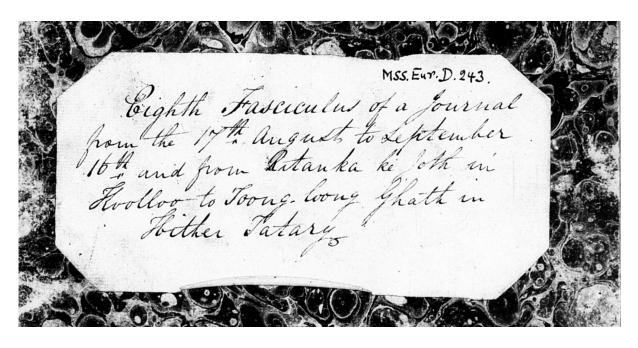
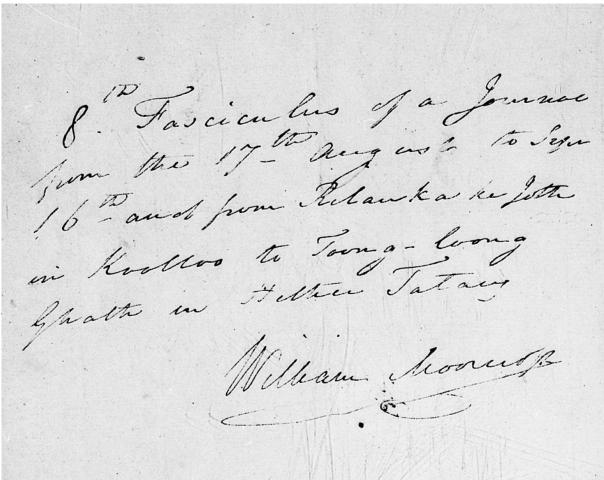
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Transcribed by Janet Rizvi



MSS. Eur. D. 243 Eighth Fasciculus of Journal from the 17th August to September 16th and from Ritanka ki Joth in Kolloo to Toong-Loong Ghath in Hither Tatary



8th Fasciculus of Journal from the 17th August to Sept16th and from Ritanka ki Joth in Kolloo to Toong-Loong Ghath in Hither Tatary.
William Moorcroft

Aug^t 17th On the ascent of the Ritanka ki Joth.

The night has been fair and the morning is fine. Milk not being obtainable we made our breakfast without it, substituting water, the springs of which when they first break out are tepid but the current after running a short distance assumes the temperature of the Atmosphere which although only 50 is to our feeling particularly cold from the sudden transition from a higher temperature. The ascent winding towards the East afterwards varying to the N. Sometimes moderately flat for a short distance but generally the path is covered with rough blocks of stone. The Beas on our right is occasionally hidden from our sight and when exposed appears greatly diminished. The Saghoo a Rivulet which falls into it from the East appears larger than the Beas and descends from beds of Snow. The Firs on the middle part of the Mountains are thin and poor as if stunted in their growth, the Birches which are somewhat lower down are generally crooked. The summits of the lower peaks are naked but of the higher covered with Snow. Large beds in the Gorges on a level with our path are still full of Snow and from the small currents of water which escape from beneath them are not

likely to be melted this season. The rugged road in an angle of the Mountain crosses a Stream which dashes over a face of rock from under a bed of Snow N 23 West.

2

From this stream the road ascends in a more easterly direction for about a mile and a half and at a short distance from it on the right is the source of the Beas about half a quarter of a Mile from the top of the Pass or Ghat and about a hundred feet below it. A stream about three feet broad and six inches deep escapes from under an insulated block of Mica Slate intersected by veins of Quartz. A few feet in front of the block a wall of loose stones about two feet high forms three sides of a square left open in front to give access to the God Rikkee who presides over the River and is thence called Beas Rikkee. The Statue is about 18 or 20 inches high of one stone cut in low relief and from the surface exhibiting marks of general wasting although of a hard nature would seem to be of remote antiquity. Slight traces of long tresses of Hair are discoverable but the features of the countenance are worn away. On the right hand of this Statue is one much smaller the name of which was not known to my informer. The inside of the Wall was covered with flowers offered up by the Hindoo visitants and each generally sets a stone on end to commemorate his visit. A body of our Porters placed several stones in a pile as a memento of our having been the first Europeans who had visited the source of the Beas but appeared more eager to receive the reward of their labor than attentive to the solidity of the edifice they

they [sic] had raised. The Water of the Spring is clear, and cold. No Snow was on the place or near it, but much lay in situations of the surrounding Mountains lower than the source. The ground on the same plane [?] around the spring was spongy and springy and intersected by narrow and deep channels. The land inclined gently and the Stream flowed at about West 50° South.

The principles on which the sources of Rivers have been named have perhaps not yet been so decidedly adjusted as to have a claim to be considered as established. That Stream which is the most remote in a straight line from the mouth of the river is perhaps best entitled to be held as the Mother Current although it may not furnish as much Water as others which fall into its bed at an Angle.

The Ghat of Ritanka Joth forms a Gap or Pass in that chain of Mountains within the Raj of Koolloo which constitutes its northern and highest lands. All the waters from a certain extent of the southern face of this chain fall into the Beas and its source or Beas Rikkee rises within six hundred feet horizontal distance of the level of the summit of the Pass. From its vicinity to the Pass the Rikkee Spring may legitimately be considered as the head or source of the Beas independantly [sic] of the claim founded on the suffrage of the Natives from time immemorial. But in many instances research will probably shew that the sources of some rivers are assigned as often from caprice

3

prejudice or the authority of the first namer as from real claim of fact. And a fondness for giving to a river one single and distinct origin has often served to perpetuate confusion and error; for if the various currents which give rise to Rivers in mountainous countries be carefully examined it will sometimes appear that not any one of them has a decided right to

take the name of the River as its source in preference to others. At the Beas Rikkee Spring the Barometer stood at 18,68 Inches and the Ther[mometer] at 69°. As the distance from the Ghat and the difference of elevation were very trifling these results may be safely taken as applicable to both situations. The summit of the Ghat was level for a short distance the Gorge about half a quarter of a mile in breadth between the bases of Mountains of no very great height. From the Ghat a clear sky exhibited the summits of lofty and somewhat distant Mountains in Tatary capped with Snow and their uppermost Gorges filled with beds of brilliant whiteness whilst those close to us of inferior size had their peaks crowned also with white Snow but their Ravines and recesses contained beds tarnished by rain and the rubbish of decomposed rocks and from beneath them currents of water escaped either in ribband like lines or dashed over the face of Rocks in cascades into the Chundra Bhaghee which separating the Raj of Koolloo from the Province of Lahool

in Tatary ran in the valley in front of the Ghat at about 800 paces horizontal distance but greatly below it. This River entered the Valley or narrow separation of the bases of the Mountains from 26° N and ran down it W 33½ N. It is said to spring in Peetee a Province of Bhoth which was before mentioned as giving rise to the Ravee. Just below the Ghat are two small Pools sacred to the God Gepun the Patron of Lahool. All the Waters on the northern face of the last Koolloo ridge or the chain which continues East and West the line of the Ritanka ki Joth Pass fall into the Chundra Baghee.

From the Ghat the road descends for about five miles and not far from left bank of the Chundra to a swing bridge across it leading to the village of Khooksur or Kungsun. This consists of two small hamlets one to the E of the Bridge on a plot of ground well tilled and bearing good crops of Barley in ear but green and of Buckwheat just breaking into flowers. The other stands upon a height to the N of the Bridge and its lands are equally extensive and productive both having a command of water for irrigation from the springs which issue from the huge Cliffs which form the Wall of the northern side of the Valley, or from conduits led from the Streams which issue from deep and narrow Gorges or Breaks in the line of the Mountains. It is difficult to determine whether these Watercourses be

4

wholly the work of the pressure and attrition of water or partly of a cleft formed by an earthquake which has subsequently served as a channel for a current. For a considerable height above the present level of the water the sides of the cleft have that smoothed surface which is the result of the long continued action of a rapid stream. The faces of the upper portion are angular sharp and irregular is if resulting from sudden fracture. But this testimony is not decisive because the falling off of portions of rock by long exposure to the weather may have destroyed the surface left by the torrent. If the route have been cut by water the operation must have been that of ages.

The variety of Scarlet Strawberry that had hitherto been met with though inviting in appearance was wholly destitute of flavor and the yellow, tawny, crimson, scarlet white flowered varieties were all sterile or produced seeds without pulp. Here however opposite to the first hamlet of Khooksur I found the red Alpine Strawberry with the flavor of that of the Hautboy¹. I pointed out to the Gamekiller who accompanied me from Shoojanpoor the distinctive characters of this plant and enjoined him to carry some to his Master Raja Sunsar Chund. The ascent from the foot of the Lesdhur, or the Ralha Rivulet is about 4 Kos and the

descent to Khooksur somewhat more than two. Altogether the distance from Poolchan seems about 11 Kos.

The Swing bridge across the Chundra Bhaghee was made of Ropes of Birch twigs on the sides and of wicker work of the same material for the bottom. It was very elastic and I conceive is more durable than that of star-grass and Bamboo and is certainly much lighter in appearance and reality. The parapet lines were rather lower than was comfortable and the passenger was obliged to stoop considerably in order to take advantage of the support they were intended to afford. The river was 96.7 feet broad at the Jhoola the situation of which was chosen from the stream being here somewhat more narrow than in other places and from it passing through Jaws of stone which afforded a facility for sustaining the Bridge. At a distance this Jhoola looked like a large Chain. On a level with the Bridge the Barometer stood at 20,64 with the Therm[ometer] at 80°. From the Mountain-Cliffs of Koolloo several Cascades fall into the Chundra and that nearest to the Bridge proceeds from the Shushur Lake a Koond which parts with its surplus water arising from the melted Snow by this vent as well as by that of Ralha. The Current of the Chundra rushed along its channel with great impetuosity and the dashing, boiling and rising of its waves in foam and spray announced the presence of large blocks of stone in its bed. Indeed at Sooltanpoor Koolloo it was stated to be impossible

5

to reach Tatary with Horses at this season on account of the impetuosity of the Torrents and the slightness of such bridges as were thrown over them. To pass the Chandra and the other river which joins it from Tatary was declared impracticable and it was advised that all the Horses should be sent back. However that no assistance might be wanting on the part of the Wuzeer Regent he directed four Desse [?] or Watermen to attend us with their Bullock Skins. In a few days two deserted after having seen some of the Rivers but the two others held out and promised to give proof of their courage and dexterity on the first occasion. On shewing to them a reach in which the stream though rapid was neither broken by many eddies or rises they declared their inability to cross it. As the Watermen of Raja Sunsar Chund had actually crossed the H-[illeg.] with our Horses just above a rapid more formidable than the dangers the Chundra presented at this place I perceived that they were either cowardly or unwilling and not to be relied on. It appeared to me probable that Neat Cattle crossed to graze on the opposite bank and that in this case the place they used must be known to their owners. I therefore proceeded alone to the village of the first Kookhsur and by the aid of a Shepherd of Raja Sunsar Chund's explained to the principal villager the object of my addressing him at the same time offering him a suitable reward for his information.

He however declared his total inability to afford us any aid as the River would be impassable for Horses until the commencement of the Month of Kartik. The Wuzeers [men] who had come with us from Sooltanpoor kept out of the way but sent word that they could only make themselves responsible for the conveyance of the baggage and could give no advice or assistance regarding the Horses. For Villages see Page [blank] [sic]

August 18th. It had rained smartly during the night and the morning was cold. While I was engaged in examining the River Meer Izzet Ooollah Khan informed me that some Kangra Shepherds had decidedly promised to cause the Horses to pass without loss for about the Sum

of two Guineas. We had tied our Tent Ropes together so as to make one which had been passed along the Jhoola and carried across the River but when dropped into the Stream and pulled upwards the force of the water had broken it. The Shepherds however brought their own Ropes made of the hair of the fleece of the Shawl wool Goat sewed [?] double and began their operations with so much energy and address as to conquer the objections I had entertained against employing Ropes which from their weight when filled with water and by the force with which they would be driven down the stream would I fear pull the Horses head under water. I directed the trial to be made with a Hill Pony. The Rope was fastened to a Halter and the Animal entered the water and swam gallantly

6

till he had nearly reached the middle of the Stream when he was hurried along the Current. The Rope was held by Shepherds on both sides and those on the bank from which the Horse went off had very properly let out as much Rope as allowed the animal to get on but when these people saw that he was carried down the Stream they pulled as well as those on the opposite bank by which means the Pony was dragged under water the noises of the waves and breadth of the Stream prevented their hearing the repeated calls to slacken the Rope. Before the Animal reached the bank he was dead.

No further trial of the Rope was made and I resolved to turn the Horses into the River loose provided a place could not be found where the Watermen could use their Bags. I had been told that there was no path on the left bank below the Jhoola but to satisfy myself of the truth of this report I went along the right bank and a Mile below the bridge found a reach where the Stream set from the left to the right bank smooth deep and narrow but with a good landing place and I also saw a path on which persons were carrying loads on the left bank and on which Horses might also go. But as I had to make some long detours before I had got to the Tents an attempt had been made to pass the Horses singly along a reach I had thought the best above the Bridge and all of

them had got to shore safely with the exception of some scrapes and bruises on their legs against stones. But the blows they met with against blocks were much less severe than I expected as the Animals rising with the swell were swept over them with only slight grazing. Many were severely ducked and hidden for a few seconds by the waves and spray but none apparently received water in the lungs except the Pony that was drowned. This experiment added to former ones induces me to prefer swimming Horses loose to any other method except by affording them aid by Skin Bag men when the crossing is to be effected in front of a rapid.

August 19th. Rain again fell during the night. The road first passes immediately at the foot [of] the high bare cliffs of Khooksur on the right having the right bank of the Chundra on the left and crosses a Sanga over the Khooksur Rivulet which was lower than when I passed it yesterday afternoon by at least a foot. The Chundra was highest at night fall and the difference between this time and ten in the morning was at least 18 inches. At upper Kookhsur² I saw a pile of Stones about 4 feet high 4 broad and 20 feet long on the top of which were laid others inscribed with characters that appeared to me of three different kinds viz The large and what I understood to be that particularly belonging to sacred writings an angular one with straight sides which I do not recollect and a third that re-

Resembled [sic] so strongly the characters engraved on the Copper Sheets of Punkhesen [?] as to induce a suspicion that the latter will be understood by the lamas. Whether these be ex voto offerings from devotional motives or obituary mementos I cannot learn but such I always observed near every village in the Oondes in my former journey to that Country. I understood that they were sent by the Lama under whose spiritual jurisdiction this District was placed. The road goes across the face of a recent Earth-slip and is narrow and unsafe. I was here overtaken by the Shepherds who had attempted to pass my Pony over the Chundra. No allusion was made either by them or me to this incident or its result but as I found one of them had been at Yarkund and I had heard some particulars of the Shawl Wool Trade at that place, which interested [me] I made some enquiries on that subject. He agreed with my former informant in regard to the quality of the wool of Yarkund being superior to that of Bhoth and also to its being cheaper in about the proportion of 5 to 4-3. Four Buttees or eight pucka Sers being procurable for three Rupees. This difference will however do little more than compensate for the difference of the road expenses of from thirty to forty days additional march unless the price of merchandize imported to Yarkund be much greater than at Leh. But the Shepherd says that the Raja of Ludagh endeavours to prevent Yarkund Wool from entering Kashmeer and

even plunders Traders who endeavor to carry on a traffic between these Countries in this article. This if true is an important fact well meriting investigation as roads may be found between Yarkund and Hindoostan without passing through Leh or indeed any portion of Tibet except its western extremity which is little influenced by the Ludagh Chief. I mention this in reference to a road through Kashkar in Chitral. [sic] It would seem that as yet there has been no road from the Mountains of Koolloo, Chumba, Kishtwar or Kashmeer except through Leh to Yarkund that has been regularly pursued as a route of traffic but it is said that there is a road from Kashmeer which in six days falls in with that of Ludagh near Karakoorum. It may be advisable for a time to pursue the Ludagh road and hire transport Cattle for the trip to Yarkund but it may be then desirable to purchase Toorkee Mares to load them with Shawl Wool and bring them direct to Lahool for though Chumba might answer for going with merchandize it will not do for returning on account of the roughness of the road for Horses or rather I should say its impracticability it being necessary in some places to raise them by ropes up the face of precipices and in others to lower them by the same means. If the Yarkund Authorities will consent to a traffic with us on fair terms the intercourse may be advantageous to both parties as they would take off our Woollens and printed Cottons and we should take their Mares and Wool. I do not look for elegant Mares in Yarkund but for strong

[one spread is here left blank, no doubt inadvertently, and given the number 9]

useful animals which after having carried the Wool to Furokhabad might be sold to the Hon Company's Stud for breeding Horses or Mules as may be thought best.

On the road I met with two half starved Faquers one from Chuprah the other from Oojaen in the Dukhan both on a pilgrimage to Tilokhnath. To the right and considerably above the road was the small village of Te-ling near which some Yaks were grazing. From a height we saw to the left and on a small plain on the left bank of the Chundra the hamlet of See-tee surrounded by Willows and fields of Barley and Buckwheat with a swinging bridge of

8

Birchen Ropes across the River and before us at a greater distance the town of See-soo Between the first and second villages of See-soo we crossed the Seesoo Rivulet a stream of only four or five yards broad but which rolls down its stony bed a deep current with a force that nothing but very hard rock could resist and this is scooped into curious cavities and recesses from the almost precipitous dashing of the water. Here I found the same variety of Currant I first met with near Neetee and cut off a considerable number of slips. On the summit of the ascent from the Water a flat stone about 4 feet square and 3 inches thick was set on end on the right side of the path and the front was sculptured in five compartments running across it. The upper compartment contained in its middle two human figures and on each side a couple of Cocks fighting. The second consisted of several insulated

knots or twists of rope; the third had a centre piece of three human figures defaced with an expanded Starflower on each side; the fourth contained two twists of contwined [?] Rope and of the 5th a part of the upper edge was only visible. The whole was in low relief, of indifferent execution but of considerable antiquity. The road passed through a small Stone Doorway the sides of the wall stuck full of flowers and the Stones at the top covered with pieces of white and colored Quartz. This was dedicated to the God Gepun.

Another Table of stone with figures somewhat varying from the former was stuck up on the side of the road at the other end of the 2^d Town. Here I met with the first Gooseberry Bush I had seen in this journey and I saw several times today as also at Kookhsur the small single China Pink [?] in flower. We encamped at the 3d village of See-soo and I planted cuttings of the Currant and Gooseberry in moist ground and directed Raja Sunsar Chund's Man to take them up on his return along with runners of the Alpine Strawberry for his Master. The towns of See-soo are mean looking, the houses of stone & mud with flat roofs but the crops of Barley and Buckwheat of good promise, clean and well watered speak favorably both of the soil and of the industry of the inhabitants. The general direction of the road has been westerly generally within a few hundred yards of the River and the distance about 13 Miles

10

The villages passed in this day's march the first made in Bhoth or Tatary consisted of very few houses all of the same construction viz of stones with mortar of mud and flat roofs. August 20th. Left Seesoo at nine oclock and continue [sic] our march in a westerly direction along the left bank of the Chundra. At a short distance on the left hand is the small village of Rokhsur containing about 15 houses near which our Porters discovered Carraway seeds growing wild on the Mountains and fully ripe. The road is narrow and requires caution Roopsing is another village of 7 or 8 Houses on the left and near it is Sho-ling. Peting consists of 10 or 12 Moos-lee has about 8. Sheo-ree 5 or 6 Kungsur about as many and Gospoo 10 or 12 on the left. It has been stated that the small piles of Stone with a square base and a tapering top near villages and somewhat like Houses though not exceeding for the most part 6 or 8 feet at the base [illeg. due to a large blot] or 14 high are built as monuments [blot] of the inhabitants of the village. Their size is said to be regulated by the importance of the deceased a large Tower or Pile being raised to a wealthy man and a small one to an individual of lesser consideration. It was further mentioned that the Heir of the deceased opened a ritual which prescribed the mode of disposing of dead bodies by burning, interment, exposure or throwing into the River and the first method upon which his eye fixed was preferred. That afterwards the name age condition and character of the defunct were

engraved on stones and deposited upon the monumental pile. Some of the monumental Towers seen today were newly whitewashed. The village of Gospoo on the left was composed of ten or twelve houses, whilst that of Goondola consisted only of one tall square Tower from 30 to 40 feet high surrounded by some low flat-roofed buildings. This edifice was said to have been given by the Koolloo Raja for religious purposes and several Fuquers some from Brindabund on a pilgrimage to Tiloknath had taken up their lodgings in its lower apartments. To-sung a village on the right contained 7 or 8 Houses and Da-lung on the left as many. All the villages have plantations of Willows near them; they are all Pollards the natives employ the twigs for making baskets. The only trees seen today are Willows, low Pines, Birch and Savine. The cultivation lands near villages had no other crops upon them than Barley and Buckwheat

There were many Coveys of the Francolin Partridge near our encampment but the young brood could only just fly. The distance of this day's march was about [line left blank] August 21. It has snowed last night on the neighboring peaks but rained in the valley where we are encamped which is not more than a musket shot across. The road N by W narrow but tolerably level across the face of Mountains the River about 200 feet below, after about three miles four villages are seen on a plain and slope of land in Barley and Buckwheat.

11

These are Burkalamuk, Moling, Topchen and Shee-ting. Their inhabitants owe military service to the Raja of Koolloo but pay rent for their land to the Raja of Ludagh. The narrow path leads over the surface of Avalanches not yet at rest and a slip from it would precipitate the traveller into the River the rapid [appar. sic] slope consisting merely of small fragments of a decomposed and friable slate frequently detached from the weathered rocks on the right. A very active and light Spaniel could scarcely save herself from going down the face of the Slip. Having reached the top of a Ghat the path suddenly descends stony, narrow, rough and crooked to the level of the bed of the river and again ascends and winds till it reaches a Jhoola of birchen twigs that stretches across the river at the bottom of which is a line of narrow fir plank as a platform. From this point the village of Goosha is seen on the left and that of Tondee or Tundee on the right bank of the River. A River coming from the E unites with the Chundra and the Stream after the union takes the name of Chundra Baghee. We had hitherto found much difference in the accounts given of the names of these Rivers. At Khooksur the first River was called by some the Chundra by others the Bhaghee. Here however the first River was steadily called the Chundra and Ruma the Kunoongo of Tundee said the other was the Sooraj Bhaghee and that after the Sungut or union of the two Rivers the common Trunk bore

the name of Chunder or Chundra Bhagee. The Sooraj Bhaghee is reported to rise from a small lake at Choskum said to be on our road. The Chundra Bhagee is the Chunab or Chunav. At the Jhoola the Chundra was 39½ yards broad smooth and apparently deep. The Sooraj Bhaghee was 29 yards broad, rough and rapid. And after the confluence the River taken at a mean breadth measured 75 yards across, moderately smooth the Stream going off N 41° W. The Barometer was here 21,26 Ther[mometer] 70. The Chundra Bhagee or Chunab proceeds to Kishtwar a distance of 150 Kos, then to Uknoor 50 Kos to Goojrat 60 Kos whence its course by Wuzeerabad downwards is sufficiently known. The village of Goosha contains a

group of about 20 houses clustered together the sides of stones cemented and plastered with mud mortar, the roofs flat and the tops of the wall covered with piles of faggots and split wood for firing during the cold season which lasts from Nov^r to the end of April. It stands upon a small flat plot of ground separated from a large portion of land in Barley and Buckwheat by two small Rivulets edged with Willows. Tundee on the opposite bank but farther removed from the River consists of only 5 or 6 houses one of which belongs to the Raja of Koolloo is square better [?] than the rest and serves as a Depot for the Grain collected as rent from the Peasantry and afterwards

12

resold for the Rajas benefit. Koolloo has two Officers constantly residing here one called the Hakim and named Palsiree [?] and the other a Kanoongo called Rama. The former seemed a quiet man of few words, the latter was a smart active man who was particularly useful to us in making arrangements for the conveyance of our baggage to Ludagh. These offices it would appear are hereditary and the holders cannot be displaced even by the Raja but the extent of their powers we could not ascertain. The Peasantry of Lahoul hold their lands generally from the Raja of Koolloo with the exception of those of Burkulamuk and the other adjoining villages which probably were granted in jagheer to the Raja of Ludagh by the Moghul Emperor, Muhmood Shah and through the courtesy of the Raja of Koolloo have not been resumed since the dissolution of the Moghul Empire. No information could be obtained of the amount of the Land Revenue or of the extent of the Rajs of Chumba or Koolloo indeed of the latter the Officers of the Govt. were uninformed as no measurement or survey has ever been made and no regularity was observable in their computed Kosses. The inhabitants of this frontier are often engaged in traffic and as carriers for traders as well as in agriculture. Ludagh or rather Leh its Capital was reported to be at the distance of twenty marches. The hire of Tuttoos for the trip was usually eleven Rupees per

Animal but a Kashmeeree who had reached Tundee a few days before us had offered thirteen if Poneys[sic] should be furnished to him so that he might depart before our arrival. As Cattle were directed by the Wuzeer to be kept for us the Kashmeeree did not carry his point but the price he offered was made the hire we were to pay. The carriers reported that the usual load of a Tuttoo was four Kucha Maunds but some persons from Chumba interposed and insisted upon the customary load being 5 Kucha amounting to 2 pucka Maunds. I had been frequently informed of the dearness of Grain at Leh and therefore laid in as much for my party at Koolloo as amounted to about eight hundred Rupees in carriage alone. Much of the wheat had been ground and as we could procure only bags of Cotton Cloth a large quantity was wetted and stuck to the inside of the bags and a large quantity was eaten by the Porters. At Tundee we learned that Grain Pulse Rice and Flour were this year particularly cheap at Ludagh and that much loss would be experienced by taking on that we had purchased. Even if the purchase had not been made and money paid for the transport of the Grain I should have thought it imprudent to have trusted to an account so contrary to general report but as the arrangements were made nothing could now be done towards

13

modifying [them]. The rates of carriage seemed to me very high but it remains to be seen whether in relation to the advanced state of the season the necessity of carrying provisions for

the sustenance of the Carriers and their Cattle they be really as extravagant as they appear. Besides we are the first Europeans who have come into this Country and as the Natives have extravagant ideas of the wealth of Feringees in general we may have been somewhat imposed upon.

Although my finances were not very flourishing I conceived it best rather to be liberal than parsimonious in order to leave an impression favorable to farther intercourse. At Tundee I found two Messengers with presents of a hundred Rupees Rice Goats and a Hill Poney from the Ranee of Chumba although the distance from her Capital was estimated at upwards of a hundred and fifty Kos. A letter contained a statement of her ailments which were abundantly numerous although she was as yet a young woman. She had she said been bewitched by the incantations of a Daeen and at the same time that she requested I would furnish medicines that should remove her complaints she conjured me to punish the Witch that had so sorely afflicted her. I returned such medicines as I thought likely to be useful along with a present of superfine Scarlet Broad Cloth, a Kaleidoscope, handsome French Snuff Box and some Virginia Tobacco for her Hooqqu [sic] and suitably rewarded her

Servants. The Koolloo Raja sent five Goats and another Hill Poney just as I was about to leave Tundee. I returned some Green Broad Cloth a Kaleidoscope and a neat Europe Box[??]. And to Sobha Ram I forwarded a Certificate of his having rendered us many good offices. At this place I lost a most valuable Arab Horse from his having eaten about three Ounces of Jumalgota Pills. At night I was informed that the Horse had refused his Corn and on seeing him observed symptoms which announced an affection of the Stomach. On making strict enquiries as to the cause Mr Guthrie who accompanied me as Apothecary said that a large quantity of Pills of Jumalgota recently prepared and placed near the door of his Tent to dry in the Sun had suddenly disappeared and he could not learn any account of them. As it appeared that they had been made up with Honey I had no doubt of the Horse having eaten them. My Horses had become so tame and familiar that they wandered about the Camp like Dogs and frequently received the remainder of a dinner. He purged violently and died in the night. His Stomach was more inflamed than any I ever saw and his Intestines were also in a state of great inflammation and empty. A large quantity of bloody fluids was in the Stomach. This loss was heavy as the Animal was particularly active and I depended upon him for riding down wild Horses and Asses in the Steppes of Tatary.

14

At Tundee I experienced considerable oppression about the heart [?] and took away about 18 Oz. of blood. This relieved me immediately but the relief was not permanent as on the 4th day difficulty or rather unusual quickness of breathing took place on slight exertion. The same thing took place in regard to Mr Trebeck whom I likewise bled but a headach [sic] to which I had been subject for 3 or 4 hours every day for a fortnight was permanently removed by the evacuation. Many of the Servants were attacked by Fever. I gave them an Emetic first then a Purgative if the Bowels were not thoroughly emptied the solution of Arsenic in the intervals and another Emetic on the coming on of the cold and Opium on the accession of the hot stage. The persons attacked speedily recovered, none lingered. Sher Ulee had been attacked with Cholera early in the morning and I was apprised of it only at ½ past three. He was then much exhausted by vomiting purging and pain about the Navel. Latterly he had passed some blood with his Urine and had violent pain in the region of the right Kidney. His

countenance was sunk and his Pulse only just discoverable at the Wrist[.] Extremities and Skin cold. Four small Balls of cotton dipped in Oil of Turpentine were placed round the Navel and set on fire. He roared from the pain of the burning which lasted about a minute but the pain in the Intestines ceased and his Pulse rose. An effervescent mixture

was given with a little Comp Tincture of L-[illeg. ?Lavender] 5 grs of Cal & 50 drops of Laudanum. His limbs were put into action by four men his back of which the pain was only lessened by the burning was rubbed with Oil of Turp & Camphor and his feet put into hot water. He soon recovered. I have not lost a single Patient when this practice was resorted to early. The Natives caution us particularly against sleeping in the day time as they say that scarcely any one so sleeps without afterwards being attacked by fever at this season. The Natives both Men and Women dress entirely in Woollens of their own making both winter and summer. Some use Tippets and Coats of Sheepskin cured simply by rubbing between the hands the flesh sides worn outside the wool clipped off to about half an inch within. Improvements? To dye and cure the Skin and Wool together and cut it into a dress and bind it substantially with leather dyed of another color. Could any dress be cheaper, warmer lighter or more lasting? The woollens are wore as they come from the Loom. Wool is bought here at 12 Kucha Ser of 27 Rs [blank] for the old Dehlee Rupee equal to 4½ Sers Pucka of 84 Rs [blank]. At Koolloo, Sooltanpoor, 10 Sers are sold per Rupee. It is spun by Men into Yarn with a single Spindle rapidly and almost as even as with a wheel. Two pieces of Woollen cloth with a thick felt on one side and smooth on the other soft & strong 42 feet in length or 21 ft. each of 10 inches in breadth were

15

bought by us for three Rupees and the usual [?] price is only 2/8. They weighed [blank] It is quite clear that Britain can never cope [?compete] with the Native Manufacturers in this article but the Hon^{ble} Company by setting up a Manufactory of such coarse woollens as cannot be profitably sold here by the British Manufacturer and by dyeing them fast colors might make a concern profitable in itself and cause these coarse Cloths gradually to introduce fine ones of British Manufacture. The Dress of the Men consists of a Woollen round Cap, a Coat Trowsers a Blanket with Grass Sandals. The women wear no Cap in general. The Caps of the Men might be made more gaudy than at present and would be better liked but the objection is increase of price. A cap with black Rim and red Crown weighing [blank] was bought for [blank]. The Trowsers are very good being made rather tight below the Calf and very long they are collected into narrow rolls from the thick part of the leg to the Ancle and here form an excellent Stocking but Socks and Leathern Shoes of substantial make and cheap would be useful and soon come into fashion.

<u>Ornaments</u> <u>Artificial Flowers.</u> One would hardly have expected that Tatar borderers would have worn artificial flowers but this is the fact. Seduced by the beauty of the colors of the flowers of the Mountains they collect and dry their Petals and afterwards

sew them in clusters in rude imitation of the originals tie them to stems of wood wound round with flower leaves also. Tufts of these as Bouquets are placed in their Bonnets. Whether the refuse of Milliners Shops could be worked up into strong Tufts so as to bear the expense of transport I am unable to say. The Women go bareheaded but tress their hair with great neatness. On the crown they wear a circular shallow hollow Cup of Silver from an inch to

two inches broad with a raised beaded edge and frequently with a coarse Stone in the Centre. They furnish the Silver themselves and pay about a fifth of its Value to the Blacksmith for his labour. At the lower surface are two small loops through which a plaited Tress passes so that the Crown cannot be lost. Some of the largest cost 3 Rupees. These might easily be made of Copper covered with laminated Silver and a colored Glass bead be introduced. This article might be manufactured with advantage at Birmingham.

They are very fond of all kinds of Beads and Ear rings and I propose to make a collection of their Ornaments for the use of the British Toy [?] trade.

Chukmuks or Light strikers. Every man has one of these depending by a Chain or Thong from his Girdle. It is made of Leather or Steel and [has] Brass or Iron Ornaments. The leather is disposed in the form of a Pouch which contains the cottony fibre of the Kuphee or of a variety of Artemisia

16

used as Tinder and a few pieces of Quartz. A little of the Tinder is placed immediately above the Quartz held between the forefinger and thumb and the edge of the Steel is struck forcibly against the Stone. The "Sparks fly upwards" and the Tinder is frequently lighted at the first attempt. This Instrument is sold for a Rupee and the most highly ornamented at a Rupee & a half. The goodness of the Steel is however more valued than the beauty of the Instrument. This Machine is not often manufactured in Tatary but generally brought from without. It might be made at an easy price on a large scale at Birmingham the ornaments being struck off in a fly press. Knives. Every Tatar who can procure a Knife has one also hanging from his Girdle. I do not yet know the form most preferred but will procure a Pattern. The women unite the ends of their tresses under the cover of a square or round convex piece of Mother of Pearl Shell like a Buckle 4 or 5 inches in diameter and from this hangs a braid of 3 or 4 rows of large blue beads separated from each other by collets of brass and sometimes by bands of brass and below these depends a small brass bell like a hawk bell at the end of each line of beads and this is generally terminated by a Cowree shell. A small hollow buckle shaped concave Disk of Brass polished also hangs from the Girdle with sometimes a narrow spoon of Brass also. The former often costs two Rupees

and might be manufactured to profit. This morning I saw one woman who had a Collar [?] or Fillet of leather on her head on which coarse [?] Turquoises were stuck and another had large Tresses of Mother of Pearl small beads intermixed with coral hanging in front and below the Ears but connected and supported by a small band across the upper part of the head. Large beads of Amber of an inferior quality form a favourite decoration for the Neck and these are obtained at Emritsir [?] at a rate so low as to prove that they cannot have come from Prussia. The coarse ill formed Turquoises generally in lumps [?] of a greenish hue and interrupted and veined as it were with deep fissures are said to come from the interior of Tatary. They are generally stuck in cross lines upon a lappet of leather which extends from the crown of the head as far as the Waist behind. The women thus decorated are the wives and daughters of Carriers and as they march along with their Sheep loaded with Grain make almost as much jingle as the leader of the Team of an English West country farmer. But the men are no less Coxcombs than the women and have their ear-rings, armlets and Necklaces also though of a kind less cumbrous than of the women. The latter have not any Ankle Ornaments or any Toe

rings. Both sexes are extremely curious and inquisitive and both have little leathern bags hanging from their Necks which are said to contain some Gifts from their Lamas 17

as Amulets and preservatives against witch craft and misfortune one of which was given to me for these purposes by the Lama of Daba in my former journey. Besides these the Women wear larger leathern purses or reticules but [with] the contents of these I am unacquainted. One yesterday had a highly polished Instrument consisting of three tubes each of the thickness of the little finger about three inches long connected at the top and bottom. It proved to be a needle case and I rewarded the good woman who gratified my curiosity by suffering me to examine it with a three sided [illeg.?Sail] Needle of much better make than any she possessed. As Needles are here only employed upon Woollens none but the larger kinds are required. Cases of this kind might easily be made of shewy appearance and low price. These matters may be thought of a trifling nature but I apprehend a large [number] of them sold at a low rate by a person deputed for the purpose travelling with a Caravan would give the Women a taste for European articles and lead them and their husbands gradually to expect and to acquire articles of higher convenience and of greater value.

Augt. 28th. Left Tundee and proceeded along the right bank of the Sooraj Bhaghee in a north-

Augt. 28th. <u>Left Tundee</u> and proceeded along the right bank of the Sooraj Bhaghee in a north-easterly direction the village of Wo-junk on a slope of cultivated land with Willow Trees about a Mile and a half in front on an eminence on the left bank

of the River [this sentence sic]. The road was stony, irregular sometimes ascending & sometimes slightly descending under the edge of high rugged rocks nearly [?nearby] base[??]. The separation between the bases of the rocks in general is only barely sufficient to give a passage to the Water but now [and] then there is a bed of which the Natives have taken advantage and cultivated with great care watering it with facility from small channels led from the neighbouring rock-streams. We encamped a little way from the village of Be-ling containing about [blank] Houses. We enjoyed the shade of a Willow Grove and I pitched my Tent under the polled head of one of which the Trunk measured 16 feet in circumference at three feet from the ground and was solid, but by far the greater part of the Trees were hollow. The Willow is principally planted on account of the large head of croppings it affords annually. These are made into faggots and ranged round the roofs of their houses for firewood. The spot on which our Tents stand is named Oob-ling. Just above it in a longitudinal recess in the face of the Cliff are placed 9 whited urns on pedestals of stonework and each covered with a flat stone. A little higher is an Urn of a larger size close to a house not yet finished and said to belong to a man of property. Between our encampment and the River is a large tract of land in a variety of Wheat or Barley for the Awa-jou somewhat resembles

18

both and is here called [blank] and in Buck wheat. The people are employed in pulling up the latter by the roots and laying it on the ground to dry. Dist. 1½ Kos. Aug^t 29th. It has blowed so hard from the S W during the greater part of the night that few have slept soundly and the early part of the morning was so cloudy as to render us apprehensive of rain however at 9 the Sun dispelled the heaviest of the Clouds. A line of Willows extends from Oob-ling to Be-ling about a quarter of a mile accompanied by a trench

containing wheyish colored snow water for irrigating the lower fields of Oob-ling. If this variety of Willow would grow freely in Hindoostan it would afford great comfort to its inhabitants by its shade which when the trunks are at no great distance is abundant the lopped head sending out such a mass of shoots as the Sun cannot pass through and from the rapidity of its growth if the head were lopped at the setting in of the rains a new crop would have sprung before the end of that season sufficient for affording shade during the rest of the year. But though the Willow will bear heat it requires more water than most situations in Hindoostan can afford. At Brujenathpoor the young Roots of Willows which shot into the Water or into moist cavities of earth were crimson and on pressing them between the fingers gave out freely the same color. At Oobling and its vicinity when a Willow rots in its wood which is always timely discovered the Natives take advantage of the decay and chip out the exposed part continuing the process till little

be left besides the Bark This is done merely for the sake of fire-wood which is scarce or rather difficult to be obtained from the firs on the upper parts of the Mountains. Whether the Bark be cut through from top to bottom or frequently split of itself I cannot say but I saw many large Trunks which divided were forming their distinct Bolls and several which were filled up from the curling in of the Bark. In one Tree which had been hollowed and the Bark had remained entire, from the lower surface of the centre of the head several shoots had been thrown down the middle of the cavity [?] of the Tree and struck root as soon as it [sic] reached the level of the ground without detaching any lateral branches or shoots in its passage. The Natives are careful to keep up the plantation and when one Tree is destroyed drive a thick stake of Willow into the Ground and tie round it some shoots of the Dog rose to defend it from Cattle and no other care is required. Be-ling contains about 15 or 16 houses. The road passes to the left and quitting the Willow plantation when mixed with Poplar and Cypress follows the Water trench which in some parts is formed by hollowed Trunks of Trees supported by Pillars of Stones to a Rivulet called Jo crossed by a wooden Sanga. This Stream falls into the Bhaghee and opposite to its confluence as well as to the town of Be-ling the village of Ker-dung is situated on an eminence surrounded by cultivated lands backed by Fir & Cypress Woods up the Mountain. The path crosses the face of Earthslips narrow and rugged sometimes

19

actually sliding gently downwards sometimes banked up by Stones. About a quarter of a Mile in advance and on the left bank of the river on a commanding height a good house belonging to the Raja of Koolloo called Boorbokshee and on the left of our road which continues along the right bank distant about 400 yards horizontally is a sepulchral Urn of rather a large size placed under a natural coping of rock and recently whitened. The road goes through Ke-lung consisting of about 20 houses and afterwards traverses Ke-lung Koomha little less [sic]. On the opposite side of the river is Chem-ling. We ford Koling Rivulet. Situated on a projecting eminence on our left is a large square House called Bokus[?] belonging to the Lama Singge-name-ghal. Road passes though Kooe-ku containing about 10 Houses then through Yeoornee much higher than which is Goom-sung the residence of the Thakoor or Chou-Chou Ranee [?]. Goom-he or Goom-ling is a small hamlet between the road and the river. Road descends by the Hamlet of Durra and then ascends to a shed surrounded by Cypress and called Sateeginee. Here there is only one very small spring and the ground is

covered with loose Stones. Little herbage besides stinking Hyssop, Abrotanum, Artemisia, Pimpernel, Chenopodium & Sorrel. The Dog-rose bushes which are most abundant carry a beautiful crop of scarlet Hips, large oblong, but not yet ripe and the summits of the branches are still covered with flowers. Gooseberry bushes are of large size by the side of the road and are covered with fruit little larger than small Grapes. There are both orange and red varieties

but even when ripe they are extremely acid and uninviting. The Orange colored Currant[?] is rather less common but not more agreeable. I found this day on the lands of a farm just below Sitaginee several Apple trees with fruit above the size of a Pullet's Egg and unripe. They were sour but had not the -ticity [illeg.]⁴ of the unripe Crab or wilding apple Today I met with the Wheat nearly ripe called here Tro and the Awajou is here named Ne. The latter carried six lines of grains was generally about two inches in length its stem much thicker than that of Wheat was about three feet high and one ear of this Wheat would weigh on an average from two to three Ears of the common kind and it was cultivated in the proportion of at least three to one. The Natives were here pulling Buckwheat which although it seemed whilst growing to cover the ground well when pulled and exposed for a few days appeared but a light crop. The Wheat crop would not be fit for cutting for three weeks. The Houses consisted of from two to three Stories and were built of cut stones sometimes set in Mortar of Clay sometimes dry, sometimes with beams of wood laid in the Wall at others without. Some had open Verandas others inclosed with wattling of wicker work plastered with clay but all had flat roofs and the upper edge of the Wall covered with a provision of Willow faggots or of Pine wood split. The lower Apartments were intended for Cattle & one open Space was left for the accumulation of Manure. Each house was provided with a ladder of a trunk of fir cut into notches and one belonged to every Story and was loose so as to admit of being drawn up at pleasure.

20

The inhabitants had crowded to the tops of their houses to see us pass. Very few of the women had handsome features and all seemed of low stature. A Girl had twisted strings of the Hip through her hair in imitation of Coral bands with rather a pretty effect. The road has been much shaded with Willow Trees, has had more villages more cultivated lands and altogether been better and more agreeable than for a long time past. Its direction has been roughly East and the distance 13983 paces. Ther[mometer] 64. N. 68. N.63. Aug^t 30th. It has rained slightly during the night and the morning was ushered in with a sprinkling from the skirts of the clouds which discharged their contents on the summits of the neighbouring Mountains in sleet. The upper concavity of a Rainbow was just on a level with us whilst its legs rested on each side of the valley across the River. The Lamas white sepulchre above our encampment at Oobling is in sight directly West and our road leads East through a Cypress wood on the face of the Mountain. About three hundred paces on the road is a pile of Stones covered with fragments of Quartz and stuck full of branches of Cypress and of flowers. Opposite on the left bank of the Sooraj Bhaghee is the small village of Peeoonku or Boonkure with its fields of Buckwheat and of Tatarian Wheat, the former of a rich yellow & near orange color the latter only just acquiring a yellow tint but the belts of herbage which separate [them] have already put on the tawny livery of the cold season. This village has its houses disposed in stages as is the general construction of those placed on the

steep acclivities of the Mountains the lowermost house having the appearance of serving as a step to that next above it and the whole affording a resemblance to a broad flight of Stairs with many notched ladders resting against the sides of the walls. The road ascending along the face of Crags here and there studded with groups of scattered Cypress Trees and running up in vertical [?] Cliffs of vast height so cleft and broken and threatening to fall as would well merit the appellation of frightful to those unused to these scenes. The path has been rudely cut out of the rock and is rough enough but where there are entering angles which break into it they are filled with a breast work of stones and in general there is safe footing an advantage owing to the traffic carried on by this route. This rocky path is called Lountun. Near its summit is a flat spot of a few yards made use of as a night station by travelling and trafficking Goat herds called Silsilla. Here Rolls of Sheeps Wool coming from Ludagh with Satchels full of Borax and Sutto were piled in the form of a Wall. The two former articles were reported to be now comparatively dear and the latter cheap at Ludagh. On the opposite side of the River to Silsilla was the small town of Cherzobun situated in the midst of cultivated lands. On the road we passed by a few houses called Hucar below which on the right and on this side of the river was a village named Karmishe by the Bhotheas and Karung by the carriers. Some Houses distinguished by the same appellation were on the left side of the road

21

Here was a pile at each extremity of which was a kind of low pillar consisting of square and circular pieces of stone on the capital of which a little sculptured foliage was displayed. On the opposite side of the River was situated the town of Teenoon much larger than any seen today in front of which was a conspicuously large and white Sepulchre and which had cultivated lands of great extent. From beds of Snow in the gorges of the Mountains descended several serpentine Streams to discharge their waters in the Bhaghee. The Rocks on each side of the River have on them little vegetation but here and there a stunted Cypress peeps over the very summit of the Cliff. At the foot of the Mountains near Teenoon were flocks of Sheep and Goats amounting to at least 3000 returning towards Kangra and Chumba after having pastured for 6 Months in these mountains. Our road lay straight onwards to Kalung but the news of a Sanga being broken occasioned [us] to descend by an almost precipitous path about a mile long to another Sanga across the Bhagee. This river was here about thirty feet broad on an average, deep & rapid but full of blocks of Stone. The Gomit Mares passed over the Sanga with willingness and caution but it required much perseverance and force to overcome the cautious prudence of the Asses which hesitated and resisted at every Step notwithstanding the example of the Mares Horses & Mules. Some Goats which had left the path and passed above

it on the face of the Hill detached Stones which were avoided with difficulty by the passengers on the road and only by seeking the protection of a projecting block of Stone till [the] Goats had regained the right road. The path ran upwards along the left bank of the Bhaghee broken by a Snow water rivulet which though precipitous and furious was passed without other incident than the loss of some of my shooting apparatus by the fall of the pouch into the Stream. We encamped in a small plain between high Mountains and almost [in] face of a Fort where resided the Thakoor Dhurm Singh. Formerly this country was often invaded by the Bhotheas but latterly amicable relations have been substituted for foying expeditions.

Near our ground were flocks of Sheep & Goats amounting to about a thousand. Our direction has been generally N E and the distance has been about 4½ Kos.

Aug^t 31 The night has been fine and mild although clouds and a sharp sleet in the afternoon of yesterday was held of bad augury for the weather of today. When I was preparing to march the Head Carrier represented that he had been to pay a visit to the Thakoor or principal man in these parts and found he had been ill for three months. He desired me to send him medicine. I declined doing this unless I could see him but promised to prescribe if he were brought to the end of the Stage. This was said to

22

be impracticable and I agreed to wait two hours for his coming to me. At two oclock Dhurm Singh arrived riding on a Mare accompanied by her foal and by several people on foot. His clothing in general was of the same kind with that of his attendants but he had a silk & stuff trowser[?] and socks made of folds of woollen. His cap was of black velvet faced with Brocade and in its crown were stuck 5 or 6 large Needles two of which were of brass. His complexion was somewhat more fair than that of his attendants he was of low stature but of a square and stout make his features a mixture of Tatar and Hindoo character and disagreeable but expressive of suffering and his age about thirty-five. He had been ill for above six weeks complained of pain under his breastbone, constant cough and indigestion with irregular bowels and his Pulse was a hundred. He did not understand a word of Hindoostanee notwithstanding his having a Hindoo Name. On telling him that it would be necessary to bleed him he said that he was very weak and required refreshment previous to the operation. A Servant who had come with him instantly brought him a Saucepan containing thick Broth of which he took rather a large allowance for a sick man and said he was ready. I tore up my Handkerchief for a bandage, bled him on the ground and he sent two men along with me for some Purgatives and a Blister. He was treated with the greatest deference by our Deputy Kafila Bashee from Lahoul and was called Thakoor and Raja. He expressed himself much obliged by what was done for him and all

the Spectators seemed highly gratified. Flocks of Sheep and Goats amounting to above 3000 by the account of the Shepherds passed us whilst waiting for the Thakoor on their return from the Mountains of Lahoul in progress towards Kangra and Chumba. The Goats were generally white and the old and young ones were in separate flocks. The Sheep were white black pied and dun. The Ewes generally polled the Rams and Wethers horned. They were ordinarily well shaped in the Carcase had short legs and were very fine in the bone but though some of their fleeces were fine they were altogether less so than I expected and abounded more with Stichel[??] and long Hairs. Meer Izzet Oollah purchased three Wethers selected for him by the Shepherd for 4 Rupees and I bought two for the same Sum for allowing me to pick out of the flock as it passed.⁵ The town of Koling was directly on the left of our encampment. The road ascended steep rugged and stony for about three hundred yards and then descending brought us in front of the straggling village of Kungsur on the left bank in which dwells Dhurm Singh in a fortified house belonging to the Raja of Koolloo. This portion of the Raja's possessions was formerly invaded by the Bhotheas frequently and required a force and fortresses to keep them in check but latterly amicable and commercial intercourse has been substituted for foray and retaliation. Below Kungsur and close to the bank of the River is the

village of Boh. After crossing a rough slope broken much with Ravines we reached a path across a face of rock which

23

on turning a corner led up the side of a Mountain so steep and difficult as would have seemed impassable for Horses, however they scrambled up a kind of ladder of loose stones and crept down an almost precipitous descent without any accident. On reaching the river we found a flock of about 800 sheep of a kind somewhat larger than those before seen which swam across a creek without hesitation to pasture. The valley here opens considerably having on the right bank much slope in cultivation belonging to the two villages of Boognad of which the second was called Jisba but on further enquiry it appeared that this was the name of the District generally. Opposite the latter village we forded a rapid Stream which escaped from beneath a bed of Snow on the right and dashed down its stony channel with such force as threatened to carry away some of our Carriage Cattle. However these entered with great caution maintained their footing and not a load was wetted notwithstanding the water reached their bellies. Many foals of six months old at the foot of the Dams likewise traversed the Current but generally by their side. The road then ran along a surface of broken rocks for about a mile and in the slope above was a great extent of the deep-red variety of Currants in full bearing, the bunches large but the fruit too acid, too thick and tough in the skin and too full of stones with too little pulp. The Juice stained the finger of a deep purple but it was not permanent.

We encamped on the small plain of Shunkloo where there was abundance of pasturage for our Cattle. Our direction today has been a little to the N of NE and the distance 16391 paces. On shewing to a Native of Koolloo a portion of a root which had been given to me by Mr Turnbull and called by him Nerbissa [?] though much differing from the Root given to me as Nerbissan by a Trader at Joshee Muth and by a Nach [??] woman at Lahoul he pronounced it to be Kooth. It grew in large quantities he said on the mountains of Chumba and at Relloo and was retailed in Koolloo when dried at three paesa per Ser. This is called Koost and in a variety of Kostus. It is bitter and aromatic with the smell of Florentine Orris⁶ or Iris. This root has heating qualities attributed to it and is much valued by the Chinese. I understood that it sold for about twenty Rupees a Maund at Mirzapoor and was imported profitably to China. September 1st. It had been said by the Carriers that they could not all assemble and start together from one place before we had made three marches as their horses were on this side of Tundee and they had their own arrangements in regard to food for their journey to adjust. And it had been agreed that five Kucha Maunds or two Pucka Maunds should be the load of one Horse for which we were [to pay] thirteen Rupees. The whole cost of the transport of the Merchandize at this rate to Leh amounted to 1518/-8 and 500/- were paid in advance. Here however the Carriers

24

made an unexpected demand of the remainder of the fare instead of waiting for payment until they had completed their agreement of delivering the things at Leh. They stated that four years had elapsed since the decease of the Koolloo Raja a period at which it was customary to call upon the Peasantry for contributions in money to feed the Brahmuns. And the month following was the period when their Quotas would be called upon. Rama the Kanoongo had

come to our camp late last night and stated that his arrival had been delayed by preparations for levying money from those persons who did not accompany us and were liable to pay. It appears that every Peasant gives Gold, Copper, Iron, Butter, Flour and Salt according to his ability to the Raja of which a portion is transmitted to the Brahmuns and the rest is divided amongst the Servants of the Government. As Rama signed an engagement to deliver our property to us at Leh we gave the remainder of the fare as desired, but if Commerce from Calcutta is to be carried on by this road Cattle must be purchased by the Principals and Agents & Men hired as loaders and conductors and Depots of Grain &c. be established at various points on the road. The march from beyond Ke-long to this place has been scabrous and difficult on account of the Sanga at Darcha having been broken down otherwise the road along the right bank of the river would have been good. Hitherto I have seen nothing in the road from Belaspoor to this place to render the transport of Horses impracticable with due arrangements. I requested Meer Izzut

to make a friend of Rama so that should my object of passing through Chinese Toorkestan be attained and difficulties should occur to our return by Kubool of which we probably shall be duly apprised by our messingers [sic] from Mohummud Azeem Khan and the Sons of Meer Zubeer [?] Ulee Khan we may attempt this route. If the Raja of Mundee should be intimidated by the Sikhs and again refuse a passage a route will be open by Kangra with the aid of Raja Sunsar Chund on whose friendly offers we can rely should Runjeet Singh's jealousy of his kindness to me and apprehension of its consequences not tempt him to deprive him of his country before my return. But even in this case Runjeet will not dare openly to obstruct the passage of horses to be tendered to the British Gov^t. though his Agents may prejudicially interfere with supplies of grain &c. if due precautions be not adopted in time. The Horses of this Country seldom exceed 13 hands high but they are remarkably strong in their bodies and well shaped but a little too long in proportion to their height. Upwards of 50 horses are now employed in carrying our Goods and Grain and their price is from 32 to about 80 Rupees. They are almost all in excellent condition, remarkably well-tempered & docile and surefooted and travel over these rough roads without shoes. The foals are now at the foot of the Dams and travel by their sides without appearing to suffer by the Journey. There is no Kumsee

25

or Bursatee amongst them and with the exception of my big Arab Horse which I had sent before me to Bareillee and was there attacked with Kumsee the other Horses and Mules have not been affected by this or by any other complaint although they have been scarcely at all clothed and not carefully attended. I have overlooked the negligence of my Saeses because I was willing to expose the Horses to all disadvantages in order that I might more decidedly appreciate the influence of the climate and journey upon them in reference to future experiments. Within the few last marches I have seen the red billed and footed Crow and this day the large Tatar Raven (Corvus Tatariens) came near the Tents.

The latitude of yesterday's encampment was 32.° 28' 2" N. Alt 131.° 48.' 20" Ther M 58 Night 58.

Sep^t 2^d. From our encampment the road is stony and after a slight ascent descends to a rough stony plain bordering the left bank of the River. From a valley to the South descends the Yethe Choo a rapid unfordable Stream which we cross by a Sanga. It is about 25 feet across

and is said to rise on the northern face of the Kokhsun Joth or Mountain which is said notwithstanding the long detour we have been obliged to make in order to reach this place to be only about 8 or 9 Kos horizontally distant. On the right bank of the Yethe Choo and a little to the right of the road stands the small village of Mee-lung. Forwards is that of Lung-kun near the level of the river [?] and at the foot of the face of a Mountain over which the road runs and near the path

is the village of Lubrung consisting of two or three houses with one white of rather a better description on the summit of an eminence. We encamp on the face of the Hill of Lu-brung in the Purguna of Dar-cha and only 1½ Kos from our last encampment the general direction having been roughly —. At the distance of nearly a Mile from the point at which the Yethe Choo falls into the Sooraj Bhaghee another Stream called the Zankur Soom-do comes from the NW and is said to spring from the Mountains of Juskur about three days journey distant. This falls into the Stream of the Darcha Soomdo which flows from the North and the [illeg.] of which it is said we shall fall in with. The Zankur Soombo [sic] is divided into several currents but the body of water it contributes towards the formation of the Sooraj Bhaghee is somewhat larger than that carried by the Darcha or the Yethe Choo which is nearly alike [sic]. As these three Rivers have each distinct names the Sooraj Bhaghee may be considered as having its origin below their conflux. The village of Lubrung is the last in the Raj of Koolloo and we shall shortly be in the principality of Ludagh. Our Tents were pitched on the side of a Hill on which were many Cypresses scattered dead, half dead, distorted and stunted. Some of our people began to pull off dead branches for firewood but one of the Conductors of our Caravan came in a great hurry to me and requested me to order them to desist as these Trees were all sacred and the Deities to whom they belonged in whose hands was the rule of the elements would certainly revenge the insult[?]

26

by visiting the inhabitants with an excessive fall of Snow as had before happened when strangers had lifted the axe against this holy Grove. He promised to supply fire-wood if the Trees were spared and this condition was fulfilled. On the top of some of the houses were high square piles of horns in the shape of Chimneys surmounted with branches of Cypress dedicated to some Deity. They were said to belong to a M-gh [illeg.] a native of these Mountains but the Natives call all the wild varieties of Goat by this appellation as well as Deer. These Horns in my opinion belong to the Ibex. I went this morning to a House and having got on the roof beckoned to a Woman below to come up She said the Horns were a Deity however in a little time the only difficulty was the adjustment of price and for a few Anas I carried off the first pair I put my hand on. They were united at the base a portion of the Skull having been cut off along with them and the following were their dimensions. Along the ridge of the upper convexity 3ft. 2in—of concavity 2.4. Circumference at base 10 in. Distance between setting on of Horns in from 1½. D° from d° to d° outside in front 6¼. Distance from tip to tip inside 2 ft. 3 in. The weight 11 pounds, but these are completely dry & the Natives say that many are larger by at least a third. The outer concavity is broken by knobs which are fractions of imperfect circles broken at the concave edge. They begin at the base but are lost at about one fourth of the whole length the point being tapering and sharp. There were 18 on these horns and

if each indent indicate the growth of a year the animal that wore them must have been above 18 years old. The sides were flatted though not wholly flat. The convex edge thick and the concave thin. A bony Core ran a great depth in the horny substance, the latter being thin, rough irregular and splintering but these latter appearances are probably the effects of long exposure to the weather.

The road to Ludagh which formerly ran along the right bank of the Sooraj Bhaghee then for a few paces along the right bank of the Zankur Soomdo afterwards crossed this stream by a Sanga and skirted that of the Darcha Soomdo has been interrupted for the last four years by the continued decomposition and falling down of portions of a Mountain on the right bank of the Zankur Soomdo. Falls were taking place when we reached our ground occurred whilst we looked at it continued at intervals all night and are now happening whilst I am writing in front of the Mountain at about half a Mile distant. At first a little dust is seen about two thirds up the Mountain which increases quickly to a dense cloud, this is followed by many others which raise up so vast a Mass[?] as to conceal the Mountain entirely but from beneath it escape and become visible through falling more rapidly. Blocks of Stone of various sizes—Some bury themselves in the Earth at the foot of the perpendicular face of the Cliff, others grind and slide along the surface of the slope formed by the rivers [?] marking their progress by clouds and lines of dust. Others again bound by excessive leaps into the River and dash the Water upwards in waves

27

and spray which mix with the Dust. When in an interval of quiet the Dust is cleared away the ravines of the side down which the larger blocks had slid and other deeply indented surfaces are marked with a blackish or brownish tint as if water were mixed with dust but the falls of smaller stones raise more dust which ascending covers and conceals the moistened surface. At about half a Mile beyond and considerably higher than the base peak [?---appar. sic] of the decomposing Mountain is a large rounded top of another Mountain covered with Snow which probably never melts altogether. The Mountains which intervene between it and the River form a Mound round the snowy Mountain have no Cascades falling over their face and appear of a loose and friable structure. The water from the melted Snow obstructed in its course to the River instead of rising in a Basin, overflowing and sliding over the face of the intervening Rocks, enters into the fissures of their broken surface from behind filters into the substance in the hot season forms reservoirs in the Cavities and Niches which being frozen in the cold season by the expansion of Chrystallization burst up the mass of the Rock on again melted [sc. melting] in the following hot weather and by gradual percolation and evaporation escape after having destroyed the cohesion of the Mountain. When this happens if the Stones overhang the perpendicular they fall into the Valley below and the slipping & falling continue until the Waters find a path over their surface into the River or

till the surface of the rock gains a slope so much within the perpendicular as to enable it to stand. The agency of Water I apprehend to be most effective cause of the changes the Mountains undergo. This is almost the finest scene I ever witnessed it varies after every fall some of which are accompanied by noises like the discharge of heavy Artillery the pealing of Musketry or the rattling of Thunder. I regret that I cannot do justice to the effect but independently of want of powers and of time I am annoyed at this moment by clouds of small flies endeavoring to enter my eyes, nose & mouth whilst I am sitting under the shade of a

Cypress. It is a long time since we have heard Thunder and on enquiring at Tundee whether it was common was informed that it was scarcely or more strictly speaking never heard there, though of the latter I should somewhat doubt as I once saw Lightning at that place. Sep^t 3^d. At a short distance below the road on the left saw a small Sanga for foot passengers across the River Darcha and the path of the old Ludagh road about 150 yards above it along its right bank whilst that we pursue skirts its left bank and somewhat lower. The middle parts of the Rocks are thinly coated with scanty vegetation but the upper portions are either wholly naked or covered with Snow. The road crosses a broken bed of Snow under which runs a rivulet. A small level plot of ground covered with grass and surrounded by a low wall of loose Stones is called Chupshoo and is used by the Guddees for encampment. A short distance in advance is another small plain named Brook and above it

28

is a surface of five or six Acres covered with Grass in tufts which would serve a large body of Horses for several days. Fuel is rather scarce but there are a few Birch trees and stunted Junipers and Cypresses higher up the Mountain. Altogether this is a much better place for encamping with Cattle than Lubrung but much inferior to Shung-loong (Sept. 1st & 2^d) from which it is only about 2½ Kos distant. The road passes over the side of a bed of Snow, part of an Avalanche from the Mountains on its right. It fell into the River and for a time must have obstructed its current however the water has now cut it away and left a bluff face of consolidated Snow about 15 feet perpendicular forming for a considerable extent our bank of the Stream. In sliding down the face of the Mountain it broke up a part of its surface which following its descent now rests upon the base of Snow. The road skirting the face of Earthslips dry, loose and affording but insecure footing descends to a bed of Snow which fills the bed of the River to a considerable height. Its whole length seemed to be about 250 paces. The road crossed it obliquely from the left bank to the right. It adhered closely to the left bank in its whole extent but was detached almost generally from the right bank by the almost precipitous descent of water down the adjoining Mountain. A tongue however remained which about ten feet in breadth stretched to within a few inches of a ledge of Rock. This interval was covered with loose stones and the congealed Snow-bed served as a Bridge to conduct us by a steep and rugged ascent to the old Ludagh road along the right bank of the River. On the right side of the

tongue a Cascade from the Mountain has wore a large cavernous passage into the River under the Snow leaving an arch about 8 feet high from the roof of which a shower continually drops into the Stream. On the left water melted from the inclining surface of the bed has formed a slope furrowed with deep grooves down which rills run into the Stream in a rapid slope but as the cold season is about to set in the bridge may remain useful for another season and indeed longer should there be a great fall of Snow. Three years ago much more Snow than usual fell and so much slipped from the adjacent Rocks as choaked [sic] the channel and left the present bed. Its greatest thickness is about forty feet and its surface is so covered with fragments of Stones & earth that it might easily be taken at first view for the dry bed of a River. The Ludagh path is broader and though rough irregular and in some places almost overhanging the River is much safer than that we have left.

It descends markedly and almost precipitously to the River into the bed of which a large fragment of Rock had fallen and projected considerably above the level of the Stream leaving

a channel on each side for the passage of the water. A few fir trunks laid over the channels and covered with flat stones and a low wall of the same construction along the edge of the block gave a safe bridge to the Horses to the left bank. On the road were two other small flat plots of ground with a little grass used as encampments by Shepherds and called Ros-chung and Shung-doon. Our encampment

29

is at a place called by the Bootheas Doo-jeoong by the Lahoulees Putseo. It is about 5 Kos from Lubrung and the general direction of the road has been to the East of North. This place on both sides of the Valley has grass enough for a hundred Horses for two or three days and will last for 6 weeks during which period the Ghath will be open. There is rather a scarcity of fuel but enough of dry wood may be found for cooking for 50 or 60 people for two or three days. The River is fordable in a flat run[?] about a quarter of a Mile above the Bridge. Opposite to our tents two Streams break out of the face of the Mountain about 400 feet above the River and about 800 feet below a bed of Snow which crowns its summit. In forcing their way out of the Mountain they have burst up a considerable extent of surface and caused a slip of about 100 feet above them confirming the opinion given of Water being the common cause of the decomposition and falling of Mountains.

Sep^t 4th The Direction of our road is a little [blank] and the Valley along which it passes appears to be shut up by Mountains covered with Snow at about two Miles from our present ground. After having proceeded about half a Mile see a small Birch Wood on the side of a Mountain not more than 200 paces above the right bank of the River which may afford fuel for our party should we return this way and take up last night's encampment which is favorable in respect to grass.

About a Mile from our Camp two Streams unite at a Shepherds encamping ground called

Bogoroo or Dozumb. One the Kukhtee from W 40° N, the course of the other, the Chookumchoo we follow. The former is little smaller than the latter but its water is more dirty which shews that its source is less distant and indeed is reported by Shepherds to originate in the Snows about 2 Kos to the NW. The road passes over vast slips of Rock and the path though more rough than any we have passed is much more safe than that which runs over the face of Earthslips. The Rocks near us have little vegetation upon them and many of their sides are sloped by rivers [?]. This region is extremely barren and we have seen no human habitation since we left Lubrung nor any cultivated ground. The line of road has been very crooked, here and there a small spot marked with a little vegetation and the traces of Cattle shew it to have been used as a temporary encampment by migratory Shepherds. One is called Dozumb but none are fit for a Caravan with Horses as there is neither grass nor fuel. The general direction of the road though much deviating in following the course of the Chookumchoo has been roughly N of E and the distance 18769 paces. The name of our encampment is Jing-jingber.

Sep^r 5th. It has frozen hard during the night and the Ice found in Brass water pots has much surprized some of our Hindoostanee Servants who had only seen the effects cursorily of congelation near Springs at Joshee Muth. The Ther^r in the morning in the Tent stood at 36½. I have experienced the vicissitudes of climate rather rapidly. In June I was almost broiled at Lahour

in July and August drenched on the Himalah and in September shiver amidst the Snows of Tatary. On leaving our encampment we almost immediately crossed the Chookumchoo at a place called Mang-bee and though early in the morning when the stream is at the lowest and the water was only half thigh deep it was very difficult to ford from the strength of the current. It would have been better to have proceeded up the left bank for about a Mile as the water was more shallow and the run of the current more horizontal whilst the road was not more rough. This remark it is necessary to attend to if we return this way with Horses. The ascent up a Valley formed by stones and earthslips without vegetation and without inhabitants save here and there a tail-less rat, the red-tail, a kind of lark and a Hoopoo is gradual, the first part across beds of stones the latter skirting the edge of the Chookumchoo. After a rise of altogether about 4 miles the road reaches a pile of Stones where the Chookumchoo divides into two branches, the right hand one the most considerable rises in beds of Snow about a thousand paces South under the ledge and covering a line of Mountains but it is said to be dried up in the cold season and even now does not much exceed a yard in breadth. We pursue the course of the other a few hundred paces until we find it issuing from the middle of a Dike of fragments of stone which form a mound between two Mountains. Ascending to the level of its summit we see before and below us a basin of clear and greenish

colored water the reservoir of the surface water of the neighboring Mountains and about 1400 paces in circumference. This lake is called Chookum Choo. It receives several Streams which come along our bed [? appar. sic] from the S.E. and are formed by the melting Snows and from the Springs on the hither or N E side of the Ghath and of some of the Mountains of the Bara Lacha ridges which are in front of [?us] and covered deeply with Snow appear from the Lake to stop our progress. The Lake of Chookum Choo giving issue to the branch of that [illeg. ?river] which is constant in all seasons forms that which is considered as the source of the Sooruj bhagee one of the two long branches of the River Chunab. The Chundra Bhagee certainly brings down more water than the Sooruj Bhagee and gives its name to the River after the Sungut or conflux of both at Tundee the Capital of Lahoul. We could learn little more of the origin of the Chundra branch than it was in Peetee in Tatary and that a man following its course up the stream could reach it in ten days. The Chundra Bhagee of which the general course has been before mentioned (page [blank]) is in Kishtwar called by the name of Chinbao and by the Persians and Mogools Chinab. This appellation obviously designates its origin in China and perhaps its Greek denomination of Acesines may be a mere translate of this meaning The following information respecting the source and course of the Ravee was obtained from two persons sent by the Ranee of Chumba

31

to meet me in Lahoul.

There are two lakes at Munmukes a Mountain in the Raj of Chumba ten days journey from Tundee bearing hence about W.5° South called Dul and Gouree Koond. A small stream issuing from each is joined by a current that comes from a Spring situated between them. The union of these forms a rivulet no larger than is necessary to work a Water Mill & distinguished by the name of Shib Keratur as far as Hursur a days journey between course of S & W [illeg.] nine days from Tundee where it is called Rawa. This River flows by the side of the City of Chumba built on its right bank on an angle formed between the Rawa and the

Saiva R which latter comes from the NE and is about five Kos in length. Leaving Chumba it reaches Oolhus 7 days journey distant but still within its territory where it receives the Seeang from Bhourso still in the same Raj 30 Kos from the Capital and it here is named the Ravee. At Timoo ke putun it receives the Tahwee which rises in the Mountain of Seoj in the Raj of Budurwa 18 Kos from Jummoo and which has been strengthened in its course by the addition of the waters of the Ooj which comes from Koth Bolota 30 Kos W from Jusrota. Thirty Kos lower down the Ravee is crossed by a Bridge called Shah Doulu ka Pool only 20 or 15 Kos from Lahour. The source and course of the Sutlej seen by me only in an imperfect manner will be scientifically explored by Mr Gerard now engaged in this undertaking. It is however not improper to observe that the Beas and the Ravee

rise much to the S of the Chinab and are as it were included in a sweep formed by the latter river. Resuming the thread of the road which on the right hand of the Rivulet that falls into the Lake of Choochumkoo ascends the short but steep face of the Ghath of Bara Lacha and passes over its rounded and somewhat saddlebacked Surface to a heap of Stones piled by travellers and decorated with a few tufts of wool some rags and a piece of cloth stamped with printed characters. Here the Bar^r stood at 16.6 and the Ther^r at 60°. From a part of this table the waters fell towards the Chookum Choo and from another into a rivulet which ran nearly NE. There was no Snow on this plain but patches lay here and there on slopes on the northern face of rocks and the Mountains of Bara Lacha which surrounded us in groups and chains had their summits and more lofty portions of their sides thickly coated with Snow. One of the peaks in one of the most regular chains which ran about N E and at the base of which flowed the river seemed about 800 feet high and none in the immediate neighborhood exceeded this height. The Land to the S W gradually rose to a small but abrupt height for about two Miles on the table of the Bara Lacha Ghath and tempted us with the expectation of a noble view to explore its surface. However we were disappointed as another rising ground at above a Mile to the S W included a sight of the Valley but the general slope of the land to the

32

N E, the diminished size of the Stream and a turn into a ravine which originated at the foot of a snowy Mountain to the [direction omitted?] but still based on the plain proved that the Rivulet had its source in the snows and springs of the Table and from the peaks and sides of the Mountains by which it was environed. Considerable bodies of melted Snow had carried along with them broad and long surfaces of fragments of stone through [which] the waters now ran & though their upper parts were dry their lower ones were immersed and our horses sometimes sunk fetlock deep in naked intervals [appar. sic] or when placing their feet on small stones. A soft spongy peat like earth sprung up in slight elevations and these afforded more assistance to the tread than small stones in the water way being drained of their moisture by the watercourse [this sentence sic]. Of the mode in which these sloping & broad strong watercourses were made there could be no doubt but of that in which others still more frequent were fabricated I could form no theory that was satisfactory to myself. Near to the pile of Stones on which the rags and wool were exhibited the ground was thoroughly drained by lines of fragments of stone generally flat from two to three feet in breadth of great extent without interruption and seldom deeper than two feet. These joined frequently in lozenge like figures and elongated ovals and sometimes in irregular

shapes but a drain seldom stopt abruptly till it reached a level where the fall was easy. I suppressed my surprize at the regular disposition of these stones thinking it possible that some benevolent persons had exerted themselves to prevent the road across the Ghath becoming swampy though there seemed to have been an useless expenditure of labor in some of the lines. But when I found the same system continued from the foot of many heights nearly two Miles from the Pile and on a surface bearing only dwarf blue Asters, some beautiful mosses in flower and small Sedums⁸ I stopped to examine the Drains and my young friend observed that it was odd there should be drains so regular in such a place. On the face of Ritanka Joth I observed upon very springy and spongy ground a great number of deep narrow watercourses into one of which I stept up to the knee but found it dry. These were as nearly of equal breadth as if cut by an unskilful workman with a spade and intersected each other very frequently. If these gutters had been filled with fragments of flat stones they would have exhibited the same appearance as the drains of Bara Lacha. Before such material decomposition of the neighboring and high lying rocks had taken place as had been sufficient to break up much of their sides and to cause them to fall upon the plain the melted Snows had cut up deep furrows for the passage of

33

these waters to the river into which in process of time fragments of stone were swept by the melting Snow. Few of these stones were set on end and the number of those piled obliquely or at an angle in the drain was trifling in comparison with that of those laid flat. That they should so little exceed the level of the adjoining ground was not a little extraordinary but it is to be observed that with the exception of the line of Ghath which formed the path of the passenger so slightly marked as scarcely to be recognized no cause interferes with the [illeg. ?usual] method [?of] operations of Nature and perhaps few footsteps save those of the Ibex press the Earth over which we trod towards the middle and Southern extremity of the Bara Lacha Ghath. I have often admired the regular surface left by the gentle melting of the Snow on slopes of high table lands, and the large slices snow slips have cut off the earthy surface of the acclivity of a Hill but I never saw so much to admire in its operation as the arrangement of the drains on Bara Lacha and nothing can be more efficient than their effect. To those few European Travellers who may visit Bara Lacha I beg to recommend the examination of this natural drainage.

On the great slopes of Bara Lacha the Snow lay smooth and undisturbed save where its surface had been ploughed up by a Stone having falled [sic] from the peak. But on a continued line of Snow forming a Crest which overhung one of the sources of the Chookum Choo rivulet the

the [sic] gradual liquefaction of the Snow had worked its horizontal edge into a concave Cornice which projected for several inches beyond the curtain which presented itself in virgin whiteness. The road rugged and stony pursues the left bank of the River and passes over mounds of rocky ruins covered with a saline efflorescence similar to that which whitened the surface of the piles from which they were detached. As the river extends its bed expands and in a capacious recess close to its left bank forms a lake of many Acres called Yoo-namchoo. Not a weed or fragment of wood deforms the bosom of this beautiful basin of sea green water nor was its surface disturbed by a wave. But it seemed to contain no fish nor was there a

single fly or bird to be seen in its vicinity. It appeared to be deep but my informant stated that vast masses of rock had been hurled into its bed from a neighboring Mountain. Not a stone is to be seen except just at its edges but the River steals its silent course through it and escaping compensates for its having dallied in the bosom of its source by the impetuosity with which it afterwards hurries along its straitened and obstacled channel. But before it has quitted its quiet character it shapes its way through mounds of cream colored clay at the foot of Rockslips with bluff surfaces almost perpendicular divided into innumerable

34

shallow horizontal layers intersected at right angles by perpendicular lines, the surface seldom broken but generally smooth as if shaven and polished by art exhibiting were it not for their forms being somewhat irregular in some places masses of white brick work. One Mass was of a cylindrical form and was seated upon a stratum of Sandstone. The Clay was without taste or smell, rather heavy without fibrous[?] or laminated arrangement save what has been mentioned, contained no sand, looked but did not feel greasy to the touch. It seemed to me the purest material for pottery I ever saw.

Rising from the bed of the River the road wound through large irregular Masses of micaceous Schistus tumbled from the Mountains on the left whilst on the right were Acres of a reddish colored Sandstone in such masses fragments and heaps as no imagination can picture or pen describe and which would furnish studies for the sublime in painting. These wracks are said to have been the work of an Earthquake but how a commotion so tremendous as to have dissevered and thrown down such a mighty Mountain as the ruins proclaim this to have [been] did not burst up and disjoint the adjacent rocks I am at a loss to imagine. I should have thought that nothing but such an upright [?] throe as that with which Earth sometimes labors could

have upheaved so vast a mass and left the neighboring Mountains in security. If however those can be called in security of which the furrowed broken and adust surfaces exhibit a state of decay similar to what might have appeared had they been exposed for Centuries in an enormous Crucible. The Schistus contained many rounded pebbles in its layers and I examined many blocks with eager anxiety for organic remains but with no success. The broken pebbles seemed to consist of an Iron Ore similar to that of Furness in Lancashire. By a zigzag steep and stony descent the road reached the left bank of the river and after crossing some Water courses that came from beds of Snow to the left reached the main Stream broken into two Channels and waist deep. It was not easy to ford at four oclock but increased greatly between 5 & 6 and Horses were latterly sent through [?] to bring across our People. The name of the River is Yoo-nam-Choo which it takes from the lake through which it runs although it contributes to raise its water and derives its course from the Table and Mountains of Bara Lacha. The Sun has been very hot, the wind very cold some of our people have been seized with fever on the road & many complain of headach. I had some pain in my head whilst exposed to the piercing blasts from the Snows of Bara Lacha in the same habilments I had wore for two months before. But my face

35

[is] almost stripped of skin and my lips are shrivelled and cracked. Most of our people were too much tired to be able to cook and went to bed dinnerless. The only fuel to be found were

small branches of a dwarf prickly Gale near the River. As however there was tolerable pasturage it was agreed to stay a whole day to refresh our Cattle. The distance was [blank] paces but from the frequent turns in the road describing altogether a great Arc of the Segment of a Circle I conceive the horizontal distance to have been but small from the place of our departure. In surveying the Himaleh our Professional Men seem to be to have made a mistake in forming plans of this irregular Country. A Balloon is absolutely the only means by which an adequate survey can be effected. Were a Surveyor to rise a thousand feet above the highest Mountain near him he could be able to delineate Groups ridges and Chains if such really do exist in the manner scientific disquisitions exhibit. He would do more he would discover passes in between Mountains hitherto unknown and in one week more benefit the inhabitants of [the country?] and facilitate the operations of commerce than twenty of the most scientific operators proceeding upon terra firma. I sincerely hope that the Gov^t. will order my friends Capt Hodgson & Webb to provide themselves with an Aerostatic⁹

Apparatus at the public expense and I will point out a small, light, strong and elastic rope which if constructed on Huddants [?] principles would prove a sufficient Cable to steady the airfoil [?] in such weather as would justify such an excursion. The height of the Bara Lacha Ghat will serve as that of the source of the Chinab the difference not being more than 100[?] feet in favor of the former. Our encampment is called by the Natives Ke-lung or Kohur. Sep^t 6. It has frozen hard. Ther^r 36 the day was pleasantly warm till about 4 oclock when the sun was hidden from our view by the neighboring Mountains and a piercing wind came from the Peaks of Bara Lacha. We stayed here all day.

Sep^t 7th The road at starting was N E by N over a rock which led onto a plain in which were many large mounds of sand, stones and fragments of rock. They are from 30 to 50 feet high insulated and their considerable distance from the Mountains on each side of the plain rendered it difficult to conceive that they could have rolled so far, or that fragments of lesser size would not have been detached by the same agency that tore them from their connection with the rocks and would be found also strewn upon the plain. The general regularity of their form oval or rounded at their summits with sides gently sloping to a large base might in other countries have given birth to suspicion that they were tumuli raised by man but besides the objection of not being customary to make Mounds of this description over the dead the composition of sand and stone forbids this supposition being

36

received as probable and the solution of the phenomenon I can give consists in considering them as the effect of blocks of rock gradually decomposing by the action of the weather. In the plain were many burrows the openings of which were about twice the size of Rabbit holes but I was not able to ascertain by what animals they were made for I have not seen either Foxes, or other Quadrupedes in these Hills though I expect we shall shortly meet with Martens as I saw many in my former journey in the Steppes of Bhothunt [appar. sic]. The road skirting the right bank of the Yoonam choo passed over several plains of considerable length and one of nearly a mile in breadth. At a distance they seemed covered with herbage but proved to be most thinly coated with long blades of grass whilst they were bordered with the low bushy variety of Furze common through Tibet. On the left bank of the river are many columnar projections of consolidated masses of Pebbles imbedded in Clay or sand rendered adhesive by a deposition from water of a stalactical nature. These pillars run in horizontal

lines and their bases rest on the summits of buttresses of sand which throw their sharp angle forwards to the bed of the river and level out till they acquire a sufficient foundation which is never disturbed by any other causes [than] rare earthquakes the gradual trickling of melted Snow down the face of the bank in the channels betwixt the pillars and the action of the violent winds in the warm season.* The water here is generally hard and pebbles are found firmly united by a deposit from it which appears of a calcareous

*for the stream never washes their bases the bed being now much too large for the present Stream.

character. Since we left Bara Lacha the Mountains have much diminished in size and are of much softer nature, their summits rugged and projecting in points surrounded with sand which extends in a smooth inclined plane to their bases except where broken by projecting masses of a harder substance or ploughed up by the fall of fragments. But the character of rugged points intermixed with slopes of sand at their tips is only applicable to those Mountains the acclivities of which are gentle. Those whose faces are mainly perpendicular exhibit quite a different appearance though apparently of similar structure. The upper line of their summits is broken and jagged their face broken into all varieties of rugged projecting and retiring surfaces in which the Strata are distinguished by difference of color and directions so varying and irregular as to baffle all attempts at describing them except by a professional Geologist. The varieties of Tint of solid and decomposed rock, the innumerable modifications of form in projections cavities and declivities would furnish subjects well worthy the imitative powers of the best Artist. The general character of the Rocks in this neighborhood is that of a Sandstone colored yellowish perhaps by Iron & veined with lines of a harder material generally Quartz. But as the rock by weathering is decomposed the sand resulting is always of a darker color. The plains besides being almost barren have very little water in consequence of Snow not lying long upon the low rocks and speedily finding its way into the Yoo nam choo but the scanty pasturage they do furnish is very grateful to Sheep and apparently

37

very wholesome. A large high square insulated block of Stone in the middle of a plain divided into two portions by the River forms the boundary Mark between the Raj of Koolloo and that of Ludagh. A great extent of the frontier of Koolloo Tartary belongs to Thakoor Dhurm Singh the person I bled at Le-lung & who lets tracts for occasional pasturage to the Shepherds of the southern Himalayan frontier on terms which I shall afterwards mention. The landmark stone just mentioned is called Ling-tee by the Natives of Koolloo and Fa-loong-dinda by those of Ludagh. On the opposite side of the River are piles which I conceived to have been sepulchral but which I was assured are boundary marks. These are called Tee-oollung by the Koolloons as well as by the Ludaghees.

We were told that at this season the plains were usually covered with flocks but report having stated that Feringees were coming with an Army they were now deserted. Some travellers from Bhoth said that much apprehension had been excited by our approach and much speculation exercised as to our character and views. It was first said that our intentions were hostile and that we were supported by Koolloo and Lahoul with Troops and Provisions. But on enquiring this was contradicted by a statement that we were Merchants, that in our transactions after having settled the price of the articles we wanted we first gave the sum agreed upon and then received its value in the things required. This conduct a Council of

Elders at the town of Peetee in Bhoth a few days journey distant declared to resemble more that of Merchants

of a respectable character than of an invading enemy and by this opinion the inhabitants were tranquillized and prevailed upon to remain at their houses instead of deserting the town and flying into the wilds as was their first intention. But it is not improbable that the first frontier towns in Ludagh may be deserted. We met with many flocks of Sheep returning from Bhoth loaded with Borax. If this article be purchased in Ludagh it pays no duty in its transit over the frontier but a slight toll is levied on passing the borders of Koolloo and Chumba. The latter city is the principal mart for it and it is afterwards sent in large quantities to the Punjab for the use of Silversmiths, Braziers &c.

Borax is bought in Bhoth at the rate of thirty two Buttees or 1 Maund 24 Seers Dehli weight for a Rupee. When purchased it contains much earth and at Chumba this is separated by washing if I understand rightly, by dissolving, straining and rechrystallizing. By this process it loses half its original weight or is reduced to 16 Buttees, two Maunds Kuchha or 32 Sers Dehli weight. When refined it sells from two to three Rs per Kucha Maund or what cost originally one rupee brings to the Importer from 4 o 6 Rupees. The Shepherds generally carry Grain to Ludagh which always sells to profit but which was a much more profitable traffic some years ago than at present. The Borax is brought on back carriage and the Sheep carry from 5 to 8 Buttees each. This is a most lucrative concern but this trade is carried on in a nefarious but still more profitable manner by a kind of smuggling partnership between the Shepherds and the

Natives of Lahoul. The Shepherds receive a gratuity for pasturing the Sheep of Kotuch Chumba &c. in the mountainous countries from the Sheep owners of those Rajs. Sometimes however they only pasture half the flock and take the other half to Bhoth for Borax. This they sell to the Lahoulees at an under price and the latter manufacture and sell it at Chumba. Latterly Bhotheas with their wives and families have brought Borax to Chumba managing so as to avoid the rude winter of Bhoth and to return and fetch more in the warm season by which means they are not compelled to purchase the comparatively dear clothing of woollens. These people by due encouragement might be brought to Brijnathpoor Maharaj [? appar. sic] and be supplied with Trinkets and other articles of Barter. We encamp at Khee-choo there is but little grass and a hundred led Horses would be straitened at this season though they might find enough at our last station. This day's march has consisted of 24057 paces and the general direction NE. Many people complain of headache but drinking hot fluids is found to relieve it almost immediately. All find an ascent difficult from quickness of breathing. The M $36-N58-N^4$ 47

Sept. 8th. Ther^r in the Tent Morn. 30°

The road W of N after passing over a plain studded with low bushes of Furze with a whitish powdery soil in the intervals descends across narrow long plots of land each successively lower that passed to the steep bank of the Cheroop or Tserab River which comes from the Mountains E by South but the distance of its origin could not be

learnt. By comparison however with the quantity of water it and others carry of which latter[?] the run is known the distance of the origin of the Cheroop may be conjectured as being about twenty (20) miles. Its bed of a gentle acclivity is at least 200 feet broad and

38

consists principally of blue pebbles. Its stream was divided into three channels of which the principal was about 30 feet across and 3 feet deep. At a short distance to the left the Cheroop empties its waters into the Yoonamchoo. Having forded this River the road ascends up its right bank the height of which taken at a little distance from the Ghath is about 100 feet and consists of a mass of pebbles united by clay sand and some stalactical matter. Where the union is loose the side of the bank is gradually carried into the bed of the river by the melted Snow but where firm pillars are left of various forms which even when insulated long resist the action of the weather.

After traversing another plain the road descends obliquely along a face of a deep ravine to the right bank of the Yoonamchoo skirts it for a considerable distance then goes along a plain and ascends and descends the slopes of vast Avalanches of Rock. In a fall of Clay stone I searched in vain for organic remains nor was I more fortunate in examining the pebble pillars and banks or the wracks of their structure tumbled into the bed of the River. On the right bank of a large watercourse which discharged its stream into the Yoonamchoo stood two lofty insulated pillars of compact pebbly mass the head of one of which was capped

39

with a block of Stone of many tons weight and on the summit of the other one of much less dimensions stood almost on a point. The name of this Rivulet is Chang Loong. We encamp on the Yoonamnchoo at a Shepherds station called from the Rivulet Chang Loong where there is scarcely any grass for our Horses on which account I ordered them a double ration of Grain. The Carriers led their Mares to the edge of the River and compelled them to cross by throwing Stones to the opposite bank where there are a few tufts of thin Grass. A flock of Sheep which had carried our grain seeing the Mares pass over the River and probably knowing the motive advanced into the Stream up to their Necks when a black Ram took the lead resolutely swam into the middle where the current proved too strong for is exertions and hurried [him] down a rapid for about 200 feet. As he was covered by waves many times I feared his strength would have been exhausted but though he could not gain the opposite bank he landed safely on that from which he departed and joined his companions, which on seeing his failure had come out of the water. The place of our encampment is called Jerbo-jungta. Its distance from yesterdays camp is 21461 paces and the direction of the road has been N of West. Th^r[?] 70. The^r. N^t. 50.

Sep^t 9th. The The^r This morning is 39°. Neither our Horses nor the Mares of the Carriers are to be found. Meeting with little Grass at this place it is presumed that they have gone back to yesterday's encampment in search of pasturage and as we have a long day's march it is

probable that we cannot go on unless our animals be speedily brought back. At a very early hour this morning a very large flock of Sheep and Goats passed through our Camp loaded with Sheep's Wool strongly colored with ruddle 10.11 This was of a much better quality than that of Kangra or Chumba. It was bought n the villages of Ludagh at the rate of 3½ Sers per Rupee of Dehli. In reference to the 7th inst. it is to be observed that a River called Soomdo fell into the Yoonamchoo which almost equalled it in size was said to be of greater length and to rise in the Raj of Juskur which is a fief Raj held under the Raj of Ludagh. I must also remark that the River Yoonamchoo on receiving the Tzerab looses its former name and assumes that of Serchoo or from passing the Boundary Lingtee Choo. The Horses were not

brought back till near Evening and we have been obliged to remain here the whole day. A village is said to be at no great distance and is called Shoonshadee.

Sep^t. 10th. There has been a frost and the Ther^r in the Tent in the Morn^g stood at 32°. Above 2000 Sheep loaded with Sheep's wool have passed our Tents in the course of yesterday and this morning. Although it is much finer and longer than that of Chamba and Kotoch the best is deteriorated [appar. sic] by some long brittle Hairs and the inequality of its fibre and of its staple prove that no attention is paid to improving it. Several of our Horses had given us the slip in the night and a search for them wasted more of the Morning than was convenient in reference to the days journey which was reported to be long in order to compensate for the loss of yesterday. I did not wholly approve of the proposition as I have

40

never yet seen an extraordinary long march effected by a large body of people by which more time was not lost than gained besides the positive inconvenience to which almost all the travellers were subjected. However learning that neither wood grass nor water was to be had at any intermediate stage I consented to attempt the full march. For a short distance the road skirted the right bank of the Lingtee Choo and then by zigzags wound up the steep face of the Ghath of Loochaloong or LachaLoong as pronounced by a few. The first pile of Stones which announced an approach to the summit of the Ghath was named Jemka-joomlakh & the next Buldamoochoo. A Shepherds station called Tumooche had been proposed for encamping on yesterday but it afforded no other facilities save a very little water and some straggling and small bushes of [illeg.] Furze without any grass. At various distances on the right runs the Rivulet which was mentioned as being the last forded on the 8th and at length it was crossed near its source in the snows. The road after much ascent and winding round the middle of many Hills descended to the bed of a Watercourse of great breadth but now nearly dry in which was a a small patch of grass called Soomdoo another station for Shepherds. Crossing the Watercourse the path ascended gradually for above a Mile to a flat stony Gorge, on which was a Pile of Stones. A Rivulet came from a snowy Mountain to the N and flowed to the East along the left bank of which the path ran sometimes

ascending at others descending. Here I met a Cavalcade of Lahoulee Tatars of about a hundred mares and Geldings returning from Ludagh to which place they had carried the Merchandize of a Kashmeeree. The Cattle were of a better description than ours but many of them were severely bruised and wounded in the Withers by their heavy burthens. The Kashmeerees who frequent Ludagh with Merchandize know the weight customarily allowed for a load but generally exceed it by a third or one half and as their loads are packed in a compact way the carriers never question their weight though with us they would squabble for half a pound. However this was a tribute which as the first Europeans who had ever passed on this road we were compelled to pay. The general remedy in use was fining[firing?] the swellings and sores. Many young foals were at the foot of the Mares and several had pieces of woollen cloths wrapped round their feet as a substitute for shoes their hoofs having been wore to the quick by constantly treading on Stones. It appears to me extraordinary that foals not more than six months old could bear the fatigues of such a journey. In one part of the road an Avalanche of Pebble-Rock had almost filled the bed of the Rivulet now greatly increased in water by several accessary Streams although in some portions of its descent it had dipped

under its pebbly bed and was lost for several hundred yards at a stretch. Here it had cut an Arch through the ruins and forced its way out at a great[?]

41

distance into its original channel. On the left hand and a few hundred feet from the Rivulet stood an insulated upright Mass of sugar loaved clay stone Rock cut as it were down its middle the convex side in front[,] of which the height exceeded three hundred feet and at the base was a curtain of pebblestone with Pillars of the same material in such a state of frittering and decomposition as to threaten the traveller with destruction. Indeed the narrowness and softness of the path shewed that a portion of it had lately come down. However this will prove but a temporary hindrance and a new path will speedily be formed across its ruins. After a short ascent the path becomes very steep meandering and dangerous from loose stones concealed in deep slush. On a level with the bed of the River a pillar has detached itself from the face of the Rock and through this cleft about 30 feet in length and just wide enough to allow of a Horse saddled to pass through[,] the road runs. This is called Tushan Gushan. By a very steep and rough tortuous path an eminence is gained which rounded leads to a small spot on which Shepherds encamp and where I found some of our Carriers preparing to pass the Night. Water was distant there was no other fuel than a scanty supply from Tatarian Furze bushes without grass. The Carriers said that the proposed encampment was several Kos distant. I was the first of the Party the march had lasted nine Hours unin-

terruptedly, it was past 5, the wind was piercingly cold and the Sun had got below the horizon. Fearing that many persons would not come up I stopped and had the satisfaction of learning that more of them had arrived by ten and I was greatly gratified at hearing the voice of my young friend to whose assistance I had sent a Bhothea with a lighted torch. Going to bed dinnerless in long marches was an occurrence too common to be noticed and a little milk and water when procurable was deemed a good compensation. The place of our encampment was called Beechalong and was 53278 paces from our station of yesterday an immense march if our measurer [?] was not tired. The direction varied considerably.

Sep^t. 11th. Our road skirts the left bank of the Rivulet to the E of N. Opposite to our encampment and on the right of the River runs a chain of Rocks composed of Sand stone indurated Clay and Pebble Mass consolidated by a stalactical Matter which for a long time past seems to have been the common Cement of Sand and rolled Pebbles. The upper part of these is generally compacted sand with irregular projections of each starting from their summits but their sides are decorated with masses of Pebble stones of most diversified forms shooting sometimes insulated as conical sharp pointed Pillars at others laterally connected by horizontal sloping roofed structures conveying no unapt resemblance to the roof and body of a Church with its spire. Others are like Pillars surmounted with flat Capitals, some again are grouped in as-

42

semblages of Spindles and Spires sometimes the shapes of towers are affected and one Mass at a distance looked like a vast Castle. Ordinarily these grotesque remains of a substance more hard than the material which originally surrounded them and had gradually fallen into the bed of the River[,] reposed upon broader foundations of Clay-stone. Caverns apparently

of great capacity were seen leading into the interior of the Rock but far out of the reach of Man. Streams of fine sand issuing from the Mouths of some of them like gentle currents of water shewed that vast bodies of loose sand had been originally shut up in the Mountains at the period of their outer parts becoming consolidated into a Crust and as their outer encrustation by accidents of weather Snow slips and earthquakes became broken off a vent was given for the confined Sand which poured from the Chambers in which it had been long locked up. At a considerable distance some of the assemblages of Pebble stone rock were taken by some persons of our party for the ruins of Hindooo Temples and other buildings. As we advanced the Rocks on the left hand contracted the valley before narrow to the bed of the river in which the path lay. These rocks consisted in some places of a very compact black stone with which I am unacquainted veined and studded with Quartz extremely condensed in others of strata of clay stone with beds of dry clay interpared [?interspersed]

mixed with a saline efflorescence of a slightly aluminous taste but the strata were broken up and shattered in such a manner as to be peak an agency of wonderful power. From the River when crossed the road runs at the foot of a high and steep face of pebble rock in which the small brown Martin lives with the utmost safety. This bird was seen soon after our entering the Mountains and is observed flying about any day notwithstanding the great diversity of temperature we have passed through whereas the long winged Swift was only met with for two days near some steep Cliffs of the Chundra Bhagee. The red-tail a summer visitant in England seems to extend its range from the warm hilly regions to those of great cold but is only seen in pairs. The Raven of Tatary visits our Camp in pairs at every stage and is very bold. One bird is greatly larger than the other but to which sex the superiority in size belongs I do not know as I have not yet shot any of them to gratify my curiosity. The road descending crosses a broad but not deep Rivulet of beautifully pellucid water in a most capacious channel with high banks which comes from the E of S & empties itself into the Stream skirted this morning. Rising from this the path reaches a triangular plain of considerable elevation two sides bordered by a Stream and its insulated angle touching the Rivulet of Buchaloongo. There was much Grass and it forms a Shepherd's station under the name of Topo. Crossing the base of the plain the road traverses the third Stream of which the current is not more than fifteen feet broad

43

though its channel be seventy and its banks at least of this depth. The River resulting from the conflux of these three Streams is called Soom-ghee-el or three Springs, at this place, and is said to go into the inhabited part of the Country of Ludagh but under what name I could not learn though it is important to determine its destination and name as well as of the Yoonamchoo or Lingtee. After rising up its right bank and proceeding a short distance along a plain I saw a considerable body of Bhotheas on an encampment to the right of the road called Moree. The party consisted of Men Women & Children from various countries. One man said he came from Chumba another from Kangra and others were said to be Natives of Lhassa. The women had Tatar features and more ruddy complexions than I had lately seen. The whole party rose from the ground and salamed on my approaching them and were equally civil on my departing. They said that their Satchels were filled with Borax. On enquiring if they knew the state of Ludagh as to the Small Pox they replied that about a hundred persons had died of that complaint but that it had now quitted the Capital. From

Moree the ascent to the Pile of Stones cost me forty minutes including some short rests with which I indulged my Saddle Mule Dapple and of which he stood just as much in need as any of the people on foot if one might judge from the violent beating of his heart and the quickness of his breathing.

A little farther was a second pile from which I was gratified with the view of the extensive plain of Keeongchoo about two miles across and stretching far in advance of our road. It was generally flat, has a clayey soil but no stream ran along or across it and its produce of widely separated thin tufts of low weak grass evinced the want of this fertilizing element. The top of the Ghath rising to the plain was backed at a short distance by a shattered pile of rock about a hundred feet above the path. The valley is bounded by mountains on each side but not above 7 or 800 feet perpendicular with sloping sides and rather horizontal summits. Dense white clouds were covering some of the most remote with Snow and the general murkiness of the Atmosphere threatened us with a fall on the plain. After proceeding about four Miles we encamped near a small cavity into which a little water had drained from the higher lands. Our Tents were scarcely pitched when we were visited by a most piercing wind accompanied by a fall of Snow. The distance from our last encampment was 18421 paces and the direction roughly NNE.

Sep^t. 12th. The Mares of the Carriers had wandered far during the night and were not recovered till late some of our Horses which had gone back two marches in search of grass came up half starved the Carriers had for the most part sat up all night round fires whilst it snowed and proposed to remain all day at our present encampment but Mr

44

Trebeck and myself determined to proceed to the next stage in the hope by going first to meet with a wild Horse or some Hares the latter of which were said to be plentiful. There was a continuation of the same kind of valley or plain to Rokhchoo with a better crop of the same kind of grass upon it and with some variations in its line of direction. It was generally almost destitute of water but in one place were two or three plashes surrounded by an extensive bed of sand from the upper part of which issued a Mirage resembling waves. This plain is frequented during the warmer months by a Caste of Shepherd Bhotheas for the sake of the pasturage. Their flocks consist principally of Sheep and from these people the traders in Wool of Kangra & Chumba purchase the greater part of this Article procured from the frontier of Ludagh. This Valley is said to be frequented by wild Sheep and some enormous horns of this Animal found here and there bore testimony of the fact. They had been much weathered and from having laid long exposed the horny outer part had broken into scales was much split and in parts had contracted a rosy tint. This tinge prevailed in every horn that I met with. We saw a wild Horse or wild Ass for I could not get such a view of his Ears as to determine this point. Had we had more time and our Steeds been in better heart it is probable we might have got within shot but our proposed encampment was very distant. Mr Trebeck fired at him and as he fell immediately

afterwards conceived his ball had struck him however he got off. Shortly after I reached Rookchoo a Shepherds station with a scanty rill of water about half a mile distant I was informed that a Wakeel from the Raja of Ludagh had arrived at the same place and had made particular enquiry as to the extent of the military force along with us. Shortly afterwards

several Ludaghees came to my Tent and one rather better dressed than the rest and who assumed a kind of superiority saluted me in the Moosulman manner and presented a little Kashmeeree Sugar Candy in a paper. I enquired if he came officially from the Raja of Ludagh on our account. He rather evaded the question by saying that he came on the Raja's business in respect to some flocks of Cattle in that neighborhood. He then asked me if I spoke Persian to which I replied that I understood that language only a little but that if he wished for a full explanation of our business and came from the Raja with a view of receiving this information he should be gratified and through the medium of the Persian language. Twelve or fourteen Horses were on the plain grazing and on their being collected he took his leave. The distance of this days march has been 34408 paces and the direction roughly E of N. . Sept. 13th. Mr Trebeck and myself went out early to shoot and whilst thus engaged the presumed Wakeel came up and said that he was going to a village 3 Kos distant on our road and would there wait for us. I pressed him to stay a few hours or to detach one of

his party to receive some trifle from me in return for his Sugar which I could not then offer to his acceptance as my baggage had not come up. This he declined as he said he should accompany me to the Capital. The result of a few hours sport was eight Hares not much larger than Rabbits with long thick and soft Fur and of a bluish white color on the back and entirely white on the sides & belly. The Tail was long and thick seemed to touch the ground as the animal galloped and the fur was continued almost to the foot. One shot lower down on the plain was rather brown on the back, had less fur on the legs and resembled [the] mountain Hare of England, but the principal portion of them inhabited the Mountains covered as to their Summits with Snow. In the Evening our Party came up.

45

Sep^t. 14th It had snowed a little during the night. We remained here during the day. Sep^t. 15. There had been a greater fall of Snow. The road lay along the valley and at the union of three Gorges was a shallow lake of fresh water. We followed the Valley which turned to the [blank] and reached a Shepherds' encampment called Yoongcho at the foot of the Ghath named Toong-loong [blank] Ram Dhun one of our Lahoul Conductors had departed early this morning to a frontier town across the Ghath to ascertain why the Wakeel had not stayed to receive

information if he really sought it. The wind and sleet on the march caused much suffering to our Servants. The Mountains in this neighborhood are generally saddlebacked and low. The distance of this march has been [blank]. The direction roughly [blank]. Water was found about a Mile from our encampment though rather scanty.

Sep^t. 16 The road ascends the Ghat which though long is not particularly high and probably exceeds not 700 feet. From its naked summit the neighboring Mountains clothed with Snow seem almost on a level but much of their height is lost by the distance which is greater than it appears. All the Mountains forwards and on each hand which bound the horizon are peaked and capped with Snow the lower ones are either prolonged in nearly straight lines or rounded. The Sky where not obscured by clouds is of a deep Azure but vast Masses of thick white or mixed with a greyish tint hover over some of the Mountains and detach legs or funnel shaped processes which whirl about from Peak to Peak first distinctly and separately and afterwards are connected by a general fall of Snow. Lightened of part of its contents the cloud not dissipated remains suspended for a time & then attracted by another Peak repeats the process

46

perfectly clear. The descent from the Ghath was rapid and the road skirted the Rivulet which took its rise from its northern face and increasing as it advanced marked the line of our march. In about two miles slight vestiges of vegetation in [the form of] dwarf furze appeared in slopes and in recesses of the rocks which gradually improved into a short sward of Grass that fringed the course of the chrystal stream in which lay blocks of green Granite though this Stone was not to be observed in the adjoining clay slate Mountains. Here & there circular Walls of Stone denote the stations of Shepherds and two Rivulets with streams collected from various sources indicate our approach to the habitations of Man. Slopes roughly separated by low walls of Stone were chosen by our Carriers for our encampment at a place called Roomchoo. I sent Raja Sunsar Chund's Shepherd forward to a village of which I saw the cultivated grounds to procure firewood but he returned with a report that the Bhotheas did not understand him & Rama the Lahoulee who followed on the same errand stated that the inhabitants had abandoned their houses. The Rocks on the right were beautifully red when first seen consisting of red clay but when the Sun passed off they were nearly black. Then on the right were clay stones on which reposed blocks and pebbles of Gneiss their uniting medium being washed away.

¹ More about the Hautboy strawberry or Musk Strawberry can be found in Wikipedia, at https://www.wikiwand.com/en/Musk_strawberry accessed 23.08.2016.

² The inconsistencies in the spelling of this name are Moorcroft's not the transcriber's.

³ Defined by dictionary.com as 'a juniper, *Juniperus sabina*, of Europe and Asia'.

⁴ Wilson reads this word as 'austerity'.

⁵ Cf. Wilson's redaction of this passage. 'Izzet Ullah purchased three wethers selected by him from the flock for four rupees, and I bought two for the same sum' (*Travels*, I, 207.) This doesn't make a lot of sense. It's yet one more example of Wilson's sloppy editing.

⁶ A variety of iris the root of which is used in the perfume industry. See Wikipedia https://www.wikiwand.com/en/Iris florentina accessed 20.10.2016

⁷ This confused-sounding sentence transcribed as is.

⁸ Sedum, a genus of low-growing plants. See https://www.wikiwand.com/en/Sedum accessed 28.10.2016

⁹ An aerostat is a lighter than air craft, such as an airship or balloon, which uses the principles of aerostatics to float. See Wikipedia https://en.wikipedia.org/wiki/Aerostatics

¹⁰ Red ochre.

