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THE PAMIRS AND THE SOURCE OF THE OXUS.*

By the Right Hon. GEORGE N. CURZON, M.P.

PART II.

To revert to my journey. Having marched down the Wakhan Pamir to Bozai Gumbaz †—where Captain Younghusband, after being visited in a friendly way by the Russians, and after having entertained them, was arrested by Colonel Yonoff in August, 1891, on the return of the latter from his excursion across the Indian frontier—I diverged to the north-east to visit the Chakmak Lake and the Little Pamir. In the valley between the lake and Bozai Gumbaz, which is half a mile wide at the bottom, and about 12 miles in length, the Sarhad branch of the Oxus meanders about with a very tortuous course in a bed 20 yards wide, through scenery that very fairly recalls that of a swampy Scotch moor. There is, however, a great deal of sand and stones and clay, and the ground sparkles with immense patches of saline efflorescence. The Sarhad branch is recruited by three or four streams which come down from gorges in the mountains on the north side of the valley, but which, at the time of my visit, were almost empty rills. As we ascend the valley, the ground becomes broken up into clay hills, and presently

* Paper read at the Royal Geographical Society, February 18, 1895. Map, p. 96. Continued from p. 54.

† Bozai Gumbaz, or the Tomb of Bozai, sometimes also and more strictly called Gumbaz-i-Bozai, is a conical mud cupola resting upon a square brick foundation, at a little distance above the confluence of the Sarhad and Wakhan streams. The Russians, in 1891, tried to set up a claim to its possession, on the ground that Boza or Bozai had been a Kokandian tax-gatherer, who was killed down there while in the service of his state. Investigation proved this story to be a myth, and Bozai to have been a small local chieftain, who was slain in a fight with the Kanjutis or Hunza freebooters fifty years ago. The elevation was determined by the Boundary Commission of 1895 as 12,880 feet.

we reach a sort of low plateau several feet higher than the river-bed, stretching for nearly 4 miles to the lake. It is bare and flattish on the top, and contains a small lake between 300 and 400 yards long, as well as several largish pools. This is the watershed between the Chakmak Lake, with its easterly drainage into the Aksu basin, and the westerly drainage of the Panja or Oxus valley. In the Russian map this low plateau is called the Andemania Pass.* It is not a pass at all, but a miniature plateau. There is no Andemania or Andemin Pass here, and the latter name has been correctly transferred on English maps—*e.g.* Mr. Littledale's R.G.S. map—to the Benderski Pass between the Little and Great Pamirs, on the further side of the Chakmak Lake, of which it is the native title.

Reaching the edge of the lake, whose waters glinted brightly in the sun, I followed its northern shore over ground that was alternately soft grass, spongy bog, and dry stones, towards the north-east extremity. There I found to my surprise that the main body of the lake, which is from $3\frac{1}{2}$ to 4 miles in length, has an extension in its south-east corner, of which I have found no notice in previous descriptions. Through a channel a few hundred yards wide, the water spreads into a succession of bays or extensions, each of which looks like a separate lake, and which are relieved by promontories and islets. These protract the length of the lake proper for an additional $1\frac{1}{2}$ to 2 miles. It is from the extremity of the easternmost of these bays that the Aksu river emerges, flowing in two or three channels with a slow current through a rushy bed about 30 to 40 yards wide. This is the source of the rival claimant to the parentage of the Oxus, of whose pretensions I have already disposed. From here the Aksu wanders down the Little Pamir, spreading out into marshy swamps and ill-defined lakelets, which on most maps appear as though they were a series of accurately determined lakes. On the other hand, there are two biggish sheets of water in the hills immediately above the easterly extension of the lake or archipelago which appear in no map, and which have no connection with the river or its swamps. From the source of the Aksu, the Little Pamir stretches away with an average breadth of from 2 to 3 miles in the direction of Aktash, a normal Pamir landscape, closed by a snowy mountain at the end of the vista. A domed Kirghiz *ziarat* stood out clearly to the north-east, but on no part of this Pamir did I observe any sign of habitation or of human life.

As regards the name of the lake, I have called it Chakmak, because that appeared to be the generally accepted local designation.† In some maps it has been written Chakmaktin. Gordon and Trotter called it Gaz

* Grombchevski in 1888 called it the Chilob (*i.e.* Chelap) or Andemanyin pass.

† The first mention that I have found of the name is in one of the routes by Mohammed Amin, in 1867. He calls it Chakmaklig. *Vide* Davies' 'Trade Report of N.W. Frontier,' Appendix IV. B.

or Oi Kul, *i.e.* in Turki "Goose Lake," which is a common title applied by the Kirghiz to any or all of the Pamir lakes. Regel, the Russian, is quite alone in applying the name Suman Kul. The Russian map names the series of swamps or lakelets further down the valley successively as Turdūnin Kul and Karadumer Kul. Lake Chaknak possesses yet additional names, for whereas English writers have frequently employed the title Little Pamir Lake, which is the Kul-i-Pamir-Khurd of the Wakhis, the natives have also described it to travellers as Durna Kul or Tournu Kul (which I suspect to be the same word as the Russian title just quoted), and as Barkat Yasin (explained by Gordon as meaning

BOZAI GUMBAZ.

Burgut Nursi, *i.e.* the "Eagle's Place or Nest"). I believe myself that the last-named is the name rather of one of the neighbouring ravines; and the same applies to the name Chelap, which was also given to me, and has appeared in some maps as appertaining to the lake, but which seems to belong preferably to the district in which it is situated. Colonel Trotter gave the elevation of the lake as 13,200 feet; Captain Younghusband as 13,850 feet; Lord Dunmore's aneroid, which appears to have been uniformly as treacherous as was my own, made it 14,230 feet. The Boundary Commission of 1895 made the source of the Aksu 13,100 feet. The Mirza's figures in 1869, 13,300 feet, were therefore wonderfully near the mark.

Pursuing the discussion of the hydrography of the Pamirs, I pass from this point to the next or Great Pamir, in order to make clear its

lake-system. The central feature is, of course, Wood's or Victoria Lake, from the western extremity of which the Panja flows. When Wood arrived at this lake in midwinter (February 19, 1838), land and water were equally covered with snow, and were almost indistinguishable from each other. He accordingly accepted the Kirghiz measurements of length and breadth, 14 miles by an average of 1 mile, checked so far as possible by his own vision. When Gordon and Trotter were there in April, 1874, the lake was similarly frozen over and snow-covered; but they estimated its dimensions as 10 miles by 3. Littledale, in June, 1890, found the lake still half sheeted with the previous winter's ice, but was much struck with its narrowness, which reminded him of a canal. Lord Dunmore, in November, 1892, gave its length as 9 to 10 miles in winter, and 12 miles in summer. The explanation of these varying figures is that, in common with all the Pamir lakes, Victoria Lake varies in size according to the season of the year, the normal dimensions being about 10 miles by $1\frac{1}{2}$ mile, which are enlarged by the annual inundation of a larger area, consequent upon the melting of the summer snows. M. Benderski, however, the Russian topographer, who first saw the lake in 1883, and was attached to the Pamir Boundary Commission in 1895, told the English members of the latter that the lake had greatly diminished in size in the interval, and that he expected it finally to disappear. If the same process has been going on for centuries, we may perhaps find herein an explanation of the apparently extravagant dimensions assigned to the lake (assuming it to be identical with the Dragon Lake of legend) by the Chinese Buddhist pilgrims. As regards its elevation, Wood (whose instrument must have been defective) registered the height by boiling-point at 15,600 feet. Later measurements (Trotter, 13,900 feet; Littledale, 13,980 feet; Boundary Commission, 1895, 13,390 feet) have familiarized us with more modest figures. Touching the name of this lake, the title Victoria Lake, suggested rather than given to it by Wood, whose discovery coincided with the year following upon Her Majesty's accession, seems on the whole to have won most favour, at least with Englishmen. The alternative name of Sir-i-kol, which was mentioned to Wood by the Kara Kirghiz, has been very plausibly explained as referring to the station or camp at the "Head of the Lake;" although some have preferred Sarik or Sarigh-Kol, *i.e.* Yellow Lake. In the Anglo-Russian Pamir Agreement of March, 1895, the Russian name for the lake is given as Zor Kul. Faiz Bakhsh, the surveyor who was despatched to the Pamirs in 1870 by Sir D. Forsyth during the first Yarkand expedition, called the lake Hauz Kalan, *i.e.* Great Pool, or Kol-i-Sikandari, Alexander's Lake—a name which has been mentioned by no other traveller.* The former title is identical with the Kul-i-Kalan of Trotter and Gordon, which may either

* *Journal of the R.G.S.*, vol. xlii., 1872, p. 465.

signify literally the Great Lake, or be a contraction of the longer form Kul-i-Pamir-i-Kalan, *i.e.* Great Pamir Lake. The name Gaz Kul (Goose Lake) was given to Littledale as the common Kirghiz title; but I have already explained that this is a generic designation applied equally by the natives to any of the Pamir lakes.

A feature already noticed in the valley of the Chakmak Lake also holds good of the Victoria Lake basin, viz. the presence of a chain of smaller lakes in the immediate neighbourhood of and in connection with the main sheet of water. Two such small and frozen lakes were first observed by Gordon and Trotter in 1874, at a slight distance from the

LITTLE PAMIR AND AKSU RIVER.

upper or eastern end of Victoria Lake. Littledale calls one of these lakes, which is "some miles to the east" of the big lake, Aidin Kul. Lord Dunmore applies to one of the number the now familiar designation of Gaz Kul. The Russian map calls the more westerly of the two Lake Kurkuntai, a name which reappears on the Indian Intelligence map as Kuruntea. A further small sheet of water to the east, from which rises the Istik drainage, is called Lake Karadungi. At the eastern extremity of these lakelets is the watershed separating the Panja and Aksu drainages; and here the river Istik or Issik (erroneously called Isligh in Gordon's book) rises from several sources, and flows towards the Aksu, whence it joins at some distance below Aktash. The channel of one of the streams that flows from the watershed on the south into the eastern end of Victoria Lake also spreads out into three

small lakes at the bottom of the valley as it approaches the main sheet of water.

Similar conditions, on a larger scale, may be predicated of the hydrography of the next or Alichur Pamir. Here the lie of the lakes and the direction of the main drainage is again from east to west. The principal body of water is the Yeshil Kul (Green Lake), or Ishal Kul of Pundit Manphul and Isil-kol of Chinese records. This is the finest expanse of water in the Pamirs, being little liable to contraction, owing to its greater depth and more precipitous banks. It possesses a length of from 16 to 20 miles, and a breadth that varies, owing to the peculiar indentations of the shore, from 1 mile to 3 miles, and its elevation is 12,550 feet. From its western extremity issues the Ghund or Gunt river, which, after its junction with the Shakh Dara confluent of the Oxus lower down, flows for a few miles under the title Suchan Dara, and disembogues into the main stream of the Panja, a little above Kala Bar Panja, the capital of Shighnan.

A promontory projecting into Yeshil Kul at its eastern end has been the scene of a twofold historical tragedy, the earlier of which events is said to have been the origin of its name. In 1759, when the Chinese took possession of Kashgar, the two Kalmuk Khojas whom they expelled fled in an easterly direction across the Pamirs towards Badakshan. The Chinese general Fouteh, *i.e.* Fu or Ku Ta-jen, pursuing them by forced marches, came up with the fugitives at the east end of Yeshil Kul, attacked them by night, and inflicted upon them a defeat, from which, however, the Khojas and the bulk of their followers escaped with their lives.* Gordon was told in the Pamirs that they drove several of their women and children, mounted on camels and horses, into the lake, in order to avoid by drowning the worse fate that they anticipated at the enemy's hands, and that ever since sounds of lamentation have been heard to rise from the waters.† The Chinese general inscribed upon a stone a trilingual record in Chinese, Manchu, and Turki of his exploit, which remained there until recent years, when the Russians transported as much of it as remained to their museum at Tashkend. The place was thenceforward known as Soma Tash, which is explained as meaning Written Stone.‡

* *Vide* the interesting letter from two Jesuit priests at Kashgar dated November 26, 1759, and published in *Lettres Edifiantes*, xxxi. 248.

† 'Roof of the World,' p. 158.

‡ Lord Dunmore in his first map spelled it *Somur*. But in his book (vol. ii. p. 167) he substitutes for this *Surma*, which he says means "black." Now, *Surma* is a Persian word, signifying not "black," but "antimony" or "collyrium," the material used by the Persians for darkening the eyebrows and eyelids. A Persian word may conceivably have been joined with the Turki word *tash*, "stone," but the particular combination is more absurd than would be Rouge-hill for Redhill, in Surrey. I made many inquiries on the subject, but with no satisfactory results. The Kirghiz head-man of the Taghdumbash said the name was not *Surma*, but *Suma Tash*, and signified "written stone." On the other hand, the Hunza Wazir thought it was a word meaning "marsh-land" (*cf. su* = in Turki, "water").

The second incident of bloodshed with which the promontory of Soma Tash has been connected, happened less than three years ago. The Alichur Pamir and Yeshil Kul in particular had been for many years the more or less disputed boundary-line between the Afghan and Chinese spheres of jurisdiction on the Pamirs, when, in the early summer of 1891, Colonel Yonoff was despatched by the Russian Government with a body of troops, facetiously christened the Hunting Detachment, nominally in order to shoot *Ovis Poli*, and to indulge in rifle-practice on the Pamirs (of all places in the world!); really to execute a demonstration over the entire region, to turn out any Chinese or Afghan soldiers who might be found, and to anticipate the proposed diplomatic settlement of the dispute with England by forcible annexation. The Chinese, hearing of this movement, sent an officer with a small body of troops to assert their claims at Soma Tash. A gallant young English officer, Lieutenant Davison, who was travelling on his own responsibility in Chinese Turkestan at the time, and had been commissioned by Captain Younghusband from Kashgar to report upon what was passing in the Pamirs, was on the Alichur at the same juncture. Colonel Yonoff, arriving at Soma Tash, ordered the Chinese *Yangdarin* to withdraw, which command the latter with characteristic promptitude obeyed. Simultaneously he arrested Lieutenant Davison and sent him back, *viâ* the Alai and Marghilan, to Kashgar, an unwarrantable proceeding for which the Russian Government subsequently apologized. The Russians having in the mean time withdrawn, the Chinese again turned up at Soma Tash, and proceeded to build a fort. In the spring of 1892, however, the Afghans, who also claimed Soma Tash, appeared upon the scene, and the Chinese with docile rapidity a second time retired. Colonel Yonoff, however, was not to be foiled. In the summer of 1892 he repeated his military promenade of the previous year; ordered the Chinese to evacuate their armed posts on Lake Rang Kul and at Aktash (on the Aksu), which, of course, they did without a murmur; and, arriving at Soma Tash, essayed the same tactics with the Afghan outpost whom he found there installed. The Afghan commander, though hopelessly outnumbered, refused, and a conflict ensued on June 22, 1892, in which fifteen out of the seventeen Afghans present were slain. The Russians then again withdrew.

Just as in the cases of Lakes Chakmak and Victoria, so here at the eastern extremity of Yeshil Kul is a small subsidiary lake-basin, in the valley of the Alichur river, which contains no fewer than five lakes, scarcely as yet indicated on any map. They lie among the hollows and between "a sea of gravel mounds," the moraine-deposits of ancient glaciers. The nearest of these to Yeshil Kul is Bulun Kul,* which

* This must not be confounded with a second Bulun Kul, a lake which lies on the western side of the Gez defile, on the main line of connection between Kashgar and the northern Pamirs.

lies to the south of its eastern termination, and is connected with it by a stream only half a mile in length. Separated by a low watershed from this lake is another Gaz Kul, or Goose Lake. Next to this is Khargosh Kul, or Hare's Lake, so called because it lies below the Khargosh Dawan, or Hare's Pass, leading to the Great Pamir. This little lake is named Chukur Kul on the Russian Intelligence Map. The fourth in order to the east is Tuz Kul, or Salt Lake; and the fifth and last is Sassigh, or Sasik Kul* (*i.e.* Stinking or Fetid Lake), which is about 3 miles long by 1 broad.† Eastwards from this point the Alichur valley continues for a distance of 3 miles to Chatir, or Chadir Tash (Stone House), a solitary rock standing up in the valley-bottom, and presenting, at a distance, the appearance of a house.

The next Pamir lake-system to which, in our northerly progress, we come, is that of Rang Kul, lying in the hollow of the Pamir that bears the same name. This has been explained by Yule and others as signifying Ibez Lake (*rang* being the Turki word for the wild goat). Mr. Ney Elias, however, reported that the Turki-speaking Kirghiz use the Persian word *taka* for ibex (*cf.* the Min-taka pass before mentioned), and accordingly he preferred the Persian interpretation of *rang*, *i.e.* variegated, or of many colours.‡ I agree with this derivation, on the further ground that it is from their colour that several of the neighbouring lakes (*cf.* Kara Kul, or Black Lake; Yeshil Kul, or Green Lake; and possibly Sarik Kul, or Yellow Lake) are named. On the other hand, I have read that the Russians derive the name from a coarse sedge. Rang Kul was reported by Pundit Manphul, upon the information of Mohammed Amin, as lying in the Pamir Khurd, or Little Pamir§—a deception that greatly puzzled Yule and other geographers. As a matter of fact, it is situated in a north-east bay or extension of the valley of the Ak-baital (White Mare), which is the

* Colonel Yule, misled by the exaggerated dimensions given to these small lakes in earlier native itineraries or in Chinese geographies, and by the imperfect information existing in his time, went quite wrong over their identification. He thought, with Major Montgomerie, that Sasik Kul was Victoria Lake; that Pulong (*i.e.* Bulun) Kul was the imaginary Rang Kul of the Little Pamir; and that Tuz Kul was, possibly, Victoria Lake also (Introduction to Wood's 'Oxus,' pp. lxxxvi., lxxxvii.). Almost all the theoretical geographers, even the most distinguished, have been deceived by the fantastic exaggerations as to distance and measurement to which Oriental travellers invariably succumb.

† Abdul Mejid, in his northward march across the Pamirs to Kokand in 1861, mentions having passed two lakes, "at Khurgoshee and Kurreh Kol." The former he identifies in his itinerary with Sussugh Kul; the latter is the Great Kara Kul. His next march, after Kurreh Kol, is described as 15 miles in length, and as terminating at Dysame lake; but there can be little doubt that this is a misprint for the same lake, alluding to his day's march along its eastern shore.

‡ *Cf.* the well-known Karun river in south-west Persia, which is more strictly Kuran, or Kuh-rang, and is so called from the "variegated mountain" in which it takes its rise.

§ *Vide* Appendix to Davies' 'Trade Report of N.W. Frontier,' p. cccxxxiii.

LITTLE PAMIR, NEAR MIHMAN-GULI PASS.

northerly confluent—commonly dry in winter—of the Aksu, after its junction with which the latter river, flowing westwards, is called Murghab. Only in this remote sense—Ak-baital valley being a physical continuation of the Aksu valley, and the Aksu valley being a physical continuation of the Little Pamir—can the Rang Kul lake be said to have any connection with the Pamir-i-Khurd, from which it is really severed by a great distance. Its elevation is 12,250 feet above the sea.

This lake, however, like those already discussed, occupies a lacustrine basin, the sheets of water in which vary in size and configuration according to the season of the year. Severtsoff described it as consisting in reality of three separate basins and an extensive marsh, connected by narrow straits. The main lake has two divisions—Shor Kul on the west and Rang Kul on the east, which are usually so united. In the high waters of summer the two form one unbroken sheet. Lord Dunmore, passing on November 20, 1892, at the opposite extreme of season, found them entirely severed by a neck of land a quarter of a mile across, and unconnected, and erroneously declined to believe that they were ever united. In winter-time the upper or eastern lake, thus diminished, resembles a series of swamps, dotted with islands, whose banks are incrustated with a saline efflorescence. The entire lake-basin is about 20 miles long, and the normal length of the lakes is—Rang Kul 4 miles, and Shor Kul 6 miles. A remarkable feature of these lakes is that neither does any river discharge into them, nor is there any river-exit. Their waters must accordingly be largely recruited by subterranean drainage from the hills. Mr. Ney Elias, in 1885, said that the upper lake was considered to be fresh and the lower salt. Captain Younghusband, in 1890, reported the water as salt, and the colour as a beautiful clear blue. On the southern shore of Shor Kul is a peculiar rock, with a sheer front of 100 feet, which is known as Chiragh Tash or Lamp Rock, from a peculiar illusion produced by the sun's light penetrating through a cave or orifice that is pierced right through the rock. The natives attribute it to the eye of a dragon who is supposed to lurk in the cave. Captain Younghusband, in 1890, was the first to dissipate the mystery by clambering up and discovering the illusion which had puzzled Ney Elias in 1885.* At a little distance from the eastern extremity of Rang Kul is the fort which the Russians have built and garrisoned, since they expelled the Chinese from Rang Kul (which lay far inside the Chinese frontier) in 1892.

There remains but one more lake in the Pamir area, viz. the Great Kara Kul, which lies in the Khargosh or Hare Pamir, on the northern edge of the Pamir region, below the great Trans-Alai range. This is the most considerable body of water in the district, and has by some been identified with the Dragon Lake of local, and still more of Chinese

* *Proceedings of the R.G.S.*, vol. xiv., 1892, p. 227.

legend. Its dimensions have been absurdly exaggerated in the itineraries of mediæval pilgrims. Its extreme length from north to south is in reality $14\frac{1}{4}$ miles, its breadth from east to west 11 miles, and its elevation above the sea is 12,800 feet. Like Rang Kul, it consists of two sheets of water united by a narrowish strait in the centre; or, as one may otherwise put it, of a single lake very nearly cut in twain by two promontories or sandy ridges projecting from the north and south shores. The curious thing about this lake is, that legend with singular unanimity has insisted at very varying periods upon a river discharge from it towards the west or south. At one time this discharge was supposed to be connected with the Surkhab or river of Karategin, at another with the Murghab or Bartang, at a third with the Aksu. And yet while several small torrents pour their waters into the lake, and one rather larger stream, the Chon-su, joins it from the Tuyuk or Ak-baital Pass on the south, there is no present efflux at all. The explanation appears to be, as Kostenko, its first European explorer in 1876, remarked, that the lake-level was once much higher than it is now, and that in those days it may have had a double discharge, both to the north and to the south. Severtsoff, indeed, said that even now, with a strong northerly wind blowing, the water of the lake will sometimes in flood-time be driven up the channel of the Chon-su, and then break out westwards in the direction of the Murghab; but this appears to be a very rare phenomenon, and the absence of modern outlet must be accepted as an established fact. The mountains approach closely to the lake and even project into it on its western side; at its eastern end they are nearly 7 miles distant, and hence the track from the north usually skirts that shore. The strongly indented coasts are carved into frequent promontories, and there is one island nearly 5 miles long. In stormy weather Kara Kul presents a splendid spectacle, for its waters toss and boil like a seething cauldron. Littledale, Younghusband, and Cumberland are the only Englishmen who have seen it.

Though lying in a different basin, and outside the Pamirs proper, I should, perhaps, not omit to notice the Little Kara Kul and its small lacustrine satellites, less for its own sake than on account of the two great mountain peaks which, at a distance of some 20 miles from each other, soar into the air on the north-east and the south-east borders of the lake, and which have given rise to much confusion among travellers and geographers. One of these peaks is visible from the plain of Yarkand and from Kashgar, whence it was roughly fixed, in 1868, by Hayward, and more accurately, in 1874, by Colonel Trotter, who gave its height as 25,350 feet. Both called it Tagharma, because the people said it was near to the place and plain of that name.* A little later, when

* *Taghar* is a Turki word signifying "a bag of grain"—an allusion to the fertility of the surrounding valley.

Trotter was in Sarikol, he saw from the southern side a different peak which was also called the Tagharma Peak. In 1871 Fedchenko, and in 1876 Kostenko, from the Kizil Art Pass, observed a great peak in this direction, the name of which was given to the latter as Mustagh Ata, *i.e.* Father of Ice Mountains. Maps and descriptions continued to confuse these separate mountains, usually representing them as one, until, in 1885, Mr. Ney Elias proved conclusively by his angles that they were distinct. The one to the north-east of Little Kara Kul is the mountain seen from Kashgar (from which it obscures the other), but is erroneously called Tagharma. He gave it the name Mount Dufferin, which appears in the Indian maps, but which, in a region lying so far outside of British-Indian influence, cannot, I think, be pressed. The Russian map calls it Mount Charkum. The second and southerly peak (which from Sarikol obscures the first) is the real Mustagh Ata, the height of which is probably a little less than its nameless brother, being calculated at about 25,000 feet, but which is a far finer mountain, since it is conical and comparatively isolated, whereas the more northerly mountain is the highest crest of an extended ridge. Even now the maps unanimously err in assigning to Mustagh Ata the altitude which appertains to its rival.

Several Russian explorers, notably Bogdanovitch in 1879 and Ivanoff in 1883, have made careful examination of Mustagh Ata, and during 1894, Dr. Sven Hedin, the Swedish traveller and scientist, made four unsuccessful attempts to climb it, reaching on one occasion to a height of 19,500 feet.* The summit, which is the central peak of three, is therefore still virgin, and is regarded by Hedin as almost inaccessible. The sides of this magnificent mountain are rent by deep gorges and filled with enormous glaciers.

Little Kara Kul, lying between them at a distance of about 50 miles due east from Rang Kul, has been formed by the moraines of a retreated glacier, which have dammed the valley. Glacier waters replenish it from the south, but its sole outlet is on the north into the upper course of the Gez stream, which flows towards Kashgar. A little below the point of discharge this stream receives from the north-west the drainage of a small chain of lakes in a separate basin, the lowest of which is called Basik Kul. Further down the Gez valley is the second Bulun Kul, which has already been mentioned.

From a description of the lake-system of the various Pamirs, I now turn to an account of the passes by which they are connected, and which I will trace in the inverse direction from north to south. I hope to have now sufficiently demonstrated that the Pamir region, in contradistinction to long-accepted beliefs, but in remarkable accordance with a prediction of Mr. Shaw,† consists of a series of elevated mountain valleys whose

* Vide *Geographical Journal*, vol. v., 1895, p. 154; and vol. vi. p. 350.

† Vide Yule's Introduction to Wood's 'Oxus,' p. lxxxix.

uniform direction is from east to west (with an occasional inclination from north-east to south-west),* which contract into gorges at their western extremities, where they become merged in the mountain systems of Roshan, Shighnan, and Wakhan; which are separated from each other by lofty parallel ridges whose normal trend is from east to west, directing the drainage into the Oxus basin; and which on the eastern side are fenced in and divided from the rival basin of Kashgar by a meridional range or ranges, sometimes included, in the mediæval itineraries and in the geographies based upon them, among the Tsung Ling, sometimes confounded with the obscure Bolor mountains,

DARKOT GLACIER.

and throwing up at one point the mighty pinnacles of Mustagh Ata, and its twin peak. To pass, therefore, from one Pamir to another by the shortest route, it is necessary to follow the transverse gorges or to climb the lower saddles of the intervening ridges. Of these passes there are many, even if we do not accept Ivanoff's interpretation of the native adage, "There are no roads on the Pamirs," as signifying that the Pamirs are everywhere traversable, which they certainly are not. I propose to indicate the principal and most easily accessible of these lines of communication.

* I except from this summary the Taghdumbash Pamir, which, I have previously shown, lies outside of the Pamirs proper, and is part of a different basin.

I. PASSES ON TO THE NORTHERN PAMIRS.

Upon the north, the base of any advance upon the Pamirs from the Russian province of Ferghana is either Osh or Marghilan. The former is the route almost invariably adopted both by military forces and by travellers. From Osh the route proceeds to Gulcha, and thence across the Little Alai range by the Taldik Pass (Littledale, 11,600 feet; Russian and Indian maps, 12,070 feet), or by the adjoining passes of Archat Dawan (11,900 feet) or Shart (12,800 feet), on to the Alai Plateau, or upper valley of the Surkh-ab or Kizil-su. Striking across this valley, we approach the Great or Trans-Alai range, and, crossing it by the Kizil Art Pass (14,260 feet), descend upon the Great Kara Kul (12,800 feet). The route skirts the east shore of the lake, and then takes one of two directions: either (1) a more easterly course, followed by M. Bonvalot's party in 1887, *viâ* the Karazak Pass, and Uzbek or Kizil-jik Pass (Indian map, 15,190 feet; Russian map, 15,300 feet), on to the Rang Kul Pamir and lake, and thence to the junction of the Ak-baital and Aksu at Murghabi; or (2) a more southerly course, taken by Littledale in 1890, up the Mus-kol or Chon-su confluent of Kara Kul to the Tuyuk or Ak-baital Pass (Russian map, 15,070 feet; Littledale, 15,525 feet), and thence down the Ak-baital stream to Murghabi, and the upper end of the Sarez Pamir.

The more westerly route to the northern Pamirs from Marghilan takes the following line: Uch Kurghan; up the Isfairam river; over the Little Alai range by the Tengiz Pass (11,800 feet) to Daraut Kurghan on the Kizil-su in the Alai Plateau; across the Great or Trans-Alai range by the Ters-agar or Altindi Pass (12,000 feet) to Altin Mazar; thence by the Takhta-koram Pass (15,480 feet) or Yengi Dawan (15,300 feet) on to the upper waters of the Kudara river, which can be followed down to their junction with the Murghab, or from which a shorter track can be taken more to the east over the Kara-bulak Pass (14,460 feet) to Kara-bulak on the Murghab.

II. PASSES FROM THE MURGHAB VALLEY AND SAREZ PAMIR ON TO THE ALICHUR PAMIR AND YESHIL KUL.

1. Starting from the Russian fort of Murghabi or Pamirski Poste, at the junction of the Aksu and Ak-baital streams, the route commonly followed ascends the Kara-su confluent of the Murghab, and crosses the low and flat-topped Neza Tash (*i.e.* Spear-stone) Pass (Indian map 13,650 feet; Littledale, 14,200 feet) to the headwaters of the Alichur river, which is then followed eastwards, past Chatir Tash to Yeshil Kul.

2. A little to the west of this route is a tract that was followed from Murghabi by Putiata in 1883. It crosses the dividing range by the Buz-tere Pass (14,900 feet), and also debouches on the upper waters of the Alichur river.

3. Immediately to the west of this again is a pass called Agal-khar.
4. From this point the northern boundary range of the Alichur Valley and Pamir is not again pierced by a traversable route until we come to the Marchenai Pass (15,700 feet), leading down from Sarez on the Murghab to the northern shore of Yeshil Kul.
5. To the west of this, the Lenger Pass conducts through the same range to the western extremity of the lake.

III. PASSES FROM THE ALICHUR PAMIR AND THE GREAT PAMIR.

1. Beginning on the east in the mountain cluster that separates the drainage of the Aksu from that of the Alichur, we find a route that

FORT OF TASHKURGHAN.

leaves the Aksu river at some distance above Murghabi, ascends the Shor-bulak confluent to the pass of that name (14,700 feet), and then, crossing the Sari-tash Pass, comes down upon the valley of the Istik river, which can then be ascended in a south-west direction towards the watershed that divides its headwaters from those of Victoria Lake.

2. At some distance to the west a track leads from Chatir Tash up the Gorumdi confluent of the Alichur river, and crosses the Teter-su or Tetez Pass to the headwaters of the Istik.

3. In the same mountain range separating the Alichur drainage from the Victoria Lake basin on the south-west, and from the Istik or Aksu

drainage on the south-east, there is at no great distance a pass named Kojiguit, which was crossed by Littledale and Dunmore.

4. Continuing westwards, we find a pass named Kara Bilis ("Black Pass"), which was first crossed by Ivanoff in 1883, but which supplies a collateral rather than a direct communication between the Alichur and Great Pamirs.

5. The next pass encountered is the lofty and very difficult one of Bash Gumbaz (16,460 feet), crossing the main range between the Alichur river (which is left at Abdullah Khan below Chatir Tash) and the western end of Victoria Lake. Ivanoff explored it in 1883. Littledale found it blocked by snow in June, 1890.

6. The next route conducts from Sasik Kul southwards over a pass which was named by Dunmore Hauz Dawan, from a small lake on its summit, but which appears on the Russian map as Kumdi (elsewhere Kundey). The route comes out upon the Pamir river a little below Victoria Lake.

7. The easiest of the passes between the small lake-basin above Yeshil Kul and the Great Pamir is, however, the next in order, viz. the Khargosh, or Hare Pass (14,450 feet), which debouches upon the Ab-i-Khargosh confluent of the Pamir river.

8. A little further to the west, a track leads from Bulun Kul, over the Koh-i-Tezek Pass (14,200 feet) and Kok-bai Pass (14,400 feet), on to the Mas confluent of the Pamir river, which it reaches at a point named Jangalik or Yumkhana, below Yol Mazar. These passes were explored by Putiata in 1883.

9. It is by following the same stream, the Mas, that communication is also effected between the valley of the Pamir river and the headwaters of the Shakh-dara river (which flows into the Ghund a little above its junction with the Oxus opposite Kala Bar Panja) over a pass, closed by snow except in summer, which Trotter called the Joshangaz, but which appears on most maps as the Mas Pass (15,120 feet).

IV. PASSES FROM THE GREAT PAMIR TO THE LITTLE PAMIR.

1. Gordon and Trotter, returning in 1874 from the Great Pamir and Victoria Lake to the Aksu valley below Aktash, followed down the Istik river, before mentioned.

2. If, however, access is sought to the same valley above Aktash, *i.e.* to the Little Pamir proper, the upper course of the Istik known as the Chish-tiube can be ascended, and the bordering range of the Little Pamir be crossed by either the Kizil Rabat Pass or the Urta Bel Pass (14,090 feet), which lead down on to the string of lakes below Chakmak Kul. The watershed between the two drainages, in the case of the latter pass, is at a very short distance above the valley and stream of the Aksu.

3. The pass most commonly taken between the two Pamirs is,

however, that which was discovered by the Russian topographer Benderski in 1883, and whose name was changed by the Russians from Andemin to Benderski in his honour. The crest is 15,130 feet. This track mounts the Andemin confluent of the Istik, and then descends upon the Aksu valley some miles beyond the eastern end of Lake Chakmak. At the summit of the pass is a pool or lakelet of water from which—a rare occurrence—a rill flows out at either end, the one to the Great, the other to the Little Pamir. This route was followed by Littledale in 1890, and by Dunmore in 1892; and on their maps the pass is marked as Andemin. The crests of the Benderski and Urta Bel Passes are now the Russian frontier, as fixed by the Commission of 1895.

KIRGHIZ ON THE MARCH IN THE PAMIRS.

4. There remains a pass about which there exists great uncertainty. Gordon wrote in 1874, "A valley at the head of Lake Victoria leads to the Wurm Pass over the southern range, by which the Little Pamir, Langar, and Sarhad are reached in one and two days respectively."* On the other hand, in 1883, Ivanoff and Benderski "endeavoured to find the supposed pass of Varram Kotal leading to the Lake Great Pamir from Wakhan Daria (*i.e.* the Sarhad branch of the upper Oxus), but after several reconnaissances they were obliged to conclude that the mountains separating the Great and Little Pamir were absolutely inaccessible in this direction."† Nevertheless there appears on the

* 'Roof of the World,' p. 157.

† *Proceedings of the R.G.S.*, vol. vi., 1884, p. 139.

Indian Intelligence Map such a pass, named Shor Kara Jilga or Warram, which is made to debouch upon the Sarhad river between Lake Chakmak and Bozai Gumbaz, and which, I suppose, if it exists, comes down one of the many lateral gorges that I passed, and that intersect the range on that side. On the other hand, when I was marching down the right bank of the Oxus from Bozai Gumbaz, and had crossed the Dasht-i-Mirza Murad, I came to a stream which flowed into the Oxus from the north, and which was called Waram. If the maps are (as I suspect) mistaken, this may perhaps be the exit of the pass (if there is one) of the same name. I should add that later on, between 12 and 15 miles below Langar, another stream flows down a very deep *nullah* from the north into the Oxus; and that the Kirghiz in my party reported that by this *nullah* a track ran to Victoria Lake and the Great Pamir. It is possible, therefore, that there may be still unexplored passes in this part of the range. In August, 1895, some members of the British Boundary Commission party essayed to discover this or some other pass over the mountain watershed south of Lake Victoria, but met with no success, finding the range impassable in this direction, and blocked with glaciers and deep snow. In their opinion no such pass exists.

V. PASSES FROM THE PAMIR-I-WAKHAN TO THE TAGHDUMBASH PAMIR.

These I have previously described; viz. the Wakh-jir Pass, which was crossed by Lockhart and Woodthorpe in 1885, Grombchevski in 1888, Dauvergne in 1889, Younghusband in 1891, Dunmore in 1892, and Lennard and myself in 1894, and the elevation of which is 16,100 feet; and the nameless pass in the other and more southerly fork of the Wakh-jir valley, over which Younghusband came on to the sources of the Oxus in 1891.

VI. PASSES FROM THE LITTLE PAMIR TO THE TAGHDUMBASH PAMIR.

1. The most familiar and easiest of these routes is that which runs from Aktash at the head of the Little Pamir, to Tashkurghan, at the head of the Taghdumbash, across another and better known Neza Tash, known also as the Shindi Pass (14,920 feet). It has been taken by many travellers.

2. A little above Aktash, a confluent on the right bank of the Aksu can be followed up, conducting to the Bayik, Beik, or Paik Pass (called by Capus Bijik-bel). It was crossed by Lord Dunmore in October, 1892, but was blocked with snow when the Frenchmen were at Aktash in April, 1887. It was explored by the members of the Boundary Commission in August, 1895; and falls within the frontier assigned to Russia by their agreement. The crest is 15,470 feet. The track then descends by the Bayik confluent of the Taghdumbash river on to the Pamir of that name.

3. Further to the south access can be gained from one to the other Pamir, with some difficulty and only at certain seasons of the year, by the passes at the heads of less-known nullahs which have hardly as yet been thoroughly explored. They debouch upon the Taghdumbash in the stretch between the Wakh-jir Pass and Kurghan-i-Ujad-bai. There are four of these passes—the Karachukur (taking its name from an alternative title of the Taghdumbash river), the Mukhman or Mihman-guli, the Tagermansu (lying just outside the new frontier assigned to Russia), and the upper fork of the Kukturuk valley. They cannot, however, be considered as regular passes, and are frequently blocked by snow.

Having completed my survey of the Pamir Passes, I now return to my own journey. From Bozai Gumbaz I followed the Oxus valley down to Sarhad, a distance of 42 miles, the present outpost of Wakhan territory and Afghan rule, where the river emerges from the mountain defiles and suns itself luxuriously on the more open plain. The track, however, does not closely pursue the river gorge, whose cliffs are too steep to admit of any passage for a greater part of the way, but at a distance of 7 miles below Bozai Gumbaz bears away from the Oxus, and crosses a wide grassy upland plain known as the Dasht-i-Mirza Murad, which is marked on very early maps, and which leads down to the valley of the Waram stream.* Over a second grassy upland called the

* It is at a point on the left bank of the Oxus, named Baikara, opposite to the Dasht-i-Mirza Murad, that a track runs southwards, conducting (1) to the Irshad and Chilinji Passes into Hunza; and (2) to the Khorabot Pass, leading down the Karumbar or Ishkumman valley to Gakuch, on the Gilgit river. The Irshad route is the most direct between Hunza and Wakhan, and was in frequent use both by men and ponies, until a few years ago it was blocked for animals by a change in the direction of a glacier. The pass called Irshad really consists of two passes across the same watershed, quite close to each other. One is called the Kirghiz-Uwin (16,060 feet), the other the Kik-i-Uwin (16,180 feet). The route from the Irshad comes out in the Guljal or Upper Hunza valley, at a point between Gircha and Misgar called Khudabad. I believe this to be the pass by which MM. Bonvalot and Capus tried to penetrate into Hunza in 1887, but their descriptions and nomenclature are so confused and inexact as to leave the matter in doubt. Anyhow, they were turned back by the snow ('*Le Toit du Monde*, pp. 274, 275). The Chilinji Pass (17,000 feet), or Tash Kuprik (*i.e.* Stone Bridge), lies a little further to the south, and is an exceedingly difficult glacier pass, quite impracticable for animals. From Wakhan it can only be approached after the Khorabot Pass has been crossed, so that two watersheds have to be surmounted before the Upper Hunza valley is reached. After the pass has been crossed, the track joins the Irshad route. The Khorabot or Baikara Pass (15,000 feet) conducts across the main Hindu Kush watershed from Baikara to the headwaters of the Karumbar river, and thence down to Imit at the upper fork of the Karumbar or Ishkumman river. M. Dauvergne, in 1889, after crossing the Baroghil, ascended the Yarkhun river, which had been previously reported, upon native information, as rising in the same lake as the Karumbar river, and found that the Yarkhun did indeed rise in a small lake, one of the numerous Gaz Kuls, but that a low rocky watershed separated this from the larger lake, variously described as Karumbar Sar, Ishki Kul, and Zjoe Sar (?), from which issued the Karumbar stream. About the latter fact there is no doubt, although

Dasht-i-Langar we come back to the main river and to the ruins of the former settlement of Langar, a fort and two stone cairns on a hill, and some deserted dwelling-places and tombs in the valley-bottom. Below Langar the gorge becomes greatly contracted, and the Oxus, gaining volume as it descends, foams noisily along, being here unfordable. Clumps of small timber nestle in the lateral defiles. There is in one place a very bad *pari*, or cliff track, above the river, which Mr. Littledale described in his paper. Our ponies had to be unladen and pushed and hauled up the rocks, and even so constantly slipped and fell. It is a bad place for their loads, and one of my bags was ripped clean open. Further down we again left the main gorge and diverged inland, mounting and descending successive spurs of great steepness and difficulty, down one of which one of our Kirghiz ponies, missing his footing, slipped and fell, and was killed instantly; until at length, mounting to the Daliz Kotal or pass (13,500 feet), we saw outspread below us the splendid vista of the Oxus valley. The river, released from its long mountain imprisonment, spread itself out in countless fibres over a wide watery plain, doubtless an old lake-bed, closed on either hand by magnificent snow-peaks.* Below us lay the terraced fields of Wakhan. Oxen,

the lake is said not to have a permanent existence, but to consist of an accumulation of snow-water in the spring only. But it is curious that while M. Dauvergne reported the Yarkhun river to Colonel Woodthorpe, as rising in a smaller and independent lake (*Proceedings of the R.G.S.*, vol. xii., 1890, p. 96), in his paper before the Paris Geographical Society he described it as rising in a great glacier, which coincides with the information that I received from Lieutenant Cockerill, who had visited the spot (*Scottish Geographical Magazine*, 1892, p. 365). This glacier, in common with another that descends upon the Yarkhun river immediately south of the Baroghil Pass, bears the name of Chatiboi, or Chittibui, which Major Raverty ('Notes on Afghanistan,' p. 155) explains as Chitti (Hindi for "white") Bhuin (Sanskrit for "earth"), a very appropriate designation for a glacier. The rise of the Yarkhun river in this glacier is reported by some of the native travellers, whose itineraries are published by Raverty (pp. 155, 188), and is corroborated by the "Mulla," a map of whose explorations (in 1876) appeared in the *Journal of the Asiatic Society of Bengal*, 1878, part i. He depicted one branch of the river as rising in a glacier named Chatiboi, but this was the Chatiboi opposite the Baroghil. Of its more distant namesake he was not aware. Major Raverty is consequently quite mistaken, if for no other reason, in saying (p. 181) that "the Dragon lake of the Chinese pilgrims Hwui Seng and Sung Yun in the Puh-hoi mountains is the lake of Chitti-Bui." I suspect that the Kotal or Pass of Palpi Sang, mentioned in one of Raverty's itineraries (p. 188) as "a long and narrow *darah* extending upwards for a distance of nearly ten *kuroh*, northwards from Chitti-Bui," is the Khorabort Pass, unless a confusion has arisen with the lower Chatiboi glacier, in which case it would be the Baroghil. In 1891 Colonel Yonoff, after arresting Captain Younghusband at Bozai Gumbaz, crossed the Oxus and the Khorabort Pass, which he somewhat rashly rechristened Yonoff Pass, and then, turning westwards, in the inverse direction to M. Dauvergne, descended the Yarkhun river, mounted to the crest of the Darkot Pass, and finally returned to the Pamirs by the Baroghil and Sarhad.

* This plain or valley was called Sarigh Chopan or Chaupan as early as the time of Baber (*vide* 'Erskine's Life,' i. 339, 340, 510), and in the chronicle of Mirza Mohammed Haidar (1543), and again by Munshi Faiz Bakhsh in 1870. The name seems now to have fallen into disuse.

goats, and sheep were being driven in at the sunset hour, and thin curls of smoke arose from the settled habitations of men. Descending to the valley, we camped near one of the Wakhi villages in its bottom, to all of which the Afghans apply the collective title of Sarhad (10,400 feet). Their frontier post is at Chehilkund, on the right bank about 3 miles lower down, where, in a dilapidated fort on a rock, were stationed a *havildar* and a few seedy sepoys.

Sarhad was the place where, in 1890, Mr. and Mrs. Littledale, coming from the same direction as ourselves, were stopped for twelve days by the officiousness or discourtesy of the Afghan captain from

CAMP SCENE, PAMIRS.

Kala Panja, 50 miles further down the river. I had thought to have sufficiently guarded against the repetition of any such *contretemps* by having requested the Amir of Afghanistan, whose guest I was going later to be at Kabul, to send word to his officials in Wakhan of my proposed arrival. This he had done, and the petty *havildar* at Sarhad was well aware of my identity. Nevertheless, the opportunity of swaggering a little before the inhabitants of this remote dependency, and of humiliating the representative of a foreign nation, was too good to be lost; and the *havildar* of Chehilkund, having turned up at his leisure and offered halting apologies for a rudeness which was manifestly designed, presently informed Lennard and myself that we were Russian spies, and that he must accordingly detain us until his commanding officer arrived from Kala Panja. How a Russian spy

could have come by our route from Hunza, could be proposing to re-enter British India by the Baroghil Pass, and could have been described in a letter from his own sovereign as an English traveller and a friend of his own, the *havildar* did not attempt to explain. Leaving him to reconcile these contradictions, and informing him of my sincere intention to mention the matter at Kabul later on, we packed our loads, and, having the superiority of numbers, marched off undisturbed.

I may here perhaps mention the sequel. At my first audience with the Amir at Kabul, he raised the matter, having received my letter of complaint, and having instituted inquiries. The reply of the now frightened *havildar* was really so ingenious as to extort my reluctant admiration. "He was still awaiting," he said, "the arrival of the great English lord *sahib*, whose coming had been announced by His Majesty the Amir, and who would no doubt appear in uniform with an escort of 1000 men. In the mean time two of the lord *sahib's* servants (*i.e.* Lennard and myself) had already passed through with an insignificant following. He himself would continue diligently to await the great lord." I heard afterwards that this polite intention on the part of the *havildar* had been frustrated by an imperative summons to Kabul; but what may have since transpired I do not know.

Crossing the bed of the Oxus, which is here about three-quarters of a mile in width, and fording the river, which was divided into three main channels with from 3 to 4 feet of water, we then struck due south into a gap in the hills, nearly half a mile wide, up which lies the ascent to the Baroghil Pass. For nearly 3 miles the track runs through a flat and swampy valley with abundance of grass, called Pirkhar. It then bears a little to the west, and, gently rising, follows for 5 miles a long and stony bay completely filled with the bed of the Pirkhar stream. At the head of this valley two tracks bifurcate. That to the south-east ascends to the Shawitakht Pass (12,560 feet), which is an alternative to the Baroghil for travellers proceeding directly to Darkot and Yasin, and from there descends on to the Yarkhun river, from whence a gentle ascent of 8 miles leads to the *ailak* or summer pastures of Showar Shur, and from thence over a glacier to the Darkot Pass (Pamir Commission, 1895, 15,200 feet; Littledale, 15,950 feet) and the route to Yasin. The second track, which I followed, led more to the south-west, and, after a climb of three-quarters of an hour, brought me to the rolling saddle or dip in the main range of the Hindu Kush which is known as the Baroghil Pass (12,460 feet). This remarkable depression is from 400 to 600 yards in width, and its crest is about 12 miles from Sarhad. On the southern side the track descends over a gentle grassy slope, that would provide the most admirable golf-links, to the valley of the Yarkhun river, which it strikes some miles below the Shawitakht route. The grassy slopes on both banks of the river are known as Dasht-i-Baroghil. In front of one, along the entire descent, the foreground is

filled by the magnificent Chatiboi glacier, which plunges down like a prodigious frozen Niagara between two snowy peaks of the confronting range. From here, also, after fording the Yarkhun river, an ascent can be made along the edge of a great glacier to the summit of the Darkot Pass. The latter, of course, and neither the Baroghil nor the Shawitakht, is the real defence of India on this side, since it would be almost impassable by armed men.*

From our camp on the Yarkhun river,† where Lennard and I separated, he to return to Gilgit, I to proceed to Chitral, I followed down the gorge of the Yarkhun (also called Mastuj, Chitral, Kashkar, and Kunar river) for three days, a distance of 72 miles, to Mastuj. On the first day I had to ford the river from bank to bank twelve times, and so to circumvent (I might otherwise have had to cross) six glaciers. Of these the great Chatiboi, 600 yards wide, comes right down to the edge of the river, and there towers, a precipitous wall of ice, above the foaming water.‡ Woodthorpe and Barrow, Younghusband and Cockerill were the only Englishmen who had previously descended by this route; but my journey, made at the beginning of October, proved, as the Mehtar of Chitral afterwards told me, that, though very difficult in summer, when the river is in flood and the glaciers require to be crossed, it is available from the early autumn till the late spring, and must consequently be regarded as one of the main possible routes into India. Fortunately, there is at least one place in the valley where a small body of men, taking advantage of the natural conditions, could resist a force ten times their superior in numbers. Nor is it very likely that an invading army from the north, whose objective was Chitral, would trust itself to a route that is practically confined to a single gorge for 140 miles, when the much easier and shorter route by the Dorah Pass is available. At Mastuj I joined Younghusband; and here ends that portion of my journey which I undertook in this paper to describe.

(*To be continued.*)

* *Vide* the account of Littledale's difficult crossing of the Darkot in July, 1890, *Journal of the R.G.S.*, vol. xiv., 1892, pp. 24, 25. Lennard, after leaving me (in October, 1894), experienced almost equal trouble.

† At this point there was formerly a bridge across the river, but it was destroyed by Ali Mardan Shah, the former ruler of Wakhan, on his flight from the Afghans in 1888.

‡ This is the lower Chatiboi, the name—a familiar one for glaciers in these parts—being also sometimes applied to the neighbouring Darkot glacier. I have previously shown that it is again attached to the glacier-source of the Yarkhun river.