the poles several hundred yards off the road; this does away with temptation to the passing traveller, and one has only to fear the shepherd. When living in Gyantse I invited the co-operation of the Chinese officers to stop this nuisance. Their only suggestion was to nail a man's hand on to the pole where the damage had been done.

From Le we drifted down the Yangtse in skin coracles. Our party were transported in three of these, which between them held seven men and six ponies, besides a boatman in each. We could have carried more baggage. These boats are common all over Tibet; they are made of a framework of willow over which hides are stretched. Those near Batang are smaller and deeper than those used in central Tibet, but of the same pattern and not unlike the Bagdad 'gufa', but less tidily made. It is possible to transport ponies in these coracles by throwing the animal, tying his feet together and depositing him on his back in the boat. His hooves would go through the hide covering were he allowed to stand up. Some years ago I brought a number of coracles up the river to Gyantse and used them for carrying stone from a quarry downstream to the site of the British Trade Agency that was about to be built. The people were perturbed, saying that no coracle had ever been brought up above a certain bridge, and that, if this was done, the demons would send hail to destroy the crops. I insisted, and luckily no hail fell; the incident is forgotten and the lamas who made the prophecy have lost

nothing by it; but had hail fallen even to a small extent the amount of the damage would have been exaggerated all over Tibet; the lama prophets would have gained much kudos and I should have been in great trouble. With superstitious people the priest has an easy time: his motto is 'Heads I win, tails you lose', and memories are conveniently short. He has another advantage: supposing, for instance, the villagers pay a man to blow trumpets made of human thigh-bones to keep hail off their crops, and supposing that in spite of this the hail does damage the crops, he only has to say to them, 'Your wickedness is so great that even the efforts of such a holy and accomplished man as I are not able to avert your punishment, but my efforts have succeeded in greatly reducing the damage'.

While descending the river we heard several pheasants call from the bank, one of which I saw, and I landed to try and shoot it, but as two small children thought I had landed to shoot them, they fled screaming and frightened it. We spent the night at the goitre-stricken village of Jubalung, where in spite of an altitude of about 9000 feet we found it so hot that we were glad to sleep in the open.

Although by no means travelling secretly, using a false name or any disguise, I was not anxious that it should be known that I had served for some years at Gyantse, where at times we had not seen eye to eye with the Chinese officers. Here at Jubalung we came across a Chinese buying musk who had known my servant, Putamdu, six years previously in Darjeeling.

In Tatsienlu I found that one of the servants of the magistrate had been a servant of the Chinese official, Mr. Ho, who had met Sir Francis Younghusband at Kamba Dzong in 1903, and he asked me about incidents there, but although I had been present, I found it best to pretend not to understand.

The next morning we crossed the Yangtse to the right bank in two sixty-foot wooden ferry-boats. One Chinese traveller was suspected of being a deserter from the army, and had some difficulty with the people, who had received orders to look out for deserters. A number of small Chinese traders from Yunnan

were waiting on the right bank to cross. Each man had his merchandise slung at either end of a long pole and was carrying, perched on the pole, one or more parrots, in which there appears to be a trade with Yunnan. Terns were fishing in the river as we crossed. We breakfasted at the village of Gera where we had to change our transport, and the delay gave me an opportunity to shoot a pheasant (*P. elegans*) and to catch many butterflies, including a rare Argus (*Callerebia megalops*), of which the female was not previously known. I also obtained a Woodwhite named *Leucophasia amurensis*. Here at an elevation very little lower than Jubalung the crops were much further advanced and the barley already being cut. From Gera we left the Yangtse River and crossed a pass and descended about 200 feet to Kongseka village, where we spent the night. On the road I shot a parrot (*Psittacula derbyanus*), of which I saw numbers. I also saw a flock of the white eared-pheasants. The next day, June 8th, we passed Shamani village where Edgar and I found one of the Chinese schools which Chao Êr-fêng had started at places where twenty pupils could be brought together. Education was compulsory for children who lived within a certain distance of the school. In the whole of this newly-administered territory, the Chinese were trying to force their nationality on the people. Everyone was obliged to adopt a Chinese name of which lists were posted from which each person could select whichever took his fancy. It was hoped that, by using these names and the Chinese language in the courts and in official business generally, Tibetan would gradually be supplanted by Chinese. Chinese place names were also substituted for the Tibetan names; they were either a translation or a very rough transliteration. In this school twenty-two girls of ages between four and twenty, and nineteen boys between four and nineteen, were all doing the same work; boys and girls were in separate classrooms. Some of the girls were quite grown up and were wearing jewellery, which signified that they were no longer children. The lesson I happened to see was geography, but there was no map; one boy read a sentence from a book which the others all repeated as a kind of song. I should think

very little geography was learnt. Edgar translated for me the notices posted outside the school. Five hours' work a day for six days was prescribed and the subjects taught were geography, history, literature, reading, Chinese, recitation, mental arithmetic, hygiene, drawing, singing, drill, and science. There was also a list of 'don'ts' for the scholars which would seem to show that schoolchildren are much the same the world over: 'Don't whisper — don't eat — don't fight — don't speak Tibetan — don't recite "Om mani padme hum" or other prayers — don't be dirty — don't carry knives — don't dirty the desks.' At another school which we passed later in the day at Jengbani, we found science being taught, the particular branch being natural history. With Edgar's help I learned the purport of the lesson; animals are divided into four classes: quadrupeds, birds, fishes and insects; of these the latter are the most useless, but even among insects the worm gives silk and the bee honey. The dog guards the house and the cock knows when it is morning. Man is the head of all animals. If you do not work at your lessons you will make yourselves lower than the animals, all of whom do some work. A Chinese woman was teaching the girls at this school.

The ploughs about here are made entirely of wood, the ploughshare being of hard oak and detachable so that it could be replaced when worn out. At 2 p.m., after changing transport, we left the village of Bamutang (13,000 feet). From here a road goes over the Pö La, or Ning-ching Shan, into Tibet proper. Sir Alexander Hosie describes how when he visited this pass in 1904 the Tibetan guard would not even allow him to walk round the boundary stone to read the inscription, so particular were they that he should not cross the Tibetan frontier. While sending our baggage to the south by the road, which we were to follow, we ourselves decided to visit the pass; so without a word to our escort, who would probably stop us from entering Tibet, my companion and I rode up towards the pass. We had not gone very far when Edgar's servant galloped after us with a message from our escort to say that we were on the wrong road. We took no notice of this, and I imagine the soldiers felt fairly sure that we were not making

a bolt for Tibet, as they were taking all our baggage with them along the Yunnan road. A boiling-point observation on the pass gave a height of 13,880 feet. Lying on the pass was the boundary stone on one side of which was some Chinese writing roughly painted on in black. The writing, though weather-worn and almost illegible, was quite recent. Just before reaching the pass we noticed three snowpeaks to the south-west which must have been on the Mekong-Salween divide. The most southern was apparently the highest and bore 223 degrees. We descended the Tibetan side of the pass and went as far as the village of Lhanden (12,940 feet by boiling-point), where we found a party of sixty Chinese soldiers on their way from Gartok to Batang. From them we asked the way to Janiding where we were to spend the night, and pretended we had lost the way. From Lhanden we rejoined the stream which flows from Gartok and followed down it for some miles till, climbing the left side of the valley, we rejoined our caravan at Janiding. One of our escort was very angry with us for leaving the road and going into Tibet, but we retaliated by being angry with him for not escorting us as it was his duty to do.

I was told that gazelle were sometimes to be found on the Pö La, but we saw none. After leaving Lhanden I came on a flock of the white eared-pheasants and I heard blood pheasants calling. I also saw a pair of partridges on the pass. I took the nests of two birds, a shrike (*Lanius tephronotus*) and a redstart (*Phoenicurus auroreus*). I found a magpie's nest at Jengbani containing young birds. At Jengbani also I saw a goldfish in the stream. I once saw one in a stream somewhere between Wanhsien and Chengtu. I think both of these fish must have escaped or been released into the streams as they are not naturally wild and their brilliant colour must invite destruction.

When making inquiries about the wild animals to be found here I asked about the panda. It was not found locally, but my travelling companions knew of the animal for the astonishing reason that the Chinese troops at Batang had a live one as a pet! I was tempted to return to Batang to see it but could not spare the necessary week, and also it may have been some other animal;

but the panda is so striking that I feel sure that this rare animal was their regimental mascot. At that time no white man had ever seen one.

The next day, June 9th, our way led through forest-clad hills in which General Davies mentions that he found quantities of game. We were not so fortunate, though we met a man carrying an old twelve-bore shotgun, by Jeffrey, who was trying unsuccessfully to shoot hares, and I heard the call of the eared-pheasant and saw some more partridges. On the road we passed an image carved in the rock which the people told me had appeared supernaturally. Near the village of Tsong-en we crossed the river which flows from Gartok and entered a side valley of red soil covered with trees and grass in which were signs of abandoned terraced cultivation, and spent the night at Yao-chao (or Nun-chu). Continuing up this valley after some ups and downs, including one which might almost be dignified with the name of pass, we reached the Kia La. The drop from this last ridge before the final rise to the pass was a thousand feet. The road was through forest of silver fir and prickly oak. This unappetizing tree is cut and used as fodder for animals. I saw hares about here and heard the noisy call of the eared-pheasant but did not see this usually conspicuous bird. I took an observation for altitude at the summit of the Kia La. Water boiled at 185.9 degrees, which, with an air temperature of 48 degrees, gave an altitude of 14,750 feet. From the pass we had a view of snow-topped hills across the Mekong, and could see the zig-zag road we were to take from Yenching (or Tsaka) on the river bank up to Lagong, a ruined monastery. On the summit of the pass were dwarf rhododendrons among which I caught a specimen of the butterfly *Parnassius orleans*, and below the pass a specimen of the new Argus (*Erebia discalis*) which I had caught previously on the Rong-sa La on June 1st. I also caught several veined whites (*Pieris dubernadi*, *Aporia davidis*, *A. martineti* and *A. hippia*). Descending from the pass I took another nest of the redstart (*P. auroreus*) in a hole in a wall. This bird is a winter visitor to north-east India but does not breed there. I also saw some more partridges.

We were now at a very critical point on our journey. The Mekong River was the Tibetan frontier. Although there was very little difference between the inhabitants on either bank of the river, still the left bank had been administered Chinese territory for many years, while the right bank had recently been taken over by Chao Êr-fêng, and was in process of being subdued to China. Our passports did not give us permission to cross this frontier. My plan was to go forward, letting nothing dissuade me short of physical force. I had no fear of any opposition from any of the Tibetan inhabitants, for, as neither Edgar nor I had the Chinese view of Tibet which I found almost universal among missionaries and other foreigners on this frontier, we had everywhere been welcomed in a most friendly way. Our only fear was that the Chinese would stop us, and I thought that if I continued to travel as I had done, and put it up to the Chinese to stop me by force, I should have the best chance of success. I knew that the local Chinese would not like to take the responsibility of using force. In this matter I had a piece of luck. Shortly before my arrival Mr. Muir, an American member of the China Inland Mission, had been at Yenching. The Chinese had suspected that he intended to cross into Tibet, and on this suspicion, without waiting until he had violated the frontier, they had arrested and deported him. This they had no right to do until he had committed some breach of the conditions of his passport, and they were rightly having trouble with the American Legation over this affair. Their proper course would have been to have watched him carefully and to have taken action the moment he put himself in the wrong. This incident had made the local officials chary of touching a foreigner, and no Chinese ever attempted to stop me or asked me to turn back.

We intended to try to cross the frontier at the rope bridge below Yenching. A word of explanation is perhaps necessary regarding the rope bridge. In this part of the country these bridges are made of two single ropes of twisted bamboo bark, one of which is intended for the crossing in each direction. The bridge for crossing from the left to the right bank starts from a

greater height on the left bank and goes to a lower point on the right bank. The rope naturally sags a little, and is so arranged that the lowest part of the sag is such a distance from the right bank that the weight of man, animal or baggage, which gathers an alarming velocity, is slightly checked by the necessity of going up for the last few yards, and the landing is made without undue violence against the cliff on the right bank. Similarly another rope is used for the journey from the right to the left bank. The actual rope is two or three inches in diameter; over this is laid a piece of wood a few inches long, hollowed out into a semi-circle; this is called in Tibetan a 'saddle', which aptly describes it. This saddle slides over the rope and the load is slung beneath on leather thongs. In the case of a man the saddle is about six inches long, but for ponies it is longer. Further west these bridges are different and less efficient; there is only a single rope, which means that the traveller is carried down by gravity only a little more than half-way, and has a difficult and tiring pull up the latter half, while baggage has to be pulled across with a rope.

General Davies and his party had tried to cross this bridge at Yenching in 1899, but the hostile Tibetans from the monastery of Lagong, on the hill above the bridge, had come down, fired on the party and stoned them, and eventually cut the rope leading to the Tibetan bank when some of the party had already crossed, leaving only the rope by which those who had already crossed could return to the Chinese bank. We knew that the two soldiers escorting us would probably try to stop us, so we laid our plans to separate out our small caravan as far as possible. 'Union is strength', and if we could separate our two guards, each might be more easily managed alone. If the worst came to the worst and the transport refused to go to the bridge, we were prepared to load our kit on the three ponies which I had bought with a view to a difficulty of this kind, or even, as a last resort, to carry loads ourselves. We changed our transport at the village of Kyo-long and were provided with several coolies, men and women, two donkeys and one bullock; this was just the sort of transport which would be unlikely to keep together. At about a quarter to

five I, with some of the coolies, reached a point a few hundred yards from the town of Yenching where the road descended a steep valley. I told the coolies we were going 'down there' and would pay them for the extra distance beyond Yenching, which was the regular stage. At first they wished to go straight to the town, but soon agreed. One man who was behind with the donkeys shouted that we were going the wrong way. I hurried the first coolies down without any fuss, and Edgar dealt in a similar way with some more, and finally the man with the donkeys followed, on seeing that everyone else had gone down. To our great surprise, our two soldiers followed without a word. As we descended the valley we could see, on the right of the deep ravine which we were descending, the French Mission station of Yerkalo, which had been founded by M. Desgodins in 1873. On the roof of the house I could see with my glasses the two French priests walking up and down, and could even recognize Père Grandjean, whom I had met at Batang. They did not see who we were. After descending this ravine for half an hour we came to a salt-tax barrier. Here the transport refused to go any further, saying that it was against orders, and they even unloaded the animals. At this critical moment it looked as though we had failed and would be obliged to return, and I give the credit of our success in passing this point entirely to Edgar's persuasive tongue (in Chinese). The small officials at the salt barrier seemed to think that it was a question between us and our transport. At length the loads were again taken up, and carried the short distance to the bridge, the coolies paid off and allowed to go. We did not imagine that our troubles were over, as we quite expected to be prevented from crossing the bridge, but we were lucky and, on calling across the river, the men at once came out of the cave in which they lived and crossed over, bringing us the necessary thongs and 'saddles', and started to take us across.

The Mekong I estimated to be over 100 yards wide; the river was thick with red mud. My hypsometer made the altitude to be 7700 feet. It was a weird sensation to be tied on to the 'saddle' and to launch oneself across the abyss. The pace is terrific and

I was warned to hold on to the 'saddle' with my hands but to keep my head well away from the rope as occasionally people had lost an ear by allowing it to touch the rope as it tears by. Although I was careful of this, I held on too tight and my shoulder for a fraction of a second touched the rope, which tore my coat. As I reached the opposite bank I put my feet out and took the shock against the cliff on them. Our ponies were led on to the platform whence the rope bridge starts and were here blindfolded and then strapped firmly to the saddle and gently pushed over. There was something comic in their terror as they felt the ground disappearing from under their feet, and as they flew across they stretched out their feet pathetically in all directions feeling for solid earth. I felt a sort of malignant delight in the case of a very bad-tempered animal whom we had always been obliged to blindfold before we could get him saddled. It took us nearly two hours to send five men, three ponies and six animal loads of baggage across, and it was dark when we had finished. We parted with the escort of two soldiers at this bridge, one of whom crossed after us to receive the present we had for him.

My servant Wongshi, who had crossed first, managed to get some men to help us to move the loads from the bridge that night, and in our anxiety to get away from the bridge and the officer at Yenching as quickly as possible, Edgar and I carried loads ourselves.

CHAPTER VIII

THE MEKONG TO THE IRRAWADDY

We spent the night at a village called Jada, where we put up in a house with a small Chinese official connected with the salt tax.

Yenching means in Chinese 'salt well'. The Tibetan name is Tsaka, meaning salt mine. The town of Yenching, where the Chinese magistrate lives, is about a thousand feet above the left or Chinese bank of the river. The actual salt wells are on the river bank on both sides. They are springs of brine about two feet deep and three or four yards in diameter. The brine is taken in birch-bark buckets put into pools under shallow earth pans which are built out from the side of the hill, and in the distance from above look like the flat roofs of a large village. When the brine has become stronger through evaporation it is placed in the pans. The sun soon evaporates all the water and the salt is then swept up with a broom and with it a good deal of red earth. From here Edgar sent a letter to his wife to say that we had crossed the frontier, and this we sent through the French priest at Yerkalo.

We left next morning, June 11th, and climbed to the ruined monastery of Lagong. This monastery had been destroyed by the Chinese in 1907, and many of the monks killed. At the time of our visit it was occupied by four Chinese soldiers under a non-commissioned officer. We wandered over the ruins, and in doing so, Edgar inadvertently pushed open a door which had been sealed by a Chinese officer's visiting card, pasted across. The room contained some stores of grain. The Chinese soldiers were very perturbed, saying they would be accused of having broken the seal themselves, and of having removed some of the grain. This incident upset us somewhat as it gave the Chinese officer at Yenching an excuse for stopping us, and it looked as though our whole project might fall through by this bit of bad luck. The soldiers insisted on detaining Edgar until the official across the

river at Yenching had been informed and had re-sealed the door. We discussed what we had better do and decided that I should go on with both Edgar's and my baggage, and that if he could not follow I should send him back his things and go on alone. We thought that by my taking his bedding and other things on we would give the impression that we considered the incident of small importance and were within our rights in going on; by thus minimizing matters we judged that the Chinese might also treat the affair lightly. This turned out to be a good plan, as eventually the clerk of the magistrate arrived from Yenching and re-sealed the door and, I presume to 'save face', told Edgar that if we had come to Yenching the magistrate would have given us transport and an escort, and have helped us on the journey. This offer of help by the local officer was useful to me afterwards when I was asked to explain why I had crossed into territory not fully under Chinese administration or control. Here I was getting into unmapped country and started making a route survey which I carried on until I reached country which had already been surveyed, and I only ceased then when I lost my compass. The Mekong Valley could be seen for a great distance in a southerly direction. It consisted of steep, bare hills with every flat terrace irrigated and cultivated, the fields forming a contrast to the bare hills.

I was in no hurry on this march, as I knew that Edgar could not turn up till late and, indeed, might not come at all, so I left the road and travelled through the forest. I put up two goral but they did not give me a shot. I also saw traces of serow, the other species of wild goat found in this district. The people told me that I should find two varieties of stag up the valley of the stream below me. They were called 'sha-na' and 'sha-me', and agreed with the descriptions of these animals which I had been given in Tatsienlu.

At dusk, as I was approaching Trong-ze, I saw a man riding along the road on the opposite side of the valley. My field glasses revealed that it was Edgar, who always wore Chinese clothes. We reached the village simultaneously. The people west of the

Mekong were very friendly and spoke a better dialect of Tibetan. I had given Putamdu a concertina which he used to play in the evening. Here at Trong-ze the people danced to Tibetan tunes which he played for them.

The next day, in falling sleet, we crossed the Mekong-Salween divide at a pass, the Beda La (14,900 feet by hypsometer), over some drifts of snow. On the way we passed many mauve rhododendrons in flower, while higher up I noticed white ones. There was aconite on the pass and animals had to be muzzled. This poisonous plant is a great danger in many parts of Tibet, especially in spring, when the plant is small and is easily nibbled off along with the grass by the transport animals. Most Tibetan ponies and mules will not eat this when it is larger, but I have twice lost Indian ponies from aconite poisoning. This time my own ponies were being ridden and so could be kept from promiscuous grazing. We passed one man with a dying pony who asked for medicine but we could do nothing, and later he overtook us and told us that his animal had died.

The Beda La is closed by snow from December to March, when a pass, the Ti La, west of the Beda La, is used. The road over the Ti La leads to Drayul, an important place visited by A. K. (Krishna) in 1882.

The road went through a forest of fir trees. Some of the largest measured eleven feet in girth four feet from the ground. The people told me that eared-pheasants were to be found, but we neither saw nor heard these usually noisy birds. We spent the night at the lamasery of Petu where there were fifty monks. M. Bacot, the French explorer, had been here a couple of years before us, and he left a good impression. In places like this all foreigners are just 'foreigners'. No one knows the difference between British and French. The first foreigner who arrives leaves an impression for good or bad which it takes years to alter. Where we were on Bacot's tracks we found the way made easy for us. A monk even helped me to pull my boots off, much to Edgar's surprise, who said it would hardly be believed in his Mission.

On his return a few days later Edgar learnt that orders had been received at Petu to stop us, but in spite of this hint to look upon him with disfavour, the villagers were only too pleased to welcome him back and give him all the help in their power. Edgar distributed tracts written in Tibetan which were gladly received. The Tibetans tie these Christian 'charms', along with their own, on bridges and trees by rivers. The wind blowing on these holy scraps of paper carries merit over the country while the river also takes the virtue down to other countries. The fish also benefit. We estimated the population at Petu with its outlying farms at one hundred.

The people are great snuff-takers; the snuff is kept in a small, round, wooden box across the top of which a piece of cloth is stretched tightly; the lid fits over this. A few smart taps on the bottom of the box force fine grains of snuff through the cloth into the lid, which is then removed and the snuff taken. The people were very keen on cigarettes, and even the lamas, who are not allowed to smoke, asked for some. Our transport from Yenching returned from Petu. It cost four Chinese rupees per animal for a distance of thirty-five miles in two days. At Petu the houses have pent roofs of shingles held down by stones, as in Switzerland. This indicates a damper climate than the flat mud roof of Batang and the Mekong Valley. The village is on two irrigated terraces, while a third flat above, having no water, is uncultivable, covered in scrub, and used for grazing.

We left Petu and, travelling down the valley, found ourselves on a pilgrim road, where we met parties making the circuit of a holy mountain which they told us was called Kang Karpo; this means simply 'white snow'. In places the pilgrims had put up piles of stones, and had made little 'houses of cards' out of slates. We climbed up to a pass, the Trong La (11,000 feet by hypsometer), from which we could see snows to the south and south-west. Below the pass bears and goral are to be found. From the top of the pass we saw below us a stream flowing to the north. This turned out to be the Drayul Chu, the river which we had just left the other side of the pass, where it had been going south-

wards. The river, as can be seen from the map, makes some extraordinary bends, and the Trong La is on a spur in one of these loops. On the road I heard pheasants calling, presumably Stone's pheasant. We spent the night of June 13th at the village of Wa, about 1500 feet above the river; we occupied the same house that M. Bacot had slept in some years previously.

I had M. Bacot's book, *Dans Les Marches Tibétaines*, with me, and standing on the exact spot on the roof of the house from which he took the photograph of 'Ouabo' (the French spelling of Wabo as he called it), it was curious to see that the prayer-flags and even some things lying on the roof had not been moved in the interval of four years.

The next day we descended and crossed the Drayul Chu at the village of Ke by a good cantilever bridge. The altitude was 8,250 feet. While the transport was being changed here I caught a snake (*Coluber taeniurus*). We then climbed to the Tondu La (12,150 feet). Near the pass I caught some butterflies including two specimens of *Ypthima insolita*, which differs from the typical form, and a new variety of a veined white named *Aporia procris extrema*. We had to change transport several times and paid in Chinese rupees. At one place I was given half a Queen Victoria Indian rupee as change, and at another one of my Chinese rupees was cut in half with an axe for the same purpose.

Near the top of the pass we evidently reached a damper climate. The forest consisted of firs up which crept ivy, while underfoot were ferns; Lord Derby's paroquet (*P. derbyanus*) was plentiful about here, and I got a specimen of a squirrel of which there were many in these forests. The hilltops are covered in tall trees, while lower down is small scrub jungle, mostly of prickly oak, which indicated that the rainfall was less on the lower slopes. From the summit of the Tondu La we had a fine view of the Salween flowing south. Spurs on either side caused the river to twist about without diverting it from its general southerly direction. The sides of the valley were steep and bare except for the forest at the higher elevations, with patches of snow above this. Villages could be seen on any flat terraces to which water could

be brought. We spent the night at the small hamlet of Lenbo, where the very friendly people were threshing corn with flails.

The next day, June 15th, we made a short march into Menkong, an important place with a garrison of Chinese soldiers. As we left Lenbo more flocks of noisy parrots were flying around. We went down the valley which was well cultivated. A cactus-like plant with an orange-coloured flower (probably *Euphorbia antiquorum*) was conspicuous in this valley. After changing transport at Trana, about midday, we reached a bridge over the Salween similar to that by which we had crossed the Mekong at Yenching. The Salween here seems slightly larger. All the villagers here carry with them the 'saddle' and slings necessary to cross the bridge, and this made things quicker than at our crossing of the Mekong. We paid three rupees at the bridge for crossing, but people carrying their own slings pay nothing. They tie themselves on and fly over the river in the most matter-of-fact way. It took nearly an hour to cross our party of five men, four ponies and the loads of six animals. A boiling-point observation gave an altitude of 6700 feet at the bridge. The people called the river the Gya-mo-ngo Chu, which is the name used in its higher reaches in Tibet.

At Trana I caught a small yellow butterfly (*Eurema*). It was the only one I caught, and I was surprised to find this tropical genus here. It was considered aberrant by Mr. South, of the British Museum, who worked out my collection, and is probably new, but more specimens from this locality are required to decide this point.

It was the duty of the Trana 'ula' to take us to Menkong, and so strictly are these 'ula' boundaries adhered to, that although the distance from the bridge to the village was only about one and a half miles, our coolies and even donkeys carrying some of our loads were taken over the river. It would, of course, have been far simpler if we had taken fresh transport from the west bank and thus saved bringing these men and animals over this awkward rope bridge for such a short journey.

As we entered Menkong we saw many Chinese soldiers, some

of whom, to my surprise, greeted Edgar as an old friend. Edgar said to me: 'I am afraid it is all up; these are soldiers from Batang; I know them well and they were in Batang when we left. Our crossing of the Mekong at Yenching must have been reported and these men have evidently been sent across by the shorter, direct road to stop us.' It looked as though our little jaunt had come to an end, but it turned out this scare was unnecessary; these soldiers from Batang had just arrived in the normal relief of the garrison. They were very friendly with Edgar and took it for granted that, as we had not been stopped at the frontier, we must be on our lawful occasions. We soon made friends and our room was filled with Chinese soldiers and Tibetan villagers who were entertained with Putamdu's concertina. Many of the soldiers spoke a little Tibetan; one who spoke especially well I found to be a Tibetan from Derge who had enlisted in the Chinese army. The other soldiers despised and bullied him, calling him 'Mantze', a term of contempt used by Chinese for Tibetans and the savage tribes on this frontier.

The Chinese officer sent us some presents but excused himself from calling on account of sickness. The next morning, however, he came to thank me for a present of stag horns which I had sent him in return. I had collected these horns at Tatsienlu for Mr. Elwes, the great naturalist of Colesborne, and here in Menkong they were a really valuable present. As long as I was travelling in China proper and could call upon the officials to assist me, I felt I could take as much transport as I liked; but now that I was in Tibet, where the obtaining of 'ula' was a question of bluff or persuasion, I decided to get rid of everything I could spare, and thus reduce the difficulties in obtaining transport. I told the officer that I was going to India, which did not surprise him, but when I said I had heard I could reach India in nine days he did lift his eyebrows a bit and said: 'Then you are going through Zayul.' He told me he was in charge of six hundred and fifty-six families, and was himself under the magistrates at Yenching. His military superior was the officer at Chikong whom I met later.

The people in this part of the country dress in blue 'chubas'

with a red border which gives them the appearance of being soldiers in uniform. Menkong used to be a centre for the slave trade, and we found many slaves of a dwarf race (probably Nungs) who had been brought from a country called by the Tibetans Tsong Yul, seven days' journey south of Menkong. Edgar measured some typical ones. A man was four foot eight inches and a woman four foot four inches, but it was not possible to measure many. One of the women had a tattooed face. On occupying Menkong the Chinese found that the people had thirteen Chinese men and three women slaves, whom they released. The owners were allowed to retain their non-Chinese slaves. It would have been useless to release them as they knew only vaguely where their homes were, and would probably not have been welcomed there had they returned. They all spoke Tibetan among themselves and had, I imagine, forgotten their own language.

Pomegranates were ripening on the trees at Menkong, and the Chinese soldiers picked and gave me some half-ripe apricots as I was leaving.

A mile to the east of Menkong I saw a lamasery containing sixty-three monks.

At Menkong I said good-bye to Edgar, who had to return for some mission work, and I was not to see another white face for about two months. I was very sorry to part from him, an ideal missionary for frontier reconnaissance work. I verily believe that without him I should not have got past the salt barrier above the Mekong bridge, and his knowledge of Chinese as well as of Tibetan writing enabled me to get my passport put right in Batang, a matter of great importance.

Some months later, when the revolution broke out and the lives of the Batang missionaries appeared in danger, he wrote to me regarding the possibility of his following my route to India with his family if the situation became worse, but luckily he was not obliged to leave. This letter is in a way a philatelic curiosity. At the time of my journey the Chinese were taking over Tibet thoroughly, and, among other things, started a postal service

from Batang to Lhasa. This service ran only for a week or two. When the news of the revolution reached the Chinese troops in Tibet, they lost all sense of discipline and were eventually turned out of the country by the Tibetans. This letter of Edgar's travelled to Lhasa and thence to me in India just during the couple of weeks that this postal line was working and bears the Batang and Lhasa postmarks.

Edgar and I carried no tent and usually slept in the open, on the roof of the house if it were a flat one. Although we were always invited inside, we preferred the open air to a stuffy, smoky Tibetan room. We lived entirely on the food of the country except for a Yunnan ham which Edgar had brought as a reserve ration.

M. Bacot had visited Menkong in 1909, and we were the second visitors to the place. By a curious coincidence Captain Kingdon Ward arrived two days after I had left, as he describes in his book, *The Land of the Blue Poppy.*

At Menkong I caught many butterflies, including several new species (*Erebia innupta*, an Argus, *Aporia baileyi*, a veined white, and *Halpe baileyi*, a skipper). I also caught several other veined whites as well as butterflies belonging to tropical genera.

From Menkong I climbed to the No La. The road was covered in butterflies, nearly all of one species, *Lethe agrestis.* They were resting on horse-dung on the road, and in places were so thick that the dung could not be seen. The last four miles up to the pass were very steep. Water boiled at 186 degrees, which, with an air temperature of 44 degrees, gives the altitude of 14,000 feet. It was cold, as there was a wind and I had got soaked in a shower of rain. Clouds interfered with the view, but I had a momentary glimpse of a snow mountain due east, which I guessed to be twenty miles away and was evidently on the Salween-Mekong watershed. The descent was steep, at first through rhododendron and lower down through fir forest. We arrived at a small hut at the foot of the pass, soaked to the skin, and were glad to dry ourselves and to drink Tibetan salted and buttered tea. This is, in my opinion, only drinkable in great cold and discomfort, but given these

conditions, it is very welcome and warming. We were warned that there was aconite round our hut, and our ponies had to be tethered in a patch where it was known to be safe to graze.

The hut where I spent the night was called La-tsa or No La-tsa. In Tibet the nearest halting-place on either side of a pass is usually called La-tsa, and to make it clearer, if necessary, the name of the pass is added, e.g. No La-tsa.

The next morning, June 17th, we crossed another pass, the Tsema La. The road led westwards up a valley in which the stream in places disappeared underground leaving a few pools on the surface. The ascent near the summit was difficult through drifts of deep soft snow. I caught a few butterflies on the pass, *Parnassius orleans* and *Pieris dubernadi*. The height of the pass was 15,650 feet.

Owing to bad weather and untrustworthy information, I am unable to say for certain whether the No La or the Tsema La is on the Salween-Irrawaddy watershed. From the Tsema La I saw that the stream which I had crossed between the two passes flowed north past a place called Jaha, and then joined a valley which lay roughly east and west. I could not see the actual river, and the people could not tell me whether this flowed east to the Salween or west to the Irrawaddy; as the Tsema La was the frontier between the districts of Tsarong on the west and Drogong on the east, it seemed to me most probable that it was on the main range and that this stream flowed to the Irrawaddy. I have made it so on my map, but it is still an open question which remains to be cleared up.

M. Bacot's map does not help and he probably had bad weather.

After descending about seven miles I came to a stream about twenty yards in width which is a branch of the Irrawaddy. After going up the left bank of this for two miles through forest, I came on open, grassy country on which cattle, sheep, ponies and pigs were grazing. On the road I saw quantities of cyprepedium orchids. One, crimson on a short stalk, was probably *C. tibeticum*, and the other, a taller, yellowish flower, probably *C. lutea*. If

these orchids, which inhabit a climate not unlike our own, could be introduced, they would be an asset to any garden. I did actually get some plants home a few years ago. These survived for several years under glass. In their own country they are provided with a thick covering of snow in the hardest winter months. Our climate does not guarantee this.

I spent the night at a place called Ridong (12,000 feet), among an unobliging people who refused to sell me milk or a sheep and made great difficulties before they would let me have a little grain for my ponies. The houses had pent roofs held on by stones. The people grow an uncertain crop and derive their livelihood from grazing. I had by this time used up all my candles except two which I saved for boiling water for my observations for altitude at important points on the road. My only light after dark was provided by splinters of resinous pine.

The next morning my transport arrived late, so to make an example I gave the only man who had put himself out on my account a present of two rupees, and to the owner of the first pony which arrived I paid half a rupee extra, and said that I would have been equally generous if all had done as well for me. I left them quarrelling among themselves about this, but quite friendly to me and promising to give me every assistance if I returned. A simple people.

At Ridong I caught a number of butterflies, the British Queen of Spain fritillary (*Argynnis lathonia*) and some small alpine fritillaries (*Argynnis gong* and *Melitaea arcesia yunnana*), and three varieties of veined white (*Aporia venata*, *A. goutellei*, and *A. davidis*).

CHAPTER IX

THE SOURCES OF THE IRRAWADDY

On June 18th we continued up this branch of the Irrawaddy. The bottom of the valley was grassy with pretty glades at the edges of the forest. Above the belt of trees were rocky cliffs and grass. Our ponies were pestered by horseflies.

Six miles from Ridong I came to the junction of two streams. I crossed that from the north-east by a bridge at which were many of the cyprepedium orchids. I lunched at a flour mill half a mile beyond the small monastery of Gon-se. The mill was locked but working. It came on to rain as I was taking my lunch, and a congenial monk appeared providentially and unlocked the mill for me, so that I was able not only to get shelter but also interesting company at my solitary meal. The monk had been three years in Sera monastery in Lhasa. He told me that the river below us flowed through the country of 'Tsong, where slaves come from'. Inside the mill the parched barley was in a basket over the millstones. To the basket was attached a stick, one end of which lay on the rough surface of the revolving millstone. The power was supplied by the stream. As the stone turned, the stick rattled up and down giving just sufficient shaking to the basket to ensure a small trickle of barley coming on to the hole in the upper stone. This fell through and was ground between the stones.

I spent the night in a leaky hut at Lagyap. The country was beautiful, rich in flowers at which numerous butterflies were feeding. I think that this valley would provide a valuable harvest to a botanist. Although the altitude is between twelve and thirteen thousand feet, the climate seemed to be milder than at that height in other parts of Tibet that I knew, and I think that plants from here would do in England. The reason many Tibetan plants are difficult in England is that they miss the winter covering of snow which protects them from the hard frost. When this melts

the spring has arrived and the plants can go right ahead with no danger from late frosts.

I caught a new variety of skipper butterfly with a dreadful name (*Carterocephalus christophi tibetanus*), and collected some birds, a laughing-thrush (*Trochalopterum ellioti*), the white-winged grossbeak (*Perrisospiza carneipes*), and the Indian skylark (*Alauda arvensis coelivox*). I met a very old man who was collecting taxes for the Chinese. He marvelled at our being governed by a queen. This was in 1911. He asked me if it was true that in my country women had more power than men, who were, he had heard, obliged to walk while women were allowed to ride horses. He had never heard of any kind of carriage or wheeled vehicle. He told me that it would be quite impossible for me to go to India at this time of year on account of the heat. Tibetans are far less adaptable than Europeans to climates to which they are unaccustomed, and are always terrified of even moderate heat. I gave the man an old razor blade and some elastic bands, novelties with which he seemed unduly pleased. I had seen no sign of Chinese since leaving Menkong with the exception of two soldiers travelling between Menkong and Chikong with dispatches. At first I thought that these men must have been sent to stop me and order me to return to China. They were quite pleasant companions and slept the night in the hut with me. A small party of Tibetan salt merchants were with me here. We spent several nights together. One of them was ill, and I doctored him and was lucky. He got better and my reputation rose. I had seen no game for some days, but in the early morning at Lagyap I heard the loud call of the eared-pheasant a very long way off. It is quite unmistakable, something like the gobble of a turkey. There is a possibility that these may have been *Crossoptilon harmani*, a slate-blue bird, and not the white *C. crossoptilon*, as the dividing line between the two species is not known.

I might almost say that one of the secondary objects of my journey was to find Harman's pheasant. This bird was described by the late Mr. Elwes from a single skin found by Captain Harman of the Survey of India in a hut on the southern frontier

of Bhutan. This skin had no preservative, and I went to see it in the British Museum before I left for China. It was practically nothing but a bunch of feathers lying in a cardboard box. It was believed that the bird came from 150 miles east of Lhasa, but nothing definite was known about it. I had hopes that if I travelled west I should come on the country where this bird displaced the white *C. crossoptilon*. Two years later, when I was with a party surveying and exploring the upper valleys of the Mishmi Hills, I came on a colony of Tibetans who told me that some distance to the north eared-pheasants were found with blue feathers instead of white. This blueness was, they said, caused by the birds eating aconite which, instead of poisoning them, turned their feathers blue! Eventually I reached the country and brought back several skins.

The usual saddle-cloth in this valley is a bharal skin, which indicates the presence of these wild sheep on the higher hills. At Lagyap a valley comes in from the north up which I saw a snow peak. I was told that there was a village called Gula up this valley. It was down this valley that the French traveller M. Bacot had come two years previously. He is of opinion that the stream down which he came is the main source of the Irrawaddy.

The true source of a river of the size and importance of the Irrawaddy is a matter of considerable interest. The account of M. Bacot's journey was published in *La Geographie* on April 15th, and had not been seen by me when I reached this point on June 18th. Never dreaming that there could be any doubt that I was following up the main valley, I did not pay particular attention to the stream coming in from the north which M. Bacot believed to be the larger river. Had I recognized the importance of this I would have paid some attention to the size of these two streams and might have measured the amount of water in each.

Captain Kingdon Ward and Lord Cranbrook ascended from Burma and, coming thus from the south, reached to within three days of my road at Ridong. In his book, *Plant Hunter's Paradise*, Captain Kingdon Ward, by comparing the size of the streams where he saw them, came to the conclusion that those rising

between the two passes the Tsong La and the Zhasha La contained more water than those rising east of the Tsong La. This is also my opinion. These streams are also further from the main river, as can be seen from the map.

In the *Geographical Journal* for 1933 I wrote a short note on this in which I gave the following details about the streams which I reached between the two passes:

> Six miles by road west of the Tsong La I crossed a stream 15 yards wide and 2 feet deep. Nine and a half miles from the Tsong La, after passing two huts called Dokong, I crossed another branch by a ford 20 yards wide by 1½ feet deep; and 2 miles farther I crossed yet another branch coming from the west by a ford 15 yards wide by 18 inches deep (I noted that the stream narrowed to three yards close by); and half a mile farther on, I forded a branch 10 yards wide and 18 inches deep. In all these cases the river was narrower near by, the fords being naturally in broad, shallow portions.

I wonder whether any of the people who were forced northwards by the Japanese in 1942 succeeded in doing what several travellers have failed to do, that is, to reach this portion of the Irrawaddy from Burma.

I left Lagyap on June 19th and ascended nine miles to the Tsong La (14,850 feet by hypsometer). The road gradually left the tall junipers and firs behind and passed among dwarf junipers, rhododendrons and willows. About a mile before reaching the summit I passed a beautiful circular lake 150 yards in diameter, on one side of which were rhododendrons in flower. The whole gave the impression of an artificial feature in a park to which a landscape gardener had given great thought. Here I shot a partridge (*Perdix hodgsoniae sifanica*). After crossing the pass I had finer weather, and in the sunshine caught more of the alpine fritillaries which I had found at Ridong. Dwarf rhododendrons grew right up to the summit of the pass. As I descended I saw some beautiful blue and yellow poppies and noticed the crimson cyprepedium orchid (*C. tibeticum*?) at a height of 13,500 feet. I

have seen a dwarf form of this orchid growing in the upper Chumbi Valley at over 15,000 feet, but it is at its largest and best at about 10,000. I spent the night at Dokong (13,550 feet). The two Chinese soldiers who had now joined our party, my servants and I shared the best of the two huts. The walls were of hurdles, the roof of shingles, and the wind and rain blew in all the afternoon and night. Again I could not get any food here for my men and animals, but was luckily able to buy a little from the Chinese soldiers. By this time I was reduced to a piece of cotton wool in a saucer of butter for a lamp.

The next day I crossed the Irrawaddy-Brahmaputra watershed at the Zhasha La (15,600 feet), five and a half miles from Dokong. I was now getting within distant touch of India, and met a man from Rima who told me that there was a road from Rima through the Nahong (Mishmi) country to Atsera (Assam), which took fifteen days but which was impassable for animals. He told me of the visit of 'sahibs' to the neighbourhood of Rima the previous year. This was Mr. Noel Williamson's party, who had come up the Lohit valley from Sadiya. Mr. Williamson could easily have gone to Rima. Any dislike on the part of the Tibetans shown to the visit of a European had been obliterated by the invasion of the Chinese, and the consequent friendliness with us. The Dalai Lama himself had taken refuge in India. Williamson had, however, received stringent orders from his Government not to cross into Tibetan territory.

There were rhododendrons on both sides of the pass; these almost reached the summit on the eastern side. On the pass I caught some Parnassius butterflies (*P. orleans*), the veined white (*P. dubernadi*) and a skipper (*Pyrgus oberthuri*). There was a good deal of snow about but very little actually on the road. About eight miles from the pass the river enters a gorge. Cliffs come down to the water level on either side, and to avoid these the road crosses the stream, a mad, foaming torrent, six times by wooden bridges.

By the roadside beautiful blue and yellow poppies were growing. One was probably *Meconopsis horridula*, a flower which I knew, but

the specimens I collected were lost. In the afternoon I reached the small village of Michi. Here a stream came in from the north-east, up which is a pass, the Tila La. It was down this valley that A.K. (Krishna) had travelled twenty-nine years previously, and I was for a few days to be on the tracks of this careful and reliable explorer. A.K. called this place Rika and, on inquiring, I was told that the village was sometimes called Michi-Rika but that Michi was the common name nowadays. There are some hot springs here in which I bathed. The water issued from the ground at a temperature of 115 degrees. The people were friendly; they said that the Chinese treated them well, but from what they had heard of other places they did not expect this to last. The Chinese, although to our minds cruel and ruthless, in some ways treated the population better than the Tibetan government itself did. They took rather less in taxes and, equally important, they paid for their 'ula'. One man in Rima told me that they had heard that the people in Assam were well governed and lightly taxed, and they envied their good fortune.

About here they eat their food with a piece of bent bamboo, which they use like our sugar-tongs. They use a curious sheath for their knives and swords; it is really only half a sheath, and the knife lies along a piece of wood and is held there by wires so that the whole blade is visible. This form of sheath is used by the Lepchas of Sikkim and the Abors and Mishmis and other tribes east of Bhutan, but I was surprised to see it used in Tibet. Still more surprised was I to see some years previously in the Chumbi Valley a party of Central Asian Mohammedans with sheaths of this kind.

These people had left their home, as far as I could gather, in the Altai Mountains and were going to Mecca, but had somewhere taken a wrong turning and had landed themselves in Lhasa. They spoke no language that anyone could understand, but repeated the word Altai, which may have been the name of their home or perhaps some other word in their language. They had a very old flint-lock musket which bore Russian writing on the lock. The Indian Mohammedan troops in Chumbi entertained

and helped them. I sent them on to Calcutta, whence the local Mohammedans speeded them on their way to Mecca.

Our road was through stunted juniper, willow and rhododendron, except at the top of the Zhasha La, where there were stretches of turf. The next day, June 21st, I marched down the valley through forests of fir, pine, birch and rhododendron, all covered in 'fairy scarf' which gave the impression that one was travelling under the ocean amid drifting seaweed. Under the trees maidenhair fern was growing. The river was a rushing torrent of white foam. At one point I noticed a considerable stream bursting out from the hillside above the left bank. For a mile the road and river passed through a gorge, after which the vegetation changed, and everything, including flocks of parrots, indicated a warmer climate. At Drowa Gompa I reached the banks of the Zayul Chu, which in its lower course is called the Lohit and which joins the Brahmaputra in Assam. Here I found a large village, very sparsely inhabited, with many empty houses. The people could give me no reason for this except that the inhabitants had died. The population was considerably less than it was when A.K. travelled in 1882. He reported that there were fifty monks in the lamasery, which number had been reduced to fifteen in the interval of twenty-nine years. This part of the valley of the Zayul Chu had evidently once supported a much larger population. Traces of terraced fields now overgrown with bushes could clearly be seen. Here was a country between five and ten thousand feet in altitude, with a temperate climate and a moderate rainfall, where a colony of people accustomed to such a climate might make good.

Many of the monks came over to see me and my belongings; none of them had ever seen a European or his possessions before. I learnt that this river flowed from Sangachö Dzong. On previous maps Sangachö Dzong had usually been shown on a tributary either of the Salween or of the Irrawaddy. I caught a great many butterflies of thirteen varieties, including some of tropical genera; one was a new species of Argus which was named *Erebia baileyi*. A form of the British High Brown Fritillary (*A. adippe*) was common.

My observation for altitude gave 9300 feet, just 1000 feet higher than A.K.'s (Krishna's) result. I passed a Chinese message being carried in a cleft stick, but the Chinese had practically no control over the country, and there was no longer anything to prevent me from travelling where I liked. Information I had gathered pointed to the fact that if I could reach a river called the Nagong Chu I could follow it down to its junction with the Tsangpo, and would be very near the falls which I was hoping to reach. I accordingly decided to strike northwards up the Zayul Chu.

CHAPTER X

TURNED BACK

I CROSSED the river which I had followed from the Zhasha La by cantilever bridge built out on to a rock in the stream, and went up the left bank of the Zayul Chu through thick forest. The river was very muddy and about thirty yards wide, but after about eight miles it narrowed to about seven yards in width, and rushed under an overhanging rock, and the people have taken advantage of this to throw a bridge across. A couple of miles beyond this a valley joined the river from the north-east. Two days' journey up this is a place called Trong Yul, reached after crossing a pass, the Kia La. At a place called Giada I found some uninhabited huts, built by the Chinese, the only shelter on this march of twenty-three miles. I had some difficulty in getting my transport past this unattractive halting-place as they did not know the road and were afraid they would not reach the shelter of a house that night. A mile or so beyond Giada a magnificent precipice about 1000 feet high above the left bank drops sheer into the river, a wild torrent. The country was very steep, but there were some flat open places on which pine trees were growing. It was getting late and no one knew anything about the country, and I was looking out for a suitable rock under which we might sleep when we come on two children herding sheep and goats. This looked hopeful but, unfortunately, the children fled as soon as they saw me. However, we soon came on their house in a little patch of cultivation called Polu. Here one of my ponies was ill with mild colic, and I proposed to give it some whisky which I was carrying in case of emergency. One of the inhabitants was dreadfully distressed at this idea. He said that the pony had eaten aconite, and that he could cure it if I gave *him* the dose of whisky. To this I agreed, and the man gave the pony some sour milk and cut the roof of its mouth. The pony

was better next morning, and everyone agreed that it was a wonderful cure and that, better still, now the pony would never touch aconite again.

The Tibetans have some curious veterinary cures. They understand that prevention is better than cure, and to this end each stall in a stable has a charm made of paper or twisted wool over it which keeps devils out. In spite of this, probably on account of the wickedness of the owner, sickness does occur. Some years previously in the Chumbi Valley a pony of mine developed tetanus. An Indian veterinary surgeon said it was incurable without serum, which could not be obtained in time. A Tibetan, however, came forward and said he could cure it. He rubbed snuff into the pony's eye, and bled him through the tongue, rubbing snuff into the incision, and in a short time the pony was moving and actually eating. The veterinary surgeon could not believe it until he came and actually saw it. The cure was, however, purely temporary, and the pony died in a few hours.

The people in this valley seldom travel and know nothing of the country around them. They told me that there was a quantity of game, including stags, four days to the east. They thought I was a trader and wanted me to sell them snuff, of which they are inordinately fond.

One trouble on these narrow roads in steep country through forest is that trees lying across the road are very serious obstacles. I met with one over which my ponies, after being unloaded, jumped, but a jump on a narrow path overhanging a precipice is a very dangerous affair. Eventually the inhabitants cut the road through such a tree and leave both ends to rot on the ground, but to hack a road through a big tree with their simple axes may take several days. In this valley I caught a quantity of butterflies, including another new species of Argus (*Erebia inconstans*), and at Loma another new species (*Lethe baileyi*).

The next day, June 23rd, after travelling a couple of miles we came to a bridge over the river leading to the village of Loma, which is the regular stage, but the direct road continues up the right bank for twelve miles, when it crosses to the left bank.

After travelling about twenty miles along a stony road through pine forest full of noisy green Lord Derby's parrots, which were nesting in holes in the trees, I crossed a stream and from a spur above it saw the village of Gochen, and beyond it, to the north-west, the lamasery and fort of Sangachö Dzong, from which the country is governed.

I had started my journey with three watches. One went out of order quite early, and here I had an accident to my second one. The glass broke and I had to pack it with leaves in a small box. This was carried very carefully and had to be opened whenever I wanted to see the time. As I was estimating my distances by time, this happened every few minutes. This arrangement did not last long, and I was soon down to my third and last watch, which in its turn met with an accident. As this happened just as I was entering previously surveyed country it did not matter very much.

I spent the night at Gochen in a rest-house. The Dzongpön or district officer of Sangachö Dzong had fled on the arrival of 500 Chinese soldiers the previous year, but his two servants were here, who, in the casual Tibetan way, were carrying on the administration in his absence. One of these men had been at Gyantse during the fighting in 1904 and recognized photos of my black greyhound, 'Jane', who always attracted attention, being the first dog of that kind that had ever been seen in the country. I noticed a number of very old people here who spent the day turning prayer-wheels. Two old women told me that they were over a hundred. I asked a man about them and he said they were *very* old, perhaps even fifty or sixty. Tibetans are not a long-lived race. Some years ago some publicity was given in the Press to a party who were coming out to the 'Himalayas' to study a tribe who had found the secret of long life. Imagine my astonishment when I learnt that the so-called tribe consisted of the inhabitants of a village in North Sikkim where I used to spend some time among delightful surroundings in a very comfortable bungalow at about 8000 feet; the inhabitants were certainly the reverse of long-lived.

I meant to take a day's rest at Gochen, but about midday I received an invitation to spend the night at Sangachö Dzong, so I packed up and moved over the intervening four miles, crossing a scrub-covered plateau through which two branches of the Zayul Chu cut ravines five hundred feet deep. I was very well received by a crowd of monks anxious to get their first sight of a white man; they had prepared a house for me and gave me a meal of rice, meat and buttered tea.

They also made me a present of a small quantity of Indian tea which had been given by Mr. Williamson the year before to a minor official whom he had met on the Mishmi-Tibet border. This was not being drunk but was being kept as a curiosity. A still greater curiosity was the paper in which it was wrapped — the advertisement sheets of the *Pioneer* newspaper. I was asked to explain this, especially the rather crude illustrations of various articles for sale. Newspapers were practically unknown in Tibet, and Tibetans could not understand so much print when so little of it was read. Why do you print such big papers and read so little of them? They are so big that even if each page were given to a different reader it would take many hours to get through it all. You just glance through it here and there and then throw it away. It would surely be better only to print what people want to read. What can one reply to a question of this kind to a man who has never seen or even heard of a newspaper. Illustrated advertisements, however, are an endless source of interest. When I lived at Gyantse I found that one of the most welcome presents I could give was an old Army and Navy Stores catalogue.

After my meal they took me round the monastery. The chief image was one of the Buddha to come, who is called Chamba in Tibetan and is always represented as sitting with his feet down like a European and not with his legs crossed like a Tibetan. There was also a fine row of beautifully-ornamented chötens (pagodas). I presented them with a photograph of the Dalai Lama taken when he was in Calcutta, which they all reverently touched with their foreheads. There were about seventy monks; the abbot had fled when the Chinese came. The actual dzong, or

fort, the official residence of the officer in charge of the district, was in ruins.

The neighbourhood is comparatively thickly populated. I should say there were 500 people within five miles. The houses are substantial with pent roofs. The altitude of Sangachö Dzong was 12,000 feet by boiling-point.

I had bought four ponies, some at Batang and some at other places on the road, in case the people refused me local transport; these were now no longer necessary as I was being provided with 'ula' with no trouble. Also, at the pace I had come, they were quite worn out; besides which the people told me that I would not be able to get them across the snow of the Dzo La, which I was to cross. This last turned out to be untrue, and the people actually provided me with pony transport. I was, however, glad to get rid of my ponies, and even the small sum of money which they fetched was most welcome. The Dzo La is closed by snow during most of the year, when an alternative and longer road is used; this crosses a pass called the Dama La and joins the Dzo La road at the cave of Pugo. The Dama La was crossed by Kaulback and Hanbury-Tracey in 1936. At Sangachö Dzong I shot the eastern representative of our jackdaw (*Colœus neglectus*) and also a flycatcher (*Hemichelidon siberica rothschildi*). Choughs were plentiful, while the call of the cuckoo was heard. Of butterflies I caught the British swallowtail *P. machaon* and two small 'coppers', including a new form, *Lycaena standfussi subbrunnea.*

On June 25th I left Sangachö Dzong. The monks brought me a parting present of dried yak meat and butter. My road started by crossing the stream by a bridge at which was a prayer-wheel worked by the water.

I met some pilgrims returning from Lhasa who had been one month and twenty days on the road. Pilgrims, however, never seem to be in a hurry, and they told me that it was thirty-two ordinary marches and by travelling faster one could reach Lhasa in twelve days. Of course, messages taken by relays of riders would travel still more quickly.

I also met a man who had been in Darjeeling in 1906 when

a Chinese officer, Chang Yin-tang, had arrived, who had been sent to settle the Tibetan question. We had a long talk about people and incidents of that time. He also gave me information about the road ahead of me.

I met a cheerful party of salt merchants who were resting with some local villagers, one of whom had lived in Gyantse, and this gave us many things to talk about. I bought from these people two 'chubas'—Tibetan coats—one for Putamdu and one for myself. Our clothes were getting worn out, and I also thought I might as well wear the clothes of the country, and on a similar occasion I should certainly wear a 'chuba'. I also bought a Tibetan tent. Tibetan tents can be very beautiful with appliqué patterns of brightly-coloured broadcloth on stout calico—but this was another affair: a plain piece of calico with a dark-blue border to stretch over you to keep rain off. No walls or sides of any kind.

I stopped for my lunch in a hut occupied by a woman and a child, both very frightened. We soon calmed them and they sold me some milk.

The road had at first been among conifers, birch and poplar trees, but later these were left behind and the country became bleak with snow peaks and glaciers to the south and south-west. I camped at a place called Poda—just four rough-stone walls which my mule drivers made do as a shelter with some planks which were lying near—evidently left for the purpose. We also found a little juniper wood collected and added to this some more from the dwarf bushes near by. It was quite snug and I stayed here to write up my notes and label my collections and have my dinner, going out only to sleep under my tent. The altitude was 14,200 feet.

The next morning, after a wet night, we rose to find that three of our 'ula' ponies had returned to their homes during the night, so we did not get off till nearly midday. I spent the time wandering round the camp. I caught some butterflies, including an interesting 'Blue' *Agriades dis*, and found the nest of a ruby-throat (*Erithacus tschebaiewi*). I reached the summit of the Dzo La in an hour and a half. I had a good view down the valley I had

ascended, and could see Sangachö Dzong and Gochen plainly; in fact, the whole valley down to the neighbourhood of Loma was visible. The altitude was 16,200 by hypsometer. I had to cross several snowdrifts, and on descending from the pass we had to cross half a mile of soft snow, which gave our ponies some trouble. A short distance from the pass I got a view of the country to the north-west; I saw a broad, open valley with grassy hills but no trees or houses. On the left (south-west) were some snow-peaks and glaciers, and I naturally supposed that the stream which I was following down from the pass joined the streams from the glaciers and flowed down the flattish valley to the north-west. When I descended, however, to this stream I was surprised to see that it flowed towards me. The truth is that the Dzo La is not the important watershed I had imagined, but the stream which was flowing towards me passes among some stupendous scenery to the west of the Dzo La and finds its way past Sangachö Dzong. I now imagined that the whole length of the flat valley along which I was travelling carried the water to the Zayul Chu, but after travelling some six miles from the pass I came on a sluggish stream flowing in the direction in which I was travelling, i.e. to the north-west. The fact is that the divide between the waters which flow into the Lohit and the Tsangpo is in the middle of the broad valley between the Dzo La and Shugden Gompa. As I followed the stream down, its waters were reinforced by streams from glaciers to the south. I spent the night in a cave at 15,000 feet, whose smoke-blackened entrance showed it was a regular resting-place for travellers. It was called Pugo. The valley had a few bushes in it here in which were hares and partridges, but I was suffering too much from mountain sickness to take much interest in them. Putamdu shot two hares for food. On the pass I collected a specimen of blue poppy (*Meconopsis prattii*), a form of the spiky *M. horridula*.

For the first six miles the road to Shugden Gompa was down an open valley about three miles in width, after which it entered low hills and finally reached the Ngamtso, a lake four or five miles in length by a mile in width, with a curious narrow place in

the middle over which is a bridge described by A.K.; above the lake is a prominent conical rocky peak. After some lunch at the village of Yerka I ascended to the monastery and was met by a goitre-stricken monk who at first I took to be some kind of servant, but who I afterwards found was the Dzongpon and abbot of the monastery rolled into one. From the monastery I could see the glacier over which A.K. travelled when he visited this place in 1884. He had been to Rima and, being unable to get to India through the Mishmi Hills, had travelled north and, crossing a pass, the Ata gang La, had reached Shugden Gompa. He had got his position by counting his paces on his journey; I had estimated mine by time. The latitude of the place on A.K.'s map was four miles north of mine. An observation I took for latitude from the stars was exactly half-way between his and my positions (N. Lat. 29° 28′ 7.). He himself had not been able to take an observation for latitude as the mercury for his artificial horizon had leaked out.

I was now on the very verge of the country into which it had been my object to enter. The water at Shugden Gompa flows down a valley called in its upper waters the Nagong Chu and lower down the Po Tsangpo. This joins the Tsangpo somewhere near the falls, and I hoped that, failing anything else, if I could reach the Tsangpo and get a boiling-point observation for altitude it would go a great way to showing the probability or otherwise of large falls on the river. I talked about this to the people, who said that the Po Bas, the inhabitants of Nagong Valley, were very wild and under no control and that it would be dangerous. No one from here ever went into the Po Ba country owing to the savagery of the people. I myself went there two years later and found these fears far from justified. However, at the time of my visit they had perhaps been cowed by the Chinese, who had entered the country and killed the king and leading people and burnt the royal palace to the ground.

In the end the Dzongpon agreed that I should travel for two or three days in country under the jurisdiction of Shugden. I decided to do this, hoping that when I got to the end of his

jurisdiction I should have some luck and be able to go farther. I made all preparation for this, including making a copy of my map which I intended to leave behind at Shugden in case anything happened to my original map in the Po Ba country. I spent a day at Shugden making these preparations, and I also visited the monastery, which was not so interesting as that at Sangachö Dzong. The next morning, June 29th, no transport arrived, and the Dzongpon finally flatly refused to give me any to go down the valley in the direction of Po Me. He said I was certain to be killed there and that news had just come of fighting between the Po Bas and the Chinese, in which the latter were defeated with a loss of 500. I did not believe this news, but two years later, when in Po Me, I found that it was true. The Po Bas claimed that they had killed 1700 Chinese at this time. The Dzongpon said that the Chinese would kill me for a British spy, and that the Po Bas would kill me either because they thought I was some kind of Chinese or because they were in the habit of killing all strangers. In any case I should perish and the blame for my death would be laid on him. Travellers in Tibet are accustomed to similar excuses. All this talk had, however, upset my two servants, who showed the utmost reluctance to go. The flat refusal of transport put me in a great difficulty. I had sold my own ponies at a loss and had not sufficient money to buy more. I had come so far with absolutely no opposition though without permission, and any attempt to use force would have put me in a very false position as regards the Chinese, the Tibetans and my own Government. When I saw that persuasion was useless I decided to return the way I had come and to reach India via Rima and the Mishmi Hills. My disappointment when so near my goal can be imagined. The Dzongpon offered to give me transport to go to Chamdo, sixteen days' journey, if I wished it, and although that would have been very interesting, I did not want to get into the hands of the Chinese if it could be avoided. I had told Mr. Wilkinson in Chengtu that if I once found myself in unoccupied Tibet I would under no circumstances return to Chinese controlled territory and that the Chinese could be told

that they would not be held responsible for my safety. In any case my leave was nearing its end, and a more direct road to India was for all these reasons necessary.

The decision not to allow me to go towards Po Me was only taken or, at any rate, conveyed to me at the very moment I was ready to start and was waiting for transport. I spent the morning arguing about this, and it was not till two o'clock that I reluctantly started on my return.

CHAPTER XI

DOWN THE ZAYUL CHU

On the afternoon of June 29th I returned to the cave at Pugo. I caught a good many butterflies at Pugo and Shugden, including *Coenonympha sinica*, like our small Heath, a small brown butterfly, *Oenis buddha*, some veined whites, among which was the small *Mesapia peloria*, a very weak flier which can easily be picked up in the hand, and another strong flier, *Aporia martineti*. Several Clouded-yellows, *Colias stoliczkana*, *C. montium*, the new *C. pugo* (named after the cave near which it was caught), *C. fieldii*, and, on the Dzo La, *C. arida wanda*. I also caught some interesting Blues, *Lycaena lanty* and *Albulina pheretes*. I collected a specimen of a laughing-thrush, *Babax kozlowi*. On leaving Shugden I found the bushes around the village of Warto were swarming in hares. I have never seen so many in one place before or since. I shot several for food. A short distance from Shugden I came on my baggage. One of the men in charge was up to his chest in glacier water trying to save a box which was being carried downstream. On the bank, to my dismay, was an airtight tin box which contained skins and natural history specimens which had been smashed on the rocks. He had just rescued it from the river, but the contents were soaked. I hurried on to my cave and dried the skins as well as possible. I had not been able to get any flour in Shugden, and by this time was eating, besides meat which I shot, Tibetan food, mostly 'tsampa'. This is barley, ground after being parched over a fire. The best way to parch it is to place it in a pan full of sand over the fire. The hot sand ensures it being evenly parched, and the parched barley corns can be sifted out from the sand. It is eaten by making it into a dough with water or, better still, with tea. I had carried one large tin of biscuits as an emergency ration, but on opening it I found that in the wreck on the Yangtse the water had got in and the contents were mouldy and quite uneatable. Some years later, at the time of

the revolution in Russia, I had been obliged to eat even more mouldy food, and would have been glad of what I was now throwing away — but that is another story. I had cut down my transport to a minimum, and it was annoying to have carried a seven-pound tin for about three months for nothing. My baggage consisted of seven coolie loads for myself and two servants. This included bedding, spare clothes, kitchen things, some survey instruments and books, camp bed, and natural history specimens collected. Every load that you can cut down makes a big difference. For instance, it may be possible to get transport for seven loads easily and quickly, while the eighth may mean a long delay in sending for an extra man or pack animal.

I left the cave at Pugo early to hurry over the pass where I had been mountain sick before. This time I was not ill.

My experience of mountain sickness is that it is an irregular and unpredictable malady. I first experienced this in north Sikkim. We had marched to Gyagong at a height of 16,750 feet, and I went out for a walk, climbing a little higher, and was very sick. The next day we crossed a pass, the Kongra La, of a little over 17,000 feet, and I was again very ill. We descended to 15,000 feet and here remained for several months at Kamba Dzong, where we played football and polo and felt no ill effects. Often, however, when getting to heights two or three thousand feet greater than this, I was again ill, but not always. Then I decided to go back to the Kongra La to shoot an *Ovis ammon*, and I spent two miserable days in a hut, so ill the whole time that I could not go out. As I felt no signs of acclimatization, I returned to Kamba Dzong. After some weeks I tried again and this time felt no ill effects. I stayed several days at the hut, climbed to heights of over 19,000 feet, and shot a couple of the large sheep. On a subsequent visit I was again as ill as ever. There seemed to be no reason or explanation of this. In later years I used regularly to get ill at Changu in Sikkim, at 12,600 feet. It is possible here that the heavy scent of rhododendron leaves may combine with the height to upset the equilibrium of the body. I used to envy passengers who were merely seasick, who could at least lie down

and could be given comforts; while my experience of mountain sickness was that you had to strive on to get higher in order to cross some pass before descending to more comfortable levels. I always admired mountaineers who were able to struggle upwards against this, to me, terrible suffering. I found the best cure was to drink quantities of very hot, weak tea, with no milk or sugar, and to nibble dry biscuits or thin toast and to take aspirin for the splitting headache.

On my way down from the pass I met the man who had been in Darjeeling and with whom I had made friends a few days before. We were glad to see each other, and we spent a pleasant hour together drinking 'chang', eating 'tsamba' and maize, which had been picked and crushed before it had ripened and hardened, while we discussed the affairs of the world. I was welcomed at Sangachö Dzong by the whole population, and at one time my small room held nineteen monks, whom I amused with my telescope and with photographs. These people had never seen rubber, and an elastic band caused undue amusement and even excitement. I gave them a photo of the Tashi Lama as a companion to that of the Dalai Lama which I had given them on my journey up. Among my photographs they recognized one of a monk official named Liu Shar, who had been a friend of mine at Gyantse. They told me that the Chinese had brought him to Chamdo two months previously in chains, as they had discovered that he had sent money to the Dalai Lama in India. He was afterwards beheaded for this offence.

I had in no way been disguising myself, but I did not wish to advertise the fact that I had held an official position in Tibet. At Sangachö Dzong a poor-looking man came up to me and whispered, 'I know who you are'. I said that there was no secret about who I was. He then said, 'You are the Sahib who brought the Tashi Lama back from India in the snake year' (1905) (Tibetan years are named after animals). This was when the lama had gone to meet King George V, then Prince of Wales. 'Yes, that is quite true', I replied, 'and who are you?'

'I am a Shigatse man. I was there when you returned with

the Tashi Lama and saw you frequently. A couple of years ago the incarnate lama of Sangachö Dzong died, and it was believed that my son was the new incarnation. My wife, the child and I were then brought here with great care and ceremony, but just before reaching this place the child died. This was a clear indication that the child was not the true incarnation, and the people now treat me as an impostor. I am quite blameless. It was not I who said the child was the incarnation, but the lamas. The result is that I have lost my child, and I and my wife are stranded and penniless, a month's journey from home, and only live by begging.' It was a sad story, and I gave him a little money, but I was poor myself and could not afford much.

The monks saw me off with a present of hot boiled rice and tea, but their transport arrangements left much to be desired, and with difficulty we struggled off with one pony and five men, I myself on foot and the saddles on one of the loads.

I spent the night of July 1st at Loma village, to reach which I had to cross the river and travel a mile off the road. My host from the house at Polu at which I had spent a night on my upward journey a few days before came over to see me, and to impress others represented himself as my most intimate friend.

Every Tibetan carries in the fold of his coat a wooden bowl in which he drinks tea and mixes his 'tsampa'. The best of these are made from knots in maple wood. According to the grain of the knot the bowl varies in value. Sometimes ridiculously high prices are paid. Good ones are often lined with silver or gold. Loma is a place famous for the manufacture of these bowls, and I bought one. The people here bargain in a curious way which I have seen employed in Turkestan, more especially in the purchase of horses. The two bargainers join hands under their long sleeves and by holding certain fingers they make each other offers. Every now and then one of them will frantically withdraw his hand with ejaculations of disgust at the meanness of the offer made. The long sleeves prevent the interested spectators from knowing what offers are made. I found potatoes growing at Loma, but they

were too small to eat. I had not seen one since I left Batang. I had been accompanied from Batang by a French sporting dog. I do not know what the breed is but they are somewhat of the shape of a pointer and in colour black and tan. They are usually named 'Pouf' or 'Pan' or some such explosive sound! The history of the dog I did not know except that it had been given by Mr. Muir to the Chinese Military Officer at Batang and had left him to join our caravan the day we left that place. We had intended that Edgar should take it back from Menkong and return it to the Military Officer at Batang, but the dog could not be found when Edgar and I parted at Menkong. Being an independent creature he had decided to start early along the road which he somehow knew I was to take, and I caught up with him some hours later in the morning; I was glad to have him as a companion. He distinguished himself by catching a large marmot on the Dzo La. It was really more by luck than skill. He was following at the heels of my pony when, trotting round a rocky corner, I cut off a marmot from its hole. The terrified creature ran across the road under the heels of my pony only to find himself in the jaws of my faithful companion. The monks at Sangachö Dzong wished to buy him but I refused to sell him as I intended to give him to the Chinese Officer at Chikong in the hope that he might be returned to his master. On recrossing the bridge at Loma the dog took the road back to Sangachö Dzong and refused to return when called and I never saw him again. I think we all missed him. Perhaps he joined his would-be owners at Sangachö Dzong.

I only travelled as far as the huts at Giada as I was anxious to give all the skins I had collected a thorough drying and try to save them from the soaking they had had in the river. In this I was successful, and the day's delay was well worth while. I wanted to make up as far as possible for this short day by doing a long march into Chikong, so I started early myself to see that there was no delay in the change of 'ula' at Drowa Gompa. The people were very glad to see me. I had given a monk some calomel for a pain in his back — perhaps not the best medicine for this complaint but the one of which I had most to spare — and it was so

successful that I found my reputation as a doctor very high. This was reflected in the number of patients.

I continued down the left bank of the Zayul Chu to Chikong. The road was stony and through thinly wooded hills with a few fields. The trees were mostly pine in which were numbers of parrots and noisy cicadas. On the road I passed some wooden cages in which the heads of criminals had been exposed and, though the heads had been removed, gruesome traces were still left. The Chinese idea in this appears to be more prevention than punishment. If a robbery has been committed at a certain place, that place must necessarily be a suitable place for a robbery. If a warning in the shape of a head in a cage is hung up there the robber will see it and probably desist. One should try to get the head of the actual criminal but if that is not possible some other head is better than none. This same idea was at the bottom of the Chinese suggestion of nailing a hand on any telegraph pole where the wire had been cut, which I have mentioned earlier.

I came very suddenly over a rise on to the village of Chikong, where about two hundred Chinese soldiers were living in huts round which they had planted small vegetable gardens and were growing maize. As I came along I heard the Chinese soldiers shouting out the numbers for a gambling game which they play with their fingers. I have often played this at Chinese dinner parties. The two players each throw out one hand with a number of fingers stretched out and call out a number. If I call out six and put out two fingers and my adversary puts out four I am right in the total and have won. The usual penalty is to make the loser drink. I looked into the guardroom where eight soldiers were having dinner. One of them had seen me at Batang and they were very friendly and invited me to join them in their meal. I waited a few minutes with these until my servant, who had a bad pony, arrived with my Chinese visiting cards. I sent one to the Chinese officer, a native of Shantung, who asked me to visit him at once. I found him comfortably housed. He was very pleasant and even opened a bottle of champagne in my honour. I was afraid he might have had some orders about turning me back and he had

a pair of ominous-looking heavy execution swords hanging on the wall. Our conversation was carried on through a soldier who spoke very bad Tibetan. I was glad it was bad as it gave me an excuse for avoiding awkward questions about maps, passports, etc. I promised to show him my passport when my baggage arrived. I was accommodated in the house of a Captain who was at Rima. The officer returned my visit and found me drying bird skins in the sun. I showed him my passport which was only for Ssuchuan and Yunnan, but to my surprise he seemed quite satisfied. I afterwards discovered a reason for this. He could hardly read! He did not want me to know this and only pretended to read the passport. He asked whether I had made a map; I said I had and showed him the copy. I had taken the precaution to hide the original in the stuffing of my saddle in case he should confiscate my map, but he only displayed a mild interest. He asked if I had heard any details about the fighting in Po Me, about which he had heard rumours. I told him what I had heard at Shugden. I gave him a small pocket book, the only thing I had, as a present, and received in return a very valuable present of candles.

These troops had no doctor and I had about twenty patients to deal with. One was a man who had had frostbite in the winter and had had no treatment. The people in this part believe that every European is a doctor. I did a good deal of doctoring during the whole of the journey, taking instructions from the Medical Hints in *Hints to Travellers*. The chief medicines I used were permanganate of potash for wounds (which was certainly more efficient than crude red pepper which my coolies in China used), quinine, calomel and Eno's Fruit Salt, which the people called the 'boiling medicine'. I disliked returning on my tracks in case of any failures, but the only time I had to do so I found my reputation enhanced through marvellous cures.

The people are accustomed to go to lamas who cure mostly by magic; I thought that too rapid a change from this system might not give confidence, so I am afraid I dabbled in magic myself. My quinine was in three forms: five-grain white sugar-coated pills, five-grain pink uncoated pills and two-grain pills. I used

to get some village scribe to write down the directions, which were very complicated. 'To-night exactly at sundown take two tiny pills, one large white one and one pink one (i.e. ten grains of quinine and two of calomel). To-morrow an hour before sundown take two small white ones (four grains of quinine). The day after to-morrow one hour after sundown take two pink ones, etc. If you make any mistake as to dose or the hour I cannot be responsible for the consequences.' The net result was ten grains of quinine a day for about ten days and an occasional dose of calomel. Then on the morning of my departure I used to give a small dose of the 'boiling medicine' to several of the worst cases and pointed out that it was very powerful and valuable and I could spare none to leave behind. These detailed instructions gave me a chance to get out of a failure. There were so many mistakes the patient might have made himself. Another thing I used to say was that it usually took as many days to cure a disease as the disease had been running. Thus if a man said he had been ill twenty years I said that I could not guarantee a cure under that time and I really could not wait. If he had only been ill a day or a few hours I could probably cure him. (I did not at this time know of the marvellous properties of methylene blue for removing green devils.) I also had to explain that by taking a double dose of medicine, the disease could not be cured in half the time.

At different places along the road I had been hearing about a mysterious Blue Man who was with the Chinese soldiers at Chikong. I could make nothing out of this myth, but here at last I came face to face with him.

He was a Bengali from Calcutta and his almost black complexion was the thing that impressed the Tibetans and Chinese, and resulted in the widespread stories of the Blue Man which I had heard. He spoke a little Bengali and a little Tibetan but I am afraid his sufferings had unhinged his mind. As far as I could make out he was a coolie on a tea garden near the Mishmi Hills and about twenty years ago (he could not count but showed both hands twice) he was captured by Mishmis who kept him as a slave and eventually sold him to the Tibetans at Rima. On the

arrival of the Chinese he, along with the slaves of Tibetan nationality, had been released, but as he could not return to his home he had enlisted as a Chinese soldier. He showed me some scars on his stomach caused, he said, by Mishmi arrows. I offered to take him with me back to Calcutta and at first he said he would come, if I gave him plenty of 'backsheesh' (one of the few Hindustani words he had remembered). Later he said nothing would persuade him to go among Mishmis again, even under my protection. My own position among the Mishmis would, I thought, be so precarious that I did not want to take him unless he himself pressed me to do so.

Not only did the Mishmis raid tea gardens for slaves, they also captured slaves from the Tibetan villages near their border. Such slaves would be sold to other sections of the tribe farther away from their homes, so that escape would be almost impossible. Some years later I was able to help several escaped slaves to return to their homes in Tibet. A small party had made a most dramatic escape, finally crossing a river opposite one of the stockades occupied by our military police on the Assam frontier. As the boat crossed the river the slave owners reached the bank and shot a volley of poisoned arrows at the boat, killing one of the slaves. The rest were received by our military police and eventually returned to their homes through Sikkim and Lhasa.

On July 4th, after paying a farewell visit to the Chinese officer, I left escorted by two soldiers. As I was leaving some of the Chinese soldiers brought me some very mangled butterflies.

I was now down to an altitude of about 8000 feet and getting into a country where butterflies known in north-east India occurred, though a few Tibetan forms persisted which did not penetrate to the lower level of Assam (*Everesion*, a small Blue; *Argynnis adippe*, our High-brown Fritillary; and two Skippers, *Carterocephalus dieckmanni* and *Lobocla simplex*. The new *Erebia baileyi* was conspicuous and plentiful).

The Chinese garrison at Chikong was especially friendly, and it was with sorrow I heard that at the time of the revolution, a few months later, the Tibetans rose, captured them and threw them all into the river. Presumably the Blue Man perished at the same time.

The road led down the left bank of the river among tall pines with turf underfoot for about five miles when a wooden bridge by the village of Dablha led it to the right bank to avoid a fine precipice which I guessed to be over a thousand feet high, and, though not sheer, was so steep that very little could grow on it. I reached the village of Dzachung, on the left bank, in the afternoon. The road was often through forest of tall pine trees with bracken underfoot. Parrots were nesting in the pines and these, with ciccadas, were as usual, very noisy. Where the road crossed a tributary stream the vegetation was so thick that it was almost dark, while for the last half mile into Dzachung the road was through thick jungle. All this greenery was striking to one coming from the bare Tibetan uplands. The heat was oppressive. When I took my boiling-point observation in Dzachung at five in the afternoon the air temperature was 86 degrees. The altitude worked out at 6690 feet. Trees in the village bore unripe pears and apricots and I found some quite eatable wild yellow raspberries on the road. My road from Drowa Gompa to Rima had been surveyed by A.K. (Krishna) in 1882, so I was able to take a rest from the strain of noting details of the country and putting them on the map, and was able to devote more time to natural history collections and other things.

The next day I travelled to Rima, the road getting worse as I descended. In places sticks had been fixed horizontally across slopes of rock to give a foothold for ponies. Shortly before Rima the large valley of the Rong-tö Chu came in on the right bank and the valley opened out to two or three miles in width, and the hills were less steep. Here is the hamlet of Shika where I found a small garrison of Chinese soldiers. A.K. travelled from Rima to Shugden up the valley of the Rong-tö Chu and over the Ata gang La. I reached the miserable village of Rima in the afternoon. On maps this place has always appeared in important type. A distinguished geographer described it as the 'Chief town of the district', and as recently as January 1911 a French traveller described it as '. . . the residence of the Governor of the province'. Shortly after my arrival I heard an awful crash and saw that one

of the wooden houses had fallen flat. I was naturally alarmed, thinking someone might be seriously hurt, when out of the dust and ruins arose an old woman who remarked quite casually that it was a 'rotten house'.

Here I saw my first Mishmis, three dull, morose men with very few clothes and wearing necklaces of dogs' teeth, with long hair tied in a topknot on their heads. Each one had a bearskin bag in which he kept his tobacco mixed with other things. They were smoking pipes all the time and condescended to accept some cigarettes which the Chinese officer at Chikung had given me.

Here is the story of the tail. Chinese in Peking told me that all 'Mantze' had tails. 'Mantze' is a contemptuous word for Tibetans and other 'barbarians' living on the western frontier of China. When I got among Tibetans at Tatsienlu the Chinese confessed that Tibetans had no tails but that the tailed people were savages farther to the west. In this way the tailed people always eluded me. They were always somewhere farther on; but now I was getting hotter. The tailed people were the Mishmis who lived quite close; but the tail was getting shorter. Instead of a luxurious curly thing, it was now reported to be a short stump about three inches long and very awkward to sit down upon. In fact you could always tell where a party of Mishmis had rested, as they were obliged to make holes in the ground with sticks to tuck their tails into. This gave me a clue to the whole story. People who carry loads in the hills on their backs carry also a T-shaped stick on which to rest the load for a few moments and take the weight off the bearer's back. On the paved road up which the tea coolies travelled from Yachou to Tatsienlu even the stones were in places pitted with marks of these sticks, an eloquent indication of the length of time during which the tea had been carried in this way. The two Chinese soldiers who had escorted me from Chikung were full of information about the tails and when we saw these three Mishmis at Rima they pointed to them and said, 'Those are people with tails but they are very much ashamed of them and always keep them covered up'. No, these Mishmis were not overdressed but still it was a fact that

they did wear short jackets which would just have concealed a three-inch tail, and this was quite conclusive proof to my two Chinese soldiers.

I halted a day in Rima. From here I was to travel over country quite impassable for animals. I also anticipated difficulties among the Mishmis and was quite prepared to find it impossible to travel among them, in which case I should have to return and try and find my way to India through Burma. To reduce my difficulties I drastically cut down my already small amount of baggage.

Temperatures taken at Rima in the veranda of a house on June 6th were maximum 91 and minimum 71. The altitude as the mean of two hypsometrical observations was 4840 feet. A.K.'s observations showed 4650. I would no longer be at any great height and I could now cut down my winter clothes, and I got rid of all spare things and reduced my bedding. I found a small Chinese officer here and we exchanged visiting cards, and through him I sent back my saddle as a present to the Chinese officer at Chikong. He wanted it very badly and had asked me to sell it to him.

I saw a Tibetan doctor cup a man here. The man had a bad bruise on his leg. The doctor cut it with a knife and, taking a horn having a hole at the thin end, he chewed some shavings of leather and pressing the horn over the bruise sucked the air out of it and stopped up the hole with the leather shavings, placing them there with his tongue. This drew a quantity of blood out and he repeated this three or four times.

At Rima the crops were rice, maize, buckwheat and peas. Apricots were plentiful and I saw unripe walnuts at Kahap one day lower down the valley. The people told me that a little snow fell. There were some mosquitoes and I rigged up a net I had bought in Chengtu. I caught a number of butterflies of tropical genera, including one new species, *Rapala catena*.

I left Rima on July 7th after presenting the head man with my last photo of the Dalai Lama. As soon as I started I realized the sort of journey I was in for, for I had to cross a stream by a single rope, without using a saddle as when crossing the Mekong and Salween but using the cane ring described on page 148 and

having to pull myself across. This was hard work as the bridge was the same height on either bank and one had to pull oneself up from the sag in the middle. There was not the rather terrifying drop and rush through the air which I had experienced on the larger bridges in China. The local Tibetans thought nothing of it and one man crossed while smoking a pipe, while women slung themselves over with babies tied on their backs. The road in other ways too was atrocious, and in places we had to circumvent cliffs by climbing up almost perpendicular logs in which notches had been cut for foothold, while a creeper tied to a root above was a precarious handrail.

In Rima I had made inquiries about takin, an animal which I was very anxious to find, especially after my disappointment south of Tatsienlu. I was shown the skin of an animal killed only a few days previously and was told that I was sure to find them in the valley of the Di Chu near Kahap, one day's march from Rima, and I took with me from Rima a man who promised to show me the animals. I was encouraged by this man Koko telling me that if he did not show me a takin he did not expect to be paid anything. I spent the night at the village of Kahap, or Kahao. Here I bought a pig for my party. The people were unable to catch it so they shot it.

The people from Rima down to the Mishmi frontier are unlike ordinary Tibetans. They cut their hair short. In contrast to the Tibetans above Rima, who are great snuff takers, these people smoke tobacco in bamboo pipes, as do their less civilized neighbours the Mishmis. They sacrificed a fowl to bring us luck in our takin shoot—a very un-buddhistic thing to do. The people are in their habits as well as in locality midway between Mishmis and Tibetans. I have noticed similar people in the lowest Tibetan villages down the branches of the Subansiri, where the people there approach the Daflas in appearance and manners.

Mosquitoes and a small fly called in Assam 'damdim' were very troublesome to their bare legs and the people were continually flapping with their long sleeves like a herd of horses or cattle swishing their tails.

CHAPTER XII

TAKIN

I NOW decided to go from Kahap up the Di Chu in pursuit of takin. The road up the Di Chu was said to be very bad and I was told that I should not be able to travel up it in boots. To people who habitually go barefooted a boot appears to be a clumsy contrivance. Once some years later I proposed to take some Mishmis into snow and gave them boots. They said that they could not wear such things without some practice and so put them on and walked about, much to the amusement of their companions. In the end they carried them rather than risk falling about in such dreadfully awkward things.

Leaving most of my baggage behind, I left Kahap on July 8th. I started up the hillside, passing over a grassy plateau dotted with pines. From this plateau I had clear views both up and down the Lohit Valley. Here I halted for a rest and took the opportunity to test my rifle. I am sure that before attempting to shoot big game, especially in mountains, it is essential to test the rifle in the locality in which it is to be used. A rifle fires differently at different altitudes above sea level owing to the alteration in the density of air through which the bullet has to pass. There may also be other reasons, and you cannot afford to miss a shot that may have cost you many weeks or months of hard work and much money. The first time I got any considerable amount of stalking was with the Younghusband Mission at Kamba Dzong in Tibet in 1903, where almost daily I had shots at gazelle, bharal or *Ovis ammon* and I got fairly confident as to my shooting, never taking a longer shot than one hundred and thirty yards. After the expedition I returned to India and was horrified when I missed an easy shot at a blackbuck. I knew that I ought to have tested my rifle at the low elevation of the plains of India. Never again did I have so much rifle shooting at game as I had had during the early

days of the Younghusband Mission, and subsequently on the Gartok Expedition—an expedition sent from Lhasa to Gartok in western Tibet, ending at Simla. During both of these times we counted on our rifles to a great extent for our food. Some years afterwards I spent three years in Tibet and had a good deal of shooting but was never so successful or confident as I had been before. I realize the truth that 'practice makes perfect'. I was not firing my rifle often enough to make sure of the occasional shots I got. To remedy this I fired many shots at geese and hares and in this way managed to keep in practice.

Koko, my shikari, was the proud possessor of a matchlock; among people who usually hunt with poisoned arrows this was considered the latest thing in weapons. Although I was not satisfied with my shooting, the accuracy of a modern rifle surprised him, and he and my coolies became quite jubilant at the prospect of meat while I was glad to see them so confident that I should fall in with takin.

The road soon became atrocious. We had to pass several outcrops of rocks where a slip would have meant a nasty accident in such an out-of-the-way place; later we entered thick forest and had to scramble over moss-covered boulders through dense, dripping evergreens, for rain now began to fall and continued without interruption until I returned to Kahap five days later. Frequently we would find an enormous fallen tree blocking our path over which rough ladders of notched logs led the road. Where these fallen trees lay in the direction of our road they formed, as we walked for a few yards along their slippery trunks, a welcome relief from continuous stumbling along the track. On one of these logs I had a serious fall which broke the glass of my only surviving watch which was in my pocket. A few days later I lost my compass and this finally put an end to any survey work; but luckily this happened after I had reached country which was to be properly surveyed a few months later.

At one place Koko performed some rites intended to propitiate the local spirits. This consisted mainly in lengthy and monotonous mumblings and ended by striking off the head of a fowl. We spent

the night in a cave which we improved by adding a lean-to shelter of branches and a waterproof sheet and thus passed a fairly dry night.

At daybreak we started again, finding both the road and the weather worse if possible than before; in several places we were obliged to wade through the icy water of the river where it skirted the foot of a cliff.

In the river I saw a curious animal, a water shrew (*Nectogale*). This is not the same as our British water shrew (*Neomys*), though its habits and appearance are somewhat similar. I had never seen one of these alive but had collected a few skins at different times. The animal was the size of a small rat and was crawling over stones under the water in a swift current and looked beautiful with bubbles of air on its fur. In Tibet the dried skin is used in veterinary surgery. The nose of the dried skin is rubbed gently on swellings on ponies to reduce them! This is one of the few cases in which there can be nothing in the Tibetan cure.

In England shrews used to have a bad reputation. Gilbert White says that if a shrew ran over an animal it was liable to lose a limb.

At one place we had to cross a drift of old snow and the river flowed under a snow bridge in which large trees were embedded. This, in midsummer at an altitude of under 10,000 feet, gave an idea of the immense size of the avalanche which had come down in the spring and which had not melted by the beginning of July.

Once my coolies found a bees' nest and obtained a little watery honey at the expense of some severe stings. In south-eastern Tibet generally, and perhaps in other parts of the country as well, the people say that there are two sorts of honey: rock honey and tree or wood honey. Rock honey is, they say, poisonous unless cooked. This honey is mixed with a little 'tsampa' (parched barley flour), to give it substance and solidity, and this cooked forms a delicious kind of toffee which besides being eaten as a sweet was very useful in the absence of sugar for sweetening the food.

In *Himalayan Journals* Sir Joseph Hooker refers to 'precipices of gneiss under the ledges of which wild bees build pendulous nests

looking like huge bats suspended by their wings; . . . the honey is much sought for except in spring, when it is said to be poisoned by rhododendron flowers, just as that eaten by the soldiers in the retreat of the Ten Thousand was by the flowers of *R. ponticum*'.

This does not, of course, account for rock honey being poisonous while tree honey is not; but it may be that the rock honey, which is the only honey Sir Joseph mentions, was in fact from rhododendron flowers. Kingdon Ward had a similar experience, and his companion, Lord Cranbrook, went off into a trance when he took some poisonous honey.

In the afternoon the shikari and I pushed on, leaving the coolies to follow more slowly, and at about 3 o'clock we reached a clearing where there were some rough huts, round which were many signs of the game in pursuit of which we had come. Outside, skulls with the curious curved horns were lying about, while within, skins and strips of meat which my shikari ate then and there raw were drying over the ashes of a fire. I was told that at this hour the animals would be lying in the thick forest, so we waited a little and then went out and walked upstream to the place where the takin were expected to be found. After going a few hundred yards the shikari went to the river bank where he climbed out on to a tree which overhung the water and reported that he could see two takin. I was all eagerness to catch my first sight of these animals and climbed out into the tree after him. Some three hundred yards upstream and on the opposite bank I saw in a boulder-strewn clearing, between the forest and the river, two queer looking light-brownish-grey beasts about the size of small cattle browsing on the young willow bushes. What I had seen made me anxious to get a nearer view as soon as possible, so we climbed back on to the river bank and, making a wide circuit and passing through a beautiful glade, knee-deep in grass, in which we saw many tracks of our game, we approached the river opposite to the spot on which we had seen the two animals. The wind, as is so often the case in these valleys where 'the baffling mountain eddies chop and change', was uncertain though hardly perceptible. Peering through the forest we at length caught sight of the two

animals still in the boulder-strewn clearing, and I was just examining them with my field glasses when they winded us and threw up their heads in our direction as all game do. The next thing I was aware of was a rush of a brown mass up into the forest. Below the two takin which we had first seen a herd of at least two hundred had been standing in and around a hot spring without our seeing them, and, on becoming alarmed, had made for the forest. Believing that they might not return I was half inclined to fire, being urged to do so by Koko, and in that crowd I must have hit something, but I decided that the opportunity was not a good one, as I wished to make certain of securing a good pair of horns when I did fire. Still, it was with some misgivings that I saw the thick rhododendron forest engulf the last of the herd, and discerned their forms moving under the thick pine forest higher up the hillside.

In this brief glimpse of them I had been struck by their great variety in colour, which varied from a dark yellowish hue to a very dark brownish grey. Koko was of opinion that they would not return to the spring that evening, but that I might find them there next morning; however, I decided to remain watching on the chance of their return, and we concealed ourselves behind a fallen tree. After waiting for half an hour we were able to distinguish a movement in the pine forest behind the screen of rhododendrons, and presently a cow takin came cautiously through the bushes into the open; she stood and sniffed suspiciously but, being reassured, moved on; she was followed by others, each moving very slowly and suspiciously. At about forty yards from the edge of the forest was the hot spring, which emitted a strong smell of sulphur. When the leading animal had reached this, she walked into it up to her knees and drank the water. She was speedily followed by others, and in their eagerness to reach the hot water those following later burst from the forest and broke into a clumsy gallop, until in a short time the spring was completely surrounded by a dense crowd of takin, so that it was difficult to select a good head to shoot at. Soon three or four left the spring, and came to drink at some small trickles of hot water

which were nearer to the river. Among these I chose what appeared to be a good one, and fired, on which the whole herd made off into the jungle and disappeared: it was wonderful in how short a time the awkward-looking animals succeeded in reaching the cover. The one I had fired at showed no sign of being struck, and I did not think it worth while to follow him through the thick forest so late in the evening. Koko then advised me to leave the place and return to our hut, saying that the takin would not return that evening, but that they might come again next morning. However, I waited, and in a short time the same thing happened again: first an old female appeared hesitatingly, then a few more, until finally the whole herd was standing in and about the hot water. It was too dark to risk a shot, though I remained watching them till night fell, when we returned to our hut, I, filled with disappointment that I had not brought one down.

We dried ourselves round the camp fire, having made the hut more waterproof by placing some takin skins on the roof, while Koko related adventures to me, and showed me the scars caused by a leopard which had mauled him. He was a professional hunter and sold the skins and meat of the animals he shot, but his chief source of income was musk from the musk deer. He had hunted them to the borders of the wild Po country, the people of which, he told me, were accustomed to greet any stranger they met by rushing at him with a drawn sword before even attempting to ascertain his business. Later I was to spend some time among these Po Bas, who did not live up to their sinister reputation.

He also told me of curious marriage customs of his people. The bridegroom goes to the bride's house with some of his friends. Here they have a mock fight with the bride's relations, after which they make friends and drink a quantity of 'chang', and are married.

In spite of all we could do to our hut it leaked and a rainy night soaked us. I had not been able to dry myself properly from the previous day's rain and journey up the river bed. I know nothing so unpleasant as dressing in the morning in wet clothes. However it had to be done and we started before daylight, and in pouring rain went towards the hot spring. In the dim light we could see

several takin browsing on the willow trees by the water, but it was too dark to distinguish them clearly, and we thought it best to get opposite to the spring where we expected to find the majority of the herd. Having reached this place, we waited until it was light enough to see distinctly. As the light became clearer, I discovered some more takin on the edge of the river, about a hundred yards farther upstream: and as they seemed to be larger than those we had seen before we cautiously left our hiding place and entering the thick forest moved upstream until we arrived opposite to them, when we crawled towards the river again. Having decided that they were big enough to shoot, I fired at one, and heard the bullet strike him. Instead of making off into the forest with the rest, he plunged into the river that flowed between us, and stood still in the rushing water, at a distance of thirty yards from us, when another shot laid him low, and he was carried down by the strong current until he was brought up against a stony island. I had been told by Koko that the animals would not be seriously alarmed unless we walked about near the spring on the opposite bank; if we did so they would smell our tracks and not return for several days, but if fired at from our bank they would not understand the cause of alarm, and would probably return in a short time. He therefore advised that if I shot one I should let it lie until I was ready to return to Kahap. Fortunately the body of the one I had killed was resting in shallow water close to the island, and could be secured without risk of frightening the herd away. But we had some difficulty in recovering it, being obliged to cross the foaming river by a slippery tree trunk that happened to be lying across it. We then dragged the heavy body from the water on to the island, and, as Koko did not expect the herd to return, we commenced skinning it. During this operation the coolies ate some of the raw liver.

While we were thus engaged, and my rifle was lying some ten yards from me, I suddenly noticed a takin walking nonchalantly towards us. I hurriedly crawled towards the rifle, but just as I reached it the takin, then distant about thirty yards, noticed us for the first time, swung quickly round and galloped off. As

he went I fired, and saw him stagger to the shot, but he disappeared behind a low mound before I could shoot again. I hoped that I might get another shot as he came in sight after leaving this shelter, but as he did not reappear we forded the part of the river between the island and the farther shore. At first we were puzzled at not seeing him, as it did not seem possible that such a large creature could remain hidden among the boulders, but after looking about a little we discovered him lying in a small dark cave under a rock. Koko became very excited, and begged me to shoot at once, as takin were dangerous when wounded; so I fired and killed him. With great difficulty we dragged him down to the river and across the water on to the island, and then continued skinning the two animals. The immature horns of this one were not so long as those of the first I had killed, but I was glad to have them as they showed a different stage in the development of the horns, about the growth of which very little was known. While we were thus engaged, the herd returned twice to the spring, but seeing us moved off at once. I had some misgivings that our having walked up to this animal would have left a scent on the ground which might alarm the herd on its return; but as he had been wounded by my first shot I felt bound to go and look for him. In the event, Koko's advice proved to be to some extent sound, as during the afternoon some animals came to the place where we had walked, and when they smelt our tracks, wheeled sharply round and made for the forest; but as this was at some distance from the spring, the greater part of the herd had not been disturbed. The two beasts which I had shot were of a lighter colour than the average, and my shikari told me, wrongly as I afterwards found out, that this is the colour of the large males.

The afternoon again found us at the same spot and the large herd was as usual in and around the hot water. I had been disappointed with the horns of the two I had obtained in the morning, and was determined to secure one of the very large and bulky animals which I rightly guessed to be the old bulls, though their horns did not appear to be so long as those of some of their smaller companions. The colour of these larger animals was not so light

as that of the younger males, nor was it so dark as that of the females or the immature young ones. There were two noticeably large bulls in the middle of the spring, but I found it very difficult to get a clear shot, as the herd was so closely huddled together that I never got a good view of either of them for sufficient time to allow of a steady aim. While I was lying thus concealed something alarmed them, and they turned off towards the forest, all together as though they were being drilled, but they stopped just before reaching the trees, apparently waiting for further orders. One of the large ones stood end on to me, and quite clear of the others, the steep slope of the ground giving me the length of his back and neck at which to aim. I took a steady shot, and he dropped like a log, while the rest of the herd disappeared into the forest, and I afterwards found that the bullet had broken his spine just behind the head. I was of course anxious to cross the river to examine my trophy at once, but thought it wiser to leave him, as I had already seen how keen their sense of smell was.

I had shot one large and two smaller males; one of the latter had good horns, while the other was interesting as having the horns long but without the curve at the base which is developed later. I was now anxious to obtain a specimen of a female; we therefore remained where we were, and after some time the herd returned. They did not take any notice of their dead comrade, and were soon standing in the spring as before. I remained a long time watching them with my glasses. Then a female left the spring and came down to the fresh water of the river; she was distant only about thirty yards, and gave an easy shot. At the sound of the rifle the herd retired into the forest but I was surprised to see that, owing to the noise of the rushing water, some of the animals which were a couple of hundred yards upstream, in the bed of the river, had not heard my shot. I then moved through the forest and came out on to the river bank opposite to them, but did not fire as the horns did not appear to be better than those I had already obtained. I remained in the rain watching these animals till dark, when I returned home leaving the two beasts I had just killed lying on the opposite bank. On our return to camp, all

hands were turned on to clean the skins of the two animals which had been brought in during the morning. Our dinner consisted of steaks and marrow bones of takin, which proved very good — as did the wild strawberries, of which we had picked a quantity.

The next morning we were, as usual, up before daylight, and moved towards the spring, where I spent a very long time watching the herd. I did not wish to fire unless I could get one of the very large animals, and this was difficult owing to the manner in which the herd huddled together. It was, however, a fascinating pastime to observe the creatures from so short a distance with a good telescope. They were hustling one another about in the water, as many as could find room standing in it, and occasionally drinking a little, while those on the outskirts of the crowd were trying to push their way forward. Frequently they would butt at each other, and I saw one precocious calf tossed above the backs of the herd by an old bull. Around the spring others were walking about. In the clearing all vegetation had long ago been eaten or beaten down. I was now able to examine the colour of the takin carefully and found, by comparing them with those I had shot, that the young ones, when quite small, are of a very dark brownish grey; the females are of the same colour but not of so dark a shade; the adult males turn lighter; while the very old bulls again become darker. The legs of all are darker in colour than the body, while the top of the withers is much lighter. None are so light in colour as those from Shensi in China (*B. taxicolor bedfordi*), of which specimens can be seen in the Natural History Museum in London. A few of the animals were browsing on trees at the edge of the clearing, but I think they must generally feed at night, as I twice found them browsing in the forest before daylight. After we had watched them for some time, a very large one left the spring and gave me a clear shot as he stood broadside on at the edge of the forest. On my firing he swung round very suddenly as though knocked round by the shock of the bullet, and disappeared into the cover. From his action I felt sure that he had been mortally wounded, and indeed the next day we picked him up within ten yards of the place where he had been struck. As the animals never

ventured many yards from the forest it was important to shoot them dead, as there would be small chance of a second shot at a wounded one. At midday I returned to camp, and again spent the evening in watching the herd, but without firing a shot.

Starting at daylight, we went towards our usual watching place. On the way I came on a single takin feeding on the forest bushes on the other side of the river. In the dim light he looked very big, so I decided to wait opposite to him until it should be sufficiently light to see clearly. As the light increased, he favoured me by moving out into thinner forest, until he emerged on to a grassy spot which jutted out into the river. I fired, and he fell, and I was considering how I could cross the river when he rose and disappeared into the thick curtain of willows, giving me only time to send a hurriedly-aimed shot after him. It was impossible to cross the river at the point where we were, as it was both too deep and too swift, while the only crossing place was a quarter of a mile downstream. We hurried there and crossed the deeper part by a fallen tree, off which, to the amusement of the shikari and owing to my clumsy boots, I fell. We then forded through the shallows and hastened up the left bank of the stream. On the way we passed a female with a young one, which seemed to take very little notice of us. Having reached the place where I had dropped my beast I could find no trace of blood, neither could any tracks be found in the jungle which he had entered. We now remained on the bank of the stream on which the hot spring was situated, and moved up to where the dead beasts were lying beside it. As we approached we saw a few takin in the hot water, but the bulk of the herd was not there. While we were watching them from a distance of two hundred yards, we saw three or four much nearer and walking towards us. We remained perfectly still, being partially concealed by bushes, and they walked right up to us quite unsuspiciously. I saw by their colour and the small size of their horns that they were all females. When the nearest had approached to a distance of eight or ten feet of us she suddenly noticed us, and giving a curious snort of alarm, made off. We then moved to the spring, and found one of our large males lying

by the water, another just inside the forest, and the female by the river where I had shot her. The ground around the spring, which I was now on for the first time, was trampled down and covered in droppings by the nightly visits of the herd, and resembled a farmyard. In several places round the spring rough conical shelters had been made which would just conceal one man; the native hunters crouch in these and shoot the takin with poisoned arrows at very short range. I was told that a well-placed arrow will kill one of them before it can travel twenty yards. The people cut away a little meat around the arrow wound, where the poison is in greater quantity, but the rest of the meat is considered good.

The largest of the beasts which I had shot measured 53½ inches in height at the shoulder and was 78 inches long from nose to the end of the short tail. The best pair of horns measured 20¼ inches, but these did not belong to the oldest and largest animal, whose horns were very much worn down. The shape of the takin is very peculiar, the back sloping down at a steep angle from the high withers to the tail; the neck is thick and strong; the nose is of a pronounced Roman type, rather like that of an Indian goat, which gives the profile a curious appearance; the legs are short and stout, with large hooves. After taking careful measurements of the dead beasts, I left the coolies, whom I had brought from the camp for the purpose, to skin the carcasses, while I with the shikari moved on upstream. We walked for about a mile over very rough ground, mostly through dense dripping rhododendron forest, where regular paths were worn by the passing of the herd; but we saw no more of them, except one or two which were moving about on the cliffs a thousand feet above us. Koko told me that the last time he visited this place, about three weeks previously, he had seen two bears; he also told me that the beautiful tragopan and another species of pheasant were to be found here, but I saw no signs of them or of other game. We then returned to the spring and completed the skinning operations, after which we washed in the spring, the water of which was quite warm and smelt strongly of sulphur. Much to the surprise of one of the men, the action of the sulphurous water turned a silver ring he was wearing to a

golden colour, but I assured him that it would soon turn to silver again. I was not able to take the carcasses back to Kahap for the villagers, as the coolies were all fully loaded with horns and skins, so they threw them into the river and covered them with stones, saying that the meat would keep good in this way until they could return from Kahap to bring it in. The whole afternoon was spent cleaning the skins, a task rendered difficult by the pouring rain, which made the air so damp that they could not be dried.

Next morning I was up early to see whether the takin had come back, though Koko assured me that my doing so was useless, as we had walked all round the spring, and that this would prevent them from returning for some days. The shikari proved to be right and I saw no more of them.

We then commenced our return journey by the same difficult path, and again in pouring rain. As I was soaked to the skin, I pushed on ahead of the coolies with Putamdu, hoping to get a large fire lit in the cave to dry ourselves and warm the coolies on their arrival. In China I had bought a supply of the very best matches made by the leading English makers. These were quite unsuitable in the damp conditions I was facing. Some cheap and nasty matches which my servant got in Tatsienlu stood up to the damp far better, but these were now finished and we spent a chilly hour in the cave trying to light the fire with a flint and steel and a piece of damp tinder; but being unsuccessful, we were obliged to await the arrival of the coolies, whose experience led them to take more care to keep their tinder dry. Even after the tinder was glowing it appeared impossible to raise a fire from it, as the constant rain had made every stick of wood dripping wet. But the coolies found a piece of bamboo which they pared down with a knife, removing the outer damp portion till they came on the inner dry wood and began to obtain dry shavings, and from these a flame was soon obtained. We camped that night at the cave, and next day reached Kahap. Here at last the spell of rain broke and we had a hot sunny day. I took this opportunity to do my best for the skins, and rested a day while everyone in the village was occupied in cleaning them; but the weather had been too much for

them: all went bad in the next few days, and I was obliged to throw them away.

The Tibetans near Rima called takin 'shing-na', while their Mishmi neighbours call them 'kyen'. Takin is the name given to them by the Mishmi tribes near where the Lohit River leaves the hills through whom they first became known to the world.

The Tibetans of Po-Me and Kongbo call them 'kyimyak' or 'tsimyak' and this is the name more generally used in Tibet. The French missionaries at Tatsienlu used the Latin name and called the animal 'le budorcas'. Several people have passed these hot springs since I was there, but no one has seen the takin there. I think that they remain only for a short time in the summer. They seem to be very regular in their migrations and that is why I saw none of them when I was in search of them south of Tatsienlu three months previously.

Two years later I was in the upper valley of the Dibong, one of the large rivers joining the Brahmaputra in Assam. The people told me that enormous numbers of takin passed through the valley at certain times of the year—so many, indeed, that it was dangerous for people to travel as the animals had no fear of man. I was hoping to witness this extraordinary sight, which I can hardly believe, but I was not able to wait. I did, however, find the tracks of one, perhaps an advance scout of the big migration. I followed the tracks until I overtook him and shot him — a large bull. I sent the meat back to the village, a day's journey away, and the man who carried it told me that he met another on the road. It came up to within five yards of him and stamped its foot. He drew his sword to defend himself and then turned and fled leaving the takin in possession of the ground. How much truth there is in these stories I cannot say, but the migration was evidently beginning. The man added that had the beast smelt him it would have fled, as they fear the smell though not the sight of man.

There is a small rather isolated group of takin in one of the valleys in Bhutan and some years ago through the kindness of the late Maharaja I was able to get two of these alive. I presented one to the London and one to the Edinburgh Zoo. The latter

died in London soon after arrival but the former lived in the Zoo for twelve years and only died in 1935.

The stream at which I was camped by this hot spring rose in a pass called the Taluk La around which were some snowpeaks. In joining up the different sections of my map I found that these snows coincided with some I had seen from the Zhasha La on June 20th. The country east of the Taluk La is inhabited by Khanungs. Captain Pritchard a few months later crossed this pass which he called the Diphuk La, and this is the name used by Kingdon Ward, Kaulback and other travellers who have passed up and down this valley. Captain Pritchard lost his life a few months later when trying to reach Dokong from north Burma.

In the evening a dog visited us and spent the night, and in the morning we saw the smoke of a fire some distance off up a branch valley. The people must have been travellers or hunters in search of meat from the Burmese side of the pass.

During my trip after the takin up the Di Chu, in spite of atrocious weather and an accident to my net, I caught a number of butterflies, including specimens of the new Veined White *Aporia baileyi* which I had already taken at Menkong and the new Argus *Erebia baileyi* and a new variety of a Silverline 'Blue', *Aphnaeus syama mishmisensis*. I also got a variety of a small brilliant blue butterfly, *Albulina pheretes*. These were taken at about 9000 feet, a very low altitude for this butterfly which in north Sikkim is found up to 16,000 feet. These specimens were consequently larger. I also took the nest of a very pretty kind of redstart, *Chimarrhornis bicolor*.

From Kahap I sent back the boy Wongshi, or 'Spyangku' as Edgar nicknamed him, whom I had engaged at Tatsienlu. The reason for this nickname was as follows. It may be remembered that 'spyangku' is the Eastern Tibetan pronunciation for the word for 'wolf'. Lhasa Tibetans laugh at the inhabitants of the frontier districts who are so uncultured that they pronounce words as they are written and not in the correct way used in Lhasa, where the word is pronounced 'chang-ku'. I had killed a marmot and asked Wongshi whether he would eat it. He replied that he would — in

fact there was only one animal in the world which he would not eat and that was a 'spyangku', as if he did he would become blind. 'Spyangku' beat me for the moment and I turned to Edgar and asked what it meant. Edgar said 'Think of the spelling' and then I got it. This resulted in Wongshi being called 'Spyangku' ever afterwards. Spyangku carried letters to Edgar at Batang and copies of the map I had made from Yenching, together with various notes including observations for latitude and altitude at various places on the way. I spent some time copying all this out in case anything should happen to the original copies when travelling through the unknown conditions I was about to face among the Mishmi tribesmen. Spyangku arrived at Batang in due course but could not refrain from making a good story of his journey with me. He said that I had taken over a large area of country and appointed him governor. He began to throw his weight about in Batang as a governor should, and was soon landed in jail and given a thrashing. Spyangku had not been very useful and had been very expensive.

In the *Land of the Blue Poppy* Captain Kingdon Ward recounts how, about this time, he received a letter from a French priest at Tsu-kou: 'The English are in Lhasa, the Chinese soldiers have capitulated . . . A British officer has gone in from Y'a-k'a-lo on a secret mission. . . .' This extraordinary rumour was the result of Spyangku's talk. I paid him in full with something extra for his return journey. A part of one of the takin skulls had been dropped up the Di Valley, and I had left one of the coolies, who was carrying my kitchen box, behind to try and find it. At Kahap Spyangku opened this box and stole several things: knives, cooking pots, meat and 'tsampa'. This somewhat mitigated my sympathy when I heard of his troubles on his return to Batang.

CHAPTER XIII

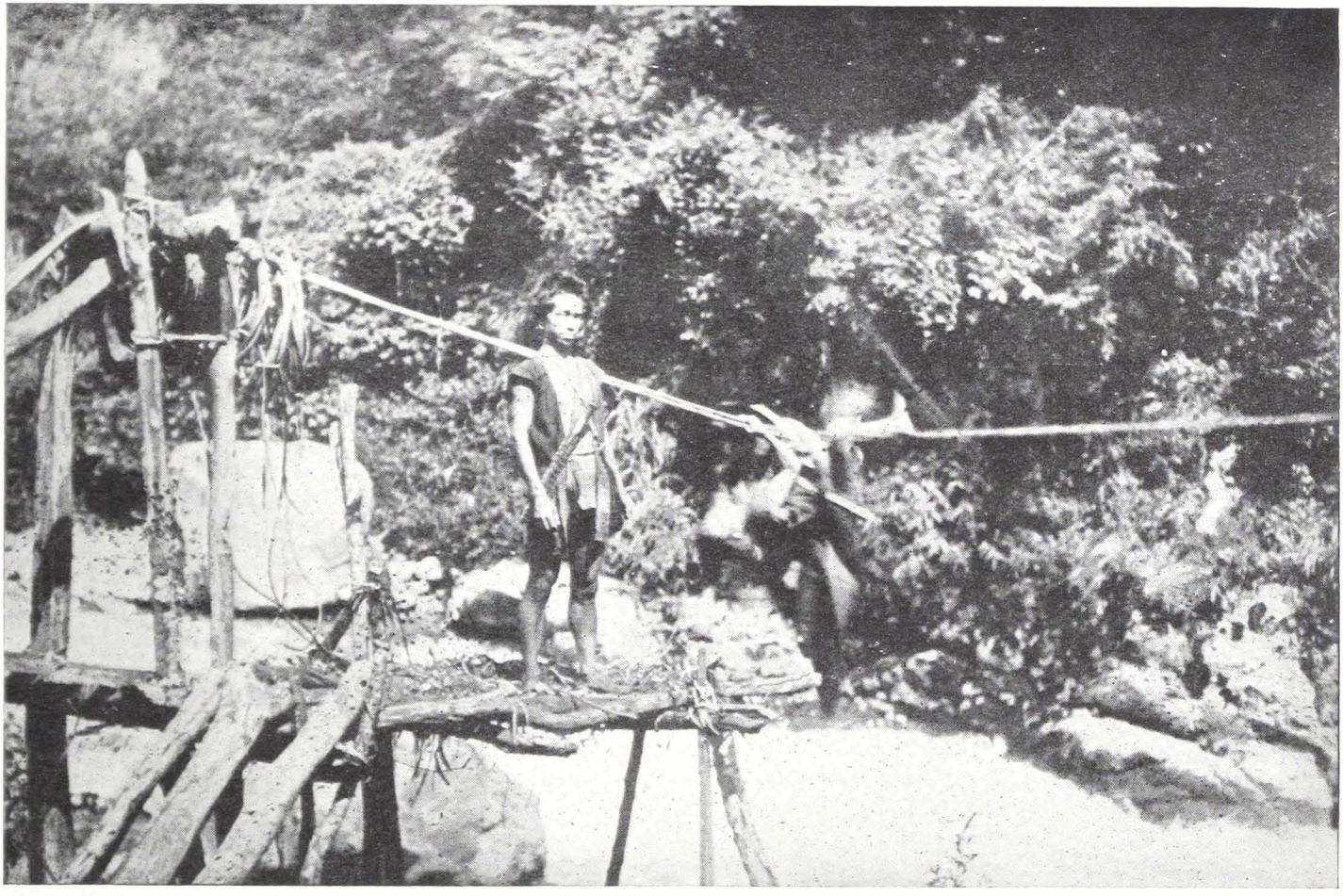
AMONG THE MISHMIS

I SPENT the night of July 14th at Kahap, doing my best for the takin skins, but the weather beat me and in the end I was unable to save them.

The 15th saw me on the road again — but what a road! At first I went through wet ricefields, but on leaving the vicinity of the small village I had a foretaste of my next fortnight's travel. Where the river flowed below a cliff, this was negotiated by the notched log and creeper arrangement which I had already experienced on leaving Rima. After a cliff the track would occasionally be good and flat for a short distance, but it was more probable that we had to scramble over boulders at the river's edge. Sometimes we had to cut our way through dense jungle or we might skirt fields of maize, millet or other crops strange to me.

In travelling along jungle paths it is often necessary to leave a trace of the way we have gone. In Sikkim this is done by cutting a small green branch off the tree (fresh and green, so that you would not be misled by a previous traveller's sign) and placing it longitudinally along the road you have to follow. When first travelling in the Mishmi Hills on my way down from Tibet I had occasion to follow a sign of this kind. It was laid horizontally across the path. I thought that the branch must have been moved accidentally by some animal and followed that path, to be recalled with cries by my Mishmi companions. Somewhere in the course of the five hundred miles separating the two areas the sign is changed and you block the road you did *not* use by a cross branch instead of marking the one you *did* use by a longitudinal one. I wonder what is done in other similar countries, for all jungle people *must* have a sign for this purpose.

Boys on small platforms built in the fields scared off birds, monkeys, bears and other marauding animals. In one of these fields I came on some quail and shot one but could not find it in



MISHMI ROPE BRIDGE (Note the cane hoops at the end of the bridge)

the tall grass. In the evening I reached a rope bridge about thirty yards long over a stream. The bridge was fastened to large trees at each side of the stream on which a platform of bamboo had been built from which to start and land. I had been told about this bridge and, to save time, I had sent word ahead to the village of Dong, which was near the bridge, to send people to help with the crossing. Two men and four women turned up who brought a welcome present of chickens and eggs. My men wanted to spend the night at Dong but I insisted in pressing on two miles further to Ti-ne which we reached after dark, lighting our way with torches of resinous pine. These we had to light with flint and steel as I had no matches.

During the night some Mishmis arrived at the village. They were to hold a consultation at the village of Walung, which was on the opposite side of the river, and then all were to go to Chikong to see the Chinese officer there who had sent for representatives of what he called the 'Monkey People'. So unwilling were these Mishmis to go that it did not take much from me to make them change their plans and return to consult the British Political Officer at Sadiya before visiting the Chinese, whose interest in the tribes south of the Himalayas it was advisable to discourage.

I learnt from these men about the murder of Mr. Williamson and Dr. Gregorson and their servants and followers by the Abors. It was a relief to me to know that they had been murdered by Abors and not by Mishmis. My father knew that I might possibly emerge at Sadiya and had sent a telegram to the Consul-General at Chengtu: 'Warn Bailey massacre Sadiya'. I did not know who had committed these murders. Had it been the Mishmis of the Lohit Valley I should have had to change my plans. Mr. Williamson had been very popular among these people, largely cupboard love I am afraid, for he used to give them large presents of opium and other things. These men actually had some Indian tea and matches which he had given them, both of which I would have been glad of. The previous year he had come up this valley nearly to Rima, and had met some representatives of the Dzongpon of Sangachö Dzong.

This night I decided to throw away my takin skins. The wet weather had been too much for them. I was glad to reduce my loads, but it was disappointing to part with these specimens over which I had taken so much trouble. I kept the horns and the body part of one skin. Some of this came in useful later when my boots were quite worn out.

Leaving Ti-ne I continued down the valley. I passed some lean-to shelters where Williamson had camped, and they showed me a tree on which as far as I could make out he had hoisted his flag. I came only about five miles in ten hours this day, having to spend some time over rope bridges, by one of which we crossed the river to the right bank. This bridge alone took three hours. The Lohit was about eighty yards wide, with a very rapid current. I passed two flags which my men told me had been put by the Chinese to mark the frontier. I bivouacked in a small flat called Mango. I soon got used to sleeping thus in the open in heavy rain. The Mishmis whom I had met and brought back with me from Ti-ne were very friendly but afterwards proved treacherous. They asked me for opium. With a view to this eventuality I had bought two pounds in Hankow, and this I now doled out. They melt it over a fire and soak a small piece of sacking in it, and this they smoke in a bamboo pipe.

The southern slopes of the Himalayas from the eastern frontier of Bhutan to Burma and beyond are lacking in salt. The lower part of this country, say from five thousand feet downwards, is inhabited by scantily-clad savages of many tribes — Akas, Daflas, Miris, Abors, Mishmis of various kinds, and others. These people have to get salt from somewhere. Those near the plains of India go south for their supply, while those living nearer Tibet go north to Tibet for this necessity. For the most part these tribes do not understand money, but exchange the products of their forests — skins, bamboo, canes, and medicinal plants — for salt. They also bring a little rubber into Assam.

The Tibetans have the greatest contempt for these savages, but also some fear, and in many places will not allow them into their villages when they come up to trade.

The true Tibetan does not willingly live below about nine thousand feet, and these savages cannot live above about five thousand. The result of this is that there is a belt of country between these two heights quite uninhabited, though occasionally some half-breed Tibetans like those at Rima and Kahap fill the gap. Among the Mishmis there are always a few people in the upper villages who speak Tibetan and a few in the lower villages who speak Assamese, which is a dialect of Hindustani sufficiently near for me to understand.

It seems that my Bengali clerk at Gyantse had an Assamese servant with whom Putamdu had made friends. In any case Assamese has many words in common with Hindustani.

I was still anxious not to commit myself irrevocably to the mercies of the Mishmis. I knew very little about them beyond that in 1854 they had murdered the two French priests who had tried to travel through their country, and that Mr. Needham, who had been in political connection with them, was fired on with matchlocks and arrows when he travelled to the neighbourhood of the Tibetan frontier, and that that intrepid explorer A.K. (Krishna) had been so alarmed by reports of them that he had considered it necessary to travel from Rima to India via Lhasa, thus lengthening his journey by three months. My intention was to go to the first of their villages and to gauge the possibilities from there, and if it appeared quite impossible I would return to Tibet with my Tibetan coolies and try to reach India via Burma. To this end I persuaded a Tibetan of the village of Dong, who spoke the Mishmi language, to come with me until I met Mishmis with whom I could get on in Hindustani or Assamese. I also met a Mishmi who spoke a little Tibetan, and engaged him for the same purpose.

On July 17th I slept out opposite the village of Tulang, which was on the other bank of the river and was reached by a rope bridge. The inhabitants, men and women, all crowded round to look at me and my few things. I am afraid I was not an impressive sight. I had very little baggage. I had not even a bed, as the coolie carrying this did not turn up till the morning, so I had to

sleep on the ground. Among primitive people, and perhaps not only among primitive people, a good appearance goes a long way. If you attempt to travel with too little fuss and too few followers you are considered a person of no importance and not worth bothering about. It is not worth anyone's while to let you have food or provide you with transport. On the other hand, too vast an entourage hinders matters in another way; the party becomes a burden on the country; the inhabitants have difficulty in feeding it and finding the necessary transport. In later years I had experience of both these difficulties and learned the happy mean and made my requirements suit different conditions and various types of country. Within reason the more you take the more valuable will your results be. Notes, diaries, cameras, collecting materials of various sorts all take transport but produce important results. What I regretted more than anything was that I had not been able to bring back a collection of plants. These with the collecting material are heavy and would have meant extra loads. Still, I think I might have done something more in this way.

Both men and women smoke a great deal; tobacco is grown in their villages. I pressed and brought back a specimen which was identified as *Nicotiana affinis*, which, with its sweet evening perfume, is not uncommon in our gardens. This plant must have been introduced into these hills many years ago as it originally came from America.

In the evening the head man of Tulang, a fine tall Mishmi, had been over to see me, bringing me a present of chickens and eggs, and, for sale, some corn cobs and unripe bananas, which, when cooked make a passable substitute for potatoes. I was now right in the Mishmi land, and I had to decide whether I could continue or whether I should have to return. This matter was decided for me by my Tibetan coolies. I was, as I have explained, sleeping on the ground near the bridge. I woke just as it was getting light, and saw the last of my Tibetan carriers disentangling himself from the rope bridge on the far side of the river, and the whole party streaking northward as fast as they could without their pay. Only one was left, and this was the man I had engaged

to come with me as interpreter until I could find some Mishmi with whom I could speak. I had made him a present of the Tibetan coat which I had bought at Poda, but this was still with me.

Nothing could be done to get the men back, so I sent my servant Putamdu with this Tibetan interpreter across the bridge to ask the Mishmis to send over some men to carry my loads. The only means of crossing the river was the rope bridge, which would only take one at a time. The Tibetan interpreter went first, and as soon as he got to the other side, he bolted, leaving his coat with me. I was now committed to a journey through the Mishmi Hills, having no one with me but my faithful Putamdu, who had come out to Peking to meet me. I went back and sat among my loads, and eventually the fine-looking head man came over the bridge to me, this time in a very truculent mood. He demanded ten rupees from me as a tax for entering his country, and ten rupees in exchange for the chickens and eggs he had given me as a present the previous evening. I had to pay as he had me at his mercy. He even hinted at more, saying that Williamson Sahib had given him a gun and lots of opium. I am sorry to say that when I next met this truculent savage he was being given a present of a rifle by the Political Officer at Sadiya instead of being dealt with for his treatment of me. Such are politics! Eventually he sent me some coolies at the exorbitant rate of one and a half rupees a day, which would mean that my small stock of money would not last until I reached Sadiya. To make matters worse, the Mishmi who spoke Tibetan and who had said he would come with me never turned up.

On July 18th I made a late start – at least, I considered it a late start, but I was to get used to these delays and difficulties with Mishmi coolies. The track was again of the same primitive type, but had been improved in places by Williamson the year before in some of the more difficult places, that is to say, that sticks had been fixed horizontally where it passed over sloping rocks. This was probably necessitated by Williamson's boots! At one place we had to ford a river fifteen yards wide and over knee deep. Among my coolies were two women, and the men carried them

and their loads over this stream, signs of gallantry that I did not expect from these savages. In the evening we reached a flat covered in tall elephant grass, near the village of Tramti. Here my men built me a 'basha', a simple shelter of bamboo thatched with grass, in a few minutes, and all went off to the village, leaving Putamdu and me to our own devices. The altitude was 3400 feet. I picked up a friendly man who spoke a little Assamese, who promised to come with me right through to Sadiya, and who actually did accompany me for several days. His name was Amphingsa and he had helped Williamson on his journey. I was getting a regular supply of unripe bananas, which were found everywhere in the forest. These I was very glad of, and also of a small wild fig about the size of a cherry, which was quite eatable. I also got a little rice and maize from the people.

The next morning I was up at daybreak. It did not take me long to wash, shave, and pack up my few things. No one appeared to take me on. Then some women came to see what I was doing, and these were followed some time later by the carriers, and I got off at eight o'clock. The road was better than usual and partly through tall grass, some of it fifteen feet high. At one sandy place we halted for a rest while the Mishmi carriers amused themselves practising long jumps. Further on we had to cross a large tributary called the Chera. Here over the deeper part we made a 'Mishmi' bridge of crossed sticks. This is a common type of bridge in this country, and is made as follows: A man wades out from the bank as far as he can, usually a few yards, and fixes two sticks on the bottom which are tied together where they cross above the water. A couple of bamboos are pushed out from the bank and laid in the crotch, where they are lashed firmly, and a weight consisting of a large stone or, failing this, a bamboo basket filled with small stones, is tied into the crotch to make all firm. The two bamboos from the bank project several feet beyond the crossed sticks towards the centre of the stream. A man walks out as far as the crossed sticks and on as far as he can along the projecting bamboos. When he can go no farther he fixes two more crossed sticks with a stone between them to support the pro-

jecting bamboos on which he is, and over these more bamboos are laid which also project as far as possible, and the process continues right across the stream, or at least until the water on the other side becomes shallow enough to wade. These bridges can only be made over small, shallow streams, and are found everywhere in the cold weather when the rivers are low. They are only temporary and are washed away every summer.

Such bridges have a secondary use in rough water. Conical bamboo baskets are fixed to them, the closed, pointed end downstream; the other end is open. A fish moving down enters this; his head is caught in the narrow end and he cannot turn round, and is trapped.

About one o'clock we reached Minzang, where the river which has been flowing south turns sharply west. I naturally wished to go on, but the men refused to do so. They just ran me up a shelter of bamboo and grass as before, and went off to the village. Later in the afternoon about twenty villagers, mostly women, came to stare at me and note all Putamdu and I did.

On the morning of July 20th no one turned up except the usual sightseers. Then, to my delight and surprise, two Tibetans appeared — men I could talk to. They had been sent by the Chinese to bring up some Mishmi head men from lower down the valley. They had been told that if they did not succeed in bringing the Mishmis up within fifteen days they would lose their heads. They had already been a month on the job, and had at last persuaded about forty to come. I told them that they had much better go to the Political Officer at Sadiya and keep out of the way of the Chinese, who in any case I heard were being sent to fight in Po Me. I am sure that none of these Mishmis went to the Chinese, and I hope the Tibetans, if they did so, arrived after the Chinese garrison had been wiped out, and came to no harm. One of the Mishmis whom I had met at Ti-ne, and whom I had advised to go to Sadiya before visiting the Chinese, turned up here and brought his wife to see me. I gave the lady my watch-chain as a present, to her great delight. Things were getting a little more friendly, but still I was never invited into a

house or even into a village. A young man, however, asked me to stay in his house at Tula, a village I was to pass farther on, but this invitation came to nothing in the end. I wanted to see how these people lived, but the ostracism was complete.

The Lohit River was very swift, the high-water mark was about twelve feet above the level of the water. From the river level to thirty or forty feet above the cold water lay a layer of mist. It felt quite cold whenever we descended into this mist. I spent the night at a place called Muku, in a clean thatched shelter made by Williamson.

I had been told that I could reach Tula in two days from Minzang and I hoped to make an early start and attain this programme. My Mishmis thought otherwise. They cooked their food in a more leisurely manner than I did, and then had to smoke tobacco and opium. The road was, if anything, worse than before, owing to a fresh landslip and to a slippery climb over clay. We passed several rope bridges leading across the Lohit. Some of these were of a different kind to those that I had used previously. They consisted of four separate strands of cane not twisted together, with a number of hoops of cane round them. The traveller crawls into the hoop and pulls himself across. It is advisable to tie a little of the wet pulp of a wild banana tree inside the hoop as a lubricant. I timed a Mishmi crossing the river on one of these bridges, and he took two and a half minutes. There were usually about ten hoops on these bridges. If a man arrived when all the hoops happened to be on the other side he would have to search the jungle for a piece of cane and make himself a hoop; but by the law of averages there was usually at least one hoop on either bank. I camped at another of Williamson's shelters called Krang. The Mishmis told me that while they were cooking their meal they heard a tiger and asked me to sleep with my rifle loaded. The temperature at night went down to 70 degrees.

I changed some of my carriers here. They were not satisfied with the one and a half rupees a day which had been agreed upon, and I had to pay more. I was paying in Chinese rupees, which were all I had.

I was delayed at the Halli River by a rope bridge which took one and a half hours for my party of nine persons and four other travellers who happened along. The preparations, such as arranging the hoops and tieing the lubricant, took up some of the time, so that a larger number of people would not have taken proportionately so long. They fixed me in several of these hoops and gave me an extra support for my head; but all the same I found it quite difficult to pull myself the forty yards across the river.

Near here I passed a queer arrangement of bamboo strings radiating out from a platform in a field. This turned out to be an ingenious and efficient device for scaring birds and animals from the crops. A hut is built raised on poles sufficiently high to be safe from wild animals. From this strands of bamboo bark lead in all directions to the edges of the field; on these are hung hollow bamboo tubes, two or three together. A boy spends the night in this hut and periodically shakes the bamboo strands, which causes the bamboo tubes to rattle against each other, and the noise scares the animals. A year or two later I spent some time among the neighbouring tribe of Chulikatta Mishmis, who had a labour-saving improvement on this.

A bamboo bucket was tied to a pole which rested on a bamboo rope which was stretched between two supports. Other ropes leading to the borders of the field were fixed to this, and on them were hung the hollow bamboo 'sounders'. A trickle of water from a bamboo pipe was directed into the bucket which, when full, overbalanced and lifted the pole off the rope. In overbalancing the bucket was emptied and the pole swung back and banged on the rope, rattling all the bamboo tubes which were attached. The water again trickled into the bucket, and this went on automatically every minute or so all day and night, interrupting sleep until you got used to the intermittent noise.

The bamboo plays an important part in life in this country; in fact this is the case throughout all these hills bordering on north-east India. The young shoots are eaten, the larger tubes are cut up to make buckets for carrying water and are also used as cooking-pots; baskets and other receptacles are made from it; strings

are made from the flexible bark, and these are used in many ways; houses are built of it. In fact it is difficult to imagine this country without the bamboo.

Similarly the Tibetan nomad of the high tablelands depends on the yak for everything. He eats the meat, drinks the milk, makes cheese and butter, the hair is made into ropes and also woven into cloth out of which the people make their tents. There are no houses. There is no wood. The dried dung of the yak is the only fuel. What would happen to this country if the yak died out? Man could no longer live there.

I slept under a rock at Tula. We had expected to find one of Williamson's 'bashas', but as it had been built in a field it had been removed. The head man appeared with a present of some corn cobs. I gave him five rupees and some opium. He considered my meanness beyond belief, and resented this insult and asked for ten rupees. I compromised for seven. Government officers when making official tours have to distribute largesse, but it makes things difficult for private travellers, especially those who have come from a distance as I had done.

It rained in the night and dripped off the rock on to me. I had to get up several times and move my bed to try to keep dry. Amphingsa, the man who spoke a little Assamese, spent the night under the rock with me. He did not seem to sleep as far as I could see, but he kept the fire going and was useful in that way. He had shot a small bird with an arrow which, after removing some of the larger feathers and making some gashes in the breast, he threw into the fire; after it was slightly scorched he ate it almost raw, tearing it with his teeth and fingers like an animal.

Every Mishmi carries a bow and a quiver full of arrows. The latter are of various kinds, a heavy one with a metal head, usually caked in some poison, is for men or large animals; the arrow for a bird is a much simpler affair. It is merely a shaft of bamboo sharpened at the point, the 'feather' made of palm leaf. These are so easily and quickly made that the people do not trouble to pick them up when they have shot them at a bird, squirrel, or small animal.

MY MISHMI CARRIERS

Again I was ready to start at daybreak, but beyond the usual sightseers no one turned up to carry my things. Putamdu had never seen me treated like this before, and was inclined to be a bit rough with the men when they did come, especially when instead of starting off they proceeded to sit down and smoke opium and tobacco. His displeasure at this was so pronounced that one of the Mishmis drew his sword and threatened him, and I had to intervene. Finally we started at 11.30 and travelled about ten miles to Pangum, where I camped in one of Williamson's shelters. One of my coolies went out in pouring rain with a fishing-net tied to two poles. He returned at dusk soaked to the skin and with no fish. Mishmis do not take much notice of rain. They do not seem to talk about it as we do, but regard it as a normal and uninteresting incident. Their scanty clothing and wet bodies quickly dry. They sometimes use a kind of umbrella, a piece of bamboo matting folded in two and sewn together at one end. This bivouac was close to the river and the proximity of the cold water brought the temperature down; the minimum was 65 degrees, almost 10 degrees cooler than at my last camp.

On the morning of July 24th things started well. The head man came with a present of chicken and sweet potatoes. The fisherman also had been up early and brought five small fish. The former began to get nasty when he was only given ten Chinese rupees. Amphingsa, who had come with me from Ti-ne and who had promised to go right in to Sadiya, had changed his mind and decided to go back from here. He had been useful as an interpreter and had been with me eight days. I gave him thirty rupees. The meagreness of the sum distressed him, and I eventually had to give more to both these men. I managed to find another Assamese-speaking man who agreed to accompany me. He carried a fan made of the tail of a monal pheasant. What interested me was the white band at the tip of the tail. This showed that it was from the little-known Sclaters monal (*Lophophorus sclateri*) and not the common monal of the western Himalayas. I saw another fan made of the tail of the peacock pheasant (*Polyplectron bicalcaratum*).

The road was as bad as ever and in places worse. Once we scrambled along a cliff at the river's edge until the track disappeared and we had to wade waist deep in the cold water at the foot of the cliff. In the evening we left the main river and ascended a tributary to a rope bridge. It was too late to cross so I slept in a shelter of wild banana leaves which my people made for me by the bridge. Banana leaves, though very large and so apparently suitable, are the very worst for this purpose. The Mishmis well knew this and never used them if they could find anything else. When banana leaves wither wind or rain causes them to split and by morning you find that you have a fine view of the stars, or rain may be pouring in. A kind of croton leaf was the best if it could be found. This was fixed by making a nick in the thick midrib of the leaf; the leaves were neatly laid on like slates on a house. This was quite waterproof, more efficient and more quickly made than a thatch of grass or leaves. This place was called Tra-me-ling and must be the same as Williamson's Sa-me-ling. I usually walked ahead of my coolies, where I could see more of the animal life. In this part of the country I noticed many snakes which were sunning themselves on the road. I was not able to collect any. I caught many butterflies of great beauty, but of the ordinary eastern Himalayan varieties. One skipper was new and was named *Halpe perfossa.*

I was awakened about midnight by a man from the village near by who wished to know what I proposed to pay for the privilege of crossing his bridge! I told him I would speak about all that in the morning. He slept on the ground beside me, perhaps to make sure I didn't sneak away, and in the morning told me that the toll for me was sixty rupees. Williamson would have paid that and probably more for getting more canes to strengthen his bridge. I told him that if he helped me I might give him a little 'baksheesh'. If not I should stay where I was until I starved to death, when the British, who, as all knew, were preparing to avenge the murder of Williamson by the Abors, would certainly come here and avenge mine too. I was obliged frequently to use this argument with these troublesome and unpleasant people.

A few years later, when we sent parties to survey the Mishmi Hills properly, a small escorted party penetrated into one of the longer side valleys. The officer in charge was asked for a report. It was terse. 'The country is bloody and so are the people!'

I started crossing my party over the bridge at daybreak. It took a considerable time, which I spent in trying to repair my boots, which were quite worn through and giving me great trouble. I cut pieces off my one remaining takin skin and tried to effect some sort of repair. First I tried putting pieces of skin inside the boot. As this was not successful I tried tying them round the outside. The result was a very clumsy contrivance, but saved my feet from thorns and stones on the road. Not only was I no cobbler but also I had no tools.

Farther on I was delayed at a rope bridge fifty yards long. This river had delayed Williamson also, and he had built a bridge which had been carried away by floods. The longer the bridge the more strands of cane are required. This bridge was made of five strands, one of which broke as we were crossing, but the other four held and we came to no harm. It would have taken a very long time to search the forest until we had found a piece of cane of sufficient length, taken it out, and put it into the bridge. Even so, I was delayed here three and a half hours. I saw a nice fish rise in the river here, and some men who went off to fish brought back a two-pounder they had caught.

At the end of this day's march we came on a much-used track leading from the river up to the hills on the right. We followed this, and I found myself in the Mishmi village of Kupa, the first I had been allowed to enter. It consisted of one long house made of bamboo on stakes, surrounded by a few granaries and huts. Around the whole was a wall of bamboo stakes with a door studded with sharpened bamboo spikes. Defence against their enemies had evidently been the first thought of the builders. Inside the wall were some Tibetan prayer-flags and skulls of animals round a shrine. Other offerings were the skin of a bird, and a neat parcel tied in banana leaf. I did not find out what this

was, as the people evidently did not like me to have anything to do with their holy place. I did not want to spend the night in the village and I did not think the villagers wanted me either. I certainly preferred the clean forest, so I returned to the road by the river and soon came on one of Williamson's camps, where we made ourselves comfortable in one of his shelters. Many people, including numbers of children, spent a happy evening sightseeing. They came to stare at me and wonder at everything I did. The head man brought me a present of two chickens, but all efforts to get a little rice failed.

The next morning, July 26th, the head man again came, this time bringing some sweet potatoes. I gave him the usual present, with which, to my surprise, he was quite satisfied.

I started by crossing over a rope bridge and continued down the valley, crossing several streams through the water. None was big enough to require a bridge. The men picked several kinds of wild fruit in the forest, and collected some vile-looking fungus. I spent the night again at Williamson's old camp at Panye Manon, being disturbed by thunder and lightning and a leaky shelter. My companions sat up most of the night roasting corn cobs. I bought a small pig here which they cut up and boiled in bamboo tubes. I found that the takin-skin repairs to my boots were of no use, so I cut up my Willesden canvas bath and tied it round the remains of my boots with straps of my camera and field glasses. This worked a little better, but I had really made two bags which filled with water at every stream or puddle until I made holes to drain them; also they wore out very quickly.

I got off at 8.30 in the morning. It was lucky that this was not one of my 11 o'clock starts, for when I was approaching the Tidding river I met some people who told me that the rope bridge was broken. My Mishmis wanted to travel some distance up the Tidding to another bridge, but in the end a promise of opium persuaded a local man to bring his friends, cut canes and bamboo, and mend the bridge. This took several hours, and we were still crossing the bridge when night fell. In the darkness I heard what I feared was the bridge breaking again, but it turned

out to be one of the struts which are tied on each side to steady it. My men built me a lean-to shelter of bamboo thatched with large leaves. This was the day my leave ended, and I should have reported myself in India.

I was now getting into a country where I was troubled by several pests which do not occur to any extent in the inner hills — mosquitoes, sandflies, 'dam dim' flies and leeches. I was very glad of my mosquito net. My candle at night attracted great numbers of moths and other insects.

I made a ridiculously short march of two and a half miles on July 28th to the village of Salumgum, fifteen hundred feet above the Tidding. I arrived here before eleven and naturally wished to go on, but the people insisted on my staying until the next day. They said that the road led over a hill where there was no water, and that we could not reach the next village, Tashalun, in the day. I was invited to stay in the large house of the village, which I did, setting up my bed and mosquito net in the porch, until driven into the house by a storm in the middle of the night. The people were more friendly than usual, being in closer touch with Sadiya. The children brought me in numbers of mangled butterflies; they thought I wanted to eat them.

I got off at 6.30 the next day. After going about four miles we passed one of Williamson's camps. The road continued to rise until we reached the summit, 3400 feet above my camp at Salumgum and 6200 feet above sea level. Here my coolies added a branch to a pile of wood, much as Tibetans make piles of stones on the tops of passes in their country.

The forest here was too thick to give a distant view, but after going down a short way I had my first view of the plains of Assam, a large, flat expanse of forest and tall grass as far as the eye could reach to a misty horizon. Several small showers of rain could be seen making patches of mist.

Rivers and streams, some catching the silver sunlight, broke the monotony. I saw no sign of human habitation. What villages there were were concealed in the vegetation. I have since then flown over the thick forests of the Amazon and other parts of

South America, and I can only compare the view from this point to that. Perhaps in Assam there are more patches of tall grass.

Water on the road had been a difficulty. At one place a small trickle off a rock had been carefully diverted into a leaf from which the people were able to drink. At another place they knew of a tree not far off the road in which was a hollow between the branches where the rain-water collected, and we went off to have a drink there. Another source of water was to cut certain thick creepers through with a sword and drink the sap which dripped out. At this particular spot were some hollow bamboo buckets full of water. This had been collected by previous travellers during heavy rain and left for a dry day. These people who live in a damp climate cannot do without water even for a few hours.

Farther on I was met by a welcoming party from the village of Hallangam, bringing presents of a small pig, chickens, eggs, maize and ripe bananas. I had not seen so much or such varied food for a long time. A short distance on I reached the village of Tashalun, where again I was greeted with presents of food, including a little tea.

The people asked me to stay in the house, but I preferred to make the usual shelter of leaves as it was cleaner. Soon after dark a fearful storm arose which tore my shelter to pieces and soaked me and my bed, and I had to move over to the house after all.

I was now nearing the end of my four months' journey from Peking and was looking forward to the benefits of civilization, which although they pall after a bit are very welcome after a journey such as I was just completing. I was certainly getting tired of the uninteresting food I had been confined to in the Mishmi country, and also felt that I had had enough of sleeping with inadequate shelter in the rains of one of the wettest parts of the earth. In addition to this the tiresome question of the expiry of my leave was sure to crop up. By the rules it was considered that I had rejoined for duty one day before reaching the seaport. It seemed, therefore, reasonable to consider that my leave ended one day before I reached the land frontier of India, but no one knew where this was and I felt that the pundits who deal with

such matters would not take a view favourable to me. In the end they cut my pay from the day my leave ended until I joined my new appointment. When arguing this matter I was asked at what port I had landed. 'At Calais,' I said. The babu in the accountant's office had never heard of it and I had to show him the place on the map, on which he remarked, 'That is not the usual way, is it?'

This question of the expiry of my leave contributed to my disappointment when the people told me that I would have to stay with them for six weeks. The Lohit River here left the hills and entered the flat plain of Assam, and the winter road was through the plain just north of the river. This road was opened up every year and temporary bridges made over the half-dozen sizable tributaries which flowed into the Lohit from the hills. In the rains these bridges were all carried away and the road quite impassable. I was informed that I should have to wait until the rains were over and the bridges remade. I told them that I must make an effort to get through, and the result of a long discussion was that I might try by going along the foot of the hills where the rivers were smaller before the different branches had joined together. There was no kind of a road and I would have to cut my way through the forest and, worst of all, the last river, the Digaru, was the largest, and if I got as far as this and could not cross, I would have to return to Tashalun and wait until the road was opened. There were no villages or even houses in the forest. The journey to Sadiya would take about eight days. It was rather an alarming prospect, but I had to face it.

Considering the possibility that we might be forced to return from the Digaru after seven or eight days' journey, it seemed to me necessary to take food for at least a fortnight. A man eats roughly two pounds of food a day, so we would have to start with thirty pounds for each of us. This would mean more carriers who would themselves require thirty pounds of food each, and so on, thus swelling my small caravan. But these improvident people do not look on things in this way. The forest would probably produce something, and perhaps we would manage to

cross the Digaru all right, so there was no need to consider a return journey.

My own preparations were simple. A little maize, a little rice, and a little salt was all I could get. I must not forget three or four chickens which travelled in bamboo baskets. One hen laid an egg every day at our midday halt. I took her right into Sadiya and pensioned her off, giving her to a man who promised faithfully to treat her well and not to eat her.

I spent my time here in one of the houses and had an opportunity of seeing how these people lived. The village consisted of a couple of long, narrow houses on piles about four feet off the ground. The walls and floor were made of split bamboos and the building was thatched with leaves. Each house is divided into a number of rooms in line which open into each other, and each room appeared to be occupied by one family. The house I stopped in had ten rooms. To get to the end room you had to pass through the other nine, so that there can have been little privacy. In each room was a fire made of the burning ends of three long poles which met on a hearthstone in the middle of the room. The other ends of these poles lay across the room and were used as pillows. As the ends were consumed the poles were shifted in towards the centre. The Mishmis adorn the interior of their houses with the horns of animals both tame and wild. The object, as far as I could make out, is to display their wealth and their skill in the chase. Perhaps we ourselves have similar ideas. The cattle they keep are 'mithun', a variety of wild bison which they have tamed, while many of their animals are a cross between this and Indian cattle. A number of horns of domestic animals on the walls denotes that the owner is a wealthy man who can afford to kill and eat these animals. The house in which I stayed had seventy horns on the walls. The men seemed to have nothing to do but to lie about on the floor and smoke. They had no regular meals, but ate when they were hungry. All night long someone or other of them seemed to be roasting maize cobs on the fire and eating them, or pushing the logs into the centre of the fire as they burnt off. Each time this was done it disturbed the

MISHMIS IN THE LOHIT VALLEY

sleepers who were pillowed on the logs. They did not mind in the least but got up and started to eat or smoke.

They eat one very curious thing which I think must be a fungus but which had the appearance and taste of sandstone! The women wore a broad silver band across their foreheads and large silver, tubular, funnel-shaped ear-rings, to hold which the lobe of the ear is distended. They did most of the work, and were continually bringing in bamboo tubes filled with water. The men frequently wore the skull of a small monkey as an ornament or charm. They beat ploughshares into swords, that is, they bring hoes up from Sadiya which have been discarded by the tea gardens and other cultivators of Assam. These are beaten into swords and knives. A well-known trademark on the hoe is of two human feet turned outwards. This the Mishmis consider a sign of good steel, and when making a sword they keep this mark on it and you often find a Mishmi sword with this mark carefully preserved, thus enhancing the value of the weapon.

Mishmis have no clocks, and time matters very little to them. Sunrise and sunset are the most important times, and for this the sun itself is a convenient clock. When you start in the morning you ask at what time you will reach, say, a river or your proposed camping-place, and the man will point in the sky to the position at which the sun will be at that time; you can, in the same way, guess how far you can go before darkness sets in, and this is a most important matter.

Several men from the neighbourhood visited me bringing small presents of food, of which I was very glad. One man gave me some clean Indian rice. The Mishmi rice which I had been eating was red and very dirty, but my chief food up to here had been maize, and this diet did not suit me.

I now had almost enough rice to take me into Sadiya. I badly wanted a little more but could not get it. I had to give return presents of money for all this and, as usual, no one was satisfied. One man asked me for two hundred rupees as he wanted to build a new house, and seemed rather hurt when I refused to subscribe.

CHAPTER XIV

ARRIVAL AT SADIYA

I LEFT Tashalun on July 31st with seven coolie loads, mostly takin horns and natural history specimens. I still had my camp bed, of which I was very glad, for I am sure it saved me from many leeches, and I was to pass through one of the most leech-infested parts of the earth in the height of their season. I also had my mosquito net, but other things were worn out and I threw many things away at Tashalun, to the delight of the inhabitants. My boots were my greatest trouble. I travelled the whole way to Sadiya with them wrapped in bits of takin skin and parts of my canvas bath tied together with straps. The pieces of hide became slippery when wet, and the whole contraption slipped, and I soon found a large thorn in my foot. The soles of Mishmi feet seem as hard as leather, but even they were occasionally penetrated by the long needle-sharp cane thorns.

It was not long before we left the track which passes for a road in this country. Sometimes we found ourselves on the faint traces of a path which was evidently used in winter, but it was all overgrown, and soon two men had to go ahead and slash a way through the sheer jungle. We had to cross several streams knee deep. In the early afternoon we reached a stream called the Dze. A better place for our bivouac was a little farther on, but they told me that there was a village called Dze near here where I might get some rice. I always had to consider the possibility of a forced return from the Digaru, the last and largest river, and I did not want to be obliged to do the return journey on a diet of maize if I could help it, so we halted here. Later some men arrived from Dze who brought a very little rice and promised to bring me more. These men told me that it would take me ten days to reach Sadiya, and confirmed that if the rivers were swollen I would not get there at all. Leeches had been very bad on the

way, but we were halted in the stony and sandy bed of a stream, and were saved from these pests at night as they do not like crossing sand.

We had a terrible thunderstorm in the night with torrents of rain. In spite of a fear that we might be washed away by the stream and of being absolutely soaked through, and my bedding getting so wet that it never got properly dry again until I reached Sadiya, I managed to get a good night's sleep. There were many mosquitoes, most of which were kept out by my net. At daybreak, when the villagers of Dze turned up with some more rice, it was still pouring. My men did not want to go at all. They thought it would be a good idea for them to spend the day at Dze and leave me where I was, and come for me the next morning. However, these difficulties were eventually overcome by my saying that I had very little money and opium, and that we had no time to be so leisurely.

We made a late start in pouring rain and had to cut our way through the forest along an overgrown track. At midday we reached a large stream with a swift current. It took us some time to find a way across here; eventually we managed to ford it more than knee deep, though the pace of the current made this difficult. My coolies told me that the Digaru would be much larger and swifter. We rested after crossing and had our meal, my obliging hen giving me an egg; the rain stopped and the sun came out, and things were generally more cheerful.

Going on we came on some wild pig. I carried my shotgun, one barrel of which was loaded with buckshot in case of a chance at some large animal; the other barrel had small shot for jungle fowl or other birds. I fired the wrong barrel at the pig who took no harm. Then I came on a large hornbill, a black bird with a huge beak and white tail. The men were very keen for me to shoot it. As far as I could make out they wanted the fat gland from the tail as medicine. The bird had other ideas and did not give me a shot. We also came on a flock of monkeys, and I was begged to shoot one, but refused. We stopped for the night in the middle of the damp jungle among innumerable leeches. I missed my nice sandy

stream bed of the night before. Leeches had been very troublesome. The Mishmis with their scanty clothing were better off than I was. They were getting them mostly between their toes and drew their swords and scraped them off. With my clothes and inefficient boots I could not do this and was bitten many times. The leech injects something into his bite which prevents the blood from coagulating, and a leech bite goes on bleeding long after the creature has dropped off.

The next day was similar, with more jungle cutting than usual. At midday we reached a large stream called the Tajab where, to everyone's surprise, we came on two men fishing. They had caught nothing that day, but gave me two very small fish they had caught the day before and had smoked. These were very nasty. Again it took us a long time to find a way across the river, which ran deep and swift. There were many tracks of wild animals here and on the road—wild elephants, tigers, buffalo, bears, pig, and deer. I shot a hill-partridge (*Arboricola*), and we found a bees' nest which provided some welcome though thin, weak honey. I also shot a civet cat, which the Mishmis ate.

In the evening we reached another large stream, for which I got the name Habong. The men wanted to camp before crossing, but I was afraid that rain in the night might make the river even more difficult to cross, and insisted on getting across while we could. The mosquitoes, helped perhaps by the leeches and soaking rain, had given me fever, and I went to bed in my wet blankets without being able to eat my dinner of hill-partridge, rice and the daily egg.

In the morning I still had fever. Our day's journey was a change. Instead of cutting through the jungle we went down the river bed, sometimes over sand scored with the tracks of wild animals, sometimes in the river itself which we had to cross many times. The river bed was between a quarter and half a mile wide, with patches of tall grass and sand. On either side of this was the wall of forest. At last we came to the junction of the river with the Digaru. This was the stream which might have turned us back all the way to Tashalun to wait six weeks for the dry weather.

It was no larger or more difficult than some of the other rivers we had already crossed. We joined hands and plunged into the swift, deep current, and the dreaded Digaru was passed. We made the usual shelter of leaves for the night's bivouac.

The men were always pressing me to shoot things for them to eat, but now I was told not to fire my gun on any account. I could not at first make out their reason: they kept repeating the word 'Chulikatta' which I could not understand. Later I learned that this was the name of another tribe of Mishmis whom these men spoke of as fierce savages who would kill all our party if they came across us. Later I spent many months among these Chulikatta Mishmis and found them a reasonably good-natured people, but with an equally alarming account of the Mishmi tribes of the Lohit Valley. In this country the stranger is the enemy.

We continued down the river the next day, again crossing it several times to avoid dense grass or thick jungle, or travelling down through the water when this was easier. About midday, when we were on the wrong bank — the left — I shot a small spotted deer. I thought this must be the cheetul, but was told that this deer does not occur in Assam and it must have been a swamp deer, the young of which are spotted. My Mishmis cut up the meat, threw it on the fire and ate it almost raw. I was not feeling well and did not join in the feast, but strolled towards the river which was a hundred yards from where I had shot the deer. I was horrified to see the river coming down thick with mud and rising. I called to the men, one of whom came over. He was really alarmed. Here we were on the wrong side of the Digaru after having already been across it, and the river rising. We might easily be cut off and have to return to Tashalun, as they had always threatened. The men hurriedly picked up their things, brought along the venison and hastened to the river. As usual it took some time to find a ford, and in the end we all held hands for further safety and managed to cross the river, by now more than waist deep and with an unpleasantly rapid current. On the opposite bank was a low cliff up which we scrambled to find ourselves up against an impenetrable wall of tall grass. Through

this we cut our track away from the river. Each man took his turn to go in front and cut until he was tired, when he was relieved by another. I calculate that in an hour and a half we had only gone half a mile. We could only see two or three feet in front of us through the dense grass, and so had no idea how wide this belt might be. There was always the possibility that we might have struck a very large patch, or we might even be going along a narrow strip with open forest a few yards away on either side, but we could see nothing and it might take us days to get out. We therefore decided to give it up and returned to the river, which was now very big and unfordable. We waded down the stream some distance, clinging to the bank, but soon the bank became quite precipitous and the river too deep, so we had to come out into the grass and start cutting again. Eventually and rather suddenly we came out of the grass into forest and were able to move along without too much cutting. Under tall thick trees the undergrowth was less dense, and one could move more quickly and easily: in open sunny places there was dense secondary growth of every kind.

We had come only a very short distance this day and halted at dusk in thick jungle, a very unsuitable place to camp. The men cleared a patch with their swords, but we put up no shelters as it was late, dark, and we were all tired. I myself still had fever, and in addition my feet were sore. The mud in these parts is in some way poisonous. My 'boots' let in mud, thorns, leeches and every sort of infection. Leeches were particularly bad at this bivouac and there was no friendly sand. My bed saved me to some extent, but Putamdu and the Mishmis, sleeping on the ground, suffered considerably. Mosquitoes in vast numbers added to our discomfort.

We started next morning by cutting through dense jungle for half a mile, when we found ourselves back on the bank of the river. We were able to travel along the shore and then came on a well-worn track, which had not been used for some time. Under trees it was very good, but in open places the undergrowth had overwhelmed it and we had to cut. The men told me that this led

to the Kamti village of Sanpura and had been made by 'a babu'. I was really nearing civilization.

The Kamtis are a people from Burma who settled in small numbers near Sadiya. They dress in Burmese clothes and are quite different in every way from the Assamese inhabitants and, of course, from the wild Mishmis.

We had been working away from the hills for the last day or two, and except in river clearings, the forest prevented my seeing them. The hills were always a help in keeping direction. My Mishmis told me that parties sometimes perish in the thick forest when fog and cloud prevent them from seeing the hills or the sun. In the evening we reached a large river, the Paian. This seemed bigger than even the Digaru, but the men said that they were getting into country they had been in before, and knew of an easy ford. Here we found an old shelter in which I slept. Leeches were a worse plague than ever.

The next morning we moved on to the ford and crossed. The river was deeper and swifter than the Digaru. As before, we joined hands and waded across more than waist deep. From the ford we cut our way for an hour, when we came to the road again. We now went along more easily, but sometimes had to slash our way through the undergrowth. We passed a stockade built for catching wild elephants — the first sign of man's handiwork which we had seen for several days. We had to cross several narrow, deep, slow-flowing streams. When very deep, we usually managed by felling a convenient tree and, crossing over this, cutting our way through the upper branches as it lay across the stream. On one of these was an ants' nest; large, red, vicious creatures with a terrible bite. No defence was possible as both hands were employed in climbing through the thick branches. At some of these streams no suitable trees were handy, and so we had to ford more than waist deep; being already soaked with rain above and water below, this did not seem to matter as much as it might have done.

I was wearing the remains of a pair of puttees on my legs. These had tobacco leaves in the folds and had been soaked in tobacco

water. Leeches hate this, and no doubt this kept many off me. In spite of this, in two hours' march I picked one hundred and fifty off my clothes. In the evening we came on more paths evidently recently used, and then suddenly we came on the old site of the village of Sanpura — tumbledown bamboo huts with traces of cultivation in the form of self-sown tobacco and chillies, which my Mishmis gathered. A short distance farther on we came to the village itself, inhabited by Kamtis, and after the first surprise were welcomed into a large thatched house. We had hurried over the day's journey during the afternoon and I had not troubled to remove leeches. When I got in I took off my puttees and picked one hundred and fifty off one leg and my clothes. It then got dark and I couldn't see how many more. Most of those in the puttees had been turned into little wads resembling india-rubber by the tobacco juice, but many were on me, clustered round my ankles and knees, and these gave me trouble for some days, and I bear the scars still.

I had expected great things of this village, which my Mishmis had described as a metropolis only exceeded in size by Sadiya itself, but beyond some rice and ripe bananas and very welcome 'gour' (molasses) I got nothing. I was very glad of the 'gour' as I had had nothing sweet except a little thin wild honey for a long time.

Here I found an Indian from Nagpur. He said he was a Sadhu or holy man, but he had not renounced the world so far that he did not complain of the food he had to eat here, and it struck me that this was not a bad place to come to if a man wanted temporarily to avoid the attentions of the police.

I had had some fever and was in rather a low state of health owing to insufficient and unsuitable food. This caused my leech bites to fester. My feet were sore from this and the poisonous mud, so I was delighted when the people told me that they would send me down to Sadiya by boat.

On the morning of August 7th I embarked in a long dug-out canoe. The Kamtis would have nothing to do with my Mishmis. They would not allow them into the houses and flatly refused to give them a canoe. They even refused to let me take one of them

who had sore feet into mine. My craft was about eighteen inches wide, and as we slipped down some rapids it shipped a quantity of water. Soon we reached the main Lohit River, a broad, smooth surface of water very different from the rushing stream I had followed for some weeks in the hills.

The villagers had told me that I should find 'several sahibs' in Sadiya. I was really tired of my cold rice breakfast and decided that I would have a nice lunch with them, and so started off without any food at all. At about two o'clock I saw ahead of me a small whitewashed thatched house. This was Sadiya. The building, which was near to the river bank, turned out to be the post office. I landed and went in; in reply to my question the clerk in charge said, 'There are no European officers in the station, sir'. This was a blow, but softened by the news that there were two ladies, one a missionary and one the wife of an officer.

I could not appear as I was; I had not shaved that morning; my clothes were in rags; for boots I had the remains of my canvas bath tied on with straps. Hungry as I was, I had to go to the dak bungalow to tidy myself up. I had carried in the bottom of a box a blue serge suit, a clean shirt, collar and handkerchief. I unpacked this and to my delight found a pair of bedroom slippers that I had completely forgotten. How useful they would have been on the road. These I put on, displaying with some pride the snow-white handkerchief in the pocket of my 'naphthalene blue'. Washed and shaved and thus perfectly attired except for the bedroom slippers, I went to call on Mrs. Robertson, the officer's wife, who invited me to tea. I was very hungry, and the way I demolished her delicious but flimsy cake must have astonished and dismayed her. Later Mr. Dundas, the Political Officer, and Captain Robertson turned up from a tour they had been on in connection with arrangements for the Abor Expedition which was being organized. Robertson had been my under-officer at Sandhurst, and I was soon made welcome and my troubles were over.

After a couple of days' rest and reorganization in Sadiya I left

for Calcutta. I crossed the river to the railway terminus at Saikoa in a boat and took the train to Dibrugarh. Here I took a steamer to Gauhati and went on by train to Calcutta.

On my return to India I learned that the Dalai Lama was in Darjeeling, having fled from Lhasa when the Chinese occupied the city. I had at this time never met him, though years later I was to spend a month in Lhasa as his guest. Among his entourage was the Dzongpon (the officer in charge of the district) of Sangachö Dzong. I had gathered a good deal of information about the country, and it seemed to me a good opportunity to go to Darjeeling, make the acquaintance of the Dalai Lama, and to elaborate and confirm the information I had collected from the officer who had charge of the district. This, however, was not the opinion of the authorities at Simla. My telegram was replied to abruptly, and I was ordered to go to Aligarh in the United Provinces for civil training and explain why I had overstayed my leave.

The late Sir Francis Younghusband in his books inveighs against the fetish the Government makes of examinations and this sort of thing. It takes a Political Officer away from the people he is meant to study and understand. Some training may have to be done, but surely a week or two further postponement would have been justified and have been of use to my Government, but those responsible did not have the imagination to see this.

When I was in unknown country I made a route survey. This was done by carefully noting the time taken to travel between different points and keeping my rate of travel as regular as possible. If I met a man on the road and talked, or stopped to collect natural history specimens, such times were carefully noted and allowed for. I had a prismatic compass with which I took many bearings of prominent peaks and other landmarks. I also carried a sextant and with this took observations by the stars for latitude. Longitude I am afraid had to look after itself. This was before the days of wireless, which has now made the fixing of longitude a comparatively simple matter.

I also carried a hypsometer and two aneroids. I calculated my altitude above sea level every night with the former instrument by reading the temperature at which water boiled, and at the same time read and noted the readings of my aneroids. I also took a boiling-point observation on any pass I crossed and at the crossing of important rivers. Intermediate heights were taken from the readings of my aneroids corrected to the nearest boiling-point observations. My observations for latitude and altitude were worked out by the Survey of India.

The few birds and mammal skins which I brought back were given to the Bombay Natural History Society. The butterflies were described by Mr. South, of the British Museum, and his paper on them appeared in the Journal of the Bombay Natural History Society. The few plants were sent to the Edinburgh Botanical Gardens.

This was the first journey I had made on my own into unknown and unmapped country. It is true that after the Younghusband Expedition to Lhasa I had been sent to western Tibet with an exploring party under Captains Ryder and Rawling to open the trade mart at Gartok which had been instituted under the Lhasa treaty, but all survey work had been done by Ryder and Wood and their detachment of the Survey of India. On account of this lack of experience I neglected to have the names of places written down on the spot in Tibetan, but recorded them as they sounded to my ear. I have consequently accepted the spelling obtained by later travellers (notably Captain Kingdon Ward and Mr. Kaulback) who, I presume, did get the names written down on the spot.

I think it should be a rule that where a traveller has taken the trouble to get a place-name written down in the language of the country, no subsequent traveller should use a different spelling in English except in very exceptional circumstances, which should be explained.

Were I to travel again I think I should adopt Tibetan dress, at any rate in out-of-the-way places. This avoids tiresome curiosity and unnecessary questionings. I used to feel awkward and dressed up as if in fancy dress when wearing strange clothes,

but a residence in Russian Turkestan overcame this feeling. In bigoted Bokhara no European could go out into the street without throwing the native 'khalat' over his ordinary clothes, and in any case Russians did not seem to have the same shy feeling.

Although my attempt to reach the falls on the river had been unsuccessful, I had managed to cover a good deal of new ground, and this was recognized by the award of the Gill Memorial by the Royal Geographical Society and of the MacGregor medal by the Royal United Service Institute of India.

Shortly after my return the Abor Expedition under Sir Hamilton Bower was sent up to punish the Abors for the massacre of Mr. Williamson and his party.

I accompanied these troops and returned to India for the summer, when work in these dripping, leech-infested jungles is impossible.

It is a marvel to me that in this war against the Japanese our troops in similar country a little to the east are able to stay out all the summer. All our posts and parties were withdrawn as soon as the rains began, when the country was deemed to be impassable.

The next winter I was up again in the Mishmi Hills—this time among the Chulikattas, of whom my former unpleasant acquaintances stood in such dread.

When work was no longer possible Captain Morshead and I made our way northward over the mountains, and succeeded in visiting the actual site of the falls reported by Kintup, and even penetrated farther down the river than that explorer had been able to go. After this we travelled up the river nearly to Lhasa, which was only three days distant from our farthest point, Tsetang, and we were able to map the large triangle south of the river to the main Himalayan peaks and eastwards to the point where the river meets the main range and breaks through it. We eventually returned to India through eastern Bhutan. Including our work among the Chulikatta Mishmis, this journey occupied just over a year, and for it I received the Gold Medal of the Royal Geographical Society.

Some years later I had an opportunity to fill in another gap in the mapping of southern Tibet, this time having Captain H. R. C. Meade as surveyor. Accompanied by my wife and her mother, we travelled through Bhutan from west to east and, crossing the main range into Tibet, we reached Gyantse. Meade was able to survey some six thousand square miles of new country.

Later a visit to Lhasa gave me an opportunity of following the portion of the Tsangpo south of the capital. In fact I connected with the highest point reached on my journey with Morshead; so that with my journey to the source with Ryder, Rawling and Wood in 1904, I may say that I have seen this great river over all its length in Tibet except for a few small sections. It is a pleasure to me in my retirement to go over these journeys again. Perhaps my travelling days are not yet over.

INDEX

INDEX

INDEX

INDEX

SKETCH MAP OF THE AUTHOR'S ROUTE

Scale of Miles
10 0 10 20

REFERENCE

Route ----
River ~~~
Glacier
Village •
Bridge)(
Lamasery or Monastery o
Lake
Cliffs
Camp ▪
Fort ▬
Pass ×

La ~ *Pass*
Chu ~ *River*
Gompa ~ *Monastery*

97° 97° 30′ 98° 98° 30′
29° 30′ 28° 30′

Vgam Tso
Yerka
Shugden Gompa
Dzumba 13,750
War-tö
To Dama La
Tsulung Chu
Pugo Cave 15,000
Snow Peak
Snow Peak
Snow Hills
Snows
Dzo La 16,200
Rocky Snow Range
Poda Camp 14,000
Dendon
Snows
High Snow Range
Gochen 11,300
Sangachö Dzong 12,000
Peak
Peak
Loma 10,200
Polu 10,200
Cliff
To Trong Yu
Giada 9,550
Drowa Gompa 9,300
Kudang
Tila La
Michi 12,350
Chikong 8,250
Dablha
Zhasha La 15,600
Snows
Snows
Snows
Dokong 13,550
Tsong La 14,850
Lake
Lagyap 13,200
Gon-se
R. Tarawan
R. Irrawaddy
Snow Ranges seen from Zhasha La
Ridong 12,000
Tsema La 15,650
Rocky Snow Hills
Snows seen from Tsema La
Jaha
Latsa 12,000
No La 14,000
Menkong 7,650
Trana 7,100
Snow Peak
Gompa
Lenbo 8,500
Tondu La 12,150
Ruta 8,300
Ke 8,250
Wa 9,500
R. Salween
Drayul Chu
Drashu
Latrong 9,700
Shupa
Tong La 11,000
Konda
Petu 10,600
Sama
Parang
Palhong
Snows
Snows
Drayul Chu
Ti La
Lotsong 13,600
Beda La 14,900
Mu-shu
I-te-shu
Pa-men
R. Mekong
Jada 7,000
Miti Anon
Lagong
Yerkalo
Yenching
Zolong
Pa-yung-ko
Mi-chia-ku
Trong-ze 9,600
Lanka
Zayul Chu
Village
Dzachung 7,250
To Shugden Gompa via Ata Gang la
Rong To Chu
Shika
Rima 4,840
La-te
Jongi-to
Sama