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Diary of the 1931 Expediton to Western Tibet
by Dr.N.W.Koelz.

June 7. At 11 we set out from Naggar with 15 horses . Thakar Rup Chand has marked all the parcels and has written his diary where are located the mousetraps, old newspapers, blotters, cartridges, medicine packets, silver money, and the other things we will need during the four months before we cross the Great Himalayan Range for home. Gyaltsen has had a stubborn fever for several days and will cover the first stage by the motor lorry. The other servant, Dorje, has bought a kilta to carry home to the family in Lahul dainties acquired from the proceeds of his labour. The Lahuli family is like an ~~out~~ Ant-hill. All the members labour for the benefit of the rest, with the exception that a little money is reserved by the worker for buying a few cheap cigarettes. Our caravan personnel is temporary. One of the party is going to be married tonight and most of the rest are involved in the festivities.In spite of the innumerable things that had to be put into the baggage at the last minute and the endless additions that Miss L. decided were indispensable for the journey, including rosewater, ~~tou~~ tan remover and an alpaca muffler, all of which have been sureptitiously removed and stored against possible use at home, only an old tin has been left behind. It is dead sure that my nose will be burned raw when we get above 10,000, with or without all the remedies designed to prevent it. Besides, there is no room on the horses for superfluities. Each servant needs a horse for his provisions, since no food can be had for the first 2 months of the journey, and where will be put the heads of big game, dried plants? Although we have broken

up our happy home, everyone was relieved to be on the road, after the months of negotiating and planning and then the 2 weeks of strenuous waiting for the first horses to cross the Rothang La. The road to our first halt Manali, that leads along the precipice above the river and about which I was so thrilled last year has become commonplace, so habitual have magnificent views and stirring locations become. The mosquitoes that last year at Manali enforced an all-night vigil have not yet taken up their posts. A raucous-voiced woman that perched on a cliff half a mile above us swore at stray horses or humans that trespassed on her vacant fields amused the company till dark, when she descended and invited us who had been the main offenders to be her guests. Our friend, the half-breed who always solicits the loan of a fortune from any likely or unlikely source has been evicted from his last and nth home for failure to pay for something or everything connected with it and his tin roof has been confiscated to pay for previous sojourn elsewhere.

June 8. The bridegroom, a lad of 18, joined the caravan at 10, together with four of his relatives and we set out from Manali. During the night new horses arrived to replace the feebler ones that had been recruited into the service at short notice. Also two animals were added, loaded with tea and shoes for sale to natives en route. The animals now total 17 and the horsemen 5. Our staff numbers 4 but 21 more men will be added in Lahul and one left behind. The horsemen are all Moslems and our men Budhists. Gyaltsen has got rid of his fever and

there is no longer the prospect of having to start with all new help. Dorje, the last recruit to the service is blissfully good-natured and painfully smiling but does'nt understand Urdu or Tibetan, his native language any too well,and therefore is of limited usefulness. Besides, he sleeps like a stone and can't be awakened short of inflicting bodily harm and is so innocent that he would willingly give all our possessions to any stranger who asked for them. The need for guarding camp is, however, after today no longer urgent. The thieves that operate from Manali do not go beyond the Pass and in the territory ahead, except possibly in Leh, thievery is unknown. The Manali thieves have been especially active of late, having carried off 13 sheep loads in daylight,and the Laulis, their chief victims, are so exasperated that the next bandit caught will probably be roasted alive, a fate that one met before. Once they let the robbers cross the bridge and then they pulled up a couple planks behind them. When the robbers tried to flee back across the bridge, they fell into the river below and were finished. Four of the bridges on the road today were out, the timbers snapt from the heavy snow.

June 9. At 7:15 we left Rahla (alt.8850) and arrived on top of Rothang (alt.13,400) at 12:15; at Khoksar (10,431) at 3:15. A fresh breeze began before daybreak and blew until the top of the Pass. From Sum, 2 hours this side of the crest, to near the river on the Koksar side the path has been on snow. Beyond the crest the snow was soft and the horses often broke through the crest. On

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the lower stretch, over small rivulets there was such ice that a path had to be cut and the horses led across one by one. One animal loaded with a trunk and a bundle of newspaper slipped and rolled 50 ft. down a snowbank, but nothing was the worse for the slide and a revolution or two. Contrary to all reports and expectations there is hay for the animals at Koksas. The tent-dwelling Tibetans, that like the birds move north and south with the season, we left behind a few miles above Manali, excepting one family that has camped near the sourse of the Beas, on the valley floor. Last year in Mid-July the advance guard in full strength was encamped in streamer-bedecked tents at Sum. The Laulis with horse and goat caravans are swarming into Kulu and their worn-out grass shoes mark the path. The horses of one of these caravans fled last night from below Rahla, having first eaten up our horses' breakfast, and were recovered only at Koksar where they tarried on their way home for refreshment. A huge herd of sheep and goat with dog supervisors also crossed with us and one lamb was born in the snow and had to be carried down. A little later each shepherd will be stuffed with lambs and kids, that cheerfully let themselves be transported in the folds of the herdsman's woollen blouse with only their heads exposed. Two fakirs, completely naked except that one had an umbrella and a thin cotton sheet also came with us. Barefooted on snow for five hours against a breeze that chilled their proper dress they went on without faltering, but showed signs of discomfort when we stopped to rest on a little area that the people had

cleared of snow for the sheep to halt on. Rup Chand offered them hot tea but it was refused. A cigarette was accepted. I am told that these people make free use of various habit forming drugs, most of them unknown in the Occident, which furnish them with delightful stimulation, transforming dream drawn into reality and in other ways enhancing the psychic life. Flowers are few. Only here and there the little royal purple iris (I.Kumaonensis) had formed a bed of bloom, and of the salmon pink primrose (P.rosea) that above 11000 feet makes a bright-hued carpet before the retreating snow, only a stray flower has blossomed. For the first time in this country, I have worn coloured glasses and the results are splendid. The colour of the glasses that at first tints everything is soon forgotten and the snow is seen in its natural white.

June 10. ... We left Koksar at 8 and got to Sisu (alt.9,900) at 1:00. The road is all right except in perhaps half a dozen miles snow extends across the path to the river. The sheep and goats that are daily pouring across the Pass into Lahul are counted at Koksar and a tax of ¼ anna per head is levied on all but youngsters of this year. They are exempt. Herds come from as far away as Palampur to feed on the non-pavil grass that grows on the lofty Lahuli slopes. The Koksar bridge bobbed like a cork on the waves as the droves crossed and I speculated on the probability of my being marooned with the broken bridge between me and my baggage. The bridge, however, did not break. A few miles below, the bridge a few years ago crashed into the stream just as the last

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horse of a caravan got across. On this trip, though we have passed over this road at least half a dozen times, Rup Chand showed me the "Gankskar Bay", a place where the West Tibetans and Indian hill people used to meet to trade as they do nowadays some 75 miles farther up the Bhaga River. On the way we met a young lama whom I had counted on to be my helper in plant collecting, driving horses to Kulu. To my amazed questioning, he replied simply that his father could not give permission to go along (the boy is past 30) — he had to stay home and decorate the monastery walls in Kyelang. Gyaltsen was seized with such a voilent desire to get home that he would have bolted if he could have carried his things, and taking pity on him,(he is a mere child of 21) I agreed to let him off and replace him in Kyelang. Now to have no servant in prospect was too much. I inquired from R.C. what one does in the country when an agreement is broken and learned that one goes to court and collects damages. The threat of obtaining justice by this method cleared away all obligation of the father's prohibition and the lama is cheerfully planning the trip. I had to give a written agreement though not to employ him in anything that involved a gun, tobacco, or bird skinning. He will, however, eat grouse (not duck , snipe or pigeon) and any kind of domestic or game animal, except horses, donkeys, yaks or beef. (K) Golung lama who helped me last year in buying Tibetan paintings and the Sisu abbot called today,(the latter completely drunk as usual.)

June 11. ... At 9:30 we left for Gundla (alt.10,300) and got there at 2. The climate in this area is more tempered. There is even a good growth of pine and birch on the slope facing the village, and muskdeer are said to live in the birch forest. Patches of purple iris, sometimes in a solid bed 100 ft square area met all along the road from Koksar, and the common cowslip or marshman gold (Caltha palustris), that is the glory of our American meadows in spring, lines the banks of the meandering rivulets, that from afar look like fissures in the earth with gold inside pouring out. These flowers in places grow 4 ft. high. I found some 10 plant species that I did not get last year, mostly tiny things that shortly will dry up. In the Thakur's garden in Gundla the apples were in full bloom. One of the trees was covered with huge deep purple rose flowers, very fragrant and most attractive. I shall try to introduce the species in Kulu and America. The fruit I saw last year, small red apples (mang kushu), said to be of nice flavour. Such apples as grow here, (there are a few other trees in Kyelang and more in the lower valley) are all said to be of superior flavour. Last year pears and apples from the upper Rampur valley at slightly less elevation were of excellent quality, equal to the best American fruit. The natives, however, have little interest in fruit and rarely plant the trees or when planted can't bother to protect them from the cattle that gnaw the bark. The horsemen bought a sick sheep for Rs.1/8/- and after performing halal, skinned it and took it along on the march. An invalid goat they put alive on one of

the horses for future uses. Cases of foot rot are frequent in the flocks. Sometimes other epidemics seriously decimate the goat and sheep herds and even affect the cattle. A few years ago most of the cows died off and the horses had to pull the plow. The results were bad. The fields are small and stony and the quick movements of the horse don't fit him for agricultural pursuits under such conditions. In Kulu a horse does no work except to haul goods on the highway but in Lahul wood and manure are hauled on horses. Hay or crops from the fields are not thus transported. In Kulu humans, chiefly women, carry the wood, crops, fodder or manure.

June 12. ... We left Gundla at 9:15 and got to Kyelang (alt.10,300) at 2:30. Paljar, last summer's coolie, met me a mile before Kyelang with a bouquet of dandelious and in the village I saw the main citizens, the native school teacher, the doctor, the wazir and the white missionary. Some interesting people had arrived from Danupa, a district of Ladak, en route for Trilokanath, a place which it is this year particularly advantageous for both Hindus and Budhists to visit for their soul's welfare. These people are partial to brass jewelry and wanted to sell me dried turnips. They are said to eat no meat and some say they don't even use milk from cattle or touch the calves until these are a fortnight old. The weather is decidedly cool and the season backward even here. The barley, potatoes and wheat are just out of the ground so they have been hoed once, and the fields are being prepared for

buckwheat. In all the fields can be seen lines of stones that would intrigue an ethnologist but they have no other significance than that they mark the irrigation channels and are used as needed to dig the mud out of them. The big Eremus himalayica that from below Gundla to Kyelang grows in masses often several acres in extent is in full bloom and the effect of the masses of tall creamy spikes is stunning. Gyaltsen's mother sent me some apples, very well preserved, of nice colour and excellent flavour. His brother brought 2 sets of chikor eggs, nicely marked, 12 in each set. (The chikor is a grouse about as large as the American Ruffed Grouse.) The eggs of this bird are gathered in quantities and are even salted down for summer's use. Chikor have been numerous all along the way, likewise Snow and Blue Pigeons. The large Snow Grouse has gone back to the peaks and none were seen near the road. The ibex have also gone back to the snow line. Sheep are going forward today to cross the Bara Latsa Pass. There is much snow and the consensus of opinion holds that we cannot cross. Rup Chand's "Choti Ma" they said sent me milk and invited me to tea. I knew that Rup Chand's mother wasn't here, but the "little mother" proved to be his maternal aunts. Similarly a child may call his real father his "little father", since technically his father must be the eldest brother of the family.

June 13. ... I spent the day about town, visiting the chief citizens. The sojourn here was not for that purpose, but the men

wanted a day at home and the horses were none too fresh for the hard work ahead. The Wazir, a clever lad of 22, gave me tea and the physician a gifted Plains Punjabi invited me to dinner. The physician has become very fond of his adopted country and his brilliant and devoted labours are much appreciated by the populace, who ordinarily take medical aid quite for granted. The Wazir regretted to hear about the childish pranks of his subjects. He explained that they had seen the tactics employed by their more sophisticated brethern across the Pass (many Lahulis come into the Kangra Valley in winter to work and it is not uncommon for their employer to disappear after they have finished his work, leaving them nothing for their labour), and observing the success of such methods, many tried on opportunity to emulate them. So excessively simple the Lahulis are for the most part, that their attempts are transparent, often amusing. Theft is almost unknown and lying even is not common. Most of the court cases are the outcome of drunken brawls. The Wazir is very fond of English food, expecially tea cakes, and apologised for the sodden specimens he served by the scarcity of chikor eggs. Ordinarily plenty can be had but this year the birds are in no hurry to lay. I sent him a couple of dozen hen's eggs that the well intentioned family at home had incorporated in the baggage, which so far had served no other use than to make the caravan uneasy. The missionary's wife is fond of flowers and the specimens in her garden would delight any flower lover. I never saw such immense pansies or such tall

lupines in my life and the colouring of all blooms was so intense. A lilac bush was in full bloom and the roses were in bud. Tulips, iris and peonies would make a spectacular exhibition under such climatic conditions. In spite of the hard lives they lead and the excessively plain food they eat, many of the Lahulis, I was told, live to be 80 and some to 100. The climate is very healthful and almost no diseases are known. Tuberculosis and cancer, the scourge of the Occident, are totally unknown.

June 14. ... We left for Jispa (alt.10,500) with an over-cast sky which turned into a drizzle and kept on so, for about two hours. At Jispa there is a broad plain with a good growth of cedar trees and at this season good grazing for our horses. As yet we have met pilgrimis only from Zankskar across Shingo La, but they say others are on the way across Bara Latsa Lal. Some say there is no grazing on our road above here, which others contradict but all agree that unless the sky remains perfectly clear the snow will be too soft and the horses will not be able to cross the Pass. The Wazir has given orders that coolies are to accompany us to lighten the horse loads, if necessary, but if they sink at all they won't be able to endure the journey, even empty of load. I visited Rup Chand's mother, a tiny quiet woman, who, when I expressed our appreciation of her son, replied as prettily as any woman of superior breeding. She has of course never seen a school and has hardly been outside her little valley. The conversation with her son during the two days he was at home centered chiefly

on the subject of his welfare. What sort of food had he had; were his clothes warm enough; he should be careful, etc, from which I concluded that mothers are much alike whether in America or Lahul. The little woman has a tapestry tanka representing the Blue Tara, done principally in tones of yellow, blue and apricot. It is of so fine weave and of such excellent drawing that except on close inspection it appears the work of the painter. It is apparently of great age but well preserved. The lunch served and prepared by an ordinary coolie would have made a first class chef envious. There was a meat stew, prepared with a species of truffle (mokhshe) that grows parisetic on the roots of a species of parsnip (bakhyot). On departure Rup Chand's mother gave him a small silk rag with a knot in that had been sent to her by the Kushog of Hemis and cautioned him to beware of the devil, especially at night. She watched him from the roof till he was out of sight. He is all she has left of a family of three sons.

June 15. ... The weather cleared but huge banks of cumulus cloud filled the sky during the afternoon. I gathered some 30 species of plants. The valley is warm and plant growth is advanced. Wild apple trees were in full bloom. In the mouth of a little stream that enters the Bhaga swarms of small fish a species of cyprinid (shiner) were gathering, attracted probably by the warmth of the water. They are said later to collect in still larger schools and are then caught by the natives.

I tried to find in the village ancient iron arrows which I heard were occasionally picked up here, but though the natives knew the impliments and described their form, no arrows were forthcoming. Around an exceptionally large cedar (Junipesus), about 3 ft in diameter, they have built a house with one opening; the walls are about 12 feet x 12 feet and where the door is about 7 feet high. Behind is a small box-like construction 4 feet x 4 feet, open to the road, in which is housed a smouth boulder about 2 feet in diameter. On this boulder has been incised the image of a male demon deity riding on a cow,holding in one hand a bellows and in the other a hammer or axe. On the tree are hung numerous rags, these strung mostly in festoons, and in front of the whole on the road edge is a pile of stones and cedar brush, rags, stones and brush the offering of pious travellers. The figure is the portrait of Tingtingtsi (Lahuli) or Dorje Likpa (Tibetan) a blacksmith who is feared throughout Tibet as a mischief-maker. If someone wishes to curse an enemy, he comes to the shrine, burns butties and strikes the tree with an axe. It is rumoured that from such a wound blood issues from the tree. To invoke Tingtingtsi is, however, a dangerous practice since he is apt also to do harm to the curser and furthermore, the populace also metes punishment to those who dare disturb the demon. When a fierce wind blows down the valley the people suspect that someone has thus invoked him and the

tree is inspected for wounds. On a certain day in winter, the nearby villagers bring gifts of butter, beer etc to the shrine, a mark of respect that is accorded also to Sahibs if the populace is not hostile. A fire had recently been lit inside the house and cedar incense had been burned.

June 16. ... We left for Patseo (alt.12,400). The valley above Jispa grows narrower and narrower till Patseo where there is a broad plain extending on both sides of the river. About three miles above Jispa two other streams from opposite directions join the Bhaga and here Sumdo and Dirtse villages end. One village lies in the Nulla that comes from the Koksar side and two in the Nulla toward Shingo Las, the Pass that opens on Zanskar. Just in front of Dortse there is a huge pile covering several acres ,basic metamorphic rock fragments which the natives call Zimuk. There is a legend that on the site there was once a rich meadow with a village. One day the people were having a picnic, (the Tibetans are fond of picnics), a strange lama appeared. No one paid any attention to the stranger, except an old lady who treated him with proper respect and gave him food. The lama accepted her hospitality and retired. Shortly after a piece of the mountain fell, burying the plain and all the people except the hospitable old lady. She was carried across the river by the wind. A devil Desgott, against whom no powers on earth can prevail, with teeth from ear to ear was born out of the souls of the perished and now has quarters in the rockpile.

Certain people have seen him and no Lahuli will spend the night anywhere near his domicile. It seems that there was probably a meadow which was buried by a land slide, except that between the front of the mountain and the rock fragments there is a narrow stretch free of rock. There are a few scattered birches on the right river slope up to 13,000 feet. nearly to Patseo, but above that no tree growth. For the first time since Rothang Pass the weather has been perfectly clear. Herds of sheep headed for Rupshu have arrived nearly to Patseo. We have brought along a man from Rerig to show us the best route across Bara Latsa La. No coolies are available because all the able bodied men have gone to Kulu for supplies. I bought a beautifully wrought silver brooch from a Rampuri woman who has been spending the winter at Dartse. A horse today developed a swelling on his back and the horseman seared the skin around the swelling which was a good foot across. This is the usual method in this country of treating wounds on animals. There is to the left above Dartse a peak, which is the seat of the God Kundru. In the winter a kid,butter, beer etc are offered up in front of the hill by certain villages as far as ten miles down the valley. Worship is performed also in the homes of believers at other seasons.

June 17. ... Patseo is a fair ground to which traders come from Rupshu , Tibet, Zankskar, Ladak, Kulu, Chamba, Lahul and Rampur. They begin to arrive toward the end of

June and some stay till late September. Each district has its own alloted grounds for camping. Not much money is exchanged, trade being effected chiefly by barter. An unlimited supply of chang is brewed, quality considered first class on account of the coolness of the earth in which it is kept buried, and the days are passed merrily. Swarms of sheep and goats, on which the greatest part of the merchandise arrives, throng the hillsides and from the peak overlooking the site rags flutter. The place gets its name, I am told, from the fact that a stone bridge spans the river (Patharseo Hind, Dozam Tibet.) Above Jispa the road is new to me and to two of my Lahulis. Only one of the men has been above Patseo, though all have spent all their lives in Lahul. My Kulu grass shoes gave out here after having served some 80 miles of marching. The morning again dawned perfectly clear and continued so through the day. The pensive whistle of the snow grouse began at daylight and kept up till about 9:30 and flocks of snow pigeons gathered on the plains to pick up the grain spilled by last year's trade. The ibex are said also to frequent the ground for salt thus casually left behind. Our guide from some 15 miles below arrived early on foot and says we may cross the Pass if the weather remains clear. We shall have no fuel for the next two camps so the men are now preparing food for tonight and then we will carry fuel for the camp beyond the Pass. Last night the men gathered some two bushels of sheep manure in a pile and made a fire that lasted 24 hours. They prepared

their unleavened bread and then after drying it a little in the sun, buried it in the glowing manure for baking. The odour of the fire is very pleasant and the bread appears none the worse for the unusual treatment. When ready to start, the guide said it was late today. We will sink in the snow beyond Zingzingbar and beyond Z. We have to go if we are to cross the Pass on the next day. The horsemen are delighted with the delay. They are afraid of snow and say we must wait for the sheep to go ahead, etc.

June 18. ... This morning at 2 the alarm went off and the men got out of bed. At 4 they had not yet gone for the horses but by dint of some brisk hustling from Rup Chand they were ready to start at 5. I don't know whether their deliberate movements were due to fear of the Pass or of the dark; the latter is a fearful thing for most hill people, and I have found before now that nothing can induce most men to travel alone at night. We are a company of eleven though and under such conditions few would be afraid. The grass which was very short, insufficient for the horses to graze on when we arrived in Patseo has become good pasture. On a meadow Gudingding, some two miles above there was even luxuriant fodder for this season. At Zingzingbar, about six miles up the river there is a house for servants (serai) but no rest house. A little farther on we struck the snow. In a few places we had to cut a path for the horses but for the most part the going on the snow was excellent. At 11:30 , after a gentle ascent all the way, we arrived

at the edge of the Pass (16,200) and camped at Chorten Rangjunn, a small level area now free of snow. It is so named because a chorten like formation can be seen on the side of the 18,000 odd foot peak in front of it. A colony of marmots seems to be occupying the underground portions but the tenants did not put in an appearance. The horses for the first time today sank deep in the last 20 ft. stretch of the journey. Five road building coolies are crossing the Pass with us and will help us today in constructing a path along the bad places. A few travellers are said to have crossed this season but without animals. We have brought food for our horses from Jispa, for there is no grazing here. Vegetation springs up as soon as the snow melts; above Zinzingbar (14,000 ft.) I found a little mustard an inch high (Draba tibetica) with well-formed fruits and a little purple locoweed (Astragalus) was also in bloom though the snow had not retreated from more than a ten rod square. The snow grouse seem to find enough to eat on the occasional bare spots on the lofty peaks that rim the valley. The day has been brilliant, an ultramarine sky and the sun delightfully warm. Streams are gushing out from every snow bank, and horned larks and snow buntings are twittering on the bare places. A bearded Lammergeils soars overhead and three yellow-billed Choughs seem to have business on the Pass or beyond. After two hours rest we all set out to explore the ground to be covered tomorrow. The road is really bad for the season that by day the heat is so intense

that the snow has become granular and the particles are so icy that at night not much solidification occurs. Thirteen men went on about three miles into the Yunnan River bed, one man walking behind the other, each sinking at every other or 3rd step halfway to the knees and for variation, to the waist if some stone chanced to be beneath to absorb the heat and accelerate the melting from below. There is only one bad place, if one does not take into account the sinking, and that is along a little lake near the headwaters of the Bhaga. The banks of snow are very steep and the path must run above. If the horses slip they go into the lake 100 feet below. The lake in its dazzling setting is of exquisite beauty. The winter's ice has broken into irregular plaques of alabaster or purplish snow that float in the sea — green water. All around nothing is visible but the snow plain that forms the Pass crest and the enclosing ranges that are likewise wrapped in a shroud of white. One of the Mussalmans remained behind in the silence and stopping his ears with his fingers burst into a brief musically pleasant chant such as I had heard in the winter twilight from the mosque towers on the Plains of India. In camp we found three more Lahulis who had come from Jispa en route to Kinleing to reconstruct the bridge. They all had a load of provisions and seemed not much fatigued for their march of some 21 miles up-hill. We are now 19 men assembled. All are very congenial together and pass around their water pipes and cigarettes like intimate friends.

The hand, however, always intervenes between the pipe stem or cigarette and so the practice is not so chummy as it sounds. The old guide though past 60 is as spry as any of us and knows the Pass well. They say he is not afraid of it in any condition. The fearful winds that make Rotang so hazardous do not blow here and there is only the snow to battle. When caught with horses in heavy snowfall, yaks are brought from the villages below, and their steady plodding opens a path.

June 19. The night was perfectly clear with a new moon. On all sides peaks of 18,000 ft shut off the view, all wrapped in glistening starched white robes blotched with huge blue shadows where in spring the valley will be. The valley that forms the crest of the Pass stretches to the horizon in the same unbroken white and not a breath or sound disturbs the starlit majesty, except that now and then through the night stray boulders loosened by the frost crash down with fearful roar. Bara Latsa is a very easy pass when there is no snow. For three miles or so it is fairly level at the crest, furrowed by several valleys in which three rivers rise, the Bhagga, Chanda and the Yusassan. The first two flow on opposite sides of the mt.range for some 40 miles and then join to meet the mighty Sind. The little lake Isoskumtsi of the natives, that is now so lovely and inconvenient a thing dries up in summer. The camp was again aroused at 2 but in spite of a biting wind the men sat calmly on the snow (there was no fuel for warmth, barely enough to make some tea) and only by virtue of much haranguing on my part did we get off at daylight. The night had been intensely cold but the horses sank deep if they stepped outside the trail

we made yesterday. The crest we passed without other mishap than constant sinking, loading and unloading, but the sun had so far risen by the time we entered the Yumman River bed that the snowbanks were impassible and we had to unload before noon and camp four miles above our destination. There was only a little grain for the horses, no forage of any sort, but we had a bare patch of earth to rest on. The men were not any better off with only a few shavings to make a fire. One of the lads suffered all night from headache and high pulse but was all right after the march today. The chocolate bars I distributed to ease the men's starvation diet were almost uniformly despised and all came into the hands of the one man who liked them.

June 20. ... The Pass would have been much easier a week ago, or even earlier, as soon as danger of snow slides is over. Every day makes it worse and it will be three weeks before it can be crossed without difficulty. The sheep will be on their way to and from Tibet (trading) and to Rupshu (grazing) long before then. This morning we got off at 3. Having nothing to eat and nothing to burn, there was nothing to do but march. Fortunately the night was again fair and the path prepared yesterday had hardened. We crossed the last snow just in front of Kinlung — an almost perpendicular wall — the worst stretch of the trip, and well it was that we were no later. By 8 'O' clock the sun had already softened the crust, at best weak, and had we been delayed above, half the horses would have perished. As it was one

horse gave out a mile above Kinlung and in an hour was dead. To find even scanty grazing, we had to cross Yumman a mile or two below the rest-house. The bridge had been pulled up last fall to save it from destruction from the snow, and the stream had already become so turbulent that fording was difficult. I slipped while wading and got a little ducking, but nothing worse. Four Ladakis with five donkeys and a horse were camped at the fording place. They had bags of dried apricots and were en route for Triloganath. The apricots (Chulisor Kumanis) are to pay the expenses of travel. The market will be flooded this year. Many Ladakis will be coming on pilgrimage and they have not anything else to sell. The country at Kinlung though over 15,000 feet altitude is a broad valley, broad for this country, with wide plains on its floor. Huge rubble piles line the mountain sides and in some shales I found sandstone inclusions 6" to a foot in diameter. The horses annoyed one another considerably by eating each other's manes and tails, these appendages in some cases having been seriously curtailed. One horse had already lost a great part of his tail while in Kulu. At night a native had cut out a huge hank of hair to use in cleaning his silver jewelry. The animals also ate up all the grass shoes they could find and a rope that had imprudently been left exposed. In spite of the fact that we have marched for two days on snow with soaked feet, with food at a minimum and no shelter at night no one has as much as sneezed.

The marmots have become very common here and their colourful alarm whistle is sounded at any provocation. We captured two with great difficulty (they are seldon to be seen except at the edge of their burrow into which they tumble at once unless killed outright). The Moslems were scandalized at our skinning the animals, because they consider them wild dogs. The resemblance between the two kinds of animals is not much closer than that both have fur. The Ladakis suddenly decided to cross the Pass too and in vain we attempted to dissuade them. To our amazement they made for the river, now having grown enormously in volume since we came in the morning,and with difficulty affected a crossing. They did not however, make for the Pass, but hid in some of the side ravines. There is no other explanation of their strange behaviour than that they did not like our looks. Here came a bearded barefooted person, probably not recognizable as a Sahib, with five guns, who inquired too minutely into their doings: what was in the sacks, where were they going, but worst of all did they have no silver ornaments!(Here I have Rs.350/- to spend on native jewelry and I have not seen a piece). Then everyone was so opposed to their going forward today. All this could have but one meaning: We intended to plunder them. They in turn told us not to tarry here: a little further down the valley were large numbers of pilgrims (from whom we could have got much loot presumably), all of which was not so as we learned from a lama and two women who arrived

toward dark. It is a relief to be able to cook again after having subsisted three days on tea and dry bread with chocolate to flavour the bread. Fuel is a little scarce at this season. The dung is wet but we managed a grand fire from some dead scrubby tamarisks growing in the river bed, and a little sheep manure. There is plenty of plant growth but none of it goes to wood. Along the streams there is a bright green lawn and butter-cups and tiny white eyed purple primroses make exquisite patches in the green. A new kind of Pigeon has put in appearance here and we saw a red fox. The bridge builders who will have to send a man back home for provisions in a week have taken a letter to the family, informing them of our crossing the Pass.

June 21. ... We left Kinlung at 9 and arrived at 12:30 at Serchu (alt.14,000) on the boundary between Lahul and Rupshu. The road is on an old glacial plain but descends now and then into the gorges down which flows the drainage from the enclosing mountains. The Yunnan River keeps mostly to the left wall and has cut for itself at Serchu a bed ¼ miles wide with cliff walls 50 feet or more in hight. The aspect of the country below Bara Latsa is completely changed. It is a new world with new geological formations, new plants and new animals. Instead of the sombre rugged snow-capped peaks and narrow terraced valleys of the opposite slope of the Great Himalayan Range, a broad level plain, a mile wide on the average is bounded abruptly

by old worn-down mountains, chastely coloured in tones of purple, pinkbrown and dovegrey, with white confined to patches of snow left in the ravines. Up the sides sometimes halfway, is designed in black a patterned border of the golden flowered drama (Caragana Sp.) a thorny shrub that forms dense low clumps and serves the traveller as fuel. Just below Kinlung and extending for about two miles are scattered on the plain Conical mounds of glacial rubble 15 to 60 feet high. These are called Gaphan's grain piles. Gaphan came from Tibet and camped at this spot. It seems he brought immense stores of grain with him, which the people back home decided to recover. When they came, however, the grain was turned into earth and Gaphan went to Lahul taking with him a few seeds of each kind, concealed in his headgear. Buckwheat was thus introduced into Lahul. Gaphan now resides on one of the most magnificent peaks in Lahul and is an object of worship. There is a serai at Serchu built on a green meadow with nice streams full now of fish from the river. The horses for the first time have had first class grazing. A river from Zankskar joins the Yunnan and about a mile below they enter the Isarup. This lower plain is entirely concealed from the traveller on the glacial plain above. He is only aware of a deep gorge which from afar appears like a tranquil lake, the dancing heatwaves which fill it, resembling the water ripples. The plant life is totally new ~~-~~ new species of rhubarb, primrose, smart weed, butter cup, plantain, sedges and grasses, and there are birds that we have not

seen before. There are a few old friends: the House sparrow that one finds throughout the north temperate hemisphere and the Mongolian Plover that we last saw in winter on the plains near Delhi. Flocks of Tibetan sand grouse feed on the new grass among the gravel of the river banks. Their call sounds like the honk of a goose and can be heard long before the birds arrive. A party of Ladki pilgrims was met today and a herd of sheep has arrived from Kangra. Opposite the serai in the face of the cliff and perhaps 50 feet from the top is a hole, said to be the mouth of a cave in which is concealed a golden vessel. It is called Ser Bum Chen. The place can now be reached only by a rope from above and that not easily. It is said on the plateau above there is a poisonous lake and many animals die from drinking its water.

June 22. ... We waited here for the day so that the horses could recover from the strenuous work and starvation of the Pass. The grass is short, but extremely nutritious, they say. The animals swam the river to where the grass was best. I stayed home and gathered plants and made birdskins. Rup Chand went hunting in the Nulla toward Zankskar but did not see a thing. Even small birds were scarce except on the green plain beside the water. On the way back they met the shepherds with three flocks of sheep (we had seen them up the river yesterday) who told them they should have gone into the opposite Nulla. In that place they promised he would find game in herds and of as many

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varieties as we wanted. They had crossed the Pass just behind us but had come from Zingzingbar in a day. They had five horses and had great difficulty with them. When our men came home it was late and the river was much swollen. With an alpenstock Rup Chand started across with his servant, arm in arm. When in the swiftest and deepest part, Tashi became dizzy and was seized with a violent laughing fit, so that he was with great risk hauled back to shore. Meanwhile horses were being brought from camp but without waiting Domba the lama dashed into the water and the man was towed across. I roared at them in vain from the opposite bank. None of the men can swim and the river is a torrent over slippery rocks so that a man can easily be swept from his feet, as I had found out in the same stream above. I threatened them with all sorts of consequences if they repeat so idiotic a performance but they will do the same thing again, without thinking a thing about it. The Mussalmans went fishing, using a blanket from their bed for a net and got a good meal. I saw a fish in the river that would weigh 2 lbs but theirs were much smaller. The fish are nice looking and resemble trout, from their habit, possibly, of living in swift water, but they are only shiners. Some Ladakis made camp above us. They arrived too late to cross a little stream that separated them from the good pasture, but Domba got across to ask them about the Isarup that we shall have to cross tomorrow.

June 23. ... We had heard that the Isarup could only be crossed

about 9 in the morning. Ordinarily the streams are lowest before dawn but the water source of this one they say is so far away that its low-water stage is later. We got up at 4 but were not on the road till 8:30. They eat only tea and unleavened bread (roti) or tea and roasted barley flour, but from the time taken to cook it, you would suspect a roast ox was in preparation. My men, for example, never begin the preparation of their own food until mine is served. Just before the Isarup we met the first Tibetan sheep coming to Lahul to trade. These are owned by Lahulis but are kept in Tibet for the winter. In Lahul there is so much snow in winter that animals have to be fed on hay, but in Tibet they can graze. They come back as soon as the Pass opens and are sheared in Lahul. The wool is the herder's wages and amounts to one or two rupees a head. As a rule the animals go right to Lahul but return to Tibet with grain, rice, barley, etc. This is quickly disposed of and they return in full each with a bale of wool. The wool is sold chiefly in the Kangra Valley and the sheep go back to Tibet carrying the herder's winter supplies. In spite of the strenuous athletic lives they lead the sheep do not become unduly tough. In fact Tibetan and Zankskar sheep are considered the best for eating. Lahul sheep are considered good but anything that originates beyond the Rotang Pass is ruled out. Even spending a summer in Lahul does not raise the rating, unless said animal was a youngster of the year on arrival. The Isarup we crossed without much difficulty

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and soon reached the pillars that mark the Kashmir boundary. The boundary used to run above Serchu, I was told, (a pillar still stands). The valley now closes and the mountain walls, though still rounded and covered with debris often show strata. These are now horizontal, now vertical, now dipped away from, now toward the river. The path is stony, sometimes all stone. The river has cut a gorge into the old plain some 60 feet deep and the faces show beautifully the strata of gravel and sand (only a few boulders) that were washed down from the ice caps long since melted. Several species of small birds not seen previously were met today, but all were so shy that they were collected with difficulty even with a twelve gauge shot gun. Rachogba, our halting place, is only a place where the horses can feed, but the pasture is on the other side of the river. When we arrived about one 'O' clock the current was voilent and the horses with difficulty were made to swim across.

June 24. ... This morning the water had not markedly abated and one of the horsemen had to swim the icy torrent to get the animals back. A herd of sheep driven by Tibetans en route for Zankskar appeared on the other side about that time, but nothing could induce the herders to start our horses into the water. At one we got started. The path runs along the river to a camp ground called Gian, then ascends sharply for about two miles. After that for five or six miles the road runs near the top of a little river valley fairly on the level, until it decends rather abruptly some 500 feet to the bed of this stream. The pass is properly called La Chhulung (pass of water and wind). We crossed some

twenty streamlets of clear ice water and wind is at you no matter which way the road turns. The wind, however, was neither strong nor cold. Bumblebees now and then hum past, at work on the flowers of the drama that grows on all the hill sides. On the valley's opposite slope can be plainly seen another road, said to have been constructed some eighty years ago by a Lahuli supervisor with forced labour. The site is said to be so hopeless that the route has been abondoned for this one, which is dead easy and has cost a minimum of labour. They did some hard work on the old road, often cutting it into the face of cliffs. It is still apparently in surprisingly good condition. We arrived at 7:00 at Sumdo, at the foot of the Pass proper, and found a little lawn for the animals to graze on. There is a construction here of walls 5-6 feet high that gives shelter from the wind. A supply of drama left by other travellers gave us quickly a nice fire.

June 25. ... At 5:30 we left Sumdo (There are many places called Sumdo. The word literally means three directions and is applied to places where two rivers meet). A little snow had fallen during the night. A heavy snow would have blocked passage and starved the horses, a fate that caravans sometimes meet at this place in spring and fall. The ascent to the Pass is easy and the descent very gentle. There were several patches of snow to cross upto the crest and for some two miles below but all were hard, so early in the day, and gave no trouble. Beyond the Pass, we follow the valley of a little stream. It is narrow at the beginning but becomes still narrower until some 8 miles down it

turns to the left. Throughout, particularly in the upper half the earth is so stony and barren that not a plant can be seen for half a mile at a time. Here and there along the stream there is a patch of sedge of a few square yards and further down scattered plants of rhubarb or grasses. The slopes are covered with shifting sharp edged gravel and the peaks are towered and turreted. Where the stream bends to the left it loses itself at the foot of a marble peak in a mass of boulders and reappears in a delightful little meadow below. The view at this point is splendid. The peak is somewhat sugar-loaf shaped and rises perpendicularly to a height some 800 feet. Its surface is perfectly smooth except that a huge slab has broken off so that the whole looks like a huge loaf cake with a piece cut out. The mountain is called Gonajil and is worshipped by at least the Lahulis who pass the road. From the base of Gonajil you look down onto the little cliff-bound meadow with the spring stream running through and beyond to a city of steeples and spires carved into the face of the river cliff. The rugged chain of peaks runs straight ahead and a little beyond is buried in snow. The river is bounded now by high steep gravel hills on the right and by irregularly terraced earth-covered formations on the left. The stream has cut a gorge some 100 feet deep into the old plain floor and on the steep face of the cliff, set off clearly by the fine gravel of the back ground, are carved fantastic cities; now clusters of finely cut minarets form a mosque of

superior architectural beauty; now the lines are broad and firm and you see the clustered houses of an Indian pueblo; or the buildings take on shapes with tilted domes and aury walls that must surely house the goblins that the natives say infest the land. Today we met a lone native going to Lahul, who inquired whether any Baltis were ahead. The Baltis usually go in a group and plunder any lone traveller they meet, but this is not a route much followed by them. There were also two small flocks of sheep and at the Toze three Tibetans were fording their sheep and loads across with the help of a horse. The perennial wading to and fro must have been too tedious for the poor fellow, who made a desperate effort to join our caravan. The Tibetans began an excited conversation at our approach and then greeted Rup Chand by name, though they had never set eyes on him before. His father had been a powerful and well known figure in West Tibet and the family resemblance was sufficient. The Tibetans had lost their horse's bridle today and wanted us to keep an eye open for it. After the Toze we at once crossed another stream, now small, but with a stupendous cliff-bound bed running in the direction of Iso Morari. The fairy buildings of the stream above were continued here in beautiful series of castles and cathedrals that stretched to the horizon as far as eye could reach. At once the stiff ascent of Bong La was begun and we came to the lovely plain of Kiangchu, encircled by rolling hills. The mountains here appear no longer to

be chains but masses scattered at random, chiefly smooth but sharp-crested. The plain is two or three miles wide, strewn with clumps of drama, and with what after the day's march seems a plentiful inter-mixture of other plants: Sedum, Potentilla, Primrose, Sedges, clumpy Sandroots, etc. To the right against the mountain side is a strip ½ to a mile wide that appears light yellow from the dead leaves mixed with the green of a sedge that grows plentifully there. The soil is here a hard gravelly compound so the drama grows flat on the ground and not in mounds as in places hitherto where the shifting sand accumulates among its branches. Here the Kyang, the wild ass of the Tibetan plateau is first seen. Some half dozen were scattered here and there, apparently feeding on the hard swordlike leaves of the sedge that forms the big yellowish meadow to the right, and Rup Chand dropped one at 400 yards. The Kyang is larger than a mule and very beautifully marked. The Lahulis refused to skin it, saying that dead domestic animals they could not touch and the Mussalmans also refused saying they would have to bathe if they touched it. I said nothing, which the latter interprated as dangerous (no baksheesh would be forth-coming from an offended Sahib). They held a council and sent the man who had swum the river to fetch the horses, he being presumably least apposed to a bath. The bath was afterwards heroically performed though everyone was half frozen from the steady wind and there was no shelter except from blankets held in place by his

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friends. We marched some 20 miles today, but no one seems the worse, though the altitude has ranged from 15,300 to 16,600 feet and most of us have never been so high before.

June 26. ... Two of the horses wandered off and could not be found till late. The wind continued all morning and the Lahulis were miserable. The Kuluese who never meet such climate at home were not at all uncomfortable. Nothing came to eat the dead Kyang. Two ravens preferred the morsels from our camp to the more abundant feast of the carcass and though a wolf was seen on the plain, he also scorned the such fare. The wolf got our scent at great distance and fled. Everything is shy on the plains, though surely no one hunts here. The marmots (phea) run for their holes long before we are within gunshot and even the small birds are so shy that they cannot be captured except at long range. The wolf in his fright drove four large animals from the plain, which we stalked and found to be young nyen (Ovis ammon). The mamots seem to live in pairs in their holes. Today I saw a pair sitting on their haunches in the attitude of embracing. They sat thus visa vis with their arms on each other's shoulders for fully a minute. I found two horned lark's nest on the bare plain, both with two eggs. The nests were protected on two sides by stubble and on the other two by flat roundish pieces of mica schist about ¾" in diameter. These stones were clearly transported by the bird as no other stones of the sort were in the vicinity. They were not piled but flagstoned. This lark, by the way, is the same bird that is so common in Northern America.

Our stage today was to be almost as long as yesterday. We were going to leave the Leh road today and camp at Iso Kar, a large salt lake to the left. But no one knew where to turn off to reach the lake and our start had been late, so we decided to halt at the next water. A Tibetan on the way to Lahul with sheep directed us to such a place and offered to show us the road to the big lake in the morning. We camped in the mouth of a Nulla and were shortly visited by a family of nomads encamped above. They have black yak hair tents and swarms of sheep and yaks and a few horses. Most of the Rupshu nomads are camped at Rogchin, some 8 miles above. These people have only lately come from there, fearful of the yak plague that is rampant in the area. There is after all no reason why they should remain in any particular place as long as there is water and forage for the cattle and the site of camping grounds are in fact determined by the caprice of the native. In winter these people go to Kagzhung with their flocks.

June 27. ... The sunrise this morning was magnificent. The clouds in ragged masses banked the horizon above distant snow mountains. A broad tattered streamer that loosed itself from the banks below floated lightly above, aspiring toward a squadron of fluffy cumulus clouds that hung below the zenith. With the first light blue black blotches showed against the transparent sky. As daylight grew the sun's first rays transfigured the snow edge and the topmost clouds, staining

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the rest a clear navy blue and illuminating the fleacy borders with pure colourless light. No other colour showed in the sky but the blue of the heavens and the deeper blue of the clouds, and below the smooth surfaced mountains stretched in uniform pinkish grey with deep blue purple blotches marking their ravines. The Tibetan arrived this morning and piloted us to Iso Kar. At the top of Taksumba La he turned back taking with him two letters for the people at home, which he will relay on from Patseo. He said that we will surely get nyen at Tsaka, and somehow we believe him and will go to Tsaka. Ordinarily the natives will tell you game is either ahead or behind, never near. Why, I can't understand, unless they don't want to be bothered by demands for food and by other importunities from the hunter's servants, usually Kashmiris, who clearly understand their superior position as members of the ruling race. From Taksumba La all of Iso Kar is visible in deep sapphire blue. The gem is set in a border of pinkish hills, capped with red in places to the north and the circle backed by higher hills on whose peaks are expensive caps of snow. Between the water and the encircling hills extends a plain, a mile or more in width on the north and south, but much reduced in width at the east and west. The old lake level can be plainly seen 300 or 400 feet above the plain and runs like a highway along the slope. The recession from this high level seems to have been abrupt. No other beaches are nearly so marked. The lake is devided into two parts, the smaller one ¼th the area of the larger, the parts

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separated by a stretch of about ¾ of a mile. A little lizard, like our American homed toad inhabits the gravelly plain, and hares were seen off and on all day.

June 28. ... Yesterday we made camp beside a beautiful clear stream running through a narrow green meadow south of the end of the big Iso. On the hill above camp is an ancient stonebuilt chorten, a structure striking for its size and method of construction. Two pairs of mendicant Tibetan lamas on their way to Korzok arrived in camp, one pair with a two years' old baby that seemed none the worse for beggar's fare. From one I bought a human thighbone trumpet and an old string of lama beads. Such eagerness to possess coin I have seldom seen. The poor devils see precious little of it all their lives. About 4 P.M. in a cloudless sky toward the south Rup Chand saw a bright bluegreen light, which he describes as rapidly moving in a straight line, almond-shaped, the large end foremost and darkest, and larger than an average falling star. It disappeared before reaching the horizon. Last night we reconnoitered the fresh water lake and today moved a temporary camp to its shore. There are small pools of fresh water, a rod or two across, scattered along the west, south and northeast ends of the fresh water part. In these pools and in the lake itself is an abundant growth of water crowfoot, Potamogeton, Myriaphyllum, Ranunculus, etc and on the shores a more or less dense growth of sedges. Large russet coloured ducks (sirkab) frequent the pools and lake and in pairs flee with musical cry back and to the stony hill sides in which they are

preparing their nests. Brown-headed gulls, common terns, crested grebes and barheaded geese also frequent the lake and one or other of two pairs of black-necked cranes is usually in sight grazing among the pools. A dozen Kyang keep to the north-east shore in the valley that runs to Polokonka, the Pass that leads to the Indus Valley. Goa, the Tibetan antelope are usually abundant around the lake, the people say, but this year there is not one. There are four tents scattered here and there on the plain and herds of sheep can usually be seen.

June 29. ... The mornings until about 11 are sunny and calm. Then a wind comes out of the south-west and blows briskly till after dark. The nights are calm. There is no fuel but dung, and a very tolerable fuel it is. Some gives off an odor like burning rubber but in the main the smoke is pleasant. This morning a herd of 50 yaks showed up near camp and stayed all day. I have never seen more than the occasional animal the Lahulis keep to cross with their cows, and the herd was a fine sight. A calf lost the muzzle that keeps it from drinking milk that it should not and we saved the object. It consists of two sharpened sticks bound onto the muzzle in such a fashion that when it comes to drink it stabs its mother and gets kicked. I spent half the day wading across the lake inspecting the grebe nests of which there are half a dozen built of water wards, in the west end. The water freezes every night but rapidly warms and is tolerable to bare legs, except that the wind and aekali crack the skin. The water at the west end is not much above knee deep but the rest is too deep to wade. The tent has been

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erected for the first time on the trip. It is not so necessary for comfort as for shelter against the wind when mounting plants and skinning birds. Last night and the night before I experienced a shortness of breath for about an hour, no distress but a noticeable need for air. I recall that last year at a camp at similar altitude (15,300) in Lahul I had the same experience. Appetite and ambition are excellent and there are no other affects of altitude. The Lahulis have become almost black and lips are much cracked.

June 30. ... We found the crane's nest last night on a small hump of earth in one of the pools. The old birds are so wary that they do not come into gunrange. The terns were nesting on a little soda island at the east end and more grebe nests were located in the water there. The geese have no young nor can I find nests. Probably they have been robbed by the natives and have given up housekeeping. We interviewed three Rupshu men that have been waiting at our neighbour's tent for the arrival of the Thakur of Karzok, and got information about the game and the journey ahead to Iso Morari. The Thakur is a sort of overlord who is coming to meet a Sub-Tesildar from Leh at Rogchin. The disputes that have accumulated since last year will then and there be settled and the officers will go back home. The natives have rather a hard life apparently, and don't make more than a bare living. Jewelry is nowhere to be seen, though it may not be worn every day. Herds are the only wealth and these may starve in a heavy winter snowfall or be wiped out by an epidemic, such

as this year in sections has exterminated the yaks. And to crown everything, any stranger is apt to rob them of anything he can lay hands on, including the precious irreplaceable tent poles. They were so grateful to our men who went to buy butter for giving them a just price that they added a good dab to the weight. Nool they cut with a knife but goat and yak hair, if the yak is small enough to be overpowered , they pull out, not much to the liking of the animal.

July 1. ... The lake level is low this year because, the natives say, there was little snow. The water vegetation has been exposed along the shore by the recession. A large shrimp (gammarus) is plentiful in the lake. If a dead bird remains in the water it is soon covered. I intended to make shrimp meat of them but there was always such an abundance of meat. Swarms of a large gnat are a nuisance on the lake border when there is no wind to blow them away. They rise from the earth at your approach and as is their nature, keep just ahead of you or in your ears, eyes and nose. The terns are carrying fish but I have seen none except in the stream that empties at the south-east corner on the north shore. On the old beach is a small building that is the Thugie Gompa. Since ancient times a cell has existed on the lake according to tradition, and now one lama is said to perform worship in the building. We left this morning to camp on the Pass. Rup Chand and his man went on ahead to see if there is game. The ascent from the lake is very gradual but fearfully

tiresome. The road is over soft sand till it crosses the stream (now dry) that comes down from the Pass. Then it becomes stony with large boulders, often granitic. Near the top there are small streams and green places, closely clipped; on the last of these we halted. A Tibetan who was taking his flock to Nima Mud stopped for a visit and I bought an old rosary made from human skull bones, a nicely covered old sandalwood image; a few tiny old tankas, a holy medal and a mold for human ashes. A flock of some 20 yaks also went toward the Pass and some fifty came down. The day has been cloudy for the most part but nevertheless the reflection from the sand has been intense. Fuel is mostly dung. Up to the dry stream drama narrowly fringes the base of the hills and is scattered above that point. In the floor of the side-valleys there is a thin wash of yellow green where a dry ground sedge grows sparingly but elsewhere there are no plants. Above on the Pass I found a lovely large flowered purple primrose and a lavender stocks, both with intense fragrance. Hares are common and also the Tibetan Snow Grouse which we have seen for the first time. There are flocks of the birds above camp and their chuckling call can be heard from the rock slopes at almost all hours of the day.

July 2. ... We have a clear view of Iso Kar. There are always shifting clouds over the enclosing mountains and the valley with its changing moods is fascinating. Rup Chand went off to a black mountain peak facing the pass where people said nabo were to be had. He sent a flock of seven and brought back one. The poor Mussalmans cannot

eat any of the meat because it has not been halaled, and they want some so badly. They have not been able to buy a sheep in all Rupshu, and are tired of an unbroken diet of flour. Toward evening I went up to try for a snow-grouse, but though I saw a flock of nine, they were so shy that I could not come within gunshot. Under a rock where some marauder had hidden it I found a well incubated egg of Hodgeon's Partridge though no birds of that species have been met with so far. The sirkabs are flying around on all the rocky hills, undoubtedly preparing their nests. They must carry their youngsters to water. They could not possibly walk. Iso Kar is at least six miles away. Above camp there is a nice stream that loses itself before reaching us and along it and on the hills is an abundant (for this country) growth of plants. In all the country I do not recall a single species of plant that grows in Lahul below Bara Latsa La. There is here a delightfully fragrant locoweed (actragalus) among some half dozen species of that genus and an extremely tiny mustard. The mustards are abundant in species, most of them an inch or less in height and most of them white. Three of the men complained of pain in the head and stomach and appeared to be miserable. A dose of aspirin and licorice powder made them in an hour come out of their blankets and guffaw. Another has had a little internal disturbance for two days, due, I suspect to drinking the alkali water in Iso Kar. A dose of cherry brandy promptly cured that. It is difficult now-a-days to eat enough. One is constantly hungry. A Rupshu family bearing all their earthly possessions on some 20 sheep arrived from beyond the Pass and

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camped beside us. One of the sheep bore the tent poles directed aloft and the rest of the household goods were hung here and there on the obliging animals. The head of the family wore goggles which he did not take off all day. He probably has diseased eyes, though ordinarily all sort of afflications are readily brought to any sahib's attention. We gave the family three huge hares and they were so delighted that whenever any member came within hailing distance he salaamed and grimaced satisfaction. There have been four or five groups of travellers crossing the Pass in various directions which gives it the impression of being a busy thoroughfare. All are Tibetans the poor in sheepskin clothes, wool inside, and the richer, or less poor, in cloth. All are friendly but not inquisitive, approaching only at our solicitation and never under any circumstance standing curiously near. On none of them have there been any but wretched ornaments: brass rings or poorly executed silver ones, glass or parcelain beads. Only one, a youth, had a string of turquoise and coral, a few of the former first class. Many have no ornaments of any kind. Our poor horses are busy picking at the tiny grass. If the quality were not extraordinary they would never get satisfaction from the grazing. we have had since we have entered Rupshu. The tent was again erected on account of the breeze. The men make barricades out of the luggage.

July 3. ... We started off at 10 for Tso Norari. During the night some snow fell to cover the ground but it promptly evaporated in the morning. The weather so far has been chiefly cloudy with a little storm coming now out of

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this little valley, now out of that, suddenly clearing into sunshine, only to begin over again. It reminds of north greenland weather in summer. Precipitation is always slight and the winds light and since it is the only kind of weather they seem to have in Rupshu no one minds it. At the top of the Pass (alt.16,400), in the centre of the valley, is a pile of stones, mostly granetic and schist boulders, in all six feet high and 18'x6' in base. Surmounting the pile is a pole six feet long, heavily hung with particoloured rags. Horns of various animals, chiefly nabo, some yak and a few nyen ornament abundantly the top of the pile. To either side of this central monument extends a line of small irregular stone-caps at irregular intervals (15-30 ft apart). These small piles are about four feet long at the base and three feet high. Some 23 are found on each side, ending with one about 25 feet up on the hillside. A string hung with rags runs from the central mass to the first small pile toward the south. The piles mark the jumps, made by a wild yak (drong) that Gyepo Gessar was hunting. He got the yak, it is said. The descent from the pass is rather steep at least compared with the ascent. The path is stony and between boulders. The hills are yellowgreen in large patches where the Kyangsedge grows and do not present the barren aspect of the opposite slope. At the bottom of the Pass runs a stream some four feet across and along this and along the beds of a dry torrent are luxuriant growths of drama. The bushes are 3 to 4 feet high and often 15 feet across. They are in full flower and bumble bees are numerous. Several

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species of butterflies are also evident, one a fine big Tiger Swallow tail, swarms of little pink-rumped Finches (Twites) and of the Kansu Great Rose Finch with a few Brown Hedge Sparrows and Tickell's Nallow Warblers inhabit the drama and on the plains are numerous pairs of Hume's short-toed harks. Below the drama growth opens a pleasant oasis (the valley has become ½ to ¾ mile wide) and ahead a sombre sharp-backed mountain, higher than its neighbours vividly coloured in masses of green and purple, appears to block the valley and to mark another to the south. We have missed the track to Tso Morari and here arrived at Puga. At the approach to the meadow there is a main wall 100 feet long x 6 feet wide and 4 feet high, built in some past age and still well preserved. Up to now no walls so well built have been seen. The frame is of rock and the filling of earth. Beside it are three large chortens, about 15 feet high, probably of the same date of construction. Several Rupshu tents are erected at the base of the cliff that forms the north border of the valley and small herds of sheep and goats and a large herd of yaks are grazing on the plain. One goat had been captured and was being plucked much against his will. The down under the guard haire is often of fine quality (pasham) and is thus collected. The yaks belong to Korzok people who are carrying in relay Rumanis from Leh to Lhasa. They have come from Rogchin and deliver the load to other carriers at Mina Mud tomorrow. This place is famous for its hot and mineral springs. Each spring used to be labeled for

the disease it would cure and there was a spring for most diseases but some malicious person destroyed the labels and now it is generally known only that one is good for stomach disorders. There were minor springs at Tso Kar, one of which gave a strong smell of sulphur. There must be many along that lake's shores, because the character of the water varies, in some places it is strongly saline, or bitter or worse. The natives collect salt in certain sections for sale, but it is fit only for cattle.

July 4. ... A drizzle started during the night and continued till 7:00. A thick white mist bank along the top of the valley walls rolled away and showed a thin veil of snow. The purple and green mountain is heavily blanketed to near the base. A caravan passed in the night en route for the Indus. Their dog stopped to eat our supper bones and then realizing he was belated dashed off without a look at a rabbit we had left lying near. I asked, the horsemen why they did not tell me that they did not know the road instead of merrily coming the wrong way. They said they could not, I was always ahead, a perfectly satisfactory answer, though they arrived at Puga a good two hours ahead of me. The natives are never at a loss for an answer but its utter simplicity usually provokes laughter instead of anger. There is a pair of cranes on the meadow but they are very shy, and apparently not nesting. At the lower end of the grassy meadow are the springs. They are mostly small, upto 10 feet in diameter, all the way from lukewarm to boiling, some tasteless, some very bitter. A few

make a rumbling noise underground. Most of the springs are beyond the meadow where the valley narrows but around some in heavy alkali deposits a grass grows luxuriantly. The cattle apparently do not like this grass, though in other places the pasture is very short. Many plants are in bloom on the meadows and along the stream: a purple voilet a large yellow clematis, a most deliciously fragrant pink honeysuckle, a fragrant pink mint, a large pinkflowered onion to mention only the largest. Puga is the warmest place we have met. There was no wind, and our people would gladly have tarried. We had to cross two passes to reach the lake we are bound for. The first is about 18,000 feet, to judge from a neighbouring 21,400 feet peak and Polokonka 16,400 feet, and its ascent is steep. The descent is also sharp and the ascent of the second pass at once begun. This second one is about 17,000 feet and rather easy. From the crest the view opens abruptly on Tso Morari and Kiagar Tso, and a sight it is for a life time. In the foreground is a yellow-green plateau with grazing herds of Kyang (we counted 114). Below lies Kiagas in sapphire blue, edged with green, in front of smooth pink brown hills clouded with yellow green and flanked by a rugged range from which rise two magnificent peaks of over 21,000 feet. Beyond extends Tso Morari, a vast expanse of blue, to the foot of distant blue gray mountains deep shadowed and stern. Behind, the loft snowy ranges of the Great Himalayas, with sharp ragged ridges running down from their snowy domes, run straight along the horizon and block

the view. Above, roll loose banks of cumulus clouds, blotched with shadows of purple gray with the sky showing blue between but not half so blue as the water below. //

July 5. ... One of the horses tired and we had to halt beside Tso Kiagar. On the west side are two places where good springs enter the lake and beside the one near the centre we camped on a pleasant little sward. The lake about a mile long and ¾ mile wide, is completely enclosed in low hills and has no outlet and no visible water source but these springs. The water is perfectly clear but brackish. The shelf of shoal water is about 1-2 rods wide along the western shore and the descent to the lake-basin is abrupt. There are a few gammarus along shore, and a few sirkabs and grebes on the lake. We left early to visit Korzok a half day's journey away. The day dawned clear and remained calm until the afternoon. The view from the hill that looks down on the big lake had changed. The mountains in the quiet clear morning stood grand and majestic. Yesterday stained with cloud shadows their aspect was sinister and weird and from somewhere on the hill, born by the icy air nor yet warmed by the early sun, came a most delightful fragrance, elusive, intriguing suggestive of lemon and verbena, yet like nothing ever known before. The source of the scent was a little mint just appearing above the soil. Its search revealed more of the dainty little violets that I found first under the dry rocks below Polokonka. At the head of Tso Morari a lively stream enters, flanked broadly with a lawn of sedges until the lake is approached and

then giving way to a field of drama. The shrubs here like those at Puga, are four feet high but the height is due to accumulations of sand that their branches have arrested. In the stream was a pair of sirkabs with 12 youngsters, the latter scared to death. Their mother headed downstream and the ducklings followed in file, flapping their wings as if the stream were not already taking them fast enough. The father headed off across our path to divert our attention, but rejoined the family when the situation seemed safe. At the month of the stream there is a meadow called Pelds (on the map this and many other places have Le suffixed but none of the people could tell why it was added and none make use of the addition) where several herds of sheep were grazing. The herders and their family had put up their tent nearby. The lake has latterly risen considerably. Sedge rocks are now covered by three feet of water. A native said that the water has been rising for five years and they cannot suggest a reason. Some prayer walls are at the water's edge, but probably they were formerly along the path that ran on the narrow beach between the water and the hillside. Our road ran high up the hill. The few scrubby bushes of honeysuckle on the hillside were in full bloom and scented the air with a pleasant fragrance. The climb was tedious and trying, chiefly because we did not know where we would arrive or whether we would arrive anywhere but the view finnally opened on a closed valley, plentifully green. About thirty black yakhair tents (15x15x6 feet) were scattered on the meadow, and in these dwelt a good percentage of the

population of Rupshu. A whitewashed chorten about 20 ft high and a crude rectangular one-story stone hut (15x30 ft) were the only other constructions. Adjoining the hut is a stone foundation on which they said the Thakur, the Raja of Rupshu, spreads a tent. The hut is his too, but they say he prefers to live in his tent and store things in the house. We tried desperately to buy something as a souvenir but there was not a thing but rubbish and very little of that, except one nice turquoise and silver ring which the owner would not part with on reasonable terms. A few Baltis had brought Kumanis and were exchanging them for wool. Though we had had our usual lunch, each man consumed a pound of the dried fruit, including the nice almond-like kernels. A few safety pins distributed among the children created much satisfaction. A pretty little girl of perhaps 8 who seemed to own not much else but the safety pins was so thrilled that she whispered "Thank you, Thank you" all the time it took to fasten the article in her miserable rags. There is a path from the encampments that leads down a narrow valley to the lake. The view opens unexpectedly on the plain at the broadened mouth. A huge building appears on the hillside to the left and beyond it a rather pretentious two storied structure, both buildings architecturally pleasant, as in fact are all constructions of the Tibetan races in Indian Tibet. The appreciation of line is keen in these people and even the humblest hovel will stimulate one to pull out his camera. The larger building is the monastery and the other the Thakur's house. Wood for both was

brought from Ladak, a good week's journey by horse. On the slope below are tiny fields of barley, apparently thrifty at an altitude of over 15,000 feet. Small radishes and turnips of excellent quality complete the list of agricultural produce. This year things are bad with the people because of the yak epidemic. Over 1000 animals died at Korzok and less than 5% are left. The disease comes about once a generation but none of the old times know of such a holocaust as this. Blood is voided from the intestines and the animal dies. They find the bile enlarged after death. The disease has spread from Tibet where it has killed also the wild yaks. The notice of arrival preceded us and the Thakur at our approach ran hastily to don some particular garment to receive us. He gave each of us a pound of Kumanis, me a goose egg and Rup Chand a white yak tail. We ate half of this fruit and then went home and ate a snow-grouse apiece (a snow-grouse is as large as an average hen) and accompanying rice, such an affect on the appetite has the air of these uplands. Nyen are to be found on the hills near camp, which today was brought to Peldo, and the Thakur sent his servant to show us where they stayed. Geese stay at Peldo and sure enough, we bagged two on the way home and wounded two more that will probably drift ashore tomorrow. The birds of this country in addition to being so extraordinarily shy that even the smallest must often be killed at long range with a shotgun are very tenacious of life. There were about 15 wild monks in the monastery. The abbot is meditating in a cell in the hills somewhere, and will stay a year. The monastery

has a complete set of the Kangyur and some 30 tankas, none good, and not much else of interest. The monastery owns the fields we saw; the rest of the populace go to Spiti and Patseo to barter salt for grain. One such man was en route for Patseo and his wife preceded him for some rods of the journey holding a pot of burning incense. The Lahulis also have the custom. The Korzok people live in winter at Tega, but this year had great difficulty in moving because of the yak distemper. The Thakur's things have not yet arrived and will have to come on horses. The lake, they say, freezes in winter to 6 feet of ice and the average snowfall is to the knees, occasionally to the hip. The birds are here as at Tso Kar except there are no cranes, and the numbers are much fewer.

July 6. ... Rup Chand left this morning with the guide to hunt on the hills beside camp. The Thakur and the guide say that nyen are sure to be found there, at this season on the peaks. What precipitation there is falls on the mountain summits and the plant growth is much richer there. Possibly the men have spoken the truth. It seems a fact that the natives do not like to tell about the game, I believe, not so much because they dislike us but because they hunt themselves. The tentdwellers above the monastery, who knew none of us, said there was no game hereabouts, but one little boy piped up that there were nabo on the hill in front of us. Yesterday a Mina Mud boy said there were plenty of nyen and nabo at and

within a day's journey of his village at Tsaka, which agrees with what our Tso Kar guide told us. But the Mina Mud people send all hunters to Lenapa, two day's journey toward spiti. Our lama went to the monastery today and discovered several good tankas and images I had not seen. The monks told him they had not shown them to me for fear I would carry them off. He learned that the monastery was built in the time of the present Thakur's grand-father. Rup Chand says I committed a breach of etiquette yesterday by stepping over something covered with cloth on the floor. I recalled that there had been tittering and grumbling when I did it. There was food under the cloth and it will now have to be thrown away. The water at this end of the lake is better and to drink it gives stomach distress, we were told, but lower down it is drinkable. There are some fish in the lake, mostly tiny little bottom dwellers with four barbels. I spent the day in camp making up skins. I finished 40, including two barheaded geese, four Tibetan grouse, three sheldraks, a raven, twelve Kansu Rosy Finches, six Twites, three Tibetan mountain finches, two yellowheaded wagtails, a willow warbler and three Brandt's Mountain Finches. For supper I devoured a goose with a quart of boiled rice - a fact given not for epicurean considerations but for physiological. The forenoon was fair and warm but in the afternoon it clouded and a stiff breeze blew from the south for a few hours around sundown. The winds have been chiefly from the south since we have been in Rupshu, descending probably

from the Great Himalayan Range. Today ends a month of our journey.

July 7. ... The hunters came back toward evening without having seen an animal except Kyang, or even tracks of any. There have not even been snow grouse since Polokonka. The guide furnished Rup Chand with an account of the funeral rites practised by the population. Corpses are either burned, fed to carrion animals, thrown in the lake or buried. The first two methods are considered best, but the lamas have to consult their books to ascertain which is suited to the corpse at hand. If fed to vulture, the head has to be crushed by a stone or the birds probably assume the person is sleeping, at any rate they won't come to the feast. In any case the corpse is retained in the house for four days, or if the family is rich and the season is cold 21 days. At death a lama is summoned and the lama ties the corpse in a sack. A structure of butter and flour is made and put beside the body and butter burned night and day. Prayers are also read. 49 days after death, if funds permit, a feast is prepared for all the neighbourhood and as much property as possible is given the lamas, because property so given will be of use to the deceased in the hereafter. Money is also sent to Lhasa and on the death anniversary for 12 years the local lamas are provided with the wherewithal for reading prayers for the repose of the dead. The stream in front of camp runs very low in the day time but last night at 7:00 with a rush a torrent filled it,

just as if a dam above had given way. The night before the same thing happened, though later. The Mussalmans informed me I would have to pay for the horse that died on Bara Latsa La in spite of the fact that it was specifically stated in the contract that all dead horses were to be owner's loss, at the same time asking that I engage their extra horse, now free of its load of tea. I told them if I had to pay for all the horses that died and it looked as though half of the poor old fellows might expire, I should have to save my money and could not afford to play Santa Claus by hiring animals for which I had no use. They appealed to Rup Chand and finally decided to supplant the old horse that broke down on the road from Puga with the tea carrier. This morning Ram Tulla departed with the poor beast, but shortly traded it off to some guileless native for some sheep and goats. He asked a certificate from me addressed to a native, going the same way, to the effect that he was going home on my business and requesting that the native grant him his company. What use he made of it I cannot imagine, since neither the native nor the bearer could read a word of it. Ram Tulla was the laziest man in the caravan and I hope now to get the outfit started in less than four hours. I must first train the cook how to boil rice in less than 2½ hours, the period he usually requires.

July 8. ... This morning the men were called and recalled but no stir. Finally I pulled off their bedding, at first to their constemation and later to their amusement.

The guide to Unti, the next station, who should have come last night did not appear and finally this morning a lame old lady arrived with butter for the men. She denied she was the guide but certain of the men insisted that by the butter the guide was to be known, but all agreed she would not do. The road is at least 18 miles with a pass and the poor old creature had already come five. The hunting guide had been retained by persuasion and when that wore out by bribery, pending the arrival of this person, and now every attempt was made to induce him to lead the way. Everything was in vain, because he said he had to take salt to Spiti to exchange for grain. I remained firm and when he started off tied him up. Then the old lady confessed that she was deputed to be the guide. There was no one, it seems, willing to undertake the job, so they drew lots (gyen) and she was it. Our men still insisted she would not do and Rup Chand started out to get a man from the village. The woman walked with difficulty and as clearly was past fifty. When asked her age she said she had not the faintest idea. Over one kneecap were three old scars. I bethought myself of my 75 years old mother who though not lame would have done the job with honour and was willing to give the guide a trial. The roads throughout this area are very poorly marked, except those that are frequented by the traders and it is very easy to follow a sheep trail up the wrong valley. So the lady joined the caravan and we started off. I reflected on what the Travellers aid Society and Kindred organizations would say when they found it out, but there was not

anything else to do if we were to get to Unti today. For the first 10 miles the guide rested considerably but after that she warmed up and outstripping all but the two best men arrived at Unti in splendid trim. She even wanted to go back that night, but was persuaded to rest, and made camp with the Mussalmans, preferring their society to that of the young men of her race and religion. The road ran some ten or twelve miles along the east shore of the lake, mostly over torrent plains with no green except at one place a few miles from Peldo. Where a blunt peninsula extends into the lake we turned east up a long Nulla to Chagarchan La. The descent is rather abrupt and one arrives at a little lawn along a stream— Unti. It is evident that the lake has had a leval higher than the present one, beach cutting being visible at least 15 feet above, so it may be a habit of the lake to rise and fall periodically. There was evident along the shore a fresh irregular sinuous row of gravel, about 3 feet high at the highest, pushed up by the ice. Being above wave action and there being no rain the formation has persisted. We drank from the lower end of the lake and found the water not bad. The guide said it is better only near the head. We were promptly thirsty again and thirstier than before but there was no help. There is no other water between Peldo and Unti. On the various crests we crossed (of the various nullas debouching on the lake) the natives have, as is usual throughout the Himalayas in this region, erected cairns. These are from four to six feet high, made of small stones, with preference

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shown to quartz fragments that crop out here and there between. Quartzitic Shales, and ornamented with all sorts of available horns: yak, sheep, goat, nyen, nabo. Our friend passed not one without adding a stone, sometimes muttering something and once circumambulating with much verbiage.

July 9. ... The weather yesterday and today was clear, cloudless and warm with a gentle west breeze. Two nyen with two lambs were sighted yesterday on the hills above the lake, the first game seen since Polokonka. Unti and Tega, a few miles down the stream are the winter quarters of the inhabitants of this region. At Tega there is a broad valley in which a good-sized stream meanders. Our guide called us early for her pay and departed. Nothing could induce her to go to Tso Kyun, the next stage, though money here cannot possibly be earned and no one has any. She even pretended she never had heard of the place. Cattle here constitute the chief or sole wealth and the tenure of life of an animal is very uncertain. All may die from epidemics or starvation caused by heavy snowfall but it is not customary to work and no one wants to break the tradition. All through the region among Hindus or Tibetans you meet with inexplicable confessedly idiotic waste of opportunities or materials and the only answer is that it is the custom. The road to Kyun Tso is a steep ascent to either Kyensa La or Salsa La. These passes and the ridge they lie on must be to judge from a 22,000 feet peak in front about 19,000 feet. But such a magnificent view! Below two day's march away the straight awesome row of snowcapped peaks of the Great Himalayas

in Spiti bound the horizon. Below them are the somber purple grey hills of the Rupshu frontier that melt into the gentle rolling pink brown hills of the plateau. Two huge masses of these flank the broad green valley in the centre of the vista. This is the valley on which the Rupshu cattle pasture in winter. On the other side of the pass everything in the foreground is yellow green, the broad valley and the slopes that bound it. A large hill just below the Pass is grass-green from the loose-green rock fragments that cover it. In this emerald setting lie the two lakes Kyan and Kyun. Kyan in the right foreground is of pastel blue; Kyun is turquoise blue. It lies at the far end of the plain, hard against a range of madder hills, that even tint the loose cumulus clouds above them. Beyond them is a higher range of lighter colour, with crests and patches of snow. Kyang occur on all the hills and we spent much time convincing ourselves they were not something we wanted. And the plants! so interesting and so abundant at 19,000 feet. In Kulu there is nothing at 15,000 feet. Even the horsemen got interested and helped to gather them. I have never been so stimulated on the whole journey as on the peak today. The altitude and the unparalleled view produced an exhilaration, that approached transport. There are several tents of nomads on the plain and herds of sheep and yaks. The yak epidemic has not reached here. Rup Chand recorded from the Korzok hunter guide a on account of the marriage customs here. The groom sends a relative to the father of the girl that has

caught his eye, with money and a piece of white cloth, about a yard. If the proposal is acceptable the gifts are retained. In that case, in a few days, if wealthy, the groom sends the girl's father 10-12 maunds (800-1000 lp) of chang, five sheep and Tibetan tea. These gifts are devided with the bride's relatives, according as these relatives gave presents at previous weddings in the family. The date of the marriage is now decided on this day. On the wedding day, if the distance is far, the groom sends a man with a horse decked out as well as possible; if near the bride comes on foot. In front of the bride's tent, if rich, they put up 80 stones in a row, if poor, less. The groom's relatives now approach, sing a song for each stone and kick it over. If they cannot sing an appropriate song they pay a fine and kick it over also. The bride's relatives are of course assembled. The final large stone in front of the tent is not to be had for less than Rs.12/- if there is no suitable song. A singer is usually imported for the occasion. Seven paces beyond this stone is buried an image in devil's shape made of flour. The victor of the last stone then advances seven paces and tries to unearth the image. Failing more fine. Then everyone goes inside to eat, drink and dance. When it is time to go the bride's parents give her clothes and ornaments that are first displayed hung on a white cloth. The bride weeps and the parent's give advice, chiefly in the form of proverbs. The groom must now, give the bride's mother Rs.4/- for the milk her breasts have

furnished his wife. At the door the neighbour's girls stop the bride's going out and have to be given Rs.5/-. And that is not all. The groom of the community (each community has one, not a bridegroom) has bound the bride's horse's legs so that he has to be paid to loosen them. Near her future home the bride is met by a lama bearing an earthen pot in which are samples of all metals, precious stones etc. The pot is covered with white cloth on which are drawn two crossed dorjes. On the ground is a piece of slate with the same design. At the proper moment the lamas read loudly, and violently throw the earthen pot on the slab, which is then overturned. Everyone now goes inside. A woman and man are sent from home with the bride. The man bears in his hand an arrow with particoloured rags and cheap ornaments. This man is considered henceforth the bride's brother. At the door of the tent the groom's mother stands with a bracelet, a bucket of milk and a rope for tying up yak calves. The bride enters, her hands are washed in the milk, the bracelet put on and the rope put on her neck. This is a symbol of her future work—looking after the cattle. The bridegroom dressed in his best is seated with a vacant place at his side in front of a table on which is a container ornamented with butter figures and filled with chang. The bride seats herself in the vacant place. Then a youth whose parents are living, enters bearing in one hand an ornamental image of flour and in the other a piece of sheep intestine, filled with meat and fat. Not an indiscriminate intestine is this but the junction of the large and small intes-

intestines. He crosses his hands before the couple who touch the contents and then departs. A little later another man enters with a plate on which there is a little grain. He sits in front of the couple and sings a peculiar song and removes from the heads of both a piece of white cloth they have been wearing for the occasion. These he puts on the plate. A representative of the groom's relatives and the arrow bearer of the bride collect money for the couple, according as the couple's parents have given to the children of their relatives on previous marriage occasions. This ends the wedding proper. A few days later the bride invites the inmates of her former home to dinner and then goes home with them. She remains some days and on her return brings some cattle as a present.

July 10. ... The plain in which the two lakes lie is roughly 4-6 miles wide, girded with smooth hills that rise to 17-18,000 and even to 22,000 feet. The plain is at an elevation of about 16,000. The soil is sandy and the dominant vegetation is the yellow-green sedge often mentioned before. Some half dozen small streams two feet wide and six inches deep come down from the hills to the west and flow into Tso Kyan. This lake is perfectly fresh, about two miles long, oblong, and lies on the plain floor into which it has ploughed beaches of gravel 3 feet high. These beaches are removed from the present shore line by one to two, in places three rods, particularly on the west and north shores. On the east the water is apparently shallow and various spits, lagoons

and islands have been formed in this section. The south side to the water's edge is bounded by the carpet of sedges of the plain. The winds apparently are chiefly from the south or east and are sometimes violent to judge from the magnitude of the beaches for so small a lake. The water level has recently subsided a foot or two, and has left behind some water crowfoot plants, now dried in the mud. There are Gammarus in the lake and at least a few Potamogeton plants. The midges that have been present in swarms on all Tsos are here too but today on account of the stormy weather (sky overcast all day with squalls from the south and slight precipitation) have taken refuge in the yak tracks. These are full of the black insects. A rich flora of tiny plants flourishes on the plain. Sand-grouse in flocks are feeding along the streams. Two or three pairs of sirkabs are on the lake and on the plains the usual small birds, except that we got a large Sand Plover, not previously known to breed in the country. Kyang pasture among the flocks of domestic animals. We tried to find a guide for Hanle but no one would work for more than a day, no matter what the compensation and regardless of abundance of leisure. We had yak milk this morning but could not get more from the same people. They said "ask someone else now!" Money is apparently of no object. We circumambulated Tso Kyun and acquired consider-able merit because the lake is sacred, containing the left eye of the deity that makes Tso Momapang so holy. I saw two marmots again embracing as I had seen at Kiangchu.

July 11. Three Spiti lamas headed for Hanle this morning and we went along, believing it best to have someone to tell us where to stop for the night. Ordinarily places where water and grass can be found are far between but it turned out that we could have stopped almost anywhere after the first 8 miles. The lamas were of the type of minstrel that yearly come out of Spiti in flocks of three or four and entertain their neighbours with various types of performances, such as supporting the body on swords, the points of which rest against the bare belly, thrusting a long needle through the cheek and tongue, splitting a huge rock on the belly of a man, etc. The lamas today had a few goats and sheep, dyed in part yellow and red, that did not want to go to Hanle so we left the company far behind and did not see them the rest of the day. I looked over Tso Kyan before leaving the plateau; which is our last high camp ground for sometime. We descend now daily till the Indus. The lake is irregularly elongate, with maximum dimensions of perhaps one and three miles, its shores much interrupted by sandbars and spits. Though apparently shallow there are no evidences of water plants, probably because of the slight salinity. It lies on a bed of sandy clay with no gravel apparent on the west or north shores. Sedges grow to the edge. Its highest level was some 50 feet above the present one, to judge by extreme wave cutting on steep banks of the east shore. At present it is some one or two feet deeper than it has been for sometime past but has receded three feet from a

previous recent expansion. This is evident from stumps of drowned sedges on shore and under water. There are several feeders now nearly dry. A few sirkabs were on the water and a coot. The ascent to Da La is easy, amounting to perhaps 1,000 feet. The path then descends in a closed valley along a stream borded in places with stretches of green. After two or three miles the stream dries up but reappears five or six miles further where there is a long sedge lawn and a cluster of four tents, called Da(K). The valley was once the bed of a powerful torrent but now-a-days little water passes down it. Drama which was absent on the Kyun plain is here abundant. The weather is clear and warm. It froze heavily last night, in fact it has frozen every night since Bara Latsa La. Everyone slept lightly last night but was in excellent spirits this morning. Pulses high.

July 12. ... We got yak milk again this morning at Da. The milk is a very superior substance, better than any milk one can find from ordinary domestic animals. It is only obtainable in the morning before the calves are turned loose. The mothers impatient for the reunion grunt like pigs. When free young and old cavorted on the plain with tails in the air, brandishing horns, bumping heads, giving the impression that they knew how to play. One sees the same phenomenon among dogs, and sometimes among goats, but seldom in cattle. The Spitians arrived and stopped at the village to prepare breakfast. They may give a performance here, in which case they will not go to Hanle with us. They always came above our camp to get water, whether

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from spiritual or sanitary reasons, probably the former. There is a nice closed valley above Da with one side an amphitheater wall of snow, that probably does not melt. The path to Hanle still continues down the stream in the bare-walled valley. The petrography is bewildering. In one place a stratum of conglomerate with inclusions a foot in diameter, the whole with the appearance of a concrete pouring, joins a horizontal bedding of quartizitic shale with an interruption vertically of 100 feet of rubble brought down from above. The path leads along a sedge lawn for miles with a clear streamlet meandering in the bottom. Drama is abundant on the valley floor and fish are numerous in the stream. The Mussalmans did not see these until we were on the march and longingly tried to spear them with my alpenstock. After six or eight miles the stream enters rougher country and the lawn vanishes. The running water now changes to a series of lovely crystal pools on and among clean smooth granite boulders and the vegetation grows chiefly on their banks. Instead of drama above, a magnificent golden clematis and the fragrant honeysuckle claim equal ground, transforming the desert into a glorious garden. As if this were not already enough, but other plants grow abundantly along the water's edge, plants such as we have not seen before. One huge plant of rhubarb three feet in diameter, with stalks as luxuriant and as well-flavoured as the best improved varieties, had somehow come into being among the dwarfed tough plants of the common species. We gathered an armful of the stalks, intending to cook them but ate

them all before arriving at camp. When the valley opens, another stream enters it from the hills to the right and an enormous outwash plain three or four miles wide, opens to view, furrowed by torrent and lined with rows of huge granite boulders that the raging water has thrust aside. On the floor in the distance are two large chortens and on the edge of the crest of the opposite mountain are visible the ruins of an old monastery. No one knew where to go to reach Hanle, though two of the men claimed to have been here before, so we camped on a little pang where for the first time our horses did not leave the little green all night, but when full, walked from one end to the other to see where it was best, the tinkling of the bells of two that regularly strayed announcing the course of the march. In one of the linnet's (Twite) nests today had been incorporated in the soft lining a rabbit's tail. The tail was so prominent that the four eggs had to find a place around it. //

July 13. ... The valley is the largest and broadest we have seen. Our camp is against the bare west wall, a quartzitic formation so crushed and distorted that its surface is a fascinating confusion of lines. This extends around to form the north wall. Beyond the big outwash plain to the right down which we came are snow peaks. Except for the tip of a Spiti peak to the south east no other snow is visible. In the centre of the plain is another low rough hill with two or three miles of plain surrounding it in all directions. The east boundary is a lofty sharp crested chain that divides the Hanle River Valley

from that of the Indus. This is a magnificent range. It is the first ordered range we have seen in Rupshu. The rest of the mountains start off in a given direction but are at once blocked by others coming from other directions, any other direction. No other range has displayed such varied and beautiful colours or such dissected formation or lofty structure. From the deep purple crests a wash of yellow green has been poured reaching half way down the sides to where a series of pink pyramids are flanked against the slope. Below these run irregular rolling hills of dark green that merge into the outwash plain of marbled pink and brown. Here and there among the pyramid formations are splashes of blue gray and madder, to complete the range of colour that adds glory to the grandeur of the stupendous chain. Rup Chand went hunting for the Tibetan gazelle and I stayed home to gather plants of which a dozen new ones grew in front of the tent, among the small spring pools that lined the sward. A lovely fragrant pink primrose, a royal purple aster, and a golden Pedicularis would be the pride of any garden but none had seeds. In the pools grew a tiny Utricularia, an inch long, with huge traps. And the birds also provided a thrill. The large Tibetan lark Melanocorypha maxima had a nest with three eggs on our lawn and its unrivalled song could be heard here and there over the plain. This bird has not been previously known from the Indian Empire. The big cranes and the usual water birds are here, also the Hodgson's Partridge, now with flocks of downy chicks

and one of the tiny Kingfishers (Alcedo attis). Toward evening I started off for the monastery on the north-east edge of the plain, a good four miles away. I met Rup Chand on the way and he went along. He saw no game. As usual, one had said go here, another go there; one even directed him to our camp. I almost believe the people see very little game, because they do not often go far from their tents. The monastery from my path was not visible until I had come nearly beneath it. The view of the huge white structure on the crest of the ridge four or five hundred feet straight above the meadows in a country where there are no buildings and where you do not expect to see any, is a sight to bind the traveller. I photographed at every 100 paces and then hastily struggled up the steep ascent behind a yak herd that was bringing drama from the surrounding hills. The abbot is a Tibetan, a man of good parts and very friendly. We were shown all over and allowed to inspect everything. This monastery, he said, was over 800 years old and antedated its superior, Hemis. Previously the river we had seen on entering the valley had been the monastery. The present structure was really a fortress, as all monasteries had to be before English rule, with retainer's quarters below and with a wall and guard turrets on the easiest slope in front. To the east and south are cliff faces and no defence was necessary in that quarter. In the upper temple are a number of brass images, one or two temptingly beautiful. We were allowed to handle the figures but were cautioned not to touch their faces. One

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of the many handed or many headed figures, I forgot which, speaks from time to time. In this room are beautifully executed and beautifully preserved frescoes that the monks said dated from the building's construction. The drawing and composition remind one of the Tashi Lonpo Rabjor series and the colour is of requisite richness. I tried to photograph one but it was very dark and I fear there will be no result. In the temple below this are more frescoes, likewise old and well preserved but not so pleasant. They are of huge figures representing various lamaistic diéties and devils. In this room at the far end is a shrine in which only one priest is permitted to enter. The room is totally dark except for the door and it was difficult to see the tankas that hung abundantly from the ceiling. It was growing late but we stayed to tea, meanwhile expecting our horses to bring camp to the monastery as ordered. The tea was Tibetan and very good of its kind. Sugar was served in abundance and Kumanis, the last always acceptable, no matter that their past history would not conform to our sanitary notions. A man reported that the caravan was visible from afar and fearing that they would lose their way in the bog that makes up a good part of the plain, we sent him to guide the flock to the selected camp ground. We meanwhile had a pleasant visit with the abbot. He said I could not be an Englishman, pointing to my eyes, and when told him I was American wanted to know about the country's size and produce. The scene was illuminated by a lantern and when I suggested we take it to look at the frescoes again they

said the temple should not be disturbed at night. Now again in full darkness arrives our messenger to the horses and instead of announcing their presence at the gates said they had pitched camp three miles away in the morass but sent a lantern. The march through the marsh to an unknown locus (three fires were visible, as many miles apart). We fired the gun, hoping they would answer from the camp that was ours, but they assumed we were hunting or shooting out of exubrance, or some other assumption and gave no reply. Pulling wearily one leg and then the other out of the mud holes splashing out of the mud puddles that we fell into in the dark, we finally arrived at 10:30 with not many kind thoughts toward our fellowmen. We were told by way of consolation that we had ordered camp to be pitched on that spot.

July 14. ... Rup Chand and I went early to the monastery to see if the hunter whom the abbot summoned yesterday, had arrived. He had not, so when our horses showed up we marched. The abbot again gave tea and on parting gave both of us sacred scarves, me a Tibetan sheath knife and Rup Chand a cake of Tibetan tea. First we bought an ancient curiously carved tea-table from the custodian of the monastery. The carving is bold and graceful and of a totally different character from that of the tables now-a-days manufactured. The top was soaked in generations of butter imbibed from the tea that had been spilled by the guests of the ages and the gay paint that the people in this country apply to all carvings

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has been toned to greyblack by similar agencies. The view from the monastery is perfect. To the west the whole green plain with the numerous meandering streams, just wide enough so that in proper places a man can jump, and full of fish. To the east and north the Hanle River plain for miles, flanked by the line of majestic peaks that stretches toward the Indus as far as eye can reach. There are fields on the southern plain but there are chiefly weeds in them. A field below the monastery had a few healthy turnips and many weeds and one had thrifty barley but the cattle and rodents had eaten half already. The nights, though cold enough to allow the formation of ice, are much warmer than at other places we have been and they could undoubtedly grow things if they knew how. They have recently planted a willow below the monastery and it has grown in a few years into a flourishing shrub, the first shrub larger than a drama bush we have seen since leaving the Tsarup where from afar we saw a similar tree in its valley. The people at Hanle were sometimes good-looking and much friendlier than any we had met in Rupshu. There are perhaps fifty on the plain. Among them was a beggar, a Kashmiri they said, who refused money and begged for flour. We had no flour at the moment but the money was nevertheless not accepted. Our road ran all day along the Hanle River that flows through a plain ½ to 1 mile wide. It is green all the way, from the various sedges. There are shrubs of drama in large patches and on gravel alluvial plains often clumps of pinkish fragrant tamarisk, six feet high.

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In one of the pools was a great growth of tiny buttercups so fragrant that the passing traveller caught the scent. One of our horses that are now feeling the stimulating effect of the upland grass took fright at some pots he was carrying and stampeded the caravan. Two native boys ahead knew how to stop them and we then collected our effects from various places on the greensward. All but the two mules that had not even seen fit to run had thrown off even the saddles, yet nothing appeared to have suffered but the lantern; fragments of glass and metal from it strewed the landscape. One of the lads gathered these, glass included, and cached them under a rock. There are several clusters of tents scattered along the river and herds of sheep and yaks are numerous. The yak disease has not reached Hanle. A tent or two of tent-dwellers that spend the winter in Kulu were camped near our halting place and we bought several rings. The Rupshu people display very little jewelry but these, male and female, have their fingers laden if they have any standing at all. We selected a place near water and grass to pitch camp, having already marched some 22 miles but the horsemen arrived and said beyond the pass was excellent grass, so on we went. The pass, Kugzil La, was about 1,000 feet above the plain, and two or three miles long, of beautiful (from the agriculturist's point of view) soil, no stones and little gravel but not more than half dozen plants grew in sight all the way. We knew the horsemen had never seen the ground ahead and that

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they must have got the information from the natives, who by the way, always want to send you on ahead, either from fear of you or to save the grass for their own animals, so we were uncertain as to what we should find after our long trek. But sure enough, it was a lovely place - a green meadow against the mountain wall with the river in three meandering parts in front. We arrived at 6:00 after eleven hours of march. There are now abundant growths of Ephedra on the hills from Hanle. The British chemists have found the Lahuli Ephedra to be of high virtue and possibly this is also superior. Our lama stayed behind at Hanle to copy a book in which he was interested, and incidentally made inquiries about the diet of the natives. In the morning they make a soup from meat or cheese with some roasted flour (sattu). About 10:00 they make tea; those well to do drink Tibetan tea with butter, the rest drink Kangra tea. Sattu is again mixed with this and is eaten with the bent finger. Spoons are unknown in the hills. The evening meal may be of (1) Kiu - dumpling of flour (atta) with fat or meat broth (2) Momo (k)- pounded meat spiced wrapped in unleavened bread (roti). Poorer people eat more simply with more soup and nettles or other weeds. A great luxury is rice on which melted butter and sugar are poured. All grain must be imported. The men go to Tibet for salt, a two month's journey. For Rs.5/- and a sheep they get from the Tibetan Government permits to take out 100 sheep loads of salt. This they barter in Lahul, Spiti or Rampur for flour.

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Everyone must therefore have sheep — sheep are as basic here as land is below. The men's work is this traffic. The women stay at home looking after the flocks that remain and weave clothes and tents. The wool that is sold is usually cut by the buyer.(At Tsultak a Tibetan agreed to sell his wool at 12 As.(about 25 cents) a head. The cutter get ½). The buyer promises to come the ensuing year at a certain date.

of the 1931

~~Personal~~ Diary Expedition to ~~Lamayuru~~ Ladakh

Tibet ~~to~~ by H. W. Koch

for Jaggar

June 7. At 11 we set out with 15 horses. Charles Rep. (C.) has marked all the parcels and has written in his diary where the mousetraps, old newspapers, blotters, cartridges, medicine packets, silver money, and the other things we will need for during the four months before we cross the Great Himalayan range for home. are located

Gyalt[illegible] has had a stubborn fever for several days and will leave the first stage by the motor lorry. The other servant, Dorje, has got a kilta to carry home ~~Lauries~~ to the family in Lahul acquired from the proceeds of his labor. The Lahuli family is like an anthill. All the members labor for the benefit of the rest with the exception that a little money is received by the lokes for buying a few cheap cigarettes, ~~of a rule from a few Ones~~ caravan personnel is temporary. One of the party is going to be named tonight and most of the rest are involved in the festivities. In spite of the innumerable things that had to be put into the baggage at the last minute and the endless additions that Miss L. decided were indispensable for the journey, including rosewater, tanremover and an alpaca muffler, all of which have been surreptitiously removed and stored again for possible use at home, only an old tin has been left behind. It is dead sure that my nose will be burnt raw when we get above 10000, with or without all the remedies designed to prevent it. Besides, there is no room on the horses for safety flutters. Each servant needs a horse for his provisions since no food can be had for the first 2 months of the journey, and there will be put the heads of big game, dried plants

2) [~~not to mention the object dart that Prof R and Mrs L have in mind~~] At last we have broken up our happy home, and everyone was relieved to be on the road, after the months of negotiating and planning and then the 2 weeks of strenuous waiting for the first horses to cross the Rothang La. The road ~~that led~~ to Manali ~~our first halt~~ that leads along the precipice above the river and about which I was so thrilled last year has become commonplace, so habitual has magnificent views and stirring locations become. The mosquitos last last year at Manali enforced an allnight vigil have not yet taken up their posts. A raucous-voiced woman that perched on a cliff half a mile above us cursed at stray horses or humans that trespassed, her vocabulary amused the company till dark, when she descended and invited us who had been the main offenders to be her guests. Our friend, the half-bred, who always solicit the loan of a fortune from any likely or unlikely source has been evicted from his last and nth home for failure to pay for something or everything connected with it and his tin roof has been confiscated to pay for previous sojourn elsewhere.

June 8. The bridegroom a lad of 18, joined the caravan at 10, together with 4 of his relatives and we set out from Manali. During the night new horses arrived to replace the feebler ones that had been recruited into the service at short notice. Also two ~~too~~ animals were added, loaded with tea and shoes for sale to natives

3) en route, ~~so that~~ The animals now total 17 and the 78
horsemen 5. Our staff numbers 4 but 2 more men will be
added in Lahul, one left behind. The horsemen are all Moslems and our
men Buddhists. Gyaltsen has got rid of his fear and there is no
longer the problem of having to start with all new help. Dorje
the last recruit to the service is delightfully good natured and
painfully willing but does't understand Urdu or Tibetan,
his native language any too well, and therefor is of
limited usefulness. Besides, he sleeps like a stone and
can't be awakened short of inflicting bodily harm and
is so innocent that he would willingly give all our
possessions to any stranger who asked for them. The
need for guarding camp is, however, after today no
longer urgent. The thieves that operate from Manali do
not go beyond the Pass and in the territory ahead,
except possibly in Leh, thievery is unknown. The
Manali thieves have been especially active of late
having carried off 13 sheep's loads in daylight and
the Lahulis, their chief victims, are so exasperated that
the next bandit caught will probably be roasted alive,
a fate that one met before. Once they let the robbers
cross the bridge and then they pulled up a couple planks
behind him. When the robbers ~~tried to~~ fled back across
the bridge, they fell into the river below and were
finished. Four of the bridges on the road today were
out, the timbers swept from the heavy snow.

4) June 9. At 7:15 we left Rahla (alt. 8850) and (alt 13,400) climbed to the top of Rothang at 12:15; at Khokar (13,431) at 3:15. A fresh breeze began before daybreak and blew until the top of the Pass. From Sumna, 2 hours this side of the crest, to near the river on the Kokar side the path has been in snow. Beyond the crest the snow was soft and the horses often broke through the crust. On the the lower stretch, over small rivulets there was such ice that a path had to be cut and the horses led across one by one. One animal loaded with a trunk and a bundle of newspapers slipped and rolled head down a snowbank, but nothing was the worse for the slide and a revolution or two. Contrary to all reports and expectations there is hay for the animals at Kokar. The tent-dwelling Tibetans that like the birds move north and south with the season, we left behind a few miles above Nanak, excepting one family that has camped near the source of the Beas on the valley floor. Last year in mid-July the advance guard in full strength was encamped in streaming bedecked tents at Sumna. The Lahul with horse and goat caravans are swarming into Kulu and their worn-out grass shoes mark the path. The horses of one of these caravans fled last night from below Rahla, having first eaten up our horses' breakfast, and were recovered only at Kokar where they turned in on their own home for refreshment. A large herd of sheep and goats, with dog guards superviseing, crossed with us and one lamb was born in the snow and had to be carried down. A little later each shepherd will be stuffed with lambs and kids, that cheerfully let themselves be transported in the folds of the herdsman's woolen blouse with only their heads exposed. Two Sakias, completely naked except that

5) one had an umbrella and a cotton sheet also. So 80
came with us. Barefooted as usual for 5 hours against
a breeze that chilled them regardless they went on without
faltering but showed signs of discomfort when we stopped to
rest on a knoll as a sign that the people had cleared of snow
for the sheep to halt on. Rupchand offered them hot tea
but it was refused. A cigarette was accepted. I am told
that these people make free use of various habit forming
drugs most of them unknown in the Occident which drench them
with delightful stimulation, transforming dream into
reality and in other ways enhancing the psychic life. Flowers
have been few. Only here and there the little royal purple
iris (I. Kumaonensis) had formed a bed of bloom, and
of the salmon pink primrose (P. roseata) that above 11000
feet makes a gay bright hued carpet here & there retreating
snow, only a stray flower has blossomed. For the first
time in this country I have worn colored glasses
and the results are splendid. The color of the glasses
that at first tints everything is soon forgotten and the
snow is seen in its natural white.

June 10) We left Kokser at 8. and got to Sisu (altitude 9,900) at 1:00.
The road is all right except in perhaps half a dozen miles
snow extends across the path to the river. The sheep and
goats that are daily passing across the Rupin into Lahul are counted
at Kokser and a tax of ½ anna per head is levied on all
but youngsters of this year. They are exempt. Herds come
from as far away as Palampur to feed on the mon-
soon grass of Lahul that grows on the lofty
Lahuli slopes. The Kopoy bridge bobbed like a cork on the wave

6) as the drover crossed and I speculated on the probability of my ~~baggage~~ being marooned with the broken bridge between me and my baggage. The bridge, however, didn't break. A few miles below the bridge a few years ago cracked into the stream just as the last horse of a caravan got across. On this trip, the horses passed over the road at least half a dozen times, but Chand showed me the "Zankskar Bay", a place where the West Tibetans and Indian hill people used to meet to trade, as they do nowadays some 75 miles farther up the Bhaga River. On the way we met a young lama whom I had counted on to be my ~~##~~ helper in plant collecting, driving horses to Kulu. To my amazed questioning, he replied simply that his father couldn't give permission to go along (the boy is past 20) — he had to stay home and decorate the monastery walls in Kyelang. Gjaltsën was seized with such a violent desire to get home that he would have bolted if he could have carried his things, and taking pity on him, (he is a nice child of 21) I agreed to let him off and replace him in Kyelang. Now to have no servant in prospect was too much. I inquired from R.C. what one does in the country when an agreement is broken and learned that one goes to Court and collects damages. The threat of obtaining justice by this method cleared away all objections of the father's prohibition and the lama is cheerfully planning the trip. Had to give a written agreement

7) tho not to employ him in anything that involved a gun, tobacco or bird skinning. We will, however, eat ~~any bird~~, except ducks and pigeons grouse (not ducks, snipes or pigeons) and any ~~kind~~ kind of domestic animal, except horses, donkeys, yaks or beef. (K) Goleng Lama who helped me last year in buying pictures Tibetan paintings and the Siwa abbot called today, [the latter completely drunk as usual.]

June 11. At 9:30 we left for Gundla (alt. 10300) and got there at 2. The climate in this area is more tempered. There is even a good growth of pine and birch on the slope facing the village, and musk deer are said to live in the birch forest. Patches of purple iris, sometimes in a solid bed 100 ft. square, are met all along the road from Kaksar and the common cowslip or marsh marigold (Caltha palustris) that is the glory of our American meadows in Spring, lines the banks of the meandering rivulets, ~~and from afar you no~~ that from afar look like fissures in the earth with gold inside turning out. These flowers in place grow 4 ft. high. I found some 10 ~~new~~ plant species that I did not get last year, mostly teeny things that shortly will dry up. In the Thakur's garden in Gundla the apples were in full bloom. One of the trees was covered with huge deep purple rose flowers, very fragrant and most attractive. I shall try to introduce the species in Kulu and America. The fruit I saw last year

8) small red apples (mang kusher) said to be of nice flavor. Such apples as grow here, (there are a few other trees in Kyelang and more in the Lower valley) are all bad & of superior flavor. Last year pears and apples from the upper Lahoul valley, at slightly less elevation were of ~~superior~~ excellent quality, equal to the best American fruit. The natives, however, have little interest in fruit and rarely plant the trees or when planted care but little to protect them from the cattle that gnaw the bark. The horsemen bot a sick sheep for 1½ Rs. and after performing halal, skinned it and took it along on the march. A ~~sick~~ invalid goat they put alive on one of the horses for future use. Cases of foot rot are frequent in the flocks. Sometimes other epidemics seriously decimate the goat and sheep herds and even affect the cattle. A few years ago most of the cows died off and the horses had to pull the plow. The results were bad. The fields are small and stony and the quick movements of the horse don't fit him for agricultural pursuits under such conditions. In Kulu a horse does no work except to haul goods on the highway, but in Lahoul wood & manure are hauled on horses. Hay or crops from the fields are not thus transported. In Kulu humans, chiefly women, carry the wood, crops, fodder or manure.

June 12. We left Gundla at 9:15 and got to Kyelang (alt. 10300) at 2:30. Paljor, last summer's coolie, met me a mile before Kyelang with a bouquet of dandelions and in the village I saw the main citizens, the native schoolteacher, the doctor, the Wazir and the white missionary

9) Some interesting people had arrived from Danupa, a district of Ladak en route for Lahoul via a pass which it is this year particularly advantageous for both Hindus and Buddhists to visit. These people are noted for their soul welfare
jewelry and wanted to sell me dried turnips. They are hard to get meat and some say they don't even use milk from cattle or touch the calves until there are a fortnight old. The weather is decidedly cool and the season backward even here. The barley, potatoes and wheat are just out of the ground so they have been hoed once, and the fields are being prepared for buckwheat. In all the fields can be seen lines of stones that would intrigue an ethnologist but they have no other significance than that they mark the irrigation channels and are used as needed to dig the mud out of them. The big Eremus Himalayica that from below Gunda to Kyelang grows in masses often several acres in extent is in full bloom and the effect of the masses of tall creamy spikes is stunning. Dr Gyaltsen's mother sent me some apples, very well preserved, of nice color and excellent flavor. His brother brot 2 sets of Chikor eggs, nicely marked, 12 in each set. (The Chikor is a grouse about as large as the American Ruffed Grouse.) The eggs of this bird are gathered in quantities and are even salted down for summer's use. Chikor have been numerous all along the way. Likewise Snow and Blue Pigeons. The large Snow Moure has gone back to the peaks and none were seen near the road. The ibex here also gone back to the snow line. Sheep are going forward today to cross the Bara Latsa Pass.

10) There is much snow and they concerning it holds that he cannot cross.—Rup Chand's "Choti ma" they say sent me milk and invited me to tea. I knew that R.C.'s mother wasn't her, but the "little mother" proved to be his maternal aunts. Similarly a boy may call his real father his "little father", since technically his father must be the eldest brother of the family.

June 13. I spent the day about town, visiting the chief citizens. The sojourn here was not for that purpose, but the men wanted a day at home and the horses were none too fresh for the hard work ahead. The Wazir, a clever lad of 22, gave me tea and the physician, a gifted Punjabi invited me to dinner. As usual in this country the wives (one) of the physician has become very fond of his adopted country and his brilliant and devoted labors are much appreciated by the populace, who ordinarily take medical aid quite for granted. The Wazir regretted to hear about the childish pranks of his subjects. He explained that they had seen the tactics employed by their more sophisticated brethren across the Pass (many Lahulis come into the Kangra Valley in winter to work and it is not uncommon for their employers to disappear after they have finished his work, leaving them nothing for their labor) and observing the success of such methods, many tried on opportunity to emulate them. So exceedingly simple the Lahulis are for the most part, that their attempts are transparent, often amusing. Theft is almost unknown and lying even isn't common. Most of the court cases are the outcome of

11) drunken brawls. The Naga is very fond of English food
especially tea cakes and apologized for the saddle of mutton
he served by the scarcity of chickens or eggs. Ordinarily fowls
can be had but this year the birds are so canny to lay.
I sent him a couple of dozen hen's eggs that the well intentioned
family at home had incorporated in the baggage which so
far had served no other use than to make the caravan
uneasy. The missionary's wife is fond of flowers and the
specimens in her garden would delight any flower lover. I
never saw such immense pansies or such tall lupines
in my life and the coloring of all blooms was so intense.
A lilac bush was in full bloom and the roses near
in bud. Tulips, iris and peonies would make a spectacular
exhibition under such climatic conditions. — In spite of
the hard lives they lead and the excessively plain food
they eat many of the Lahulis I was told, live to be 80
and some to 100. The climate is very healthful and
almost no diseases are known. Tuberculosis and
cancer the scourge of the Occident, are totally unknown.
June 14. We left for Jispa (alt. 10500) with an overcast sky
which turned into a drizzle and kept on so for about 2 hrs.
At Jispa there is a broad plain with a good growth of cedar
trees and at this season good grazing for our horses.
As yet we have met pilgrims only from Bankar
across Shingo La, but they say others are on the
way across Bara Lacha La. Some say there is no
grazing on our road above here, which others contradict
but see again that unless the sky remains perfectly

If clear the ~~horses feet~~ snow will be too soft and the horses will not be able to cross the Pass. The Nazir has given orders that Coolies are to accompany us to lighten the horse loads, if necessary, but if they ~~snow is soft~~ sink at all they will be able to ~~walk~~ endure the journey even empty of load. — I invited R.C.'s mother, a tidy quiet woman, (this when I expressed my appreciation of her son) replied as prettily as any woman of superior breeding. She has of course never been a school and has hardly been outside her little valley. The conversation with her son during the 2 days he was at home centered chiefly on the subject of his welfare: what sort of food he had; were his clothes warm enough; he should be careful etc., from which I concluded that Mothers are much alike whether in America or Lahul. The little woman has a tapestry thanka representing the Blue Tara, done principally in tones of yellow, blue and apricot. It is of so fine weave and of such excellent drawing that except on close inspection it appears the work of the painter. It is apparently of great age but well preserved. The lunch served and prepared by an ordinary coolie would have made a first class chef envious. There was a meat stew, prepared with a species of truffle (mokhshe) that grows on the roots of a species of parsnip (bakhyot). On departure R.C.'s mother gave him a small silk bag with a knot in, that had been sent her by the Kushog of Yemis and cautioned him to beware of

13) the devil, especially nights. She watched him from the roof till he was out of sight. He is all she has left of a family of 3 sons.

June 15. The weather cleared but huge banks of cumulus cloud filled the sky during the afternoon. I gathered some 30 species of plants. ~~On account of the rainy~~

16. The valley is warm and plant growth is advanced. Wild apple trees were in full bloom. On the north of a little stream that enters the Bhaga Revans of small fish a species of cyprinid (shiners) were gathering at that probably by the warmth of the water. They are said later to collect in still larger schools and are then caught by the natives. I tried to find in the village ancient iron arrows which I heard were occasionally picked up here, but tho the natives knew the implements and described their forms, no arrows were forthcoming. Around an exceptionally large cedar (juniperus), about 3 ft. in diameter, they have built a house with one opening; the walls are about 12 feet × 12 feet, ~~9 or 7 ft high~~. The door is about 7 feet. high. Behind is a small box-like construction 4 feet × 4 feet, open to the road, in which is placed a smooth boulder about 2 feet in d.a. On the boulder has been incised the image of a male demon deity ~~[illegible]~~ holding in one hand a bellows and in the other a hammer (~~[illegible]~~ or axe). On the tree are hung numerous ~~[illegible]~~ rags, these mostly in festoons, and in front of the whole on the road edge is a pile of stone and cedar brush; rags, stones & bread the offering of

14) pious ~~pilgrim~~ travelers. The figure is the portrait of Dingtingtie (Lahuli) or Dorje Likpa (Tibetan), a blacksmith who is flayed thrice (Tibet) as a mischief maker. If someone wishes to curse an enemy, he comes to the shrine, burns butter and strikes the tree with an axe. It is rumored that from such a wound blood issues from the tree. To invoke Dingtingtie is however a dangerous practice since he is apt also to do harm to the curser and furthermore, the populace also metes punishment to those who dare disturb the shrine. When a fierce wind blows down the valley, the people suspect that someone has thus invoked ~~the demon~~ him and the tree is inspected for wounds. On a certain day in June, the nearby villagers bring gifts of butter, beer, etc to the shrine. Many travelers dismount when passing the shrine, a mark of respect that is accorded to Sahibs if the populace isn't hostile. A fire had recently been lit inside the house and cedar incense had been burned.

June 16. We left for Patseo (alt. 12400). The valley above Jispa grows narrower and narrower till Patseo where there is a broad plain extending on both sides of the river. About 3 miles above Jispa ~~two~~ 2 other streams from opposite directions join the Bhaga and with Sundo and Darts-e two villages each. One village lies in the nulla that comes from the Kokser side and 2 in the nulla toward Shingo La, the pass that opens on Zanskar. Just in front of Darts-e there is a huge pile, covering several acres, of basic metamorphic rock fragments which the natives call Zimuk. There is a legend that on the site there was once a rich meadow with a village. One day the people were having a fence

15) (The Tibetans are fond of picnics), a strange Lama appeared. No one paid any attention to the Stranger except one old lady, who treated him with proper respect and offered food. Lama accepted her hospitality and retired. Shortly after a piece of the mountain fell, burying the plain and all the people except the hospitable old lady. She was carried across the river by the wind. A devil Dergott, against whom no powers on earth can prevail with teeth from ear to ear was born out of the bomb & the perished and now has quarters in the rockpile. Certain people have seen him and no Lahuli will spend the night anywhere near his domicile. It seems that there was probably a meadow which was covered by a landslide, except that between the front of the mountain and the rock fragments there is a narrow treeless pass of rock. — There are a few scattered bushes on the right going up to 13000 ft. nearly to Patseo, but above that no tree growth. For the first time since Rothang Pass the weather has been perfectly clear. Herds of sheep headed for Rupshu have arrived nearly to Patseo. We have bribed along a man from Rerig to show us the best route across Bara Latsa La. No coolies are available because all the able bodied men have gone to Kulu for supplies. I bought a beautifully wrought silver brooch from a Rampuri woman who has been spending the winter at Darcha. — A horse today developed a swelling on his back and the horsemen seared the skin around the swelling, which was a good foot across. This is the usual method in this country of treating wounds on animals.

16) There is to the left above Datee a ~~route~~ peak which is the seat of the god Kundru. To the route a kid, butter, beer, etc are offered up in front of the hills by certain villages as far as 10 miles down the valley. Worship is performed also in the homes of believers at other seasons.

June 17. Patseo is a fair ground to which traders come from Rupshu, Tibet, Yankeka, Ladak, Kulu, Chamba, Lahul, Rampur. They begin to arrive toward the end of June and some stay till late September. Each district has its own allotted ground for camping. Not much money is exchanged, trade being effected chiefly by barter. An unlimited supply of Chang is brewed, quality considered first class on account of the coolness of the air in which it is kept stored, and the days are passed merrily. Swarms of sheep and goats, on which the greater part of the merchandise arrives, throng the hills, ds and from the peak overlooking the site rags flutter. The place gets its name, I am told, from the fact that a stone bridge spans the river (Patharsco Hindi, Dozam Tibet.) Above Jispa the road has been new to me and to 2 of my Lahulis. Only one of the men has been above Patseo, the others have spent all their lives in Lahul. My Kulu grass shoes gave out here after having served some 80 miles of marching. The morning again dawned perfectly clear and continued so thru the day. The pensive rustle of the snow grouse began at daylight and kept up till about 9.30 and flocks of snow pigeons gathered on the plains to pick up the grain spilled by the yaks

trade. The ibex are said also to frequent the ground for salt thus crowds left behind. Our guide from Dome is milk below and left on foot and says he may 97
Cross the Pass if the weather remains clear. We shall have now
to go on foot for the next 2 camps so the men are getting
food for tonight and then we will carry full for the
Camp beyond the Pass. Last night the men gathered some
2 bushels of sheep manure in a pile and made a fire that
lasted 24 hrs. They prepared their unleavened bread & then
after drying it a little in the sun, buried it in the
glowing manure for baking. The odor of the fire is
very pleasant and the bread appears none the worse
for the unusual treatment. When ready to start the
guide said it was too late today. We will quit in the
morn beyond Bungzing bar and beyond G. we have to
go if we are to Cross the Pass in the next day. I
suspect The horsemen ~~influenced him in his opinion~~
~~He~~ are delighted with the delay. They are afraid of snow
and say we must wait for the sheep to go ahead,
etc.

June 18. This morning at 2 the alarm went off
and the men got out of bed. At 4 they had not yet gone
for the horses but by dint of some brisk hustling
from R. C. they were ready to start at 5. I don't know
whether their deliberate movements were due to fear of
the Passes of the dark, the latter is a fearful thing for
most hill people, and I have found before now that
nothing can induce most men to travel alone at
night. We are a company of 11 Shs and under such

16) conditions few would be afraid. The grass which was very short, insufficient for the horses to graze on when we arrived on Oct 15th has become good pasture. On a meadow finding ground some 2 mile above there was even luxuriant fodder for the season. At Zingzingbar, about 6 miles up the River there is a house for servants (serai) but no rest house. A little father on we struck the snow. On a few places we had to cut a path for the horses but for the most part the going was on the snow (Albert At 11:30 after a gentle ascent all the way we arrived at the top of the Pass (16,200) and camped at Chorten Rangjum, a small level area, most free of snow. It is so named because a Chorten-like formation can be seen on the side of the 18000 odd foot peak in front of it. A colony of marmots seems to be occupying the underground portions but the tenants did not put in appearance. The horses for the first time today sank deep in the last 20 ft. stretch of the journey. Five road building Coolies are crossing the Pass with us and will help us today in Constructing a path along ~~the~~ the bad places. A few travelers are said to have crossed this season but without animals. We have lost food for our horses from Jöpa, for there is no grazing here. Vegetation springs up as soon as the snow melts; above Zingzingbar (14000 ft) I found a little mustard an inch high (Braba tibetica?) with well-formed fruits and a little purple locoweed (Astragalus) was also in bloom tho the snow had not retreated from more than a 10 rod square. The Snowgouse seem to find enough to eat on the occasional bare spots on the lofty peaks that rim the valley. The day has been brilliant, an ultramarine sky and the sun delightfully

19 warm. Streams are gushing out from every snowbank and horned lake and snow buntings are twittering on the barrens. A Bearded Lammergeir soars overhead and 3 Yellowbilled Choughs seem to have business on the lake or beyond. After 2 hrs. rest we all set out to explore the ground to be crossed tomorrow. The ~~road~~ ground is really bad for the reason that by day the ~~heat~~ heat is so intense that the snow has become granular and the particles are so ray that it might not much solidify at even. 13 men went on about 3 miles into the Yunnan River bed, one man walking behind the other, each sinking (halfway to the knees at every other or 3d step) ~~or at times~~ and for variation to the waist if some stone chanced to be beneath to absorb the heat and accelerate the melting from below. There is only one bad place, if one doesn't take into account the sinking, and that is along a little lake near the head water of the Bhaga. The banks of snow are very steep and ~~3~~ the falling water runs above the level of the horses' backs as they go with the lake 100 feet below. The lake ~~is~~ its dazzling setting is of exquisite beauty (the pinnacles of ice have broken up into irregular) plaques of alabaster or turquoise that ~~float crowd its surface but float or~~ in the sea-green water. ~~One of t~~ All around nothing is visible but the snow plain that forms the Passcrest and the cyclopian ranges that are likewise wrapped in a shroud of white. One of the Mussalmans remained behind in the silence and stuffing his ears with his fingers burst into a brief musical, pleasant chant such as I had heard in the twilight from the mosque towers on the Plains of India

95) In camp we found 2 more Lahulis who had come for defaulters loads & Kinlung & ~~[illegible]~~ returned the latter. They all had a load of provisions and seemed not much fatigued for their march. Some 7 miles up hill. We are now 19 men ~~collected~~ assembled. All are very convivial together and pass around their pipes and cigarettes like intimate friends. We have however always intervals between the pipe stem or cigarette but as the practice is not so clumsy as it sounds. The all guide the fast beasts as surely as any of us and know the Pass well. They say it will be 3 days if it is any condition. ~~Unlike Pathans with the~~ The fearful winds that make Rotang so hazardous do not blow here and only the snow ~~is~~ is to battle. When caught with horses in heavy snowfall, yaks are sent from the village ahead and their steady plodding opens a path.

June 19. The night was perfect, clear with a new moon. On all sides peaks of 18000 ft. Shut off the view, all massed in fleecy, starched white robes blotched with huge blue shadows. When ~~in~~ Spring the valley will be. The valley that spans the crest of the Pass stretches to the horizon in the same unbroken white and not a breath of sound disturbs the stark majesty except that now and then there the night stray boulders loosened by the frost crash down ~~into the valley from the~~ with fearful roar. Baza Latsa is a very easy pass when there is no snow. For 3 miles or so it is level at the crest, furrowed by several valleys in which 3 rivers rise

21. the Bhaga Chandra & the Yuzenani. The first two flow on opposite sides of the mt. range for some 40 miles and then join to meet the mighty Indus. The little lake Tsokkentse of the natives, that is most delightful and convenient a thing dries up in summer—the camp was again moved at 2. But in spite of a biting wind the men sat calmly on the sacks (there was no fuel for warmth, but enough to make some tea) and only by means of much harangueing on my part did we get off at daylight. We might had been intensely cold but the horses sank deep if they strayed outside the trail we made yesterday. The cart we passed without other mishap than constant sinking, loading and unloading but ~~it was noon~~ the sun had so far risen by the time we entered the Yunnan River bed that the snowbanks were impassable and we had to unload before noon and camp 4 miles above our destination. There was only a little grass for the horses, ~~and~~ but no forage of any sort, ~~but~~ we had a bag patched to rights. The men weren't any better off with only a few shavings to make a fire. One of the lads ~~had~~ suffered all night from headache and high pulse but was all right ~~today~~ after the march today.

The chocolate bars I distributed to ease the men's starvation diet were almost uniformly despised and all came into the hands of the one man who likes them.

June 20. The Pass would have been much easier a week ago, or even earlier; as soon as danger of snow slides is over. Every day makes it worse and it will be 3 weeks before it can be crossed without difficulty

22) The sheep will be on their way from Tibet to and from Tibet (trading) and to Rupshu (grazing) long before then. This morning we got off at 3. Having nothing to eat and nothing to burn, there was nothing to do but march. Insert 22a.
Fortunately the night was again fair and the path ~~yesterday~~ prepared. had hardened. We crossed the last snow just in front of Kinlung an steep almost perpendicular wall the most strenuous by the hill, and till it was that we were no later. By 8 o'clock the sun had already softened the crust, at last weak, and had we been delayed about half the hour we would have perished. As it was one horse gave out a mile above Kinlung and ~~an~~ ~~was~~ soon hour was dead. We had to cross the Yarman a mile or 2 below the resthouse. The bridge had been pulled up to save it from destruction for the snow and the stream had already become so turbulent that fording was difficult. I slipped while wading and got a little ducking, but nothing worse. Two Ladakis with 5 donkeys and a horse were camped at the fording place. They had bags of dried apricots and were en route for Trilokinath. The apricots (Chulis or Kumanis) are to pay the expenses of travel. The market will be flooded this year. Many Ladakis will be coming on pilgrimage and they haven't anything else to sell. The country at Kinlung ~~has~~ over 15000 ft. alt. is a broad valley, broad for this country with wide plains on its floor. Huge rubble piles line the mountain sides and in some shales I found sandstone inclusions 6" to a foot in diameter

The horses annoyed one another considerably by eating each others manes and tails, these appendages in some cases having been seriously curtailed. One horse had already lost a ~~large part~~ great part of his tail while in Kulu. At night the native had cut out a huge ~~part~~ hank of hair to use in cleaning his saline jewelry. The animals ate up all the grass they could find and a rope that had imprudently been left exposed. Despite the fact that we have marched for 2 days on snow with soaked feet, with food at a minimum and no shelter at night no one has so much as sneezed.

28) The marmot has become very common here and their colorful alarm (whistle is sounded at any provocation. We captured two with great difficulty (they are seldom to be seen except at the edge of their burrows into which they tumble at once unless killed outright) The Moslems was scandalized at our skinning the animals, because they consider them wild dogs. ~~A case of fetishism.~~ The resemblance between the two kinds of animals is not much close than that both have fur. The Ladakis ~~suddenly decided to~~ decided to cross the Pass too and in vain we attempted to dissuade them. ~~It is a relief to~~ To our amazement they made for the river, now ~~much swollen~~ having grown enormously in volume since we came ~~left~~ in the morning and with difficulty effected a crossing. They did not however, make for the Pass but hid in some of the side ravines. There is no other explanation of their strange behavior than that they did not like our looks. We came a bearded barefooted person, probably not recognizable as a sahib, with 5 guns, who inquired too minutely into their doings: what was in the sacks, where were they going but most of all did they have no silver ornaments! (Here I have Rs 350 to spend on native jewelry and I haven't seen a piece). Then everyone was so opposed to their going forward today. All this could have but one meaning: We intended to plunder them. They in turn told us not to stay here: a little further down the valley were large

gd) numbers of pilgrims (from whom we could have got much loot presumably), all of which meant do, as we learned from a lama and 2 more who arrived today. It is a relief to be able to cook again after having subsisted 2 days on tea and dry bread with chocolate to flavor the bread. Fuel is a little scarce at this season. The dung is wet but we managed a good fire from some dead scrubby tamarisk growing in the riverbed and a little sheep manure. There is plenty of plant growth but none of it fit to use. Along the streams there is a bright green lawn of buttercups and tiny white eyed purple primulas make exquisite patches of it in the grass. A red Kind of Pigeon has put in appearance here and we saw a red fox. The Engelenders who will have to send a man back home for provisions in a week have taken a letter to the family informing them of our Crossing the Pass.

June 21. We left Kinling at 9 and arrived at Serchu at 12:30 on the Saturday between Lahul and Rupshu. The road (14000) is on an old glacial plain but descends now and then into the gorges down which flows the drainage from the enclosing mountains. The Yunnan River keeps mostly to the left wall and has cut for itself a bed 1/4 mi. wide with cliff walls 50 ft or more in height. The aspect of the country below Baralatsa is completely changed. It is a new world with new geological formations, new plants and new animals. Instead of the

55) sombre rugged snow capped peaks and narrow terraced valleys of the opposite slope of the Great Himalayan Range. A broad level plain, a mile wide on the average is bounded abruptly by old worn down mountains, the chastely colored in tones of purple, pinkbrown and dove gray, with white confined to patches of snow left in the ravines. Up the side sometimes halfway, is designed in black a patterned border of the gilded flowered drama (Caragana spk.) a thorny shrub that forms dense low clumps and leaves the traveler a feet. Just below Kailung and extending for about 2 miles are scattered on the plain conical mounds of glacial rubble 15 to 60 ft. high. These are called Gaphan's grain pits. Gaphan came from Tibet and camped at this spot. It seems he had immense stores of grain with him, which the people back home decided to recover. When they came, however, the grain was turned into earth and Gaphan went to Lahul taking with him a few seeds of each kind, concealed in his headgear. Buckwheat was thus introduced into Lahul. Gaphan now resides on the most magnificent peaks in Lahul and is an object of worship. There is a serai at Sechu built on a green meadow with nice streams full now of fish from the river. The horses for the first time have had first class grazing. A river from Baralacha pass joins the Yunam and about a mile below they unite the Tsarup. The lower plain is entirely concealed from the traveler by the glacial

26) plain above. We ascend a deep gorge which from
a distance appears like a tranquil lake. The dashing torrent which
fills it resembling the rapid riffles. The plant life is small
now — new species, rhubarb, primrose, ragwort, buttercup, 102
plantain, pedicularis, and there are birds that we
have not seen before. Here we find old friends: the Horse
Sparrow that one finds in the temperate temisphere and the
Mongolian Plover that we last saw in winter on the plains
near Delhi. Flocks of Tibetan Sand Grouse feed on the
new grass among the gravel of the river banks. Their call
sounds like the honk of a goose and can be heard long
before the birds arrive. A party of Ladaki pilgrims
was met today and a herd of sheep has arrived from
Leh and Kangra. — Opposite the Serai on the face of the
cliff & perhaps 50 ft from the top is a hole, said to be
the mouth of a cave in which is concealed a golden
vessel. It is called Ser Bum Chen. The place can not
be reached only by a rope from above and that not
daily. It is said on the plateau above is a poisonous
lake, and many animals die from drinking its
water.

June 22. We rested here for the day so that the horses
could recover from the strenuous work and starvation
of the Pass. The grass is short, but extremely nutritious,
they say. The animals swam the river to where the
grass was best. I stayed home and gathered plants
and made bird skins. R.C. went hunting in the
Zulla Forest Bankshia but did not see a thing. Even
small birds are scarce except on the green plains and

27) 3 the pakt. On the way back they met the shepherd with
flocks of sheep (we had seen them up the river yesterday)
who told them they should have gone into the opposite nulla. 103
In that place they found he would find game in herds
and of as many varieties as we wanted. They had crossed
the pass just behind us but had come from Dying Jindhan
in a day. They had 5 horses and had great difficulty with
them. ~~R C~~. When our men came home it was late
and the river was much swollen. With an alpenstock
R C. started across with his servant, arm in arm.
When in the swiftest and deepest part, Jashi became
dizzy and was seized with a violent laughing fit, so
that he was with great risk hauled back to shore.
Meanwhile horses were being sent from Camp but
without waiting for them, Donpa, the Lama dashed into the water
and the mail was towed across. I roared at
them in vain from the opposite bank. None of the
men can swim and the ~~water is~~ river is a
torrent over slippery rocks so that a man can easily be ~~swept off his feet~~ swept from
his feet as I had found out the in the same
stream above. I threatened them with all sorts
of consequences if they repeat so idiotic a performance
but they will do the same thing again, without
thinking a thing about it. The Mussalmans went
fishing, using a blanket from their bed for a net
and got a good meal. I saw a fish in the
river that would weigh 2 lbs. but theirs were much
smaller. The fish are nice looking and resemble trout, from their
habit possibly of living in swift water, but they are only shiners

28) Some Ladaks made camp about us. They arrived too late to cross a little stream that separated them from the good pasture, but we got across to ask them about the ~~road~~ Pass up that we shall have to cross tomorrow.

June 23. We had heard that the Pass could only be crossed around 9 in the morning. Ordinarily the Streams are lowest before dawn but this one they say is so far away that its low water stage is later. We got up at 4 but went on the road till 8:30. They eat only tea and unleavened bread (rote) or tea and roasted barley flour but the time taken to cook it you would suspect ~~an~~ a roast or a banquet in preparation. My men, for example, never begin the preparation of their own food until mine is served. Just before the Pass we met the first Tibetan sheep coming to Lahul to trade. These are owned by Lahulis but are kept in Tibet for the winter. In Lahul there is so much snow in winter that animals ~~can't graze~~ have to be fed, but in Tibet they can graze. They come back as soon as the Pass opens and are sheared in Lahul. The wool is the herders wages and amounts to one or two rupees a head. As a rule the animals go light to Lahul but return to Tibet with grain, rice, barley, etc. This is quickly disposed of and they return in full each with a bale of wool. The wool is sold chiefly in the Kangra valley and the sheep go back to Tibet carrying the herders winter supplies. In spite of the strenuous athletic lives they lead the sheep do not become unduly ~~muscular~~ tough.

29) In fact Tibetan and Bankshal sheep are considered the best for eating. Tahel sheep (a crossbred goat) 105
but anything that originate beyond the Rotang Pass is ruled out. Even offending a Kannar in Tahel doesn't raise the rating, unless said animal was a youngster of the year of arrival. — The Bamp we crossed without much difficulty and soon reached the pillars that mark the Kashmir boundary. The boundary used to run above Sechu, I was told, (a pillar still stands. ~~There is no obvious reason for moving it one way or the other, since everything is a~~. The valley now closes and the mountain walls, though still rounded and covered with debris often show strata. These are now horizontal, now vertical, now dipped away from, now toward the river. The path is stony, sometimes all stone. The river has cut a gorge into the old plain ~~to a depth~~ some 60 ft deep and the face shows beautifully the strata of gravel and sand (only a few boulders) that were washed down from the ~~hill~~ ice caps long since melted. Several species of small birds not seen previously were met today, but all were so shy that they were collected with difficulty, even with a 12 gauge shot gun. Padogba, our halting place, is only a place where the horses can feed, but the pasture is on the other side of the river. When we arrived around one o'clock the current was violent and the horses with difficulty were made to swim across.

June 24. This morning the water had not subsided (abated) and my two men had to return to Gyantse to get the animals back. The dog stays down by Dekdam and I go for a bath, afterwards on the other side of the river, but wading (?) & I induce the horses to cross into the water. At one PM we start. We move along the River to a camp ground called Gian path. The ascends steeply for about 2 miles. After this for some miles the road runs near the top of a little river valley, fairly to the level, until it descends rather abruptly some 800 ft to the bed of the stream. The pass is properly called Ta Chhu ling (pass of rats and mice) We crossed some 20 streams of clear ice water and food is at your no matter which way the road turns. The wind however, was neither strong nor cold. Bumblebees were out and their hum was fast, at work on the flowers of the drama that grows on all the hillsides. On the valleys opposite slope can be plainly seen another road said to have been constructed some 80 yrs. ago by a Dalai Lama enforced with forced labor. The site is said to be so hopeless that the route has been abandoned for the one, which is dead easy and has cost a minimum of labor. They did some hard work on the old road, often cutting it into the face of cliffs. It is still apparently in good condition. We arrived at 7:00 at Sumda, at the foot of the pass proper and found a little lawn for the animals to graze on. There is a construction of walls 5-6 ft high that gives shelter from the wind. A supply of drama left

Lahuli

31) by other travelers gave us quickly a nice fire.
June 25. At 5:30 we left Sumdo (There are many places called Sumdo. The word literally means "3 directions" and is applied to places where 3 rivers meet.) A little snow had fallen during the night. A heavy snow would have blocked passage and stayed the horses, that caravans sometimes meet at this place in spring and fall. The ascent to the Paso is long and the descent very gentle. There were several patches of snow to cross up to the crest and for some 2 miles below but all were hard, so early in the day, and gave no trouble. Beyond the Paso, we follow the valley of a little stream. It is narrow at the beginning but becomes still narrower until some 8 miles down it turns to the left. The ascent, particularly in the upper half the path is so stony that not a plant can be seen for half a mile at a time. Here and there along the stream there is a patch of sedge of a few sq. yds. & further down scattered plants of rhubarb & grasses. The slopes are covered with slipping sharp edged gravel and the peaks are towered and turreted. Where the stream bends to the left it loses itself at the foot of a marble peak in a mass of boulders and reappears in a delightful little meadow below. The view at this point is splendid. The peak is somewhat sugar loaf shaped and rises perpendicularly from the right some 800 ft. Its surface is perfectly smooth except that a huge slab has broken off so that the whole looks like a huge loaf cake with

32) ~~—~~ a piece cut out. The mountain is called Gonajil and is worshipped by all the Baltis who travel this road. From the base of Gonajil you look down into the little cliff bound meadow of the spring stream running thru and beyond is a city of steeples and towers carved into the face of the vast cliff (or) the rugged chain of peaks ~~the dense pine forest~~ runs straight ahead and a little beyond is buried in snow. The river, bounded now by high steep gravel hills on the right and by irregular terraced fantastic formations on the left. The stream has cut a gorge some 100 ft deep into the old plain floor & the steep face of the cliff is carved into fantastic cities; row (set off clearly by the fine gravel of the background) clusters of ~~fine-cut~~ minarets ~~and~~ form a mosque of superior architectural beauty; now the fine ~~and~~ broad ~~structure~~ ~~dilapidating~~ and you see the clusters of ~~houses~~ ~~and Indian pueblos of fantastic~~ ~~shape of mud~~ the buildings take on ~~fantastic~~ shapes with tilted domes and ~~square~~ ~~walls~~ ~~of~~ ~~that~~ awry walls that must surely house the goblins that the natives say infest the land. — Today we met a lone native going to Sakul, who inquired whether any Baltis were ahead. The Baltis usually go in a group and plunder any lone traveler they meet, but this isn't a route much followed by them. There were also 2 small flocks of sheep and at the foot 3 Dhotars were fording their sheep and loads across with the help of a horse. The perennial wading to and fro must have been too ~~tiresome~~ tedious

33) the poor fellow, who made a desperate effort to join our Caravan. The Tibetans began an excited conversation at our approach and then greeted Ruf Chand by name, tho they had never set eye on him before. His father had been a powerful and well-known figure in West Tibet and the family resemblance was sufficient. The Tibetans had lost their horses today and wanted us to keep an eye open for it. After the Dogs we at once crossed another stream, now small, but with a stupendous cliff-bound bed, running in the direction of Do Moraw. The fairy buildings of the stream above ~~Hrekh~~ were here continued in beautiful series of castles and cathedrals that stretched as far as the eye could reach. At once the stiff ascent of Pang La was begun and we came to the ~~first~~ Lower plain of Kiangchu, encircled by rolling hills. The mountains here appear no longer to be chains but ~~clum~~ masses scattered at random, chiefly smooth but sharp-crested. The plain is 2 or 3 miles wide, strewn with clumps of dama, and with what after the day's march seems a plentiful intermixture of other plants: Sedum, Potentilla, Primrose, Sedge, clumpy Sandwort, etc. To the right against the mountain side is a strip ½ to a mile wide that appears a light yellow from the dead leaves mixed with the green of a ~~stiff sharp~~ sedge that grows plentifully there. The soil is here a hard gravelly compound so the dama grows flat on the ground and not in mounds as in places hitherto, where the shifting sand accumulates among its branches. Here the Kyang, the wild ass of the

24) Tibetan plateau is first seen. Some half dozen
per scattered herd and their apparently feeding on
the hard snowdrift like leaves of the sedge that
forms the big tufted meadows of the upper land R.C.
dropped one dk. Hoopoe. The Kyang is larger than a mule
and very beautifully marked. The Bakulis refused to skin
it, saying that dead domestic animals they could
touch & the Mussalmans also refused saying they would have
to bathe if they touched it. Did nothing which the
latter interpreted as danger (no bakshish would be forth-
coming from an offended Sahib). They held a council
and sent the man who had swum the rivers to fetch the
horses, he being presumably least opposed to a bath.
Everyone The bath was afterwards heroically per-
formed) tho Everyone was half frozen from the steady wind
and there was no shelter except from blankets
held in place by friends. We marched some 20
miles today, but no one seems the worse, tho the
altitude has ranged from 15 300 to 16 600 ft. and most
of us have never been so high before. The
June 26. Two of the horses wandered off and couldn't
be found till late. The wind continued all morning and
the Lahuls were miserable. The Kulusse who never met
such climate at home were not at all uncomfortable.
Nothing came to eat the dead Kyang. Two ravens
perched the morsel from our camp to the more
abundant feast of the carcass and tho a wolf
was seen on the plain, he also scorned the
such fare. The wolf got our scent at great distance

35) and fled. Everything is shy on the plains, this people
no one hunts here. The marmots (phea) run for their
holes long before we are within gunshot and even the
small birds are so shy that they can not be captured
except at long range. The wolf in his flight ~~stalked~~
drove four large animals from the plain, which we stalked
and found to be young nyen (Ovis ammon). The
marmots seem to live in pairs in their holes. Today
I saw a pair sitting ↑ the attitude of embracing. They sat
on their haunches thus ↓ moaning and ~~moaned~~ with their
arms on each others shoulders for fully a minute.
I found 2 horned lark's nest on the bare plain, both
with 2 eggs. The nests were protected on 2 sides by stubble
and on the other 2 by flat roundish pieces of mica schist
about 3/4" in diameter. These stones were clearly transported
by the bird as no other stones of the sort were in the
vicinity. They were not piled but flagstoned. This lark,
by the way, is the same bird that is so common
in northern America. Our stage today was to be almost
as long as yesterday. ~~And since we~~ We were going
to leave the Lob road today and camp at Bazkal,
a large salt lake to the left. But no one knew where
to turn off to reach the lake and our start had been
late so we decided to halt at the next water. A Tibetan
on the way to Lahul with sheep directed us to such a place
and offered to show us the road to the big lake in the
morning. We camped in the mouth of a nulla and
were shortly visited by a family of nomads encamped

36) above. They have black yak hair tents and swarms of sheep and yaks and a few horses. Most of the Rupshu ~~June 27~~ nomads are camped at Rogchin, some 8 miles above. These people have only lately come from there, fearful of the yak plague that is rampant in the area. There is after all no reason why they should remain in any particular place as long as there is water and forage for the cattle and the site of camping grounds are in fact determined by the caprice of the native. In winter these people go to Kaggbung with their flocks.

June 27. The sunrise this morning was magnificent. ~~Long~~ The clouds in ragged masses banked the horizon above distant snow mountains. ~~A~~ ~~broad tattered streamer~~ ~~floated~~ ~~long loose clouds~~. As day broke the clouds were ~~deep blue black~~ with the clear sky showing between. ~~As the sun rose~~ With the sun's approach bright colorless light ~~transfigured~~ ~~illuminated~~ the snow edge and the ~~and~~ topmost ~~Range~~ ~~of~~ light ~~of a~~ A broad tattered streamer that loosed itself from the banks below floated lightly above, aspiring toward a squadron of fluffy cumulus clouds that hung below the zenith. With the first light ~~the clouds~~ blue black ~~the~~ ~~against the~~ blotches showed against the transparent sky, ~~but as~~ As daylight grew the sun's first rays transfigured the snow edge and the topmost clouds, staining the rest a ~~deep~~ navy blue and illuminating the fleecy borders with first colorless light. No other color showed in the sky but the blue of the heavens and the deep blue of the clouds, and ~~the mountains~~ below the smooth surfaced mountains stretched in uniform pinkish grey with deep blue purple blotches marking their ravines.

37) ~~Sunday~~ — The Ibetan arrived this morning and piloted us to Do Kar. At the top of Takcumba La he turned back taking with him two letters for the people at home, ~~but~~ ~~first telling us to go to Daka for large ryen. All we~~ ~~[illegible]~~ which he will relay from Patseo. He said that we will surely get ryen at Do Daka, and somehow we believed him and will go to Daka. Ordinarily the natives will tell you game is either ahead or behind, never near. Why I can't understand, unless they don't want to be bothered by demands for food and other importunities from the hunters' servants, usually Kashmiris, who clearly understand their superior position as members of the ruling race. From Takcumba La all of Do Kar is visible in deep sapphire blue. The gem is set in a border of pinkish hills, capped with red in places to the north and the circle backed by higher hills on whose peaks are ~~[illegible]~~ expansive caps of snow. Between the water and the encircling hills extends ~~[illegible]~~ a plain, a mile or more in width on the north and south, ~~and but much~~ ~~[illegible]~~ reduced in width at the east and west. The old lake level ~~like a highway~~ can be plainly seen 3 or 4 ft. above the plain and runs like a highway along the slope. The recession from this high level seems to have been abrupt. No other beaches are nearly so marked. The lake is divided into 2 parts, the smaller one 1/4 the area of the larger, the parts separated by a stretch about 3/4 of a mile. ~~[illegible]~~ A little lizard, like our American horned toad inhabits the gravelly plains, and hares were seen

38 off and on all day.

June 28. Yesterday we made camp beside a beautiful clear stream running from a small [illegible] meadow with ~~a~~ ancient stonebuilt ~~stone~~ [illegible] a structure striking for its size and method of construction. 2nd Tibetan lamas on their way to Kor[illegible] arrived in camp, one [illegible] with a typhoid baby that seemed worse the more for beggars fare. From one I got a human thighbone trumpet and a string of lama beads. Such eagerness to possess coin I have seldom seen. The food lacks ~~see~~ precious little of it all there lives. About 4 P.M. in a cloudless sky toward the south R.C. saw a bright bluegreen light, which he describes as rapidly moving in a straight line, almond shaped, the large end formost and darkest, and larger than an average falling star. It disappeared before reaching the horizon. Last night we ~~made a reconnaissance~~ reconnoitered the fresh water lake and today moved ~~camp~~ to the a temporary camp to its shore. There are small pools of fresh water, a rod or 2 across, scattered along the west, and south, and northeast ends of the fresh water part. In these pools and in the lake there is an abundant growth of water crowfoot, Potamogeton, Myriophyllum, Ranunculus, etc. and on the shores a more or less dense growth of sedges. ~~Huge~~ ~~large~~ Large russet colored ducks (sirkab) frequent the pools and lake and ~~fly~~ fly in pairs with musical cry back and forth to the stony hillsides in which they are preparing their

39) nests. Brown headed Gulls, ~~and~~ Common Terns, Crested Grebes and Barheaded Geese also frequent the lake and 2 pairs of Blackhecked cranes ~~with their young~~ ~~call~~ ~~flies~~ ~~about~~ as usually in sight grazing among the fords. A dozen young keep to the northeast shore in the valley that runs to Polokanka, the Pass that leads to the Indus ~~plain~~ valley. Goa, the Tibetan antelope are usually abundant around the lake, the people say but this year there is not one. There are 4 tents ~~the~~ scattered here and there ~~near the lake~~ on the plain and herds of sheep ~~are near~~ can usually be seen.

June 29. The mornings until about 11 are sunny and calm. Then a wind comes out of the Southwest and blows briskly till after dark. The nights are calm. There is no fuel but dung, and a very tolerable fuel it is. Some gives off an odor like burning rubber, but in the main the ~~odor~~ smoke is pleasant. This morning a herd of 50 Yaks showed up near camp and stayed all day. I have never seen more than the occasional animal the Lahulis keep to cross with their cows and the herd was a fine sight. A calf lost the muzzle that keeps it from drinking milk that it steals and we saved the object. It consists of 2 sharpened sticks bound on the muzzle in such a fashion that when it comes to drink it stabs its mother and gets kicked. I spent half the day wading around the lake inspecting the grebe nests of which there are half a dozen built of water weeds, in the west end. The Brants forage

40) every night but rapidly warms and is tolerable to bare legs, except that the wind and altitude crack the skin. 116
The water at the west end is not much above knee deep but the rest is too deep to wade — The tent has been erected for the first time ~~since~~ on the trip, it is not so necessary for ~~protection for the cold but~~ comfort comfort as for shelter against the wind when mounting plants and skinning birds. Last night and the night before I experienced a shortness of breath for about an hour, no distress but a noticeable need for air. I recall that last year at a camp at similar altitude (15300) in Lahul I had the same experience. Appetite and ambition are excellent and there are no other effects of altitude. The Lahulis have become almost black and lips are much cracked.

June 30. We found the Cranes nest last night on a small hump of earth in one of the pools. The old birds are so wary that they do not come into gunrange. The Terns were nesting on a little sedge island at the east end and more grebe nests were located in the water there. The Geese have no young nor can I find nests. Probably they have been robbed by the natives and have given up housekeeping. — We interviewed 3 Rupshu men that have been waiting at our neighbors tent for the arrival of the Thakur of Korzok, and got information about the game & the journey ahead to Leh Moravia. The Thakur is a sort of overlord who is coming to meet a Subtexildar from Leh at ~~Korzok~~ Rogchin.

41) The disputes ~~of old & in~~ that have accumulated since last year will then and there be settled and the officials back home. The natives have really a hard life apparently and don't make more than a bare living. Jewelry is rarely to be seen, tho it may not be worn everyday. Herds are the only wealth and these may starve in a heavy winter snowfall or be wiped out by an epidemic, such as this year in sections has exterminated the yaks. And to crown everything, any stranger is apt to rob them of anything he can lay hands on, including the precious irreplaceable tent poles. They were so grateful to our men who went to buy cattle for giving them a just price that they added a good dab to the weight. Wool they cut with a knife but goat and yak hair, if the yak is small enough to be overpowered, they pull out, not much to the liking of the animal.

July 1. The lake level is low this year because, the natives say, there was little snow. The rank vegetation has been exposed along the shore by the recession. A large shrimp (Gammarus) is plentiful in the lake. Of a dead bird swarms in the water it is soon covered. I intended to make Shrimp meat of them but there was always such an abundance of meat. Swarms of a large gnat are a nuisance on the lake borders when there is no wind to blow them away. They rise from the earth at your approach and ~~are like~~, as is their nature, keep just ahead of you or in your ears, legs & nose

16) The Tenus are carrying fish but I have seen none except in the Stream that empties at the Southeast end. On the north shore of the old head is a small building that is the Lhugje Gompa. Since ancient times a doll has existed on the lake according to tradition, and now one lama is said to perform worship in the building. We left this morning to camp on the Paso. R.C. and his man went on ahead to see if ~~camp is to~~ there is same. The ascent from the lake is ~~steep~~ very gradual but fearfully tiresome. The road is over soft sand till it crosses the stream (now dry) that comes down from the Paso. Then it becomes stony with large boulders of grey granite. Near the top there are small streams and green places, ~~herds~~ closely clipped; on the last of these ~~flies~~ are tethered. A Tibetan who was taking his flock to Nepa Nud stopped for a visit and I bot an old rosary made from human skull bones, a nicely carved old sandalwood image, a few tiny old tankas, a holy medal and a mold for human ashes. A flock of some 20 yaks also went toward the Paso and some 50 came down. The day has been cloudy for the most part but nevertheless the reflection from the sand has been intense. Fuel is mostly dung. Up to the dry stream drama narrowly fringes the base of the hills and is scattered above that point. In the floor of the side valleys there is a thin mat of yellow green where a dry ground sedge grows sparingly but else where there are no plants. Above the Paso I found a lovely large flowered purple primrose and a lavender

43) stocks, both with intense fragrance. Also as common as the Tibetan Snowgrouse which we have seen for the first time. Also flocks of the birds above camp and their chuckling call can be heard from the rock slope at almost all hours of the day. 119

July 2. We have a clear view of the Dao Kar. There are always clouds over the enclosing mountains and the valley with its changing moods is fascinating. R. C. went off to a black mountain peak facing the pass where people said nabo nese to be had. He met a flock of 7 and bot back one. The poor muscalmans cant eat any of the meat because it hasn't been halaled, and they want some so badly. They haven't been able to buy a sheep in all Rupshu, and are tired of an unbroken diet of flour. Second evening I went up to try for a Snowgrouse, but tho I saw a flock of 9, they were so shy that I couldn't come within gunshot. Under a rock where some marauder had hidden it I found a well incubated egg of the Igroia Partridge. No birds of that species have been met with so far. The Pinkabas are flying around on all the rocky hills, undoubtedly preparing their nests. They must carry their youngsters to nate. They couldn't possibly walk Dao Kar is at least 6 mile away. Above camp there is a nice stream that loses itself before reaching us and along it and on the hills is an abundant (for this country) growth of plants. In all the country I do not recall a single species of plant that grew

Hen Lahul-Lebal Bara Lacha La. there is here a dwarf
fragrant locoweed (Astragalus) among some of the largest
others of that genus and an extremely tiny mustard
The mustards are abundant in species, most of them
an inch or less in height and most of them white.
Three of the men complained of pain in the head and
stomach and [illegible] miserable. A dose of aspirin and
Iconic powder made them in an hour come out of their
blankets and guffaw. Another had an Another has
had a little internal disturbance for 2 days, due, I
suspect to drinking the alkali water in Zoo Kay,
& a dose of chemy brandy promptly cured that. It is
difficult nowadays to eat enough. One is constantly
hungry. — A Rupshu family bearing all their earthly
possessions on some 30 sheep arrived from beyond
the pass and camped beside us. One of the sheep
bore the tent pole directed aloft and the rest
of the household goods were hung here and there on
the obliging animals. The head of the family wore
goggles which he did not take off all day. He probably
has diseased eyes, this ordinarily [illegible] all
sorts of afflictions as readily but to any
sahib's attention. We gave the family 3 huge Rupee
and they were so delighted that whenever any one
came within hailing distance they he salaamed
and grinned satisfaction. There have been 4 or 5 groups
of travelers crossing the pass in various directions
which gives the impression of being a busy thoroughfare

45) All are Tibetans, the poor in leather sheepskin clothes wool inside and the richer, or less poor, in cloth. 121
All are friendly but not inquisitive approaching only at our solicitation and never under any circumstance standing curiously near. On none of them have there been any but watched ornaments: brass rings & poorly executed silversmith, glass or porcelain beads. Only one Lepath had a string of turquoise + coral, a few of the poorer first class. Many have no ornaments of any kind. Our poor horses are busy picking at the tiny grass. If the quality were not extraordinary they would never get satisfaction for the grazing we have had since we have entered Rupshu. The tent was again erected on account of the breeze. The men make barricades out of the luggage.

July 3. We started off at 10 ~~o'clock~~ A.M. Too Morari. During the night some snow fell to cover the ground but it promptly evaporated in the morning. The weather so far has been chiefly cloudy with a little storm coming now out of this little valley, now out of that, suddenly clearing into sunshine only to begin over again. It reminds of north greenland weather in summer. Precipitation is always slight & the wind is light and since it is the only kind of weather they seem to have in Rupshu no one minds it. At the top of the Pass (alt 16400), in the center of the valley, is a pile of stones, mostly granite & schist boulders, in all 6 ft high and 18 x 6 ft in base. Surmounting the pile is a pole 6 ft long, heavily hung

46) with patches of sage. Herds of game animals, chiefly
rabo, some yak and a few nyan are present abundant
the top of the pass. On either side of the Central Monument
extends a line of small irregular stone-heaps at 12
irregular intervals (15-20 ft apart). These small piles
are about 4 ft long at the base 2 ft. high. Some 23
are found on each side ending with one about
25 ft up on the hillside. A string hung with rags
runs from the central mass to the first stone pile toward
the south. The piles mark the jumps made by a wild
yak (drong) that Dyepo Tsering was hunting. He got
the yak, it is said. The descent from the pass is
rather steep (steeper) at least with the ascent. The path
is stony and between boulders, and the hills are
yellow green in large patches where the kangseedze grows
and do not present the barren aspect of the other
slope. At the bottom of the pass runs a stream
some 4 ft. across and along this and along the bed of
a dry torrent are luxuriant growths of drama. The
bushes are 3 to 4 ft. high and often 15 ft. across. They are
in full flower and bumble bees are numerous.
Several species of butterflies are also evident one a fine
big Tiger Swallowtail. Swarms of Pieris, (a little pink-
rumped Pieris (Pwites) and of the Kamao Tyrant Pipit and Finch
with a few Brown Hedge Sparrows and Tickell's Willow Warblers
inhabit the drama and on the plains are
numerous pairs of Chattered Larks. Below the drama growth opens
out into a pleasant oasis (the valley has become 1½ to 3½ mile wide) and
ahead a dark shaplaked mountain, higher than it. N. Jebro

~~Prevailing colors in images are green & purple~~

It appears to block the valley and to make another to the South. We have missed the track to Do Mmi and have arrived at Puga. At the approach to the meadow is a massive wall 100 ft long × 6 ft wide and 4 ft high, built in some past age and still well preserved. Up to now no walls so well built have been seen. The frame is of rock and the filling earth. Beside it are 3 large Chortens, & about 12 ft. high, ~~to be built also~~ old probably of the same date of construction. Several Rupshu tents are pitched at the base of the cliff that forms the north border of the valley and small herds of sheep & goats and large herds of Yaks are grazing on the plain. One goat had been captured and was being plucked much against his will. The down under the guard hairs is often of fine quality (pashm) and is then collected. ~~It seems that in the south of the mountain it is mostly the colored hairs of goat and sheep, the grey~~ Yaks belong to Kunzok people who are carrying in wheat kernels from Leh to Khaca. They have come from Rogchen and delivered the load to other carriers at Nima Nud tomorrow. This place is famous for its hot mineral springs. ~~Formerly~~ Each spring used to be labeled for the disease it would cure and there was a spring for most diseases but some malicious person destroyed the labels and now it is generally known only that one is good for stomach disorders. There were several springs at Do Ka, one of which gave a ~~foul~~ strong smelling sulfur. There must be many others along that lake

48) shore, because the character of the water ~~is different~~ varies. In some place it is strongly saline, or bitter or worse. The natives collect salt for sale, but it is fit only for cattle.

July 4. Rain started during the night and continued till 7:00 & along ~~& along~~ ~~& along~~ ~~& along~~

119) along the stream: violet a purple ~~lobby~~ large yellow clematis, a most delicious fragrant pink honeysuckle, a fragrant pink rose, a fine [illegible] and many others. The [illegible] 125
longest. Puga is the warmest place we have yet stopped, ~~this pass~~ and our [illegible] shall be carried
We had
over a pass to reach the [illegible] neighboring [illegible] 21,400
is about 18,000 ft. above the sea. Puga is 14,000 ft, and its ascent is steep. The descent is also sharp and the ascent of the second pass at once begins. The second one is about 17,000 ft. and rather easy. From the crest the view opens abruptly on Do Morari and Kiagar Do, and a sight it is for a lifetime. In the foreground is a yellow green plateau with [illegible] Kyang (not counted 114) Below lies Kiagar in sapphire blue, edged with green, in front smooth pink brown hills clad with yellow grass and flanked by a rugged range from which rise two magnificent peaks of ~~one~~ 21,000 ft. Beyond ~~and~~ Do Morari, a vast expanse of blue, to the foot of distant ~~ster~~ bluegray mountains ~~with~~ deep shadowed ~~and~~ and ~~stern~~. Behind, ~~east~~ the lofty snowy ranges of the Great Himalayas, with sharp ragged ridges running down from their snowy domes, ~~and~~ straight along the horizon and ~~shut~~ block the view. Above, ~~still~~ loose banks of cumulus clouds, ~~blotched~~ with purple gray with the sky showing blue between but not half so blue as the water below.

July 5. One of the horses tired and we had to halt beside Do Kiagar. On the west side at ~~the~~ this place where good spring enter the lake and beside the one near the center we camped for a pleasant little Sward. The lake is about a mile long and 3/4 m. ~~is completed, entire~~

30) in hot hills and has no outlet and ~~is~~ no visible water source but these Springs. ~~and Lakes~~ The water is perfectly clear ~~and~~ but brackish. The shelf of shoal water is about 1-2 rods wide along the western shore and the descent to the lakebasin is abrupt. There are a few Gavia arcta ~~little~~ along shore and a few Sterkas and grebes on the lake. We left early & next Korzok a half days journey away. The day dawned clear and remained calm until the afternoon. The view ~~of the lake~~ from the hill that looks down on the big lake ~~was too fine~~ had changed. The mountains in the quiet clear morning stood grand and majestic. Yesterday stained with the cloud shadows ~~that~~ ~~reflected~~ ~~were~~ ^ denuded and weird. And from somewhere on the hill born by the icy air not yet warmed by the early sun came a most delightful fragrance, ~~that~~ ~~elusive~~ intriguing suggestive of lemon and verbena, yet like nothing ever known before. The source of the scent was a little mint just appearing above the soil. Its search revealed ~~one~~ of the ~~of~~ dainty little violets that I ~~first~~ found first under the dry rocks below Polokonka. At the head of Doo Moran a lively stream enters, flanked broadly with a lawn of sedges until the lake is approached and then giving way to a field of dwarf ~~willow~~ ~~like~~ ~~those~~ ~~at~~ The shrubs here like those at Puga, as 4ft. high but the height is due to accumulations ~~that~~ of sand that their ~~stems~~ branches have arrested. In the stream was a pair of Sirkas with 12 youngsters, the latter scared to death. Their mother headed downstream and the ducklings followed in file, flapping their wings as if the stream weren't already taking them fast enough. The fathead of Yarrow

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51) over path. to divert our attention, but upon the family the the situation seemed safe. ~~On the~~ ~~Section~~ At the mouth of the stream there is a meadow called Peldo (on the map this and many other places have Le suffixed but none of the people could tell why it was added) and near it make use of the addition) where several herds of sheep were grazing. ~~A tent belonging~~ The herders and their family had put up their tent nearby. The lake has lattely risen considerably. Ledge rock are now covered by 3 ft. of water. A native said that the water has been rising for 5 years and they could suggest a reason. Some prayer walls ~~have been constructed~~ are at the water's edge, but probably they were formerly along the path that ~~led along the lake~~ ran on the narrow beach between the water and the hillside. Our road ran high up the hill. ~~Everywhere~~ The few scrubby honeysuckle on the hillside were in full bloom and scented the air with a pleasant fragrance. ~~We climbed to the pass~~ ~~(the road~~ ~~(the road finally~~ opened on a closed valley, plentifully grass.) The climb was tedious and tiring, chiefly because we did not know where we would arrive & whether we would arrive anywhere but ~~→~~ About 30 black yakhair tents (15 x 15 x 6 ft) were scattered on the meadow, and in these dwelt a good percentage of the population of Rupshu. A one-story whitewashed chorten about 20 ft high and a crude rectangular structure (15 x 30 ft) were the only other constructions. Adjoining the hut is a stone foundation on which they said the Thakur, the Raja of Rupshu, spread a tent. The hut is his too, but they say he prefers to live

in her tent and store things in the house. We tried desperately to buy something as a souvenir but there wasn't a thing but rubbish and very little of that. I succeeded in getting a nice turquoise & silver ring which the owner would part with only reluctantly. A few Baltis had brought Kumania and were exchanging them for wool. We had had our usual lunch, each man consuming a pound of the dried fruit, ~~eating the~~ including the nice almond like kernels. A few safety pins distributed among the children created much satisfaction. A little girl who seemed to own not much else but the safety pins was so thrilled that she whispered "thankyou thankyou" all the time it took to fasten the treasure in her miserable rags. There is a path from the encampment that leads down a narrow valley to the lake. The view opens unexpectedly on the plain at the broadened mouth. A huge building appears on the hillside to the left and beyond it a rather pretentious 2 storied structure, both buildings architectually pleasant, as in fact are all constructions of the Tibetan races in Indian Tibet. The appreciation of line is keen in these people and even the humblest hovel will stimulate one to pull out his camera. The larger building is the monastery and the other the Thakur's house. Wood for both was brought from Ladak, a good week's journey by horse. On the slope below are fields of barley, apparently thrifty at an altitude of over 15000 ft. Small radishes and turnips of excellent quality complete the list of agricultural

53) produce. This year things are bad with the people because of the yak epidemic. Over 1000 animals died at Kanzok and less than 5% are left. The disease comes about once a generation but none of the old timers know of such a heavy loss as this. ~~The bile becomes enlarged.~~ Locanost Blood is voided from the intestines and the animal dies. They find the bile enlarged after death. The disease has spread from Tibet where it has killed also the wild yaks. ~~and has much feared by the~~ The notice of arrival preceded us and the Thakur at our approach ran hastily to don some particular garment to receive us. He gave each of us ~~to~~ a pound of Kumanese, me a goose egg and R.C. a white yak tail. We ate half of this fruit and then went home and ate a snowgouse apiece (a snowgouse is as large as an average hen) and accomplished such an affect on the appetite has the air of these uplands. Nyenare to be found on the hills near camp, which today was lost to Peldo, and the Thakur sent his servant to show us where they stayed. Geese stay at Peldo and sure enough, we bagged 2 on the way home and wounded 2 more that will probably duff ashore tomorrow. The birds of this Country in addition to being so extraordinarily shy that even the smallest must often be killed at long range with a shotgun are very tenacious of life. There were about 15 wild monks in the monastery. The ~~set~~ abbot is away still staying in a cell in the hills somewhere, they stay a year. Monastery has a complete set of the Kangyur and some 30 Tankas, none good, and not much else of interest.

54. The monastery of Spiti and Pattee to barter salt for grain. 150
Tega

Over the fields we saw the rest of the journey to Pattee. One such man was en route for Pattee and had left his wife preceded him for some days of the journey, holding a great burning incense. The Lahulis also have the custom. The Kanjak people live in tents at Tega, but this year had great difficulty in moving because of the yak destemper. The Shakus themselves have yet arrived and will have to come a horses. The lake they say, freezes in winter to 6ft. of ice and the average snowfall is to the knee, occasionally to the hip. The birds are here as at Dzo Kar except there are no cranes, and the numbers are much fewer.

July 6. R.C. left this morning with the guide to hunt on the hills beside camp. The Shaku and the guide say that ryen are not to be found here at the season of the year. What precipitation there is falls on the mountain summits and the plant growth is much richer there. Possibly the men have spoken the truth. It seems a fact that the natives do not like to tell about the game, I believe, not so much because they dislike us but because they hunt themselves. We could be more ready to. The tent dwellers above the monastery who knew nothing of us, said there was no game here about, but one little boy piped up that there were nabo on the hill in front of us. Yesterday a Nuna Mud boy said there were plenty of ryen and nabo at and within a days journey of his village at Jaspa, which agrees with what Dzo Kar guide tells us.

But the Nima Nud people send all hunters to Lanapa, 2 days journey toward Sikkim. Our lama went to the monastery today and discovered several good tankas and images I had not seen. The monks begged them I had not shown them to me for fear I would carry them off. He learned that the monastery was built in the time of the present Hakim's grandfather. R. C. says the Committee a track of Ch. gazelle yesterday by stepping on something covered with cloth on the floor. I recalled that they had been fluttering and grumbling when I did it. There was food under the cloth and it will now have to be thrown away. The water at this end of the lake is better and to drink it gives stomach distress, we were told, but lower down it is drinkable. There are some fish in the lake, mostly tiny little bottom dwelling loach with 4 barbels. I spent the day in camp making up skins. I furnished 40, including 5 Barheaded Geese, 4 Tibetan Grouse, 3 Shelducks, a Raven, 12 Kansu Rosy Finches, 6 Twites, 3 Tibetan Mountain finches, 2 Yellowheaded Wagtails, a Pallas warbler, and 3 Brandt's Mountain Finches. For supper I devoured a goose with a great pile of boiled rice. — a fact given not for epicurean considerations but for physiological. — The forenoon was fair and warm but in the afternoon it clouded and a stiff breeze blew from the south for a few hours around sundown. The wind has been chiefly from the south since we have been in Rupshu, descending probably from the Great Himalaya Range. Today ends a month of our journey.

July 7. The hunters came back toward evening without having seen an animal except Kiang, or even tracks of any. They haven't even been to Tsokar since Polokonka. The guide furnished R. C. Smith an account of the

tankas

56) funeral rites practiced by the population. Corpses
or either ~~buried~~, burned, fed to carrion animals known as
lake or buried. The first method is considered best, but the
lama have to call them back to a certain point in order
to the corpse at land. If fed to vultures the head has to be
crushed by a stone or the bird ~~probably~~ assume the person is sleeping
at any rate the rest come to the feast. In any case the
corpse is retained in the house for 4 days, or if the family is
~~rich~~ rich and the season is cold 21 days. At death a lama
is summoned and the lama ties the corpse in a sack. A
structure of butter & flour is made & put beside the body and
butter burned night and day. Prayers are read. 49 days
after death, if funds permit, a feast is prepared for all the
neighborhood & a small property or ~~possible~~ possible is given the
lamas, because ~~such~~ property so given will be of use to
the deceased in the hereafter. Money is also sent to Lhasa
and on the death anniversary for 3 yrs. the lamas are
provided with the wherewithal for reading prayers for the
repose of the dead. The stream in front of camp runs very low
in the day time but last night at 7:00 with a rush a torrent
filled it, just as if a dam above had given way. The night
before the same thing happened, the latter. The Mussalmans
informed me I would have to pay for the horse that
died or ~~Despite the fact that it was specifically stated in the contract~~
~~Dara Lama had~~ Lotsa Lama had the same time asking
that I engage their extra horses, not free of its load
of tea. I told them if I had to pay for all the horses
that died and it looked as tho half of the food allowance
might expire, I should have to save my money and
couldn't afford to play Santa Claus by hiring animals
for which I had no use. They appealed to R.C. and finally
decided to supplant the old horse that broke down on
the road from Puga with the tea carried. This morning
Ram Dulla departed with the poor beast, but shortly

traded it off to some guileless native for some sheep and goats. He asked a certificate from me addressed to a native going the same way, to the effect that he was going home on my business and requesting that the native grant him his company. What use he made of it I can't imagine, since neither the native nor the beast could read a word of it. Ram Dulla was the laziest man in the caravan and I hope now to get the outfit started in less than 4 hrs. I must first train the cook how to boil rice in less than 2½ hrs, the ~~usually~~ period he requires.

July 8. This morning the men were called and recalled but no stir. Finally I pulled off their bedding, at first to their consternation and later to their amusement. The guide to Unti, the next station, who should have come last night did not appear and finally this morning a lame old lady arrived with butter for the men. She denied she was the guide but certain of the men insisted that by the butter the guide was to be known, but all agreed she wouldn't do. The road is at least 18 miles with a pass and the poor old creature had already come 5. The hunting guide had been obtained by persuasion and when that was out by bribery, pending the arrival of this person & now every attempt was made to induce him to lead the way. Everything was in vain, because he said he had to take salt to Sputi X to exchange for grain. I remained firm and when he started off tied him up. Then the old lady confessed that she was debated to be the guide. There was no one at Seeno willing to undertake the job, so they drew lots (Gyen)

28) and she was it. Our men still insisted she
would do and R.C. stated not to get a man from the
village. The woman ~~[illegible]~~ walked with difficulty and so. cloth was fast so.
When asked her age she said she didn't the faintest idea.
Over one kneecap were 3 old scars. I bet that myself of my
75 yr. old mother who has not have would have done the
job with honors and was willing to give the guide a trial.
~~There wasn't anything else to do anyway if we were to get~~
~~to Uiuk today~~ The road thruout the day was very poorly
marked except those that all ~~[illegible]~~ followed by
the traders and it is very easy to follow a sheep
trail up the wrong valley. So the lady joined the
caravan & we started N. ~~[illegible]~~ I reflected on what the
Travelers Aid Society and Kindred organizations would
say when they found it out, but there wasn't anything
else to do if we were to get to Uiuk today. For the first
10 miles the guide rested considerably but after that she
warmed up and outstripping all but the 2 best men
arrived at Uiuk in splendid trim. She even wanted
to go back that night, but was persuaded to rest,
and made camp with the Mussulmans, preferring
their society to that of the young men of her race
and religion. The road ran some 10 or 12 miles along
the east shore of the lake, mostly over dormant plains
with no grain except at one place a few miles from
Pelds. Where a blunt peninsula extends into the
lake we turned east up a long nulla to Chagarchan
La. The descent is rather abrupt and one arrives
at a little lawn along a stream — Uiuk. It is

Chagarchan

evident that the lake has had a least 8 feet than the present, beach cutting being visible at least 15 ft above, so it may be a habit of the lake to rise and fall periodically. The ice as evident along the shore a fresh angle, remains now of grass, about 3 ft high at the highest, picked up by the ice. Being dark we have a storm and thick rain so rain the situation has persisted. We drank from the lake (and the ice) and found the latter best. The guide said it is better only near the head. It doesn't so we prompted thirsty again & hunted than before but there is no shelf like is also other water between Celdo and Unti. On the various crests we crossed (of the various nullas debouching on the lake) the natives have, as is usual thruout the Himalaya, erected cairns. These are from 4 to 6 ft high, made of small stone, with preference shown to quartz fragments that crop out here between Granitic Shale, and ornamented with all sorts of available horns: yak, sheep, goat, nyen, nabo. One friend passed next one without adding a stone, sometimes muttering something & once circumambulating with much verbiage.

July 9. The weather yesterday & today was clear, cloudless & warm with a gentle west breeze. 2 nyen with 2 lambs (1 & 2 pts) were sighted yesterday on the hills above the lake, the first game seen since Polokonka. Unti and Dega, a few miles down the stream are the winter quarters of the inhabitants of this region. At Dega there is a broad valley in which a good-sized stream meanders. Our guide called us early for his pay and departed. Nothing could induce him to go to Tso Kyun, the next stage, the money for can't possibly be earned & no one has any. The chief

ex fear) pretended she never had heard of the place. ~~All the~~
~~stock~~ Cattle her constitute the chief or sole wealth and
the tenure of life of an animal is very uncertain. All may
die from epidemics or starvation caused by heavy snowfall,
but it is customary not to work and no one wants to break
the tradition. All this the region among Hindus or Tibetans
you meet with inexplicable idiotic confessedly idiotic
waste of opportunities or materials and the only answer is
that it's the custom. The road to Kyun Dzo is a steep
ascent to either Kyenca La or Salsa La. These passes and
the ridge the [illegible] on must be to judge from a 22000 ft
peak in front about 19000 ft. But such a magnificent
view! Below 2 days' march away the straight ~~stern~~ ~~s~~
awesome row of snow capped peaks of the Great
Himalayas in Spiti formed the horizon. Below them ~~—~~
~~the glacier~~ are the somber purple grey ~~rock~~ hills of the Rupshu frontier
that melt into the gentle rolling pink brown hills of the
plateau. Two huge masses of these flank the broad green
valley in the centre of the vista. This is the valley on
which the Rupshu cattle pasture in Winter. On the [illegible] the broad valley and the slopes that [illegible]
of the pass everything in the foreground is opaline green.
Big hill just below the pass is grass green from the loose
green rock fragments that cover it. ~~Set in the green of~~
~~the valley and bounded by it~~ In this emerald setting
lie the two lakes Kyun and Kyun. Kyun in the right fore-
ground is of pastel blue; Kyun ~~lies in the far end of the~~
~~plain~~ is turquoise blue. It lies at the far end of the
plain, backed against a range of madder hills, ~~that~~ ~~lying~~ in
~~Col that~~ ~~hint~~ the loose cumulus clouds above them ~~have~~
~~their tints~~. Beyond them is a higher range of lighter color,
with crests and patches of snow. Kyang occur on all the
hills and we spent much time convincing ourselves they

61) present something he wanted. And the plants! So interesting & so abundant at 19000 ft. In Kulu there [illegible] nothing at 15000. Even the horsemen got interested and helped gather them. I have never been so stimulated [illegible] today. The altitude and the unparalleled view produced an exhilaration, [illegible] that approached transport. There are several tents of nomads [illegible] on the plain and herds of sheep and yaks. The yak of course has not reached here. R.C. recorded from the Korzok hunter guide an account of the marriage customs here: The groom sends a relative to the father of the girl that has caught his eye with money and a piece of white cloth, about a yard. If the proposal is acceptable the gift is retained. In that case, in a few days, the groom sends the girl's father 10-12 measures of barley (Gos-10 kilo), five sheep & Tibetan tea. These gifts are divided with the bride's relatives, according as these relatives gave presents at previous weddings in the family. The date of marriage is now decided on this day. On the wedding day, if the distance is far, the groom sends [illegible] a man with a horse decked out as well as possible; if near, the bride comes in front. In front of the bride's tent, if rich, they put up 80 stones in a row, if poor, less. The groom's relatives now approach, sing a song for each stone and kick it over. If they can't sing an appropriate song they pay a fine and kick it over also. The bride's relatives are of course assembled. The final large stone in front of the tent is not to be had for less than 15 rupees if there is no suitable song. A singer is usually imported for the occasion. 7 paces beyond this stone is buried an image in dough shape made of flour.

(68) the victor of the last stone then advances 7 paces and tries to unearth the image. Failing more pieces then everyone goes inside to eat, drink & dance. When it comes to go the bride's parents give her clothes & ornaments that are first displayed hung on a white cloth. The bride weeps and the parents give advice, chiefly in the form of proverbs. The groom must now give the bride Nu 4 Rs for the milk her breasts have furnished his wife. At the door the neighbors' girls stop the bride going out & have to be given Rs. 5. And that is not all. The groom of the community (each community has one, not a bridegroom) has bound the bride's horses' legs so that he has to be paid to loosen them. ~~At the off~~ Near her father's house the bride is met by a lama bearing an earthen pot in which are samples of all metals, precious stones, etc. The pot is covered with white cloth on which are drawn 2 crossed dorjes. On the ground is a piece of slate with the same design. At the proper moment the lamas read loudly, and violently throw the earthen pot on the slab, which is then overturned. Everyone now goes inside. A woman & man are sent from home with the bride. The man bears in his hand an arrow with parti-colored rags & cheap ornaments. This man is considered henceforth the bride's brother. At the door of the tent the groom's mother stands with a bracelet, a bucket of milk and a rope for tying up yak calves. The bride enters, her hands are washed in the milk, the bracelet put on & the rope put on her neck. This is a symbol of her future work

63) — looking after the cattle. The bridegroom dressed in his best is seated with a vacant place at his side in front of a stool on which is a container ornamented with butterflies and filled with sheep. The bride seats herself in the vacant place. Then a youth ~~~~ three priests or living, enters bearing in one hand an ornamental image of flour & in the other a piece of sheep intestine, filled with meat & fat. Not an indiscriminate intestine is this but the junction of the large & small intestines. He crosses his hands before the couple who touch the contents & then depart. A little later another man enters with a plate on which there is a little grain. He sits in front of the couple & sings a peculiar song & removes from the heads of both a piece of white cloth they have been wearing for the occasion. These he puts on the plate. A representative of the groom's relatives & the arrowbearer of the bride collect money for the couple, according as the couple's parents have given to the children of their relatives on previous marriage occasions. This ends the wedding proper. But a few days later the bride invites the inmates of her former home to dinner & then goes home with them. She remains some days and on her return brings some cattle as a present.

July 10 The plain in which the 3 lakes lie is roughly 4-6 miles wide, girded with smooth hills that rise to 17-1800 ft and even 2000 ft. The plain is at an elevation of about 1600 ft. The soil is sandy and the dominant vegetal

6th) is the yellow green sedge often mentioned before. Some half dozen small streams 2 feet wide & 6" deep come down from the hills to the west and flow into the Kyen. The lake is perfectly fresh, about 2 miles long, oblong, and lies on the plain floor into which it has plowed flocks of gravel 3 ft high. These banks are removed from the present shoreline by 1 to 2, in places 3 kms, particularly on the west & north shores. On the east the water is apparently shallow & various spits, lagoons & islands have been formed in this section. The south side to the water's edge is bounded by the coast of red gravel of the plain. The winds apparently are chiefly from the south & east and are sometimes violent to judge from the magnitude of the beaches for so small a lake. The water level has recently subsided a foot or 2, and has left behind some water crowfoot plants now dried in the mud. There are gammarus in the lake and at least a few Potamogeton plants. The midges that have been present in swarms on all days are here too but today on account of the stormy weather (sky overcast all day with squalls from the south & slight precipitation) have taken refuge in the yak tracks. These are full of the black insects. A rich flora of tiny plants flowers on the plain. Sand grouse in flocks are feeding along the streams. Two or 3 pairs of Sir Kabs are on the lake and on the plains the usual small birds except that we got a ~~bag~~ Large Sand Plover, not previously known to breed in the country. Kyang pasture among the flocks of domestic animals. We tried to find a guide for Hanle

65 Hanle
^
[illegible] we would work for more than a day, normally
that the compensation and regardless of abundance of
leisure. We had yaks milk this morning but could get
more from the same people. They said "Ask someone else
now the money is apparent, of no object. We circumambulated
the Kyam and acquired considerable merit because the lake
is sacred, containing the left eye of the deity that makes
the Monastery so holy. I saw 2 more armots again enthroned
as I had seen at Kiangchu.

July 11 Three Spiti
Three Spiti Lamas headed for Hanle this morning &
we went along, believing it best to have someone to tell
us where to stop for the night. Ordinarily camp is
where water & grass can be found as far between but
it turned out that we could have stopped almost
anywhere after the first 8 miles. The Lamas were of the
type of minstrel that yearly come out of Spiti in flocks
of 3 or 4 and entertain their neighbors with various
types of performances, such as resting supporting the body
[illegible] on swords, the points of which rest
against the bare belly, thrusting a long needle
thru the cheek & tongue, splitting a huge rock on
the belly of a man, etc. These Lamas today had
a few goats & sheep, dyed in fast yellow & red, that
didn't want to go to Hanle so we left the company
far behind & didn't see them the rest of the day. I looked over
the Kyam before leaving the plateau, which is our last
high camp ground for some time. We descend now daily
till the Indus. The lake is irregularly elongate, with
maximum dimensions of perhaps 1 and 3 miles, its shores

much interrupted by sandbars and spits. The Eyjafjut 142
shallow, there are no [illegible] of water plants, probably because
of the salinity. It lies on a bed of sandy mud with no great affound
on the west or north shore. Bodies grow to the edge. On the latter lies
for some 100 yds above the present, its progress extreme more
cutting an steep banks of the east shore. At present it is
some 2½ ft deeper than it has been for some time past but
has receded 3 ft from a former recent expansion. This
is evident from drowned reeds on shore & under water.
Thin ice several feet near dry. A few Senkabs near
on the water and a coot. The ascent to Da La is easy,
amounting to 1500 ft in 2½ miles. Path then descends a
closed valley along a stream. After 2 or 3 miles the
stream dries up but reappears 5 or 6 miles further where there
is a long sedge lawn and a cluster of tents, called Da(k).
The valley was once the bed of a powerful torrent but nowadays
little water flows down it. Drama which was absent on
the Kyun plain is here abundant. The weather is clear & warm
At Foze heard last night, in fact it has been very mild
since Bora La. Everyone slept lightly last night but
was in excellent spirits this morning. Pulse — high.
July 12. Got yak milk again this morning at Da. Latsa
The milk is a very superior substance, better than any milk
we can find from ordinary domestic animals. It is only
obtainable in the morning before the calves are turned
to the mothers* in for the remainder of the day.
When the young and old cavorted on the plain
with tails in the air, trumpeting horns, clashing bumping
heads, giving the impression that they knew how to
play. One sees the same phenomenon among dogs,
and sometimes among goats, but seldom in cattle. The
Spitians arrived and stopped at the village to prepare
breakfast. They may give a performance here in which case

They will not go to Hanle with us. They always came about two days up to get water, whether from spiritual or sanitary reasons probably the former. There is a nice closed valley about Da with one side an amphitheatre full completely covered of snow that probably doesn't melt. The path to Hanle still continues down the stream in the barrowlled valley. The petrographic is bewildering. In one place a stratum of conglomerate with fragments a foot in diameter the whole with the appearance of concrete pacing [illegible] a horizontal bedding of grayish shale with an interruption vertically of a [illegible] foot of rubble brot down from above. The path leads along a sedge lawn for miles with a clear streamlet meandering in the bottom. Drama is abundant on the valley floor and fish are numerous in the stream. The Mussalmans did not see these until we met on the road and I eagerly tried to spear them with my alpenstock. After 6 or 7 miles the stream enters a rougher country and the lawn vanishes. The running water now changes to a series of lovely crystal pools and among clear smooth granite boulders and the vegetation grows chiefly on their banks. Instead of Drama alone, a magnificent golden clematis and the fragrant honeysuckle claim equal ground, transforming the desert into a glorious garden. As if this weren't already enough, [illegible] plants grow abundantly along the valley, coarse plants such as we haven't seen before. One huge plant of rhubarb 3 ft in diameter, with stalks as large and luxuriant and as mildflavored as from [illegible] the best imported varieties, had somehow come into being among

the dwarfed tough plants of the common species. No 144
[illegible] the stalks without ~~ate them~~ before arriving
of camp. When the valley opens another stream joins ours
from the ~~right~~ hills to the right and an enormous
~~gravel~~ plain 3 or 4 miles wide opens to view, furrowed
by torrents and lined with rows of huge granite boulders that the
raging waters have thrust aside. On the floor far in the distance
and on the edge of the opposite crest of the mountain are visible the
ruins of an old monastery. No one knew where to go to
reach Hanle, tho 2 of the men claimed to have been here
before, so we camped on a little pang where for the
first time our ponies did not have to feed on a cliffed lawn
they were so happy that they did not leave the little green
all night, but when full, walked from one end to the other
to see ~~whether there wasn't something better~~ what it was
best, the tinkling of the bells of 2 ~~of~~ that regularly strayed
announcing the course of the march. One of the
linnets (Duite) nests today had been incorporated in the soft lining
a rabbits tail. The tail was so prominent that the 4
eggs had to find a place around it.

July 13. The valley is the largest and broadest we have
seen. Our camp is against the bare west wall, a gravitic
formation so crushed and distorted that its surface is
a fascinating confusion of lines. This extends around to form the north wall.
Beyond the big outwash
plain ~~down~~ which we came are snow peaks. Except for the
top of a Spitz peak to the southeast no other snow is
visible. ~~The rough west wall ent~~ In the center of the plain
is another low rough hill with 2 or 3 miles of plain surrounding
it in all directions. The east boundary is a lofty sharp

69) crested chain that divides the Hanle Ring valley from 245
that of the Indus. This is a magnificent range, the final ordered
range we have seen in Rupshu. The rest of the mountains
start off in a ~~direction~~ direction but are at once blocked by
others coming from other directions, any other direction;
the color effects of the Hanle range alone No other range
has displayed such varied and beautiful colors and such dubeches formations
From the deep purple crest a band of yellow green has been
formed reaching half way down the side to where a
series of pink pyramids are flanked against the slope.
Below these run rolling hills of dark green that merge into the
distant plain irregular mabled pink and brown, blue and there
among the pyramid formations are splashes of blue gray
and added, to complete the range of color that
adds glory to the grandeur of the stupendous chain.
R.C. went hunting for the Tibetan gazelle and I stayed
home to gather plants of which a large number grew
in front of the tent, among the small spring pools that
lined the sward. A lovely fragrant pink primrose, a royal purple aster, and
a golden Pedicularis would be the pride of any garden but
no ripened seeds. In the pools grew a tiny Utricularia, an inch
long with huge traps. And the birds also provided
a thrill. The large Tibetan lark Melanocorypha maxima
had a nest with 3 eggs on our lawn and its unrivalled
song could be heard here and there on the plain. This
bird has not been previously known from the Indian
Empire. The big crakes and the usual water birds are
here, also the Hodgson's Partridge, now with flocks of downy
chicks and one of the tiny Kingfishers (Alcedo atthis
Toward evening I started off for the monastery on the northern

Dodge of the plain, a good 4 mile away I met R. C. on the spy and he went along. He saw no game. As usual, one had to go here, another go there; one men directed him to the camp. I also set about the people see very little game, because they don't often go far from their tents. The monastery from my path was not visible until I had come near beneath it. The view of the huge white structure was terrible as it loomed on the crest of the ridge 400 ft straight above the meadow. [illegible] in a country where there are no buildings and where you don't expect to see any, is a sight that would to bind the traveler. I photographed at every 100 paces and then hastily struggled up the steep ascent behind a yak herd that was bringing down from the surrounding hills. The abbot is a Tibetan, a big man of good arts and very friendly. We were shown all over, and allowed to inspect everything. The monastery, he said, was over 500 years old and antedated its enemies, Hunis. Previously the ruin we had seen on entering the valley had been the monastery. The present structure was really a fortress, as all monasteries had to be before English rule, with retainers quarters below and with a wall and guard turrets on the easiest slope in front. To the east and south are cliff faces and no defense was necessary in that quarter. In the upper temple are a number of brass images, one or two temptingly beautiful We were allowed to handle the figures but were cautioned not to touch their faces. One of the many handed or manyheaded figures, I forget which, speaks from time to time. In this room are beautifully executed and beautifully preserved

Lonpo

11) frescoes that the monks said dated from the building & construction
The drawing and composition reminded of the Jaschi Rajpor series and the color is of exquisite richness. Tried to photograph
one but it was very dak and I fear there will be no result. In the
temple below this are more frescoes, likewise old and well preserved
but not so pleasant. They are of huge figures representing various
Lamaistic deities & devils. In the room at the far end is a
shrine in which only the priest is permitted to enter. The room
is totally dak except for the door & it was difficult to see the
tankas that hung abundantly from the ceiling. It was growing
late but we stayed to tea, meanwhile expecting the arrival of our horses to
bring camp to the monastery as ordered. The tea was Tibetan
and very good of its kind. Sugar was served in abundance
& Kumanis, the last always acceptable, no matter what
their past history would it conform to our sanitary hygienic notions.
A man reported that the caravan was visible from afar
and fearing that they would lose their way in the bog
that makes up a good part of the valley plain, we sent a lama
to guide the flock to the selected camp ground. We meanwhile
had a pleasant visit with the abbot. He said I couldn't be
an Englishman, pointing to my eyes, and when told I was
American wanted to know about the country, size and
produce. The scene was illuminated by a lantern and when I
suggested we take it to look at the frescoes again they said
the temple shouldn't be disturbed at night. Now again
in full darkness arrives our messenger & the horses and
instead of announcing their presence at the gate said they
had pitched camp 3 miles away in the morass, but sent
a lantern. The march thru the marsh to an unknown locus

72) (3 forts were visible, as many miles apart). We fired the gun, hoping they would answer from the camp that was ours, but they assumed we were hunting or shooting out of insolence, or something else assumption and gave no reply. Pulling heavily one leg and then the other out of the mud holes and ~~swimming~~ splashing out of the mudpuddles that we fell into in the dark, we finally arrived at 10:30 with not many kind thots toward our fellowmen. We were told by way of consolation that we had ordered camp to be pitched on that spot. July 14. R.C. and I went early to the monastery to see if the hunters whom the abbot summoned yesterday had arrived. He had it, so when our horses showed up we traded. The abbot again gave tea and in parting gave both of us sacred scarves, me a Tibetan sheath knife & R.C. a cake of Tibetan tea. ~~and we departed~~. First we bot an ancient curiously carved teatable from the custodian of the monastery. The carving is bold and graceful and of a totally different character from that of the tables nowadays manufactured. The top was soaked in generations of butter imbibed from the tea that had been spilled by the guests of the ages and the gay paint that the people in the country affect to all carvings has been toned to greyblack by similar agencies. The view from the monastery is perfect. To the west the whole green plain with its numerous meandering streams, just wide enough so that in proper places a man can jump, and full of fish. To the east and north the Hanle River plain for miles,

73) flanked by the snows of majestic peaks that stretch
toward the Indus as far as the eye can reach. Not as yet
on the Southern plain but there are chiefly weeds in them.
A field below the monastery had a few healthy turnips and
many weeds and one had thrifty barley but the cattle and
rodents had eaten half already. The night, the cold enough to
allow the formation of ice, is not much warmer than at other
places we have been and they could undoubtedly grow
things if they knew how. They have recently planted a
willow below the monastery and it has grown in a few years
into a flourishing shrub, the first ~~shrub larger than~~
a drama bush we have seen since leaving the Indus
valley from afar we saw a similar tree in its valley.
The people at Hanle were sometimes good looking and much
friendlier than any we had met in Rupshu. There are perhaps
50 on the plain. Among them was a beggar, ~~he was~~, a Kashmiri they
said, who refused money and begged for flour. We had
no flour ~~could beg~~ at the moment but the money was
nevertheless not accepted. — Our road ran all day along
the Hanle River that flows thru a plain 1½ to 1 mile wide. It
is green all the way from the ranges on each side. There are
shrubs of drama in large patches and on gravel alluvial
plains often clumps of pinkish fragrant tamarisk 6 ft. high.
In one of the pools was a great growth of tiny buttercups
so fragrant that the passing traveler caught the scent.
One of our horses that ate near feeling the stimulating effect
of the upland grass took fright at some spot he was
carrying & stampeded the caravan. Two native boys
ahead knew how to stop them & we then collected our
steed from various places in the greensward. All but

the 2 mules that hadn't ever seen pet & run had thrown off & lost the saddles, yet nothing appeared to have suffered but the lantern; fragments of glass and metal from it strewed the landscape. One of the lads gathered these glass included, and cached them under a rock. There are several clusters of tents scattered along the river and herds of sheep & yaks are numerous. The pet disease hasn't reached Hunza. A tent or 2 of tent-dwellers that spend the winter in Kuba were camped near our halting place and we bot several rugs. The Kufchu people display very little jewelry but these, male and female, have their fingers laden if they have any standing at all. We selected a place near water and grass to pitch camp, having ahead marched some 22 miles but the horsemen arrived & said beyond the grass was excellent grass, so on we went. The pass, Kuzgil La, was about 1000 ft. above the plain, and 2 or 3 miles long, of beautiful (from the agriculturist's point of view) shale, no stones and little gravel but not more than half dozen plants to grow in sight all the way. We knew the horsemen had never seen the ground ahead and that they must have got the information from the natives, who by the way, always want to send you on ahead, either from fear of you or to avoid sare the grass for their own animals, so we were uncertain as to what we should find after our long trek. But sure enough, it was a lovely place — a green meadow against the mountain wall with the river in 3 meandering parts in front. We arrived at 6:00 after 11 hours of march

75) The are most abundant growths of Ephedra on the hills from Hanle. The Tibetan Chemists have found the Lahul Ephedra to be of high virtue and possibly this is also superior. — Our Lama stayed behind at Hanle to copy a book in which he was interested, and incidentally made inquires about the diet of the patives. In the morning they make a soup from meat or cheese with some roasted flour (Sattu). Around 10:00 they make tea; those well to do drink Tibetan tea with butter, the rest drink Kangra tea. Sattu is again mixed with this and is eaten with the bent finger. Spoons are unknown in the hills. The Evening meal may be of (1) Kire — dumplings of flour (atta) with fat or meat broth (2) momo(k) — pounded meat spiced wrapped in unleavened bread (roti). Poorer people eat more simply with more soup and nettles or other weeds. A great luxury is rice or rice melted butter and sugar are found. All grain must be imported The men go to Tibet for salt, a 2 months journey. For Rs 5 and a sheep they get from the Tibetan Government permits to take out 100 sheep loads of salt. This they barter in Lahul, Spiti & Rampur for flour. Everyone must therefor have sheep — Sheep are the basic key as land is below. The men's work is this traffic. The women stay at home looking after the flocks that remain and weave clothes and tents. The meat that is sold is usually cut by the buyer. (At Dultak a Tibetan agreed to sell the meat at 12 as (about 25 cents) a head. The cutter gets 1½ g.) The buyer promises to come the ensuing year at a certain date

Agreement between ~~Mohamed Kader~~ Walter Koelz of the Himalayan Research Institute, Naggar, ~~Kulu~~ and Mohamed Kader, horseowner and zamindar of Nagwain and Ram Dullah, trader and horseowner of Naggar, all resident in the district of Kulu, for the purpose of supplying fourteen pack horses for the journey from Naggar, Kulu to Ladak via ~~Kyelang~~ Bara Lacha and Tso Morari and returning ~~here~~ Zangskar by any one of the routes that are passable to horses.

It is agreed that the first party shall not ask for more than one march per day and shall pay to the parties of the second part on the day of start from Naggar the sum of twenty rupees per horse or a total of two hundred eighty rupees, the balance to be paid on return to Naggar.

The parties of the second part agree (One) to supply fourteen sound strong horses without wounds at the rate of one rupee per stage per ~~stage~~ horse and eight annas for each day of halt, and to ~~def~~ complete the first stage of the above-agreed journey on June 7, 1931. They agree also to make such extra marches and halts as may be required, provided only that Bara Lacha Pass be crossed by October 1, 1931 (15th Asoj, 1988)

With this ~~addition~~ exception that in Leh the party of the first part may be called upon to advance against the total hire due the sum of seventy five rupees, and after leaving Leh an additional sum of twenty five rupees, the total of such money as is advanced to be deducted from the amount receivable at Naggar.

To bind this agreement the parties of the second part deposit ten rupees as earnest money, the sum to be returned on the the day of departure from Naggar.

This agreement is signed by the three parties herein mentioned as below on this 5th of June, 1931.

Walter Kaely
party of the first part

Mohamed Kadir

Ram Dulla

parties of the second part

It is also agreed that the party of the first part shall in no way be responsible for any mishaps, illness, fatal or otherwise, to any of the parties of the second part or to their horses or possessions. ~~Shall~~

Agreement between Walter Kaelin for the Roerich Himalayan Research Institute and Ram Dulla, Teth of Nagga, Kulu, Punjab for furnishing horses for transporting baggage from Nagga to Rampur and other places.

It is agreed that Ram Dulla will furnish 3 sound horses at a rate of one rupee each per stage and eight annas each for each day of halt.

It is further agreed that these three horses are to return from Darkali in Rampur-Bushahr with no payment for the return journey except as they carry goods for the Roerich Himalayan Research Institute. In that case such horses are to be paid for as actually carry loads and they are to receive payment only from the stage where such load or loads are received.

It is further agreed that Ram Dulla will take reasonable care in transporting the goods of the Roerich Himalayan Research Institute to guard them against loss by rain, theft, etc.

And further, that said Roerich Himalayan Research Institute shall be in no way responsible for any losses or injuries suffered by Ram Dulla on this journey, whether such losses and injuries are sustained by himself, his servants, goods, horses, or any other part of the personnel and equipment involved in the transport herein referred to.

It is further agreed that in the event one or more horses are disabled, if such horses are not replaced within a day after such ~~loss~~ disablement, Ram Dulla may not claim payment for the services of such horse or horses after the date on which the animal or animals are disabled.

Walter Kaelin for the Himalayan Research Institute