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FEBRUARY, 1848.

Correspondence of the Commissioners deputed to the Tibetan Frontier; communicated by H. M. Elliot, Esq., Secretary to the Government of India, Foreign Department.

From Capt. A. Cunningham, Senior Commissioner, Tibetan Frontier, To Lieut.-Col. H. M. LAWRENCE, C. B. Resident, Lahore. Dated Camp Haulé, 15th Sept. 1847.

SIR,—I have the honor to report to you that Dr. Thomson and myself arrived at this place yesterday, Lieut. Strachey having left us on the morning of the 12th to proceed by a somewhat more circuitous route, by following the course of the Parang River for a few days, instead of proceeding direct to Haulé.

2. On our arrival here, we found two persons, named Angchoo and Gyabo, who had been sent to meet us by the Garpan of Gáreé, on the receipt of our letter to his address, despatched from Khyuré (copy of which was forwarded to you with my last letter No. 2 of the 29th ultimo). These persons reported that they had been sent to meet us by the Garpan, who had directed them to return to Gáreé with any orders that we might give them,—or, in the event of our not giving them any orders, to return at once. On being questioned regarding the Sirdars who were reported to have arrived from Lassa, they stated that one Sirdar, named Khalun Shakchoo, had arrived for the purpose of settling some revenue matters; that when they left Gáreé he was preparing to return to Lassa, and that by this time he must have set out No. XIV.—New Series.

- from Gáreé. On being further questioned, they stated that no Sirdar had arrived at Gáreé for the purpose of pointing out the ancient boundary between Ladák and the Chinese territory. As these men were despatched by the Governor of Gáreé, their statement may be taken as a full confirmation of the report, which I mentioned in my last letter, that no Chinese boundary Commissioners had arrived at Gáreé.
- 3. In the absence of any Chinese boundary Commissioners, we are left to follow out the instructions contained in the 5th para. of Mr. Secretary Elliot's Letter, No. 249 of 27th July last, to my address, "that the Commissioners should individually use their best endeavors to increase the bounds of our geographical knowledge." It was with this view that Lieut. Strachey, continued his course down the Parang river, while Dr. Thomson and myself took the direct road to Haulé, over the Lanak Pass. I annex a sketch map which will show the route which we have already surveyed, and those which we propose to follow as far as Leh. From Dunyar, on the Parang river, Lieut. Strachey will follow the course of the stream as far as Akché; we shall thus obtain an actual survey of the whole course of the Parang, or Para river, with the exception of about 25 miles between Akché and Khyuré. From Akché Lieut. Strachey will proceed to Haulé, over the Budhpú Pass, and so connect his survey with mine.
- 4. From Haulé Dr. Thomson and myself propose to follow the course of the Haulé river to its junction with the Indus, thence passing by the sulphur and borax mines, (which we shall carefully examine) we will take the high road to Leh by the Tung lung Pass and Giah. This was the arrangement that was agreed upon with Lieut. Strachey, before he parted from us: as by the time that he will reach Haulé, the season will be so far advanced that the only road open to him will be that along the bed of the Indus, which will accordingly survey down to Leh; we shall thus have two routes surveyed in detail from Haulé to Leh. If, however, Lieut. Strachey should be able to penetrate to the eastward from Haulé, according to his instructions, he will inform me of the same, and Dr. Thomson and myself will then take the river road, and survey the course of the Indus from the borax mines down to Leh.
- 5. I beg further to report to you that neither of the Agents appointed by Maharajah Gulab Singh, has yet arrived, nor have we any certain intelligence of their approach. Had there been any Chinese Commis-



sioners on the frontier, the absence of the Maharajah's Agents would have prevented us from settling any portion of the boundary during this season. As there are, however, no Chinese Commissioners, the absence of the Maharajah's Agents, Meean Jowahir Singh, and Mehtah Bustee Ram, has only occasioned us much inconvenience in procuring coolees and supplies. Their absence appears to me to be unaccountable; for, on the 6th instant, I received a letter from Lieut. Taylor, your assistant in Kashmir, dated the 3rd of August, informing me that Meean Jowahir Singh and Mehtáh Bustee Ram, had been appointed by the Maharajah to meet the Commissioners at Haulé. As the distance between Kashmir and Leh is only 20 days' journey, even for laden coolees, Meean Jowahir Singh should have been at Leh by the 23rd of August, and allowing him 3 days halt at that place, both he and Mehtáh Bustee Ram, the Thanadar of Leh, might easily have reached Haulé by the 10th of this month.

- 6. Herewith I have the pleasure to enclose a diary* of our marches from the 29th of August, to the 14th of September, the date of our arrival at Haulé, in transmitting which I beg to observe that we have not halted for a single day during the whole of that period.
- 7. Trusting that our arrangements, both past and future, may meet with the full approval of the Right Honorable the Governor General,

I have, &c.

(Signed) ALEX. CUNNINGHAM,

Bt. Capt. Senior Commissioner, Tibetan Frontier.

Camp Haulé, 15th September, 1847.

(True Copy)

H. M. LAWRENCE,

Agent and Resident.

From Capt. A. CUNNINGHAM, Senior Commissioner, Tibetan Frontier, To Lieut.-Col. H. M. LAWRENCE, C. B. Resident, Lahore. Dated Camp Lé, 9th October, 1847.

SIR,—I have the honor to report to you that Dr. Thomson and myself arrived at Lé, the capital of Ladák, on the 2nd instant, since which we have halted up to this day for the purpose of observing the Meteo-

 As a more convenient arrangement for the reader, we have thrown together, in the sequel, the various diaries alluded to in the correspondence.—Eps. rological and Magnetical instruments, and of collecting as much information as possible regarding the country and people. Hourly observations of the meteorological instruments and of the declinometer have been recorded for two days; and the magnetic dip and horizontal force have likewise been determined. The latitude of Lé has been fixed by 7 meridian altitudes of the Sun, by about 30 equal altitudes of the Sun, and by several altitudes of the Pole Star; and its longitude has been obtained by the observations of the solar eclipse of this day.

2. We purpose to leave Lé to-morrow morning by two different routes. Dr. Thomson will proceed to Nubra, and up the Shayok river to its source; and, if possible, he will cross the Karakoram range for a few marches to the northward, on the Yarkand road; after which he will return by the Shayok river and follow its course down to Iskardoh. I have furnished him with a sextant and a surveying compass of my own; and I have no doubt he will be able to map his route with considerable accuracy.

He has also minimum and boiling-point thermometers, as well as solar radiation and dry and wet bulb thermometers.

- 3. I will myself take a southerly route by following the Indus for a few marches to Khalets or Kulutsí, and thence to the Drâs river, which I will survey to its source. From Drâs, if the passes remain open, I will proceed by the Pilyl [or Pileel] rivulet, an eastern feeder of the Kishen-Gunga river, to Astor or Hasora, and down the Hasora river, and across the Indus to Gilgit. If, however, the western passes should be closed at the head of the Drâs river, I will then proceed through the northern part of Kashmir to the head of the Kishen-Gunga river, and thence by the Hasora river to Gilgit.
- 4. We have chosen these routes to the north and south of the course of the Indus, in order that we might not go over the same ground as Lieut. Strachey; who from the lateness of the season at which he will arrive at Lé, will be obliged to take the river route. We shall thus have three distinct routes surveyed from Lé towards Gilgit.
- 5. Of the necessity of surveying any lines of country which have been traversed by Trebeck and Vigne, I need produce no other proof than the disagreement between their maps. To the general accuracy of Trebeck's survey I can speak personally: as on three different occasions, in 1839, in 1846, and during the present year, I have myself surveyed



portions of his route. I have likewise, during the past year, surveyed many portions of Vigne's route; and I am thus able to state positively that his surveys are in many places erroneous. The following instances will be sufficient to show the inaccuracy of his map. 1st. In the Kangra district, he conducts the Guj river from Rihlee into the Ban-Gunga, beneath the walls of Kangra: whereas the Guj follows an independent course, and falls into the Byas several miles below the confluence of the Ban-Gunga. 2nd. In the map accompanying Baron Hugel's travels [which is only Vigne's map with the Baron's route inserted] Vigne's position of Kruhim or Mori-Muhul differs from the Baron's position of Muhul by 10 miles. To the general accuracy of the Baron's route from Bilâspur to Nadon and Nûrpûr, I can also speak personally; and I am therefore able to state that Vigne's position of Mori-Muhul is undoubtedly wrong. Mori is a village, and Muhul is an old ruined palace just above it; whereas Kúrúhi, the residence of Raja Ranavir Chund of Kotoch, is two miles distant from it. Vigne is therefore doubly wrong; in the name as well as in the position.

6. In selecting a route which will conduct me by the head of the Kishen Gunga river to Hasora, I believe that I shall best fulfil the intentions of Government as detailed in the instructions furnished to me in Mr. Secretary Elliot's Letter No. 249 of the 27th of July last to my address; in which I am directed to follow out my own antiquarian pursuits, as well as to increase our geographical knowledge. At the head of the Kishen-Gunga river, there is a district named Pakhtawar; which, from its proximity to Kashmir is, I have no doubt, the original seat of the Pakhtans (or Afghans). Our earliest authority for coupling the Afghans and Kashmiris together is Herodotus, whose city of Kaspapuros (called Kaspaturos by Isidor of Charax, and Spaturos by the Pentingarian Tables) I would correct to Kaspakturos; that is, the city (or country,) of the Kas and Pakhtans (the Kashmiris and Afghans).

The similarity of features of the two people would alone argue their common origin: but their former juxta-position, the one on the Jehlam and the other on the Kishen-Gunga, places the point (in my opinion) beyond dispute. The fact of their diversity of language is easily accounted for. The Pakhtans, who are only a branch of the Kas tribe, preserved their peculiar language and customs in the mountainous country which they occupied; whereas the language and the customs of the



Kås proper, were both lost in those of the more civilized Hindus, whom they had conquered. Such has in fact been the case in Persia and in India from the earliest times. The Mogals of Jenghiz Khån and Hulåka have long since disappeared in Persia, while their fellow-countrymen, the Hazaras of the Hari river, still speak Mogali.

- 7. Hasora, I believe to be the country of the Abisares of Alexander's historians, on account of its proximity to the Dardu districts, as it is always coupled with the Dards by Sanskrit writers—In Yasin and Gilgit, (called Gilit by the people themselves,) I believe that we have the Arsagalitæ of Pliny still preserved. To the south of the Dards again lies the country of the Gakars, whose ancient as well as whose modern capital was Dangali, which I have no doubt gave its name to the Dangale of Pliny. These, as well as the site of Aornus, are a few of the interesting archeological points which I propose to investigate during my survey of these countries.
- 8. I have not yet had time to digest and arrange the information which I have collected regarding Ladák: but I may mention that its present name is a modern one, the ancient name being Mâ-yul.

Lé also is a modern capital, the ancient metropolis having been at Shé, now a large village 8 miles to the south-eastward of Lé.

9. Herewith I have the pleasure to enclose my Diary of our proceedings from the 16th of September up to this date.

I have, &c.

(Signed) ALEX. CUNNINGHAM,

Bt. Capt. Senior Commissioner, Tibetan Frontier.

Camp Lé, 9th October, 1847.

(True Copy)

H. M. LAWRENCE,

Agent and Resident.

From Capt. A. Cunningham, Senior Commissioner, Tibetan Frontier, To Lieut.-Col. H. M. Lawrence, C. B. Resident, Lahare.

Dated Camp Bij-Bihara in Kashmir, 14th Nov. 1847.

SIR,—I have the honor to report to you that I arrived in the city of Kashmir on the 2nd instant, having been prevented by continued falls of snow from following the route by the Tilel valley to Gares, as

I had intended to have done when I last reported to you in my letter No. 6, dated Molbil, 20th October, 1847.

- 2. On the 23rd and 24th of October the snow (which had been falling on the heights for some days) began to fall in the valley of the Drâs river, and when I reached Drâs on the 25th ultimo I found that the passes to Garés and Iskardoh were completely closed. As the weather was still very threatening, I determined to proceed at once to Kashmir. I therefore marched the next day to Matên, through a heavy snow storm. The snow continued to fall the whole night, and the next day I made a march of 16 miles over the Seoji-lâ into Kashmir through snow and hail. On the three following days I continued to march down the valley of the Sind river through snow and mud: the snow having fallen down to a level of 6,000 feet for six consecutive days. On my arrival in Kashmir I found that all the passes, excepting three, were closed for the season, unless some continued fine weather should follow.
- 3. The three passes which remained open were: 1st, the Banahal Pass, by which the Lahore Dâk travels; 2nd, the Baramula Pass, by which the Jehlum leaves Kashmir; and 3rd, the Seoji-lâ, or Drâs Pass. by which I had entered the valley. The Garês Pass was completely closed: in consequence of which Mr. Agnew, Lieutenant Young and Mr. Winterbottom, who were returning from Gilgit, have been obliged to go round by Iskardoh and the Drâs Pass. Even the Pir Panjal Pass, which usually remains open throughout November, has been closed since the 25th of October.
- 4. Under these circumstances, as the only available route to the Dardu country was via the Baramula Pass, which continues open throughout the year, it appeared to me that the best plan which I could follow for the prosecution of the various objects of the Mission, would be to pay a short visit to the principal architectural antiquities of Kashmir, with the view of measuring them and of describing them in detail. For this purpose I left the city of Kashmir on the 8th instant, and I am now on my way back, having visited the various ruins at Pandretan, Avantissur, Bij-Bihara, Marttand, and the caves of Bhoma-jo; of all of which I have made plans and elevations by measurement, which will hereafter be submitted to Government. At present, I need only record my opinion that the style of architecture, exhibited



in these ancient temples of Kashmir, is distinguished by great elegance of design, combined with extreme solidity of construction. It is infinitely superior to any thing that I have seen in India; and from the simplicity of its outlines, and the beauty of its proportions, I think it may be ranked as an order of architecture not much inferior to our own classic models. I annex an elevation of one of the pillars of the temple of Marttand. It is a polygon of twenty fluted sides.

- 5. During my stay of five days in the city of Kashmir, I set up the declination magnetometer and the dip-circle, and I made hourly observations of the meteorological instruments for two days. I also obtained four meridian altitudes, as well as several equal altitudes of the sun, and a few observations of the Pole star for the latitude; and the lunar distance of Venus for the longitude. I was also fortunate enough to procure copious Vocabularies of two of the three dialects of the Dardú language, viz. the Shinâ, spoken in Gilgit and Hasora, and the Khajnâ, spoken in Hunza and Nager. The remaining dialect, the Armya of Chitrâl and Yasan, I expect to obtain without any difficulty amongst the Dardus on the Kishen-Gauga. I will hereafter compare them with the Persian, Pashtu, Sanskrit and Hindí: but, from a cursory examinatian of the two above dialects, I should say that they consist chiefly of Sanskrit and Hindí.
- 6. I expect to reach the city of Kashmir on the 18th, where I shall again observe the various instruments; and, after a halt of a few days for that purpose, I intend to proceed via the Baramula Pass, to Mozufarabad, and thence up the Kishen-Gauga river as far as may be practicable at this season. On my route to Baramula I shall visit the ruins of Pahârispur and Patan.
- 7. I have been so continuously occupied since I reached the city of Kashmir that I have been unable to prepare a Diary of my marches: but I will transmit this document along with my next report.

I have, &c.

(Signed) ALEX. CUNNINGHAM,

Bt. Capt. Senior Commissioner, Tibetan Frontier.

Camp Bij-Bihara, 14th November, 1847.

(True Copy)

H. M. LAWRENCE,

Agent and Resident.

From Capt. A. Cunningham, Senior Commissioner, Tibetan Frontier, To Lieut.-Col. H. M. LAWRENCE, C. B. Resident, Lahore.

Dated Camp Gingal, 15 miles west of Baramulla, 1st Dec., 1847.

- SIR,—I have the honor to report to you that I reached this place yesterday, and that I have been detained here to-day from want of porters, which the Bamba-Chief, Sultan Zuburdust Khan, professes his willingness to give; but which his servants appear to be making no exertions to procure.
- 2. Herewith I have the pleasure to enclose the Diary of my marches and proceedings up to the present date. From a perusal of this document it will be seen that during my short stay in Kashmir, my attention was principally directed to the measurement and illustration of its architectural antiquities, and to the acquirement of precise information upon points regarding which different authors are at variance; and I am happy to say that my researches have been attended with success.
- I have discovered, beyond all doubt, the exact position of the ancient capital of Kashmir in Pandritan, which is the local corrupt form of the Sanscrit name Puranadhisthana, or Puranadhithan, the "old chief city." In A. D. 1032 Abu Rihan Al Biruni states that the capital of Kashmir was named "Addistan," and that it was four farsangs from a great lake, certainly the Waller of the present day. Four hundred years earlier, in A. D. 640, the Chinese pilgrim Huan Thsang states that the old capital was on the river to the south-east of the new city. Now we know that the present Srinagar was built by Pravarasena, who reigned from A. D. 432 to 464. Huan Thsang's description of the ancient city, therefore, corresponds with the actual position of Pandritan, which is to the south-east of the present town. But to put this point beyond all doubt I may state that in an old abridged copy of the Raja Taringini, which has marginal notes identifying the ancient cities under their Sanscrit names, with the more modern appellations of the corrupt spoken dialect of Kashmir, I found an account of the building of a temple by Nirjita Verwma in A. D. 920-921, at Puranadhisthana, which name in the original notes is identified with Pandritan.
- 4. I have also been fortunate enough to discover another point of much interest and importance in the comparative geography of the countries to the northward of Kashmir; which is the identification of

the ancient country of Bolor with the present Balti, or Little Tibet. The Bolor mountains have occupied an uncertain position in our maps for a considerable period, which I am now able to define with precision. They are in fact that chain of mountains, hitherto called the Muztak, which forms the northern boundary of the district of Balti. Amongst the Dards who speak the Shina language, namely, in Hasora, Gilgit, Chilas, Darel, Kohli and Palas, all lying along the Indus, Balti is known only by the name of Palolo. What renders this identification more striking and complete is the mention by Huan Thsang in A.D. 640, that the kingdom of Polulo "produced much gold:" a production for which Balti or Palolo is still celebrated, and which is one of the chief sources of its revenue.

- 5. But the most valuable discovery which I have made since my last report, dated the 20th ultimo, has been the acquisition of three new Sanscrit Dramas, two of which were hitherto known to us only by name; and the third was altogether unknown. Copies of these Dramas are now being made; which, when completed, will be forwarded to Government. The Dramas are the following:
- 1. Anergha-Raghava, a long work, written by Murara-kavi, a Kashmirian bráhman. In this piece, as its name imports, the principal exploits of Rama are dramatized. It is one of the hitherto lost plays of which Professor Wilson had obtained only the name.
- 2. Sringara-Tilaka, a short piece written by Sri Rudra-kavi, a Kashmirian bráhman. This would appear to be a sort of monologue, in which one actor successively describes and personates the characters of various women. It is another of the hitherto lost plays of which Professor Wilson had obtained only the name.
- 3. Vasavadatta-cheritra, a short piece, hitherto entirely unknown, written by Suban-du-kavi, a Kashmirian brahman. In the Retnavali (also a Kashmirian drama) which has been translated by Professor Wilson, (Hindu Theatre, vol. 2) the heroine is likewise named Vasavadatta. In that play, however, she is the Rani or Queen of Vatsa, the Raja of Kausanebi. All the other characters are different, as will be seen by the forthcoming list of the dramatis personee of this new play:
 - 1. Chintamani, Raja of Kusumapura.
 - 2. Kandarpaketu, Son of the Raja.
 - 3. Sringara-sekhar, a Kshatriya, father of Vasavadatta.



- 4. Anangavati, mother of Vasavadatta.
- 5. Vasaradatta, beloved by Kandarpaketu.

I have, &c.

(Signed) ALEX. CUNNINGHAM,

Bt. Capt. Senior Commissioner, Tibetan Frontier.

Camp Gingal, 1st December, 1847.

(True Copy)

JOHN LAWRENCE,
Officiating Resident.

From Capt. Cunningham, Senior Commissioner, Tibetan Frontier, To John Lawbence, Esq. Officiating Resident, Lahore.

Dated Camp Hazroo in Chach, 18th December, 1847.

SIR,—I have the honor to report to you that I reached this place yesterday via Mozafarabad and the Hazara country, through six days of snow and ten days of rain. Herewith I beg to forward a diary of my marches up to this date.

- 2. In my letter No. 8 of the 20th ultimo, I reported to you that I intended to communicate with Doctor Thomson from Mozafarabad, but on my arrival there, I found that owing to the continual fall of snow all the passes towards Gilgit had become closed for the season, and I could not find any one who would undertake to convey a letter to Gilgit, or even to Chelâs on the Indus. For the same reason I was obliged to relinquish my intended exploration of the Kishen-Gunga river; but this I regret the less as I understand that the whole course of the Kishen-Gunga has during this year been examined by Mr. Vans Agnew.
- 3. Under these circumstances I took the only route left open to me through the Dhamtawar and Hazara districts; and I have the satisfaction to report to you that I have discovered the ancient names of these two districts in the times of Alexander the Great and Ptolemy the Geographer. As these are two points of much interest and value in the comparative geography of the Punjab, a few details regarding them may perhaps be acceptable.

First. The present Hazara district is the actual country of King Abisares of Alexander's historians. Its identification is established by the following statements of ancient authors. Abisares was King of the

Bergindii, that is of the people inhabiting the rich Hazara valley of Vergund. The Soanus river had its rise in the mountainous parts of Sabissa (or Abisara), or using the modern names, the Swan (or Sohan) river has its rise in the hilly parts of the Hazara country. Lastly, the people to the northward of Peshawar fled across the Indus into Barisades (or Abisares) for security; that is they took refuge in the Hazara country.

Second. The present Dhamtawar district, called Kash by the people of the country, is the Varsa-regio of Ptolemy, which he places in the hilly part of the Doab, between the Indus and the Jehlam. This district is mentioned at a later date, in A. D. 640, by the Chinese Pilgrim Hwan Thsang, as U-la-shi; and at a still later period, in A. D. 900, the Raja Taringini records that Sankara Vermma was killed by an arrow on his return from an expedition in the Urasa country.

- 4. These successful identifications, together with those reported to you in my last letter No. 9 of 1st December, have given me some hope that I shall be able to discover the situation of Aornos, for which purpose I am now about to proceed towards the Indus. As however the Yusafzai country is at the present time unsafe for a traveller, I must be content with such information as can be procured from the people in the neighbourhood. From the Indus I shall proceed to the Doâb, between the Chenâb and Râvi, to inspect the ruins of a place called Sangala, which may possibly be the Sangala of Alexander's historians, after which I shall continue my march viâ Lahore to the British territory.
- 5. For the construction of a Map of the countries which I have visited, and for the preparation of a detailed report upon all the points which have been the objects of my research, I shall require the uninterrupted leisure of three or four months or perhaps even a longer time, and if Chinese Commissioners are expected on the frontier at the beginning of the next season, my Map will be ready for the use of the British Commissioners by the beginning of June. I trust therefore, that there will be no objection to my residing at Simla during the time that I am engaged upon the Map and report. Any other place would no doubt answer equally well for the construction of the map; but for the proper preparation of the antiquarian and archeological portion of a report, such as I wish to make to Government, I must have access to my own Library, which is now lying partly at Simla and partly at Kal.



ka. I have also rented a house at Simla; my residence at any other place would therefore only be an extra expense to me without the advantage of access to my Library. At Simla I shall likewise be able to communicate with Colonel Boileau, upon whose judgment and assistance I must depend for the reduction and arrangement of the various magnetical and meteorological observations, which I have made during my present journey. Under these circumstances I trust to the favor of Government that I may be permitted to reside at Simla, for the preparation of my map and report.

I have, &c.

(Signed) ALEX. CUNNINGHAM,

Bt. Capt. Senior Commissioner, Tibetan Frontier.

Camp Hazroo, 18th December, 1847.

From Capt. A. Cunningham, Senior Commissioner, Tibetan Frontier, To John Lawrence, Esq. Resident, Lahore.

Dated Camp Shumsabad, Huzdra, 7th January, 1848.

Sir,—I have the honor to forward to you a Report and Diary of Dr. Thomson's proceedings from the 20th of October, up to the 1st of December, 1847. The letter is dated Camp Iskardo, 1st December, and as Dr. Thomson proposed leaving Iskardo for Kashmir on the following day, he must now be most probably in Kashmir, or perhaps on his way towards Hazara.

2. I am happy to state that the sketch map alluded to by Dr. Thomson, supplies in a satisfactory manner the long desiderated sutvey of the Shayuk or Nubra river, from the foot of Nubra downwards to its junction with the Indus. With Lieut. Ralph Young's survey of the middle Indus in the Iskardo and Gilgit territories, and Lieut. Strachey's, and my own survey of the Upper Indus in Ladâk, the Government will now possess a complete survey of the Indus and of its tributaries, from Haulé to Gilgit.

I have the honor to be,

Sir,

Your most obedient Servant,
(Signed) ALEX. CUNNINGHAM,
Bt. Capt. Senior Commissioner, Tibetan Frontier.
Camp Shumsabad, 7th January, 1848.

From Assistant Surgeon THOMAS THOMSON, Commissioner, Tibetan Frontier,

To Capt. A. CUNNINGHAM, Senior Commissioner.

Dated Camp Iskardo, 1st December, 1847.

SIR,—I have the honor to forward for your information a diary of my route from the 20th of October, and a rough sketch of survey of Shayuk and Indus rivers from Nubra to this place, which however having been reduced in a very rude manner, can by no means be considered as representing accurately the course of the river.

2. I have been detained at Iskardo much longer than I wished, being in uncertainty regarding my future movements. My intention had been after a few days' halt to proceed towards Gilgit—but from all the information I can collect here regarding that country, it does not seem to me to be in a state fit for scientific investigation. Mr. Agnew, having proceeded to Cashmere shortly before my arrival here, I have not of course any very authentic information on the subject, but on the whole I have judged it best to proceed to Cashmere, for which place I propose to start to-morrow morning.

I have the honor to be,

Sir.

Your most obedient Servant,
(Signed) THOMAS THOMSON,

Commissioner, Tibetan Frontier.

Camp Iskardo, 1st December, 1847.

From Capt. A. Cunningham, Senior Commissioner, Tibetan Frontier,
To John Lawrence, Esq. Resident, Lahore.

Dated Camp Hosan Abdal, 10th January, 1848.

SIR,—I have the honor to report to you, that I reached Hosan Abdal this day, after two visits to the Yusufzai country in search of Aornus, which I believe that I have discovered beyond all reasonable doubt, in the vast hill-fortress of Rani-gat or Rani-garh, situated immediately above the small village of Nogram, about 16 miles north by west from Ohind, and somewhat less in a direct line from the nearest point on the western bank of the Indus. Rani-gat is, I suspect, only a corruption of Rani-garh, the former name being a Pashtu term for the "Rani's-

stone," a huge isolated block of granite on the top of the hill about 50 feet in height, on which a Rani of former times is said to have seated herself daily.

- 2. Rani-gat corresponds in all essential particulars with the descriptions of Aornus as given by Arrian, Strabo, and Diodorus, excepting in its elevation, the height of Rani-gat above the plain not being more than 1000 feet; which is however a very great elevation for so large a fortress. But as the breadths of all the rivers of the Punjab recorded by Arrian are at least four times too much, I do not think that the difference of height is of much importance; more particularly as we know that Arrian's height must have been greatly exaggerated, otherwise Aornus would have been covered with snow at the time of Alexander's siege, a fact which is not mentioned by a single ancient author. Mr. Williams, the latest historian of Alexander, estimates Arrian's 20 stadia at three quarters of a mile, which is about the slant height of Rani-gat.
- The points of agreement between the two places are the following:-Rani-gat is an isolated inaccessible hill, with only one road cut in the rock leading to the top, although there are certainly two, if not more, rather difficult pathways, which indeed was the case with Aor-It has also a detached peak as high as the place itself; and the intervening hollow from 50 to 150 feet in depth, corresponds to the ravine across which Alexander built his rampart. It was supplied with water by three wells cut in the rock, and by a tank in the ravine enclosed between two dykes, from which the constant permeation would have formed a small rill, similar to the trickling streams which now percolate from the tanks of Kalinjar and Gwalior. Lastly, its situation answers admirably to all the data, which have been handed down to us regarding Aornus. It stands between the Swat river and the Indus, and not far from the latter stream. To the north-west, about 20 miles distant, are the large and important villages of Bazar and Rustam, adjoining each other, and which now form the entrepôt of all the trade between the Swat valley and the Yusufzai plain. This entrepôt is, I have little doubt, the Bazaria of Alexander's historians, which submitted to him on his march eastwards, after the conquest of the Swat valley. As the Bazarians at his approach abandoned their city and took refuge in Aornus, the relative positions of Bazar and Rani-gat suit exactly all the conditions required for the ancient localities.

- Regarding the antiquity of Rani-gat, which is the only point now wanting to complete the proof of identity of the two places, I cannot speak so positively; but some valuable light has been thrown upon this subject, by two pieces of sculpture which I luckily found amongst many Buddhist fragments in the ruined citadel. These are the naked body of a man with the Macedonian chlamys, or short cloak, thrown over the shoulders and fastened in front, and a human breast adorned with a necklace of which the clasps are formed of two centaurs, boldly designed and gracefully executed. As these sculptures undoubtedly owe their origin to the influence of Grecian art, they show that the antiquity of Rani-gat certainly reaches as high a date as the second century before Christ, at which time the successors of Alexander, who ruled over the Kabul valley, still preserved some of the arts and arms of Greece. higher antiquity of two or three hundred years, or even more, may therefore safely be granted to the massive granite walls of this Cyclopean mountain fortress, which must always have been the strongest and largest fortified place in the country. Even now the natives draw a distinction between it and other ruins; for they call Rani-gat a Killah, or fortress; whilst all others are designated garhie, or forts. If Rani-gat was not the Aornos of Alexander, it was certainly the Aornos of the times in which it flourished.
- 5. I have also secured some very perfect specimens of Buddhist sculpture, including a full length figure of Maya, the mother of Buddha, from the ruins of a small hill-fort near Jumal-garhi, about 28 miles to the westward of the Indus. But the most valuable acquisition which I have made has been the discovery of two short Ariano-Pali inscriptions in the same character, as that which is found upon the reverses of the Indo-Grecian coins. As both of these inscriptions bear dates, and as they are the oldest dated inscriptions hitherto found in India, I consider that the possession of them will be very cheaply purchased at the hire of a single camel for their carriage. I am therefore now bringing them, as well as the sculptures, along with me towards Lahore, from whence I will forward them to Government through the Ordnance Commissariat Officer at that station. The more ancient of the two inscriptions is dated in "Samvat 37, or the first day of the bright half of the month of Sravand, in the reign of Mahadaya, king of the Gushang (tribe)." The other inscription is dated in Samvat 333. The Gushang



were the most powerful tribe of the Tochari; who, about the beginning of our era, overran both Persia and India. As I was the first to read their name upon the Indo-Scythian coins, I feel much satisfaction at finding my reading so fully confirmed by the discovery of this inscription.

- 6. I am now prosecuting my researches for the identification of the ancient Taxila, which was for many centuries, the chief city between the Indus and Jehlam; after which I shall continue my route towards the British Territory vià Lahore.
- 7. As in my letter No. 10 of the 18th ultimo, I mentioned on native authority that owing to the unsettled state of the Yusafzai country, I should probably be obliged to confine my inquiries to such information as could be procured from the people in the neighbourhood, I have now much satisfaction in stating, from personal experience, that, during my two visits to the Yusafzai district, I found the people happy and contented, and the chiefs highly satisfied with the arrangements which had been made for the settlement of their country by the British Authorities at Peshawar. My researches extended as far north as Char-golai, within 4 miles of the Buner frontier. In a few years hence I have little doubt, that the Yusufzai plain will regain its former prosperity, and exhibit once more the same smiling sheet of rich cultivation, which it must have shown under the settled administration of the first Mogul Sovereigns of India. The traces of large villages are numerous over the whole plain.
- 8. Herewith I transmit a copy of the Diary of my marches from the 18th of December up to the present date.

I have, &c.

(Signed) ALEX. CUNNINGHAM,

Bt. Capt. Commissioner, Tibetan Frontier.

Camp Hosan Abdal, 10th January, 1848.

Diary of a route of Assistant Surgeon Thomas Thomson, Commissioner, Tibetan Frontier, from 21st October to 30th November, 1847.

Camp Iskardo, 30th November, 1847.

Date.	Halting place.	No. of miles.	$oldsymbol{Remarks}.$
1847. 21st Oct	Lyakjung.	9	Crossed Nubra valley to Taghur (halting place of 16th and 17th) and thence
22nd	Hundar.	91	to near junction with Shayuk river. Over gravelly bed of Shayuk which is divided into several branches. Forded it half way without difficulty. Hundar
23rd	Tertse.	10	a large village. Along south bank of river commencement of march through cultivation and villages, remainder very barren and
24th	Unmaru.	5 1	Much delay in crossing river at commencement of march. It was divided into numerous branches, three of which were deep (2½ to 3 feet in places generally above 2). Afterwards along N. bank generally barren. Camp at a
25th	Karu (Camp).	91/2	large vilage. Along N. bank of river through bar- ren stony country. The mountains gra- dually approach river and at end of March leave only room for stream to
26th	Waris (Camp).	8	pass. No village. Leave bank of river which is impracticable, to ascend a small valley descending from the north. Its banks were exceedingly barren and precipitous, and the road consequently difficult. A few links, only used for summer residence, and some fields round camp. Snow fell
27th	Boghdan (Camp).	7	during the afternoon. Crossed a high mountain ridge separating the Waris stream from that of Boghdan, and encamped on the latter at a place where there is a good deal of cultivation, but which is only inhabited in summer.
28th	Chulungka.	9	Descended Boghdan stream to its junction with the Shayuk, which I found

Date.	Halting place.	No. of miles.	Remarks.
			with bold rocky banks as when I left it at Karu. At intervals however there are gravelly reaches on one side or other; valley continued narrow all the way to camp. Chulungka is a very small village, almost all its cultivable ground having been carried away by the
29th Oct.	Turtuk.	7	great flood 5 years ago. Generally along stony bed of river; occasional rocky ascents to get over otherwise impassable places. Crossed river by good wooden bridge close to Turuk, a large and extensive village.
30th	Pránu.	11	A great part of march over steep rocky hills, exceedingly barren. Cross- ed river at end of march by wooden bridge. Pranu a very extensive village.
31st	Siksa.	7	Also a rocky march in many parts; mountains still continuing on both sides very close to stream, so that its banks are not always passable. Crossed to left bank of river by wooden bridge near Siksa.
lst Nov.	Kábás.	8	Along left bank of river. Road as for the last four days.
2nd	Surmu.	12	Road more level, over gravel and boulders, or elevated alluvial banks. Crossed river by bridge at commencement of march and recrossed by a very deep ford at about a mile from end. In latter half of March valley widens, and near Surmu has spread out into a very wide alluvial plain through which the river winds in many streams. A large river joius from the north opposite Sur-
3rd	Kháplu.	7	mu. The banks of the river being impracticable from bold projecting rocks road ascends a ravine, crosses a low ridge and descends upon Khaplu which is a very extensive town or village, with much cultivation and great numbers of trees.
4th	Halt.		

Date.	Halting place.	No. of miles.	Remarks.
5th Nov.	Karku.	10	Crossed river below Khaplu. Road along bed of river or through cultivation the whole way.
6th	Braghar.	4	Along the right bank of the river almost the whole way. At end of march
7th	Kunes.	61/3	a large stream joins from the north. The valley contracts below Braghar, and about two miles lower down, where it bends to the north, has become very narrow and rocky, so that the latter part of the march was a succession of ascents and descents.
8th	Kuru.	6	A fatiguing march over a ridge of mountains to avoid an impassable bed of the river. Road very steep and sto-
9th	Keris.	8	ny. First two miles over rocks, remainder along river bed till reaching the cultivated lands of Keris, an extensive village.
10th	Golochu.	9	Junction of Indus is about a mile below Keris; afterwards the valley is very narrow and rocky, and the stream very rapid.
11th		91	Road over rocks, but close to river for three miles, after which it ascends a lateral ravine and continues among low hills at some distance from the river,
12th	Iskardo.	4	which is not seen again till end of march. Over a sandy plain, crossing river one mile above Iskardo. Valley widens much and is very sandy. A large river joins from the northward.
13th till 31st.	Halt.		

(Signed) THOMAS THOMSON,

Commissioner, Tibetan Frontier.

(True Copies)

J. LAWRENCE,

Officiating Resident.

Diary of the Tibetan Commission, from the 29th of August 1847, to 10th January, 1848.

Date.	Halting place.	No. of miles.	Remarks.
1847. 29th Aug.	To Khyuri.	51	Crossed the British frontier from Chang Razing into the Chinese territory. Commenced a regular series of observations with the barometer, the dry and wet bulb thermometers, and the solar and terrestrial radiation thermometers.
30th	Huling.	91	A mere halting place on the left bank of the Piti river. Crossed the Gyu river, which forms the boundary between the Chinese district of Chumurti and the British district of Piti.
31st	Lari.	98	The first village is Piti. Road generally over shingly landslips.
1st Sept.	Pôg.	8 3	On leaving Lari passed at 23 miles the desolate, wintry-looking village of Tabo. From this the country was barren the whole way to Pôg.
2nd	Dankhar.	9 1	Not a single village occurred the whole way between Pôg and Dankhar. On the opposite side of the Piti river however, there was the village of Mani, the largest in the Piti district.
3rd	Lari.	8 ş	At 3 miles crossed the Lingti, a considerable stream about 25 miles in length. At 7 miles passed the small village of Lidang. Dip of the magnetic needle at Lara 43° 37'.
4th	Halting place op- posite Rangrik.	8 1	At 5 miles passed the village of Karj. At $7\frac{1}{2}$ miles the bed of the river which, from Dankhar upwards had continued wide, open and level, was contracted to about 60 feet, between two rocks, where a wooden bridge was thrown across, a mile and a half below the large village of Rangrik, the Rerik of Trebeck and Broome.

Date.	Halting place.	No. of miles.	Remarks.
5th Sep	ot. Gyihbar,	678	At 4 miles passed the village of Kyi, with a picturesque looking monastery seated on a rocky eminence. From this point the road left the Piti river and turned to the northward of the Le-chu to Gyihbar, the last village in Piti.—Height above the sea 14,000 feet.
6th	Jukhtá.	63	A halting ground in the bed of the Le-chu, a narrow gorge 15,000 ft. above the sea. The wild leek was plentiful on this march.
7th .	Bongrochan	21/2	An encamping ground, 17,000 feet above the sea. Here I suffered from headache and sleeplessness. The Sangram vuzeer, as well as numbers of the coolies and servants, likewise complained of headache.
8th	Pratang Kongma.	7	Crossed the Parang Pass, 18,600 ft. high. No snow on south side. To the north the road laid over a snow-bed for 1½ mile, then rough and stony to camp. A magnificent glacier filled the ravine as far down as 2½ miles from the top of the Pass.
9th .	Halting place.	11	Road along the bed of the Parang river, level but stony. Snow-pheasants
10th .	Núrbú Sumdo.	11	Road along right bank of Parang river, level and stony. At this point we were about 7 miles to the south of the Great Chomorin lake.
11th	Dunyar.	9	Road along right bank of Parang river. Saw two Kiangs, or wild horses, on the opposite bank.
	Gurkhyam	91	Crossed the Parang river and proceeded to the north-east, up the dry bed of a former lake of some extent. N. B.—Lieut. Strachey here parted from us and continued his course down the Parang river to Chumur.
13th	Gurkhyam.	103	A gradual but long and very fatiguing ascent for 5 miles, to top of Sanak Pass, 18,200 feet above the sea. In crossing

Date.	Halting place.	No. of miles.	Remarks.
14th Sept.	Hánlé.	15	this Pass I felt no headache whatever, but others complained of headache, which was no doubt occasioned by the elevation alone. Road from top of Pass exceedingly rough and stony for five and half miles to camp, in the bed of the Gurkhyam rivulet. Road for 4½ miles down the bed of the Gurkhyam, thence over gently undulating ground for 6 miles, then a steep descent of 500 feet to the Hanlé swamp, round which the road wound for 4½ miles to Hanlé—a picturesque looking fortified monastery, seated on the end of a rocky spur, and washed on two sides by the Hanlé river. This place has rather an imposing appearance, with its square and round towers defended by Machicoulis. The peaceful Lamas how-
17th	.Mång kang.	10%	ever, yielded to Zorāwar Singh in 1834, without firing a shot. Road level along the left bank of the Hanlé river—a few hares amongst the Dama jungle, which here grows up-
18th	Tâmashap- chu.	16	wards of six feet in height. Road for 9 miles along the left bank of the Hanlé river; then over a stony but easy low pass, and along a dry
19th	Rânak.	10}	barren plain to the left bank of the Indus, which is here a sluggish swampy stream, abounding with wild fowl. Road along the left bank of the Indus occasionally very stony. Passed the villages of Mûd and Nyimo on the opposite bank. At this place we took a section of the river which was 240 feet broad, and 3 feet deep, with a current of only 2½ miles an hour. It was fordable with ease, the bed being soft and clayey. The banks are flat and low, and are covered with a long coarse grass. We observed some fish in the river.

Date.	Halting place.	No. of miles.	Remarks.
20thSept.	Káldang.	111	Road for 7½ miles along the left bank of the Indus, the latter part very rough and stony. The river in some places is not more than from 30 to 40 feet in width; after passing the village of Máhé (on the opposite bank) the road turns to the westward up the Rulang-chu, a small clear stream overshadowed with tall tamarisk trees.
21st	Púg a.	434	Road for 2½ miles the same as yesterday, through tamarisk trees up the Rulang-chu. It then crossed the stream, and proceeds over undulating stony ground to Pûga, the site of the borax and sulphur mines. The borax is collected from the surface of the ground on both banks of the rivulet. The sulphur is dug out of the side of the hill on the northern bank. The bed of the stream is full of hot springs varying in temperature from 80° to 148° the boiling point of water being only 186°. The stream is full of fish. Its temperature is considerably higher than that of the air. At 8 A. M. when the air was only 32°; the water was
22d	Halt at Pûga		62°. This may account for the size of the tamarisk trees on its banks, many of which are 15 and 16 feet in height. Halted to observe the meteorological and magnetical instruments; and to examine the sulphur and borax mines.
23rd	Ankhung.	7	Thermr. at 5 A. M. only 13°. Road up the Rulaug-chu, extremely
24th	Thogji Chenms.	16	Road an easy ascent for $3\frac{1}{2}$ miles to the top of the Pulakonka Pass, where I connected this year's survey with that of last year. Then an easy descent for $12\frac{1}{2}$ miles to the northern bank of the salt Lake, called Chokhar by the Lahulis, and Thogji Chenms by the Tibetans.

Date.	Halting place.	No. of miles.	Remarks.
25th Sept. 26th	Larsa. Giah.	143	Road round the northern end of the Lake, and thence through a gap by which the lake formerly had an exit, as is proved by the millions of shells still existing in the ancient lacustrine formations, at a level of at least 150 feet above that of the present lake. From this gap the road ascended the plain of Kyung to the foot of the Tunglung Pass. Snow fell during the night, and we found the ascent of the Tunglung Pass, about 1500 feet, extremely fatiguing. The cold was intense, and the wind high; and the snow and sleet were very annoying. The descent was rough, steep and slippery for about 3 miles. Thence for the rest the road was down a gentle descent along the left bank of
27th	Halt at Giah.	••	the Giah rivulet, passing at 13 miles the village of Rumchi. We found it absolutely necessary to halt after the last three long marches which had prevented us from taking
28th	Miru,	7 1	any observations. Road good and broad along the left bank of the Giah rivulet. Rocks throughout this day's march of a hard compact greenish sandstone, alternating with a silicious greenish conglomerate, and standing in almost perpendicular dykes. The conglomerates, although extremely hard, are generally worn smooth. If they could be cut and polished they would form beauti-
29th	Ukshi.		fully variegated slabs. Road good down the Giah rivulet which was crossed four times by good bridges of poplar spars. Ukshi stands at the junction of the Giah rivulet with
	Marsila, or Marchalang.	81/2	the Singhi-chu, or Indus. Road along the left bank of the Indus. At Marsila there are large plantations of poplar trees.

Dat	e.	Halting place.	No. of miles.	Remarks.
lst O	ct.	Chachôt.	11	Road along the left bank of the Indus, first over the irrigated fields of Changa; then over barren stony ground to Thakna; and thence through the fields and straggling houses of Chachôt, to Gola-bâgh, a garden and house be-
2nd	••	Lé.	91	longing to the late Governor of Ladåk. Road for 4 miles through the cultivated lands of Chachôt, thence for 1 mile stony to the bank of the Indus, which we crossed by two substantial bridges of poplar, the larger one being 80 feet in length, and 8 feet broad within the railings. From the bridge the road was alternately sandy and stony the whole way up an easy ascent
3rd	••	Halt at Lé.		to Lé. Observed the meteorological instru- ments hourly, and obtained meridian
4th ,	••	Ditto.		and equal altitudes of the sun. Observed the declination magnetometer hourly, and obtained meridian and equal altitudes of the sun.
5th		Ditto.		Ditto ditto.
6th	••	Ditto.	••	Observed the dipping needles, and Hansteen's intensity apparatus; and obtained meridian and equal altitudes of the sun.
7th	• •	Ditto.		Cloudy, no observations. Light snow fell.
8th		Ditto.	••	Cloudy morning and snow until 9 o'clock; obtained meridian and equal altitudes of the sun and four observations of a Polaris.
9th	••	Ditto.		Obtained meridian and equal altitudes of the sun. The morning was cloudy with occasional breaks of sunshine. The beginning of the solar eclipse was therefore not obtained within half a minute; and its termination was completely obscured: but the time of its greatest phase was accurately observed. Hourly meteorological observed.

Date.	Halting place.	No. of miles.	Remarks.
10th Oct.	Thárú.	11‡	vations were made during the morning: and during the eclipse the observations were made every quarter of an hour, to note the abstraction of heat. At 1\frac{1}{8} mile from Lé reached the new fort on the plain built by Vazir Zorawar Singh. It is a square of 200 yards with round towers at the corners and in the middle of each curtain.
			The walls are built of huge sun-dried bricks;—they are about 20 feet in height, and are loopholed all round. The fort is well supplied with water inside, as it stands on the left bank of the Lé rivulet. There are 4 good 3-pounder brass guns with serviceable carriages and 30 well dressed artillery
			men. At 1 mile beyond the fort, passed a gibbet with the skeleton of a Boti-man hanging from it. He was executed six years ago by the Governor for killing a bullock. At 4 miles passed the village of Pitak. Just above this village there is an immense mass of indurated clay in horizontal layers, an
11th	Bazgo.	11	undoubted lacustrine formation. At 9 miles crossed the Phiang rivulet leaving the village and monastery of Phiang one mile to the north. Road over undulating stony ground for 3 miles; then a rough and sandy descent of 1 mile down a dry ravine to the level cultivated lands of Nyimo, a large scattered village opposite the junction of the Zauskar river with the Indus. Thence for 3 miles over barran stony ground to the folds of Regge
12th	S ás púl.	8	ren stony ground to the fields of Bazgo and then through the cultivation to the village. Road for 1 mile through the fields of Bazgo: thence over barren undulating ground interrupted by dry ravines for two miles. Then down a

Date.	Halting place.	No. of miles.	Remarks.
13th Oct.	Hemistok po	98	dry ravine and along the bank of the Lakiru rivulet to Sáspúl on the Indus, a pretty scattered village watered by two revulets. Road along the right bank of the Indus for six miles barren and rocky to Urlétokpo, a small place of only 2 houses, opposite the village of Sgyéra, which has a considerable extent of cultivation. Thence the road continues along the right bank of the river, with
14th	Snurl a ,	5 중	some steepish ascents and descents for 3½ miles to a level spot opposite a small patch of cultivation with a few houses called Hemis-tokpo. Road for 4 miles along the right bank of the Indus, level and occasionally very sandy. At this point the upper road via Hêmis joins the lower road via Saspul, and at ½ mile beyond the large scattered village of Snurla is reached. Here walnut trees were first observed, but of no great size: the
15th	Bridge over the Indus.	87	fruit however was large and good. Chakors were numerous; and the wild animal, half goat half deer, called Shâ, abounded on the opposite hills. I procured a fine large male with some difficulty. Road continued along the right bank of the Indus. At 4 miles passed Balukhar, a ruined castle on a low isolated rock. At 3 miles farther reached the village of Kallach, the Khalets of Moorcroft, who calls it one of the largest places in Ladåk. It has now only 19 inhabited houses: but I observed whole rows of roofless houses. Indeed I have observed the same at

Date.	Halting place.	No. of miles:	Remarks.
			bridge 8 feet broad, 77 feet long, and 45 feet above the water. On the right bank there is a wall square bridge-head, built of sun-dried bricks, with a guard of 12 men.
16th Oct.	Lama yurru.	88 B	Road for first half mile along the left bank of the Indus. It then turns to the southward up the right bank of a small stream, the Wanla chu, which at 2 miles was crossed by a sanga. The stream winds considerably, but its general direction is to the south. After crossing it twice more the road left the main stream, and proceeded up a narrow ravine which gradually opened out into a well-cultivated valley. I observed immense masses of a fine pale straw-colored clay in all positions from the bed of the river up to more than 1000 feet in height; and resting on the slate which stands at a highly inclined angle of nearly 80° after observing these undoubted marks of a large lake having once existed in this spot, I was much interested on hearing the Lamas of the place ascribe the founding of their Monastery to one Naropa, a Lama of Brigúng near Lhâsa, who drained the Lama Yurru Lake many centuries ago by cutting through the opposing rocks. The tradition is curious, as it may perhaps show that this lake must have existed at a compara-
	-		tively late period; unless indeed we give the Lamas credit for rather nice observation and the consequent deduc- tion.
17th	Heska.	9	Road for 5 miles an easy and gradual ascent to the top of the Pass called Photolá, 13,000 feet in height. Thence an easy descent of 4 miles to Heska; on the right bank of a small stream and bluff rock, above the village, there is a deserted Lamaic monastery.

Date.	Halting place.	No. of miles.	Remarks.
18th Oct.	Charak.	111	Road good and generally level, with a few slight ascents and descents. Crossed the Kánji river five times by temporary bridges. At 5½ miles passed Kherbo, and at 7 miles, Thakshé, both picturesque-looking places, situated on isolated cliffs. At 8 miles the road left the Kánji (which is said to join the Indus at Dah), and proceeded up a small stream to the westward; an easy ascent the whole way.
19th	Mol v il.	71	An easy ascent of 1½ mile to the top of the Namyika Pass, 12,600 feet high. Thence a rather rapid descent of nearly 4 miles to the bed of the Waka-chu; and then along the right bank of the stream through fields for 2 miles to Molvil.
20th	Halt.		Observed the declinometer and the meteorological instruments hourly from 4 A. M. to 4 P. M. and the dipping needles at $4\frac{1}{3}$ P. M. taking 16 observations of each needle.
21st	Dok.	83	Road for 3 miles down the Waka river, through an open and cultivated country. It then crosses the Pugal river, and shortly afterwards the Waka, which narrows to a mere rocky torrent till within 1½ mile of Dok where the cultivation again appears.
22nd	Kargyil.	113	At 5½ miles passed Paskyum with a fort on a projecting spur on the left bank of the Waka river, and the town on both banks below more than half deserted, but the lands well cultivated. At half a mile further crossed the river, thence passing several villages and much cultivation for 3 miles, the road ascended to a level stony plain and continued to the N. W. dipping at every half mile about 50 feet or more, and then descended nearly 300 feet to the junction of the Waka with the Suru

Date.	Halting place.	No. of miles.	Remarks.
23rd Oct.	NearKherbu.	112	river. The latter is a considerable stream about four times as large as the Waka-chu. A road leads up its bed to Kishtwar. It was by this route that Zorawar Singh first invaded Ladak. At 1 mile crossed the Suru river by two small bridges and one large one. Just above the bridges, on the left bank of the stream, is a small loop-holed fort, 50 or 60 yards square, with round towers at the corners. It is well supplied with water. Below the bridge the Purik and Suru rivers unite. The
	Jas-gund. Drås.	12 }	road then continued for 2½ miles to the junction of the Suru and Dras rivers. From this point it turned to the westward up the right bank of the Dras river, along which it continued for 9 miles to the encamping ground, a short distance beyond the junction of the Shingo and Dras rivers. Road for 7 miles continued along the right bank of the Dras river passing the villages of Kherbu and Shimsha. It then crossed the river by 2 bridges, one of 20 feet span over a rocky channel, and the other of 50 feet span over the main stream. Thence for 5½ miles up the left bank of the river passing Chibr and Taskyum. Snow fell during the afternoon. Road nearly due west the whole way to the fort of Dras, chiefly over allu-
			vial soil, the deposit of former lakes. On a small piece of ground just after passing the hamlet of Styalbo, and within half a mile of the fort there are three upright stone pillars on the side of the road. The smallest of the three is undoubtedly a modern Sati stone with a modern inscription (in the Hill character) of which I have copies. The

Date.	Halting place.	No. of miles.	Remarks.
26th Oct.	Matén.	117	other two pillars, familiarly called Choms, or the "Women," are also Brahmanical and not Buddhistical, for the almost obliterated inscriptions are in Kashmirian Någari, and not in Tibetan characters. I took copies of these inscriptions also. Road for 7½ miles to the westward up the left bank of the river, to Pân Drâs, a Kashmirian corruption of Purâna Drâs, or old Drâs, to distinguish it from the new Drâs or Sikh Fort. Professor Wilson strangely supposes it to be Paien-i-Drâs or lower Drâs, although it is higher up the stream. Beyond Pân Drâs the road continued for 1½ mile to the westward up the stream and then crossed to the right bank by
27th ,.	Bâl-thal or "Hill foot."	157	ford, and turning to the S. S. W. after 3 miles reached Matén. Snow fell heavily all the afternoon, and continued throughout the night. Road for 5 miles through snow up the right bank of the Drâs river; and thence across the stream and up a short steep ascent, and up the stream for 6 miles further to its source in the Waga-Sar; from which also issues, in the opposite direction, one of the sources of the Sindh river, which flows into Kashmir. This is properly speaking the Pass or dividing ridge between Ladak and Kashmir: but as the road afterwards ascends a spur of the hill beyond to a point somewhat higher than the level of the lake, the latter is considered to be the Pass, and is accordingly named so as the Seo-ji-la. From the Pass the road descends very steeply for rather more than 2 miles to a log-hut, at the junction of the Waga rivulet with the Kishen-Gunga, which is said to come from Amaranath. This

Date.	Halting place.	No. of miles.	Remarks.
28th Oct.	Sonamurg.	8 3	spot is called Bâl-thal, literally "Hill-foot"—snow fell half the day. Road down the right bank of the Sindh river a succession of slight ascents and descents occasionally through fine forest. At 6½ miles crossed the
29th	Gagangir.	71	Nila, a large stream. At 8½ miles crossed the Sindh by a wooden spar bridge, 60 feet span, and encamped opposite Sonamurg, which has now only one inhabited house. Snow fell all day and night. Road for ½ mile level through deep
			snow. At ½ mile beyond crossed the Sindh by a spar bridge, 60 feet span. Thence for 5 miles up and down steep rocky ruts, full of snow and mud; a most fatiguing and disagreeable march, snow falling the whole way. Around Gagangir great numbers of walnut trees.
30th	Surbarâ.	101	Snow during the day. Road for 7 miles to the W. S. W. along the right bank of the Sindh, and through much cultivation to Gunda-Sarsing, where I observed the first rice-fields: thence to the S. W. for upwards of 3 miles to Surbarâ, crossing the Sindh 1 mile above the village.
31st	Kangan.	98	At 1½ mile crossed the river and continued along the right bank to the northward of west, passing the pretty village of Margund, to Kangan, a good-sized place with much cultivation.
1st Nov.	Gåndar-bal:	9 §	Road for 4 miles to the north of west along the right bank of the Sindh: thence across the river by a bridge of 57 feet span, and up a steep bank to an elevated table-land along which the road turned to the S. W. past the large village of Nunar to Gandar-bal. From the top of the ascent the Huri-purbut and Takhti-Sulimân to the east and west of the capital were both visible.

Date.	Halting place.	No. of miles.	Remarks.
	inagar, Capital of Kashmir.	934	Road for* miles round the base of low hills and along the edge of rice fields. At Daran I noticed large masses of conglomerate resting on the rock. The road then ascended a level cultivated plain upwards of 100 feet above the rice-fields. At 5 miles near the village of Shur I was met by the Dewân Nihâll Chand and escorted to the city where I took up my quarters in Dilawar Khan's Garden. In the evening the Dewan waited upon me with a present from the Maharaja of 325 Hari Singhi rupees. On these days I observed the declination magnetometer and the dipping needle together with all the meteorological instruments. I also obtained four meridian altitudes and numerous equal altitudes of the sun. On the 5th I paid a visit of 2 hours to the Maharaja Golab Singh. He was particularly cordial in his manner, and he recounted to me all the leading events in the conquest of Ladâk and Balti and the invasion of the Lahâsan territory. He seemed particularly desirous to impress me with the belief that his last expedition was undertaken not only against his wishes, but in spite of his repeated orders to the contrary. On this occasion, I presented to the Maharaja, a box with a singing bird, and on my taking leave, His Highness waved a bag of 50 Hari Singhi rupees round my head. On the next day, the 6th, at the Maharaja's desire I dined in the Shergurhi, and spent 4 hours in conversation with His Highness. He was very communicative, and detailed to me the strength and disposition of his Military force, and showed me specimens of his mountain artillery, small

Date.	Halting place.	No. of miles.	Remarks.
			pieces that can be carried either by men or by bullocks. They are called Sher-bachchas and Bagh-bachchas or Tiger-cubs and Leopard-cubs. I requested permission to visit the different ruined temples in Kashmir, which was readily granted; and I then took leave of the Maharaja, who presented me with a large scarlet cloak lined with
8th Nov.	Pandretân.	3	fine sheep skins. Having sent a small boat to the tank in which the temple of Pandretan is situated, I was able to make a plan and elevation of this building, by measurement. It was built by the minister of
9th	Avantipur.	111	Nirjita Vermma, in A. D. 920-921. Road along the right bank of the Behat, and through the celebrated saffron- fields to Pampur; thence over an eleva- ted plain for four miles to Satapura (or Lalitadityapura), where the road again proceeds along the bank of the river as far as Avantipur. At this place I found four ruined temples, two of which were built by Avanti Vermma, and two by his minister. Two of them are now mere heaps of rubbish. I made a ground
10th	Bij Bihara.	103	plan by measurement of one of the two other temples, and left money to pay for excavating a part of the earth that had silted up the columns of the peristyle of the fourth temple. Road for 7 miles up the right bank of the Behat, and thence across the river by ferry. There are no ruins about Bij Bihara worth visiting, and the only inscription has been almost defaced by the Musalmans. The present town is built on the debris of the former city; for the lingam, called Ladhaswa, or Kishteswar, is now 15 feet below the level of the ground on which the surrounding houses stand.

Date.	Halting place.	No. of miles.	Remarks.
11th Nov.	Bhomaju.	71	From Bij Bihara, the direct road to the caves of Bhomaju crosses the Lidar, or Lambodari river by ford to the large village of Bhawan, beyond which, at one mile, are the caves. There are but two caves worth mentioning, of which one is a long narrow natural fissure, leading to two or three cavities, each about 20 ft. in diameter. The other cave is no doubt partly artificial. It contains a small temple without any image. I made a plan and elevation of this building by measurement with considerable care; as it appeared to me, from the simplicity of its style to be the oldest temple in Kashmir. The whole surface of the temple was literally swarming with bugs, which made the measurement an ex-
12th	Marttand.	2	tremely unpleasant task. Road through the pretty village of Bhawan, from which a steep ascent leads to the celebrated temple of Marttand, situated at the upper end of the extensive Karewah or elevated plain of Matan or Martan, the Kashmirian corruption of Marttand, सार्च द, one of the names of the sun.
13th	Halt.	••	I halted the next day for the purpose of completing the measurements and drawings of this fine specimen of Kashmirian architecture. I do not, however, attribute any great antiquity to it, for it appears to me almost certain that it must have been erected at a later period than the temples at Avantipur, the columns of which have plain cubic bases. I made a ground plan of this temple, an elevation of one of the porches, with the adjoining columns of the peristyle, and views of the interior and exterior.
14th	Bij Bihara.	10	I returned to Bij Bihara over the plain of Matan, which, instead of being destitute of trees, as described by Vigne and Hugel, has upwards of 500 trees

Date.	Halting place.	No. of miles.	Remarks.
15th Nov.	Avantipur.	103	upon it, a single clump of more than 50 trees being within half a mile of the temple. At Bij Bihara I copied the mutilated inscription, and examined the Chakradhar hill, which has once been covered with buildings. Its north-western end has evidently been a fort, cut off from the main hill by a broad deep ditch, which still exists. At Avantipur I made a plan of the second existing temple, and an elevation of the peristyle from a perfect portion, from which the silt had been excavated during my absence by my direction and at my expense. This portion had evidently been silted up before the Musalman ascendancy in Kashmir, for the human headed birds which surmounted the capitals of the pilasters of the archways,
16th	Ratanpur.	10	are still perfect. From Avantipur I crossed the Behat and proceeded over the extensive Karewah of No-naga, (an admirable spot for the measurement of a base line of survey,) which is a perfect level 5 miles in length, with an average breadth of from 1 to 2 miles. On the opposite side of the Karewah I stopped for half the day to make a plan and elevation of the almost perfect little temple of Payachh, after which
17th	Påndritån.	12	I proceeded to Ratanpur. At 2 miles I reached Kakapur, on the left bank of the Behat, where I examined the remains of two Hindu temples. From thence I proceeded by water to Pampur, where I made measurements of the remains of a small temple, of which one column of the peristyle is still in beautiful preservation. I also copied the short Sanscrit inscription which I had myself discovered when I passed through the town on my way up the river. I then continued my route to Pândritân,

Date.	Halting place.	No. of miles.	Remarks.
18th Nov	Srinagar Ca pital of Kashmir.	3	where I completed my drawings of the temple, and made sketches of several gigantic columnar fragments, which I believe to have once formed a single column, 7 feet in diameter, and upwards of 50 feet in height. I ascended the Tahkt-i-Suliman on my way to the city, and made a ground plan of the temple, and an elevation and section of the surrounding wall and doorway. This specimen is particularly valuable, as it is almost certain that the temple was built by Raja Jaloka, about 220 B. C. The surrounding wall is ex-
19 to 23r d	Halt.		tremely simple in its design, and I think I shall be able to show that it is the earliest existing specimen of the Kashmirian order, from which, by successive additions and improvements, the beautiful peristyle of Marttand was at length gradually evolved. On the 19th I set up the Declometer and the Meteorological instruments which were observed on the following days, as well as the Dipping-needle and Hansteen's Intensity Apparatus. On the 22d I was to have taken leave of the Maharaja, but as he was ill on that day,
24th	Vichâr-nâg.	3	my visit was necessarily postponed until the 23d, on which day I paid a farewell visit of three hours to His Highness, and received from him a khelat of 13 pieces for myself, and a present of three pieces, with a letter for my brother, Capt. J. D. Cunningham. I made a short march this day that I might have leisure to inspect the buildings and ruins about the city. I first visited the tomb of Sultan Zein-al-âbid-in's mother, close to which is the surrounding wall of an old Hindu temple in good order. From the simplicity of its style, it is undoubtedly of great anti-

Date.	Halting place.	No. of miles.	Remarks.
-25th Nov.	Mânasa bal.	131	quity, only inferior to the temple on the Takht-i-Suliman. I next visited the Juma Masjid, to verify the corrections of my ground-plan, which makes the number of its pillars to be 402. I found my plan quite correct. Beyond the present city, amidst the ruins of the various Mohallahs of the No-shehra, or new city of former days, I found numerous columns and vestiges of Hindu temples attached to Muhammadan mosques and tombs. But the most interesting was that of a figure of Buddha, and three short rude inscriptions of a few letters, each in the Tibetan character. I can only account for the occurrence of Tibetan letters by supposing that there formerly existed on this spot a temple built by Raja Rinchana, the Ladâki conqueror of Kashmir, just previous to the Muhammadan period. Road for 3½ miles along the edge of the Karewah of Pandachye; thence across a swamp for 3 miles, to the Sindh river, which I crossed by boat near the remains of a masonry bridge, of which 5 arches are still standing. Beyond this, for three miles, the road lay through low ground, occasionally swampy, to the village of Bhoosa, on the edge of the Karewah, at the foot of the Ahathyung hill, thence round the south and east sides of the hill to the Mânasa-bal lake. In the afternoon I ascended the hill and picked up hundreds of univalve shells, all of one species. The highest point at which I could discover any shells was 6,188 ft. above the level of the sea, or upwards of 850 feet higher than the present level of the Jehlam, and 118 feet higher than the temple of Marttand, which stands on the upper end of the Karewah of Matau, the highest alluvial land in the valley

Date.	Halting place.	No. of miles.	Remarks.
26th Nov.	Pathan.	101	These two data will give a height of about 6,200 feet for the surface level of the original lake, or Sati-saras, which must therefore have been at least 900 ft. deep. I was unable to discover any specimens of these univalve shells in the present waters of Kashmir, but I procured specimens of three varieties of existing shells, two univalves and one bivalve, and I am happy to add that I found numerous old specimens of the bivalve in the alluvial formations of Avantipur, at least 200 feet above the present river. This fact proves that a fresh water lake, 200 feet in depth, formerly existed in Kashmir, the waters of which must have covered the whole of the valley excepting the Karêwahs, or elevated table-lands, which are themselves of alluvial formation. The road first crossed the Behat or Jehlam at Sim-bal, by a bridge of five arches, where the river was 340 ft. broad. It then proceeded by a devious course, skirting swampy ground the whole way to Pathan. At this place I made ground plans of the two existing temples, which are similar to those at Avantipur, but much inferior to them, both in size and in their ornamental details. They were both built by Sankara Vermma, who reigned from A. D. 883 to 901. The one was named Sankara-gaureswara, after himself, and the other Sugandheswa-
27th	Sopur.	12	ra, after his Rânee, Sugandhâ. Heavy snow having fallen during the night, and there being no prospect of the weather clearing up, I made my way with
28th	Baramula.	10	much difficulty through deep snow to Sopur, on the river. Snow continued falling the whole night, and I proceeded by water to Baramula, which received its name from the Vara-

Date.	Halting place.	No. of miles.	Remarks.
29th Nov	Piran.	6 1	ha-Ganga, a small tank, which still exists in the town. As the snow still continued falling, and the winter appeared to have set in, I judged it best to leave Kashmir at once
30th	Gingal.	87	and proceed to Mozafarabad. Road throughout extremely difficult owing to the depth of the snow.
1st Dec.	Halt at Gur-	••	Halted for want of coolies—snow fell the whole day and throughout the
2nd	Sultan Dak-	11	night. Road down the right bank of the Jehlam. Snow and rain during the day.
3rd	Kathai.	123	Road continued along the right bank
4th	Baliasa.	61	of the river—rain again during the day. Road as before. Heavy rain throughout the whole day and night. A short
5th	Khânda.	5	march to allow time for my missing baggage to come up. Another short march part of my missing baggage reached me at this place. Rain during the day and
6th	Hetiah.	105	throughout the night. Road better to-day and the valley of the Gehlam more open. Light rain
7th	Halt.		during the day. Halted for my missing baggage which did not arrive until late in the
8th	Mozafara-	141	evening. Light rain again. Road generally
9th	bad. Halt.		level and through much cultivation. Halted for coolies and for observa- tions of the sun, although the day was
10th	Garhi.	83	very cloudy. Crossed a pass into the territory of Maharaja Dilip Singh. Rain fell again in the valley, and the hills were covered
11th	Mansera.	15	with snow as well as the Pass. Heavy rain throughout the day and during the whole night. Roads ex-
12th	Halt.		ceedingly slippery over a clayey soil. Halted to make arrangements for fresh coolies. Heavy rain throughout the day until 5 P. M.

Date.	Halting place.	No. of miles.	Remarks.
13th Dec.	Nowasheh- ra.	14	Road more level and open than be- fore. At 6 miles passed an octagonal tope built on a square base with arched recesses on each side, showing it to be
14th	Chamba.	14	of a very late date certainly posterior to the Mahomedan conquests. Road extremely muddy and slippery for 3 miles; then down the bed of a stony Nullah and over level cultivated fields to Chamba. On the road I noticed several Hackeries, a sure sign of
15th	Haripoor.	12	a level country. Road good through an open and generally level country well irrigated. Received a present of 125 rupees from
16th	Sultanpoor.	13	the Sirdar Chet Singh. Road good down the left bank of the
17th	Hazru.	18	Haru river. Crossed the Haru at 3 miles, thence through ravines and low hills for 9
19th 20th 21st } to 23rd }	Halt. Shamsabad. Halt.	6	miles, and over the beautifully cultivated plain of Chach to Hazru. During these days I was suffering from acute rheumatism, brought on by exposure during 16 days of snow and rain without a tent, on my way from Kashmir. Two of my servants were likewise so ill, that they could not be moved even from Hazrut to Shamsabad,
24th	Ohind.	9	a distance of only 6 miles. Crossed the Indus by a capital ferry to Ohind, one of the most ancient cities in this country. The sands of the river are washed for gold. The washers likewise find numerous old coins and trinkets.
25th	Nogram.	16	Road skirting the hills on the northern edge of the Yusufzai plain. I was surprized to find the whole country from Ohind to Hastnagar one vast plain, instead of a hilly tract as it is represented in all the maps, excepting only that of General Court. This plain has once been thickly populated: for the remains

Date.	Halting place.	No. of miles.	Remarks.
			of large villages are numerous, and water is at no distance from the surface. So scanty however is the cultivation at present that the people import both wheat and rice from Swat, in exchange for which they give coarse sugar, and cotton and woollen cloths. In the afternoon, I ascended the hill to the Fort of Rani-gat which I believe to be the Aornos of Alexander.
26th Dec.	Maneri.	7	In the morning I again ascended Ra- ni-gat and made several measurements, as well as a rough sketch of the Cita- del.
27th	Shamsabad,	18	I returned to Shamsabad to make in- quiries from Lieut. Robinson of the En- gineers about several places of which I had heard only confused accounts.
28th	Halt.	••	Halted to make arrangements for another visit to the Yusufzai district.
29th	Bazar.	10	Crossed the Indus at an island by two ferries; the stream on the right bank running very strongly.
30th	Ali Maho- med.	10	Proceeded to Lieut. Lumsden's camp near Akord, to ascertain what parts of the Yusufzai country were safe for tra- vellers, and to learn from him whether there were any ruins or inscriptions worth visiting.
31st	Turu.	11	Over an uncultivated plain, which has in former times been a luxuriant sheet of cultivation.
1848. 1st Jan.	Chargolai.	13	Visited the Shahbag-garhi inscription, and passed into Chargolai to make inquiries about the Kashmiri-garh, a cave which is said to have its exit in Kashmir. I found it was not worth visiting.
2nd	Shahbag- garhi. Halt.	7	On these days I made a copy, with much difficulty, of the most legible portion of the great inscription. A proper copy can only be made by levelling the ground and building up platforms, and by whitewashing the surface of the rock,

Date.	Halting place.	No. of miles.	Remarks.
			to bring out the sunken letters. Such a work would occupy a long time; but it would well repay the labour. I copied the greater part in a standing position, on sloping ground.
4th Jan.	Lahor.	18	Over the Yusufzai plain, passing only one large village, named Yar Husen, and a small one, named Sudher.
5th 6th to 8th	Shamsabad.	12	Crossed the Indus by the Ohind ferry. Halted to make arrangements about camels, guards, &c.
9th	Burham.	14	Country much broken by ravines, and almost wholly uncultivated.
10th	Hasan Abdal.	7	Road through broken ground. Around the town there are some fine level sheets of cultivation.

(Signed)

A. CUNNINGHAM, Capt.

Commissioner, Tibetan Frontier.

(True Copies)

J. LAWRENCE, Officiating Resident.

Short Survey of the countries between Bengal and China, showing the great commercial and political importance of the Burmese town of Bhanmo, on the Upper Irawady, and the practicability of a direct trade overland between Calcutta and China.—By BARON OTTO DES GRANGES.

The direct distance between Calcutta and the Chinese frontier of Yunnan is about 540 miles, nearly the same as that from Calcutta to Agra. The road which we have to travel admits of three sub-divisions, part first falling in Bengal, between Calcutta and Silhet; part second in the independent states of Cachar and Munipur, and part third in the Burmese empire.

Part first, from Calcutta to Silhet, is known, and on the whole distance river communication is open at all seasons.

