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CLIMBS IN THE CAUCASUS.

II.

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Nihil hic auribus molestum esse potest, nihil importunum, nulli tumultus aut strepitus urbani, nullæ hominum rixæ. Hic in profundo et religioso quodam silentio ex præaltis montium jugis ipsam ferè cælestium, si quæ est, orbium harmoniam exaudire tibi videberis. . . . Sed lectus, culcitra, plumæ, pulvini desunt. O mollem et effæminatam hominem, omnium instar tibi fœnum erit.—C. GESNER, A.D. 1555.

The Zanner Pass.

OUR second night under the boulder beside the Tetruld Glacier was less comfortable than the first. The uncertainty as to the morrow, and the whereabouts of our comrades partly, perhaps, interfered with my slumbers; but there was also a physical cause in a cold breeze which poured down from the snowy heights and found its way into the cranny where we were lodged. In place of stargazing overnight I ought to have insisted on the guides raising a low wall to windward! We breakfasted sparsely, for we felt bound to husband our provisions, and at about 5 A.M. set off. There was an hour's descent to the junction of the two glaciers. All the water running on the surface of the ice had frozen hard in the night. To keep footing on the slippery surface was almost impossible; one after the other we were on our backs, and our stiffness from the long snow-tramp of the day before threatened to be soon supplemented by more serious bruises. However we reached, none of us much the worse for our tumbles, the rank herbage on the right bank of the Zanner icefall. There was no trace of path among the steep screes and bushes. But it was not many minutes before François detected footmarks. Our doubts were thus happily set at rest. M. de Déchy and the Cossack had succeeded in starting with the troop of porters, and the caravan must be ahead

of us somewhere on the upper glacier. François, who up to this time had had serious misgivings as to our baggage train being really on the road, was now content, and sagaciously suggested that we need not hurry to overtake it, as we had well deserved to have our steps made for us across the snow-fields. The Chamoniards were all heavily laden, and even at home guides might be excused for feeling a trifle slack if called on to act as porters across the Col du Géant the day after climbing Mont Blanc. François, it must be remembered, is no longer young, and his brother Michel was beginning to suffer—though he stoically concealed his wounds till the following night—from a frost-bitten foot.

It was an hour's steep climb beside the icefall up to the brow overlooking the Eismeer of the Lower Zanner Glacier. Here at 8,500 feet, on a patch of level ground, we found the relics of M. de Déchy's camp. A large boulder had accidentally masked their fire from our view. A few downward steps placed us on the ice we were not to leave for so many hours. But for the moment we were much inspirited. The pure morning sunshine danced through the delicate mountain air. On either hand the pyramids of Tetnuld and Gestola crowned a noble avenue of snowy heights. Mr. Donkin's camera has recorded the fleeting vision he had on reaching the crest of the main chain of the northern face of Tetnuld. This aspect was now before us, foreshortened at first, but displaying as we advanced its full six thousand feet of icy armour. Hardly any rocks showed, and what could be seen were plastered over with the débris of ice avalanches. Here the glistening slopes swelled into an overhanging boss of névé; there smooth riven sheets of snow clung to the wonderfully steep face of the mountain. It was a peak to be proud of!

The glacier, which flowed at first towards us with a south-westerly direction, turned in its upper course more east and west. Far ahead a broad high icefall poured down on the left from the upper basin, over which, as we knew, both from the position of Gestola and from our view from Tetnuld, our pass must lie. For an hour or more I thoroughly enjoyed one of those bits of easy glacier walking which are as amusing to the mountaineer as a cross-country burst is to the foxhunter. Each takes his own line; now the guide in the hollow gets the lead, then he is stopped by some ice-ditches, and his comrade on the moraine forges ahead. One can practise small jumps and gymnastics, or, successful in some 'speculation'—as François disapprovingly calls my short cuts—sit down comfortably on a glacier-table and rejoice in

the splendour of the shining landscape, until the guides, made more cautious by their loads, come up.

Arrived at the foot of the second icefall we cut a few steps in its lower portion, and then took to the rocks on its right (western) flank. There was no way up them except by crossing slopes of very steep and hard screes, where it was expedient not to slip. Near the top solid crags offered a welcome scramble. Here there were no traces whatever of our caravan's passage, and I was beginning to feel perplexed when a shout from Joseph, who was ahead, told the good news that it was sighted. In a minute I was beside him, looking across a huge smooth glacier basin. Not a mile off a large company were gathered in a circle on the white snow. They were thirteen in number; M. de Déchy, the Kabardan Cossack, and eleven Suanetians. Seen through field-glasses the group bore a singular resemblance to one of the old prints of De Saussure's ascent of Mont Blanc. They returned our hail, and resumed their march. We set off in pursuit, and on this occasion a stern chase did not prove a very long one. The ice was already snow-covered, but not sufficiently so to hinder us materially. In about an hour, at 11 A.M., we caught up the caravan. They had climbed the rocks on the further side of the icefall, which, with the exception of one 'mauvais pas,' they had found quite easy. The Suanetians were all heavily laden, and there was no spare man, as I had hoped, to relieve the guides. We joined greedily in an excellent repast, and then let our troop lead on up the broken slopes of névé, but half transformed into ice, which hid from us a still higher level of these 'shining tablelands.' The Caucasians are as clever as chamois at choosing their line of march, and show a great deal of prudence in sounding in uncertain places. No record of life having been lost in a crevasse exists, so far as I could learn, among the natives. We were soon able to take advantage of some snowy rocks between two branches of the séracs. The snow on them was thick and loose, and made the work exceedingly slow and laborious for those in front. In our happy ignorance we thought this labour was to be the last.

A very fine rock-peak not far short of 15,000 feet, and, as I have good reason to believe, higher than anything between itself and the Ushba group, rose behind us at the N.W. angle of the Upper Zanner glacier. It resembles somewhat the Finsteraarhorn seen on its broad side, and can, I think, certainly be climbed. A pass also may probably be made over the low rock-wall east of it from the Upper Zanner to the Bulungu,

or eastern branch of the Chegem valley. From the top of the bank we saw in front to the south and east endless snowy undulations. Far, far off at the foot of the long rocky screen that girds in the névé on the north, a piece of bright blue sky was framed by clear, sharp-curving snows. I took its bearings, and hastily noted as best I could the accidents of the intervening ground. For the afternoon vapours were close upon us, and it was not long before they surrounded us.

The snow was now knee-deep where it was best, and thigh-deep where it was worst. The over-laden men could make only the slowest progress. They advanced for five minutes and then sat down for ten. Presently the leader swerved very sharply to the right. Through the double interpretation of M. de Déchy and the Cossack I remonstrated, and we resumed our former direction. Whether this interference of mine was well- or ill-timed I had afterwards reason to doubt, and cannot now tell for certain. The snowfields undulated, the leader seemed to lose his head; instead of keeping a level we occasionally descended. The halts became more frequent, the pace slower, the mists thickened, half-hours and hours slipt by, and still we seemed no nearer the pass. I proposed to the guides that they should take the lead. They declined the labour on the ground of their heavy loads. As I was carrying nothing I went myself to the front for a time, for the crevasses were too thoroughly choked for there to be any danger. Suddenly I became aware that I was alone. Our train was lost to view in the white fog. The next moment strange sounds echoed from the misty heights. I retraced a few steps and found the whole motley troop squatting on a bank of snow and praying at the top of their voices. The Suanetians were all using the same words—possibly a form of prayer for persons in peril on the mountains. The Thibetans we know have a thanksgiving on reaching the summit of a pass. But to what quarter were these prayers addressed—to the powers of nature or to a Christian Deity? All I could get through double interpretation was that our men were calling on the sun. They were as persistent as priests of Baal, and with better success. The mists broke; blue shone above our heads; the rocky screen on the left which was my landmark loomed close at hand. The snowy gap was seen, still some distance in front. Then the long chant turned into howls of triumph—howls not apparently without some such form and order as are found in the ejaculations that make part of a Greek chorus.

We waded and wallowed on across slopes of avalanche

débris, through snowy corridors. Once more we lost our bearings, and Joseph distinguished himself by being the first to recognise the true direction. The last climb was now before us, a gently-rising snowy dale enclosed between rocks on one hand and high frozen banks on the other. A breeze had sprung up and suddenly lifted the mists. Through the gap in front shone the purest blue sky.

I shall never forget the sight which of a sudden met my eyes, weary of the long monotony of snow and fog, as I first overlooked the crest of the Caucasus. Particular mountain views but seldom come up to the day-dreams imagination and recollection can join to frame for us. This evening view from the Zanner Pass exceeded all my visions, waking or sleeping. Need I add it must altogether evade my attempts at description? Immediately opposite, Koshtantau, a huge rock-peak slashed with glaciers and resting on two massive shoulders, raised to a height of 17,000 feet its crowning ridge. Round its base flowed an enormous glacier, having its secret cradle at the foot of a pile of icy precipices and soaring ridges, the five-crested Shkara. A long line of heights stretched in a mighty impassable wall from Shkara to Gestola, now comparatively close on our right.

It may possibly help some readers to realise the arrangement of the peaks if I suggest that our relation to the surrounding ranges resembled roughly that of a spectator on the Hörnli. Shkara must be put in the place of Monte Rosa; the wall of Djanga will then answer to the Lyskamm, and the Saddle Peak and Gestola may represent the Breithorn and Little Matterhorn. But their cliffs resemble rather those above Macugnaga than the comparatively mild slopes of the northern side of the Monte Rosa chain, and the Gorner Glacier must be extended until it reaches nearly to Randa, and the Matterhorn itself planted on the top of the Gornergrat to play Koshtantau. The parallel breaks down, it will be seen, in detail; and the map after all is the best key to the view, for those who care for one.

It was a wonderful scene and a magical moment.

Evening added colour, variety of expression, and sentiment to a landscape which might have seemed too stern and monotonous in its white noonday magnificence. When we reached the ridge the granite crags and snows were lit up with the slanting rays of the setting sun; cold blue shadows already lay in the hollows at our feet. While we lingered the highest crests flung back the last beams, the peaks flushed red for a few moments, half faded, then glowed

again in response to the western sky, before they finally sank under the grey pallor of advancing night.

But the hour and the occasion did not allow us to indulge ourselves in any absorption in the wonders round us. It was a time for action—and prompt action. The shades of night were gathering fast about us. When we reached the pass we had already been no less than thirteen hours from our bivouac. We had spent seven hours since we met M. de Déchy and the porters on these interminable snowfields. Doubtless in another season the pass will be crossed in less than half the time. It is not characteristic of the Caucasus that the snow should be out of condition. In July 1868 I found it quite up to the Alpine average of firmness.

Having contemplated hastily the far-off, we turned our attention to the near. We were standing on a frozen wave of snow. At our feet were a cornice, a wall, and a bergschrund; the cornice and the bergschrund were not unmanageable, but the snow-wall interpolated made the combination extremely awkward to attack from above. A guide might, I think, have been lowered by the rope, and then a passage hewn and thrashed out with ice-axes. But it would have cost what was most precious, time; and the Suanetians were understood to swear unanimously that no consideration should induce them to go down alive into such a pit. By five minutes' further ascent to our left it seemed easy to reach a spot where there was no cornice, and whence a rib of rock ran down for full two-thirds of the distance towards the bergschrund. It was much of the character of the once celebrated Strahleck wall; that is perfectly easy to anyone properly shod and accustomed to snow and ice-work.

The Suanetians were all praying, or swearing—it was difficult to say which—on the cornice. One after another peered over, and, drawing back with horror, gave vent to a brief solo, which was followed by a fresh chorus from the whole force of the company. We thought example might be better than precept; so charging our Kabardan Cossack to explain what was to be done next, we started down the rib of rocks. It was steep but perfectly easy, and in ten minutes we were across the bergschrund. But even our example failed to cheer the Suanetians, or to induce them to follow us. They jabbered, they screamed, they gesticulated, they seemed, as is the wont with excited barbarians, on the verge of assaulting one another. They did, in short, everything but what we wanted them to do—come on. At last we were rudely warned that a great resolve had been made by

receiving one of the tents, which was sent bowling down on us through the soft snow in a perfectly reckless manner. Other baggage, including barometers, followed; and then three of the most daring spirits tied themselves to the Cossack. This spontaneous use of the rope showed that they were not altogether beyond the reach of new ideas! They came down the rocks with the utmost nervousness; clumsily yet safely. But on the steep snow below one of the four missed his footing. A few seconds of headlong descent, some bold bounds in air, in one of which the half-open bergschrund was safely cleared—and the quartette were lying, a panting heap, at our side.

‘Voilà donc notre gros, comme il a la mort dans le visage,’ said François. A huge Suanetian had blacked his face to save himself from snowblindness; his skin underneath had turned deadly pale with fright, his yellow hair and beard were plastered with the snow in which he was more than half buried.

A good shake, however, showed that no damage was done, and the loss reduced itself to our Cossack’s dagger, which had flown out of its sheath and found a lodging in the bergschrund. Fifty years hence possibly it will be disgorged by the glacier, and exhibited as a relic in the reading-room of the Grand Hôtel at the Mishirgi Kosh!

The eight who were still on high were naturally not fortified by the sight of their companions’ misadventure. But the sunset wind was, doubtless, getting very cold on the ridge; and, placed between the Scylla of freezing and the Charybdis of the bergschrund, they found at last courage to follow—how slowly and noisily it would be difficult to describe.

The descent of the snow-wall had taken more than an hour. All the time that this screaming farce was being played by our black-faced troop, Nature on her part had been presenting a solemn spectacle. Snows and sky had been alternately flushing and fading as they caught or lost the hues of the sunset or the afterglow. The combination was incongruous in the highest degree. It seemed a rare waste to have two such exceptional performances, appealing to such different moods for appreciation, going on at the same moment. One does not ask for a pantomime in St. Mark’s Square, and Christy Minstrels mix badly with Beethoven on the staircases of St. James’ Hall!

We hurried across the ice—or rather snow—of a small glacier plateau towards some rocks on its farther or left bank. How came it that we were not descending the large tribu-

tary of the Bezingi Glacier which runs under Gestola? The map will show that we had not crossed the col at its head (the Adine Col Mr. Donkin names it), but another pass of about the same height farther north, and at the head of the glacier flowing into that last mentioned, the lower end of which my friends traversed on the way to their peak. The two passes are very well shown on one of Mr. Donkin's photographs. The question of course arises, When the porters swerved to the right on the ascent, was their leader, who had crossed more than twenty years before, following his recollections, and making for this alternative pass? At first sight it would seem probable that he was. But, on the other hand, the route we had taken is the more direct; the difficulty of the snow-wall is just such an one as might be created by the shrinkage of the glaciers, which in the Caucasus, as in the Alps, has marked the last quarter of a century. Thus the abandonment of the pass would be accounted for. And on the rocks we were approaching a group of ruinous stonemen and a low wall, signs of ancient camps, were visible. This discovery appears conclusive evidence that we crossed a once frequented pass.*

It was dark when we reached the rocks, though we had been only about half-an-hour crossing the glacier. We proposed to camp at once, but an icy blast was now whistling behind us, and the Suanetians—very judiciously as it proved—insisted on going down farther. Providence had arranged that the dark slope on which we found ourselves should consist not of granite cliffs and boulders but of pulverised schist and snowbeds, in either of which it was equally easy to let oneself slide. In 17 minutes we went down some 1,700 feet, and holloaing so as not to lose one another in the darkness, we all collected on the first patch of tolerably level ground. Lanterns were soon lit, tents unfurled and pitched, soups boiled, pâtés opened, and last, but not least, a bottle of port (purchased at Vladikafkaz) uncorked. I can strongly recommend the Vladikafkaz wine merchant! The Suanetians'

* There can be no doubt whatever that the pass across the chain up the icefall of the Adish Glacier has no existence outside the Five-verst Map. But I think the surveyors were led to insert it by traditions at Adish of people of that village having crossed the chain without descending to Mujal. In the old days when the Zanner Pass was used a party from Adish might have crossed without difficulty the ridge behind the village, and descended by the Tenuid Glacier to join the Zanner. When the countryside was in arms, village against village, such circuits may have been frequently expedient.

spirits recovered now that they were safe across the chain. They sang a ballad with a refrain of 'Thamara, Thamara,' in honour of their twelfth-century sovereign; they borrowed our ice-axes and dug themselves holes, and then, wrapping themselves in their *bourcas*, fell fast asleep.

I felt happy and a little vainglorious, like the 'Three Jolly Huntsmen.' Only I had had not one, but two 'rattling days.' I planned with M. de Déchy how next morning we would descend to Dent's camp. Mutton was at hand; bread and letters might be sent for from Bezingi.* The upper glacier should be photographed. Koshtantau I deemed might be climbed; the pass to the Dychsu explored. I looked out from our tent after the moon had risen; there was not a cloud in the sky. Koshtantau towered grandly in shadow opposite; the white cliffs of Djanga caught the light. Our camp was silent, and there was no sound but the distant murmur of waters, or the rattle of stones disturbed by the mountain goats.

Dis aliter visum. When I next opened the tent door at 6 A.M. an ominous scarf of mist lay low in the hollow under Shkara. I remembered that I had left my aneroid on the rocks near the stonemen. Joseph and I strolled up the 50 minutes' ascent to get it. I was determined to lose no moment of the strange scenery, and I had hopes, too, of seeing a wild goat, for the soft soil was everywhere marked by their tracks. Alas! clouds gathered quickly and sleet had begun to fall when we returned to camp. At 8 A.M. the day was hopeless. Grey, wicked mists crept stealthily up below us along the great trench of the Bezingi Glacier. The rain was coming down in torrents. There was nothing for it but to make valleywards. The steep descent of fully 1,500 feet to the level of the great glacier, where we found sheep pasturing, the long tramp down and beside it, the glorious glimpse I snatched of the Mishirgi Glacier next day—on these matters I must not enlarge on my printed Diary.

At this point misfortunes crowded on me. That night Michel exhibited a frost-bitten foot which obviously incapacitated him for serious mountaineering for some weeks to come. François next day showed signs of having, for the moment, exhausted his strength and energy. My companion developed various plans for joint tours in other parts of the

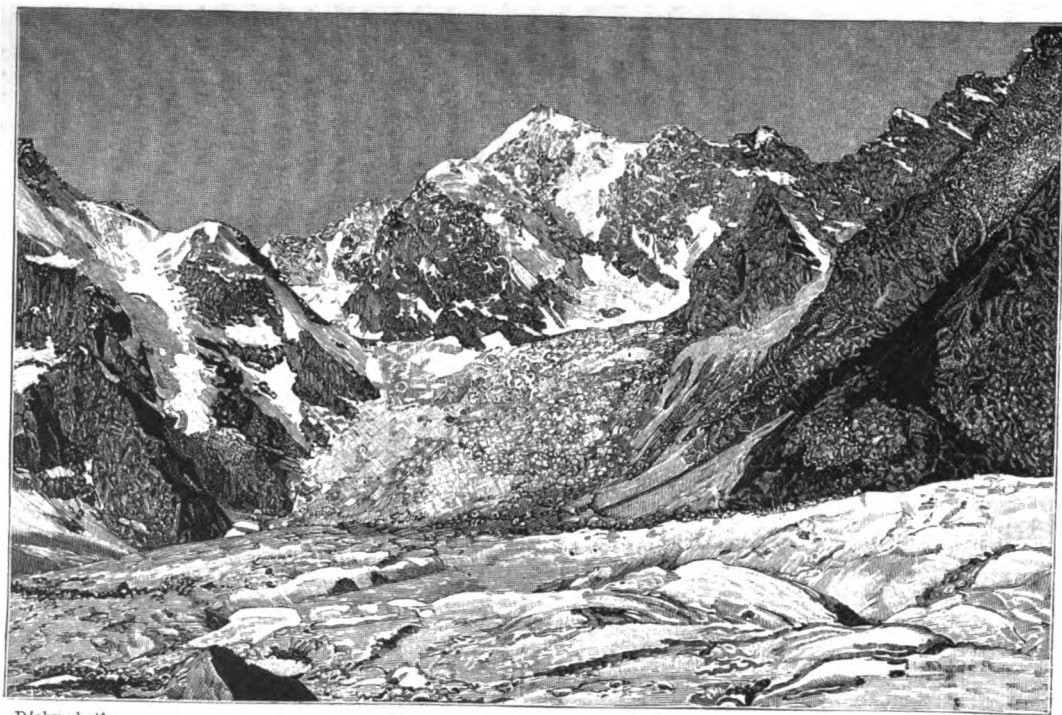
* Naltshik is a post and telegraph station. We owed it to the courtesy of the commandant there that our letters were forwarded by special messenger to Bezingi.

Caucasus, which were brought to a conclusion only to be within a few hours frustrated by his sudden return home. But my object here is not to dwell on the disappointments and accidents of travel, but to show what was done despite those accidents. Without a bare mention of them my tour might have been thought to have been in all respects favoured by circumstances. This was very far from being the case. Another party, all eager climbers with equally eager guides in a less snowy season, may hope to do much better than we did. I pass on to the 'mountaineering' that remains. There will be quite enough to fill up this article.

The Ascent of Uku.

My next and last excursion with M. de Déchy before he left me was up the grassy glen, called Doumala on the Five-verst Map, opening into the main valley above Bezingi, and leading up to the northern glaciers of Dychtau. By one or the other of these glaciers I hoped to find a way to that peak. One more great peak I had set my heart on climbing. After that I had promised to yield to M. de Déchy's desire, and go with him to the eastern heights of Basardjusi. The scenery of these northern valleys is extraordinarily monotonous, considering their situation at the base of a mighty snowy range. They lie much higher than the Bezingi valley, and are reached by a steep ascent. Where the torrent from what I will call provisionally—for want of knowing better—the Uku glen falls in, a sharp snow-peak is seen for a moment. The horse-path up the main Doumala valley passes several shepherds' koshs or quarters. There are more cattle in this glen than I saw anywhere else in the Caucasus. The pasturages are divided by low stonewalls, and each belongs, as far as I could learn, to a separate group of households. A track from a pass to Balkar falls in on the left. Then the valley, still a grassy trench between bare hills, bends sharply to the south, and snows are seen at its head. About four hours' ride from Bezingi the end of a large glacier comes into view, flowing gently in its lower portion under the base of a fine wall-like range. Its source and Dychtau are still round a corner and out of sight.

We encamped on a flowery plain a few hundred yards from the ice. Next morning we ascended a high moraine and reached the lower level of the glacier. A steep icefall descended from an upper platform surrounded by a horseshoe of cliffs; into this basin poured ice from a recess shut in



Déchy phot.

DYCHTAU FROM THE DOUMALA GLACIER

between the eastern and northern ridges of Dychtau. As is frequently the case in the Caucasus the difficulty appeared to be, not on the final ridge, but in reaching it. Certain corners were not visible, but there was no practicable route, at any rate no fairly easy route, recognisable. I had hopes that there might be a better way to the lower end of the northern ridge from the second glen, the mouth of which we had passed. Accordingly we rode back to it. After mounting the steep bank at its entrance we saw a sharp peak with a blunt ice-crest on its left. I fancied the sharp peak might be part of Dychtau foreshortened. It was an egregious error of a kind I do not often make, and was the less excusable since neither François nor M. de Déchy shared it. However, I made up my mind stubbornly to climb the peak, whatever it was. M. de Déchy did not care to join me, and rode back to Bezingi, leaving François, his nephew, and myself in the glen with the light tent and what food there was remaining. We left a horse with the shepherds, trusting to pantomime for our future communications with them, and hastened on to the head of the glen. A very steep, short ascent among beautiful mauve primulas, which elsewhere had been past blossom, brought us to a flowery brow most tempting for a camp. We pushed on, however, half an hour further to a little plain, where the streams from two glaciers met at the base of steep rocks, the northern spur of our peak. The height of our camp was at least 9,500 feet. The rugs had been forgotten, and the cold consequently prevented me from sleeping, otherwise we were well off.

About two, as soon as the moon had risen, we started. The ascent of the wall of rocks in the shadow was awkward, but François hit off the right place with curious skill. On their top we escaped into the moonlight. We were on a shelf laden with the most gigantic boulders I have ever scrambled amongst. These were succeeded by steep, hard snow-slopes, where François tested my skill in walking on the edge of my boots. We managed to do without step-cutting, and soon got up to the level of the basin of the western glacier we had seen from below. Lit by the orange sky of dawn it made a beautiful 'snowscape.' A plain level enough for cricket, in which heavy snowfalls had smoothed over every wrinkle, was surrounded by high banks of ice and névé. On our left there was a way up to the northern ridge of our peak—Uku we call it—steep but easy. We cut steps up the frozen slopes, passing between some superb icicle-hung grottoes. Once on the ridge we were

already high enough to see Elbruz and Kazbek in opposite directions over the intervening mountains. No Dychtau was in sight; for a few moments I still hugged my delusion that we were on his shoulder. There was a large glacier below us on the east, sending its stream to the glen we had camped in; on its further side rose a broad, steep, snowy mountain. The ridge was easy for some way; then it was broken by a great rock-tower. We took to the left hand to turn it. When nearly round we were stopped. A big boulder blocked a gully. I, as the lightest, proposed to get up on Joseph's shoulders, and then hoist up the others. My offer was scornfully rejected by François. However Joseph's attempt on the right failed—at least he found the rocks difficult enough to make me prefer to look elsewhere. I accordingly unroped and scrambled on my own account a dozen paces to the left. There lay the true road. It was not so much a ledge as a great wedge projecting from the side of the cliff. Once lifted on to this wedge it was possible with perfect safety to worm oneself along it for the few necessary yards, and regain the crest above the tower.

Beyond was a slight snowy gap, and then the final peak, steep but not difficult, half snow, half rock, the halves being divided vertically at the ridge. The snow was in shocking condition and perfectly unsafe; so we crossed at once on to the crags of the eastern face. François was out of spirits: he had hardly recovered the two stiff days of Tetnuld and the Zanner, and preferred to wait on the sunny crags. He did not gain much, for he failed to find a perch broad enough to doze on in safety. Joseph and I scrambled on as fast as we could up the peak. There was nothing to stop us, though in places where fresh snow lay about some little care was necessary. The last rocks were the steepest; and then, sooner than we desired—for the broad peak across the glacier still slightly overtopped us—we could go no higher. The ground fell fast and far in every direction. There was no Al Sirat arch to Dychtau. That reluctant maiden was smiling on us over the top of the broad snow screen in perfect safety from any attempts we could make. It is possible, but I think unlikely, that Dychtau might be got at by climbing this screen and passing over its top. I was still angry with myself; but it was impossible to be angry long, the distractions of the view were so many and so marvellous. Our peak, it was clear now, was one of those seen from the foot of the Mishirgi Glacier, for that icefield lay at our feet, and beyond rose a tremendous sweep of cliffs, rising from east

to west till they culminated in the castellated crest of Koshtantau. I have never seen Monte Rosa from the Pizzo Bianco. The only view of a great mountain in the Alps I know worthy to be compared to that I am describing is the one of Mont Blanc from a little peak too much neglected, the Tour Ronde at the head of the Glacier du Géant.

We saw Gestola, Tetnuld and Ushba across the chain, and of course the gigantic bulk of Elbruz. The long snowy spur between Chegem and the Baksan was admirably displayed: three great glaciers streamed from broad névés, lying at the base of moderate peaks, which I have since learnt from General Shdanov are respectively 14,273 feet, 13,972 feet, and 13,584 feet in height. To the east much of the main chain was hidden by the glacier group N. of the Uruch. The peak I sketched in 1868,* Giuliuch, 14,078 feet, R.S., was conspicuous. Far away Kasbek stood up between two supporters, Gumarau Choch, 15,672 feet, and another.

The view was interesting also in its glimpses of lowlands and valleys. Bezingi itself, with the gorge leading to it, was in sight. Beyond the northern limestone screen, a broken line of long castellated heights, I recognised clearly the far-off hills of Pätigorsk, rising island-like above the rolling steppe.† Away to the east the fertile plain round Vladikafkaz shone in sunshine. Suddenly a white cloud rose from the great precipices opposite, and a prolonged roar broke the silence of the upper air. An ice-cliff was falling in a thousand fragments on to the Bezingi Glacier from the cliffs of Koshtantau.

There were some loose rocks at the southern end of the snow-crest that crowned the peak, to which Joseph retired to build a stoneman. I lingered long over the view; the sunlit snows were so beautiful, the mountain forms so sublime, that it was hard to leave them, perhaps for ever. Far beneath the rivers sprang from their icy cradles, flashed in the depths of their forest-fringed ravines, shone, thin lines of silver, as they wandered out beyond the green foothills into the luminous distances of the northern steppe. Close at hand, and far as the eye could reach, the great peaks of the Caucasus rose like 'whiter islands' into the untrodden sea of air. Before me in its austere and stately splendour and perfect purity was spread one of those great mountain

* *Central Caucasus*, p 411.

† Uku is shown between Dychtau and Koshtantau in my sketch from Pätigorsk made in 1868. See *Central Caucasus*, p. 381. The Koshtantau of the upper sketch on the same page is Shkara.

landscapes in which the primitive powers of nature, that were centuries before, and shall be centuries after the race of men, seem to assert their independence of our brief consciousness, and at the same time to vindicate the permanence that underlies mutability. One felt for the moment uplifted; brought, as it were, spiritually, as well as materially, to the verge of some strange Promethean prospect. As in a starry night on a desert plain, but more forcibly from the utter strangeness of the spectacle, the mind is at such moments carried away from the accidents of human life and set face to face with the Order of the Universe. It is conscious of the throbbings of an imperfect sense or faculty by which it recognises a spirit kindred to its own underlying Nature. The vision, it is true, soon fails; the veil loses its momentary semi-transparency. But the memory of the sensation remains distinct, when much else is forgotten. How far are such experiences insight? How far idle phantasy? That is a matter in which philosophers must be left to differ, poets to hope, and time to decide.

But 'feet, feelings, must descend the hill,' even though the fall be from the palaces of nature to the hovels of 'cold, insipid, smouchy Tartars.' After a long revel in light and space and splendour I remembered the probable impatience of François, and the certain distance of Bezingi.

Where loose snow lay on the rocks, we had to look carefully to our foothold. But the peak was safe enough for people who knew how to pick their way. We soon rejoined my old comrade, circumvented the tower with the proverbial ease of familiarity, and then varied our descent by a 'new route' to the eastern glacier. This lay down a steep face of snow and rocks. Here and there I found flowers at a height of at least 13,000 feet. The specimens I saved were unluckily lost out of a pocket-book.* The scenery of the glacier was very fine: Uku and the broad peak which I propose to call Mala Tau towered grandly on either side. The ice ended in a horrid wilderness of moraine and rocks and torrents, beneath which our tiny tent gleamed friendlily. We spent but little time in packing it up and shouldering our belongings, and an hour later reached the kosh, whence without difficulty we started a shepherd boy to capture our horse. In due time the animal was caught and laden, and I grieve to con-

* Some were dwarf specimens of a daisy-like blossom (*Pyrethrum*), found frequently, sometimes white, sometimes purple, at lower elevations.

fess I added myself at intervals to its load. We pursued steadily the long but easy descent to Bezingi, which we entered at 7 P.M. The chief's son was waiting for us at the guest-house. We cooked our frugal supper. I expressed in some intelligible form an intention to start early on the horses M. de Déchy had ordered for us. Next morning at 4 A.M. I repeated my scanty phrases, and, strange to say, by 6 A.M. we were actually on the road.

Mr. Donkin, owing to the rain which persecuted him, has been unable to say enough of the charms of the little pass over the outer hills to Naltshik. The view from this broad grassy crest of the snows (framed in the cleft of the limestone gorge which forms a gateway to the mountains) is singularly beautiful; and the leagues of rolling foothills, one vast forest, into the recesses of which the path soon plunges, afford a prospect less familiar, if also less attractive to the eyes of a mountaineer. A more characteristic passage to or from the highlands of the Caucasus can hardly be chosen.

Ushkul and the Skenes Skali revisited.

The second portion of my journey was exceedingly pleasant, and in many ways fruitful. To me, who have so long frequented the southern skirts of the Alps, it was very interesting to make acquaintance with the region that answers to them in the Caucasus. The wilderness of the Skenes Skali it had been for years a regret to me to have seen only in cloud and rain. The southern flank of the central group I still knew but imperfectly. All these gaps in my experience I was able to fill up. But, despite glorious weather, I could do but little above the snow level—I travelled more than I climbed.

In truth the limits of time I had set myself were against me. Ten precious days had been lost—I speak as a mountaineer—between that on which I rode down from Bezingi to Naltshik, and that on which I again found myself within touch of the snows at Kalde in Suanetia. In carrying out the round up from Kutais to Suanetia over the Latpari Pass and back by the Upper Rion, I had, provided there were no delays, just two days to spare. One of these I spent in an excursion from Ushkul to the sources of the Ingur. On the way I passed through Jibiani, and had the satisfaction of having the historical barn, where we had so fortunately escaped robbery, if not murder, nineteen years before, pointed out to me as 'the place where three Englishmen had once

been entertained.' Above the meeting of the glaciers, and opposite the great cliffs of Shkara, lies the Belvedere Alp of the Caucasus. It is a lovely meadow, the nearest to the snows of an army of smooth green hills, unbroken by rock or wood—unless here and there by a slender birch copse—covered by waving flowery grasses, uncropt by herd, unmown by scythe, falling only to the sharp touch of the October frosts. Not altogether unvisited by man, however, for, after wading ankle-deep among untrodden flowers, I found on the brow overlooking the glaciers two stonemen, tapered up with scrupulous nicety—memorials of some wandering herdsman, or altars to the spirit of the mountains? Hardly, I think, the work of surveyors, for hereabouts the Five-verst Map is far astray. Whoever the builder was he proved his taste. The view from this point is superb. The spectator stands as nearly as possible on a level with the glacier basin, out of which rise the great walls and buttresses, heavily draped in hanging ice and snow, that support the five crests of Shkara. To the right extends the snowy ridge that encloses the Nuamquam Glacier. Behind, the ground rises to a low col in the grass ridge that divides the Ingur from the Scena, the western branch of the Skenes Skali. If any attempt should be made on Shkara from this side it must be from the depression (I fear it is inaccessible on the northern side, and therefore no pass) between it and Djanga. But the whole length of the ridge and four peaks would have to be traversed in order to reach the fifth and highest. The proper base for an attack on the mountain is the névé of the Dychsu Glacier. There is no known pass to the north side from Ushkul direct. The watershed may certainly be gained without much difficulty by the spur separating the Ingur and Scena sources. But as far as I can judge from my 1868 sketches, the descent on to the Dychsu Glacier would be by snow- or ice-slopes too steep for Caucasians. Without more time than I could well afford I could not venture to try the peak from a base beyond the great chain.

I was more than repaid for my second visit to the wild glens of the Skenes Skali by the glories of scenery which had been almost entirely veiled from us in 1868 by rain and mists. I know of no view of a snowy mountain from a valley in Alps or Caucasus that equals in romantic grandeur and scenic completeness the view we had of Shkara from the solitary hamlet in the glen of the Scena. The mountain resembled strangely in the shape of its crest Monte Rosa from Macugnaga; but here there was none of the bareness and ugliness of foreground

which deface the Alpine view. Shkara towered above the green downs, which in their turn melted into forests of the light varied foliage that renews itself every season, birch and beech, alder and plane. From the depths of the defile the pines struck up the hillsides in solid dark columns. On a little plain in the foreground rose the smoke-pillars of half a dozen humble homesteads, raised since my last visit by emigrants from Ushkul. The neighbouring glades had been cleared of their gigantic flowers, and yellowing barley now occupied them. These touches of man's handiwork served to emphasise the scale and vastness of the wild mountain landscape.

Most enjoyable of all our nights out was that we spent in a beech grove above the Zeskhu (the central source of the Skenes Skali), where, after pushing our horses across slopes which no Alpine animal could have traversed with a load in safety, we built an enormous fire, spread our sleeping-bags, and lay luxuriously upon the dead leaves, disturbed only by the alarm—a false alarm it proved—of a bear.

In this part of the chain the glaciers on the southern side are but small, as is shown by the perfect clearness of the water in the Zeskhu and the Skenes Skali.* This arises not from the lowness but from the configuration of the watershed, the névés of which fall to the north in the great glaciers seen from the Stulevesk Pass. The only tiresome part of the route to Gebi is the Noshka Pass. It is short in distance and not high, but the slopes are so steep that to get horses over is a feat not to be lightly undertaken. The western side is the worst. There seems, however, to be a way round through the valleys by which Mr. Phillipps Wolley passed.

The panorama from the grassy height in the centre of the Goribolo ridge is enchanting. Dychtau, Shkara, the crest of Koshtantau, and distant Ushba will here welcome the coming mountaineer. At the head of the Sopchetura, the first tributary of the Rion, I recognised, lying far back, the remarkable summit overhanging the upper Uruch, which I described as Vasmak Khokh,† and which M. de Déchy has photographed as Cigitvashikaia. But the beauty of the landscape lies eastward, where the long mountain spurs fall into the basin of the Rion in a succession of singularly graceful

* At Cholur the Skenes Skali was dark and thick. The turbid water must have come from some tributary in the slate range. The disused pass (Gezivesk of the Five-verst Map) by which the Suanetians used to make raids on the Balkar herds, must have lain at the head of the Zeskhu valley.

† *Central Caucasus*, p. 418.

curves, and the sunny forests are ringed with peaks running in a semicircle from the snowy dome of Bordjula, through the crowded crests that overhang the Mamisson—the Adai Choch group—to the solitary ice-capped tower of Shoda.

The Ascent of Shoda.

I had gained a day on our 1868 ‘times’ in crossing the Skenes Skali passes. Consequently on reaching Gebi I found I had still forty-eight hours to dispose of. I had to decide whether I should employ them in climbing Bordjula in the main chain (14,083 feet, R.S.), or the outlying Shoda (11,120 feet, R.S.) In so far as it was the greater mountain Bordjula was the more attractive. But, on the other hand, the way to it was the track which I had already followed to the Gurdzivesk pass in 1868, and the ascent of the final peak seemed too straightforward to be interesting as a matter of climbing. Shoda would give an entirely new excursion, and its moderate height was more than compensated for by its position, outside the main chain and completely dominating its immediate neighbours. Moore and I had often talked of it as a desirable expedition. In the end I decided for Shoda.

If the way to the top proved easy to find it was clear that the ascent might be made from Gebi in one day. But we had arrived after sundown, and had to look after all the details that must always be seen to in the Caucasus. We resolved, therefore, to give ourselves the next morning and go up in the afternoon to a bivouac. Thus I hoped to secure time for some solid topographical work on the summit.

Gebi stands 4,200 feet above the sea, in a very picturesque situation, its houses clustered on a knoll commanding the valley. The village green is a scene of constant movement: Mingrelian visitors arriving; Tartars from the north, with their herds and horses, on the way to the markets of Transcaucasia; maidens of the place clad in bright red robes and turbans made of parti-coloured handkerchiefs, fastened over a long white cloth, which falls down the back, and adorned with amber and shell necklaces, gossiping round the fountain, or amusing themselves with songs and dances; smaller children carrying home on wooden platters portions of the ox that had just been slaughtered in the churchyard, and much terrified by large dogs disposed to claim prematurely a share in the feast: such were some of the elements of the shifting groups that passed before our balcony. Many of them stopped to cheer—or jeer—an individual who was

confined in an enclosure close at hand. We enquired the cause of his detention, and were told that he was expiating at the Starchina's orders the offence of having been 'drunk and disorderly.' It was simply a substitution of the pound for the stocks.

Gebi struck me as having become quite a centre of civilisation since my last visit. The new church, though a plain enough specimen of modern Georgian architecture, gave an air of respectability to the village. The priest talked Russian and addressed me constantly as 'professor.' An influential native desired me to visit a mineral spring hard by, said not to be inferior to the Narzan of Kislovodsk, and suggested I should start a bathing establishment! Here was a gratifying evidence of the march of ideas. Materially, too, we were excellently provided for. Cheese and eggs, beef and fowls, potatoes and vegetables, corn, sugar, and capital wine were to be had for the asking—that is, at moderate prices, and without too much bargaining. Surprises never ceased. A peasant presented himself, who knew at least all about the approaches to our peak, and discussed most intelligently the best way to its summit. Horses were at our disposal whenever wanted, for we had parted on the best of terms with our Jibiani men and their animals.

Yet there was one luxury, as of old, at first unobtainable—any approach to privacy. However, on the second day, either the curiosity of the Gebiites was satisfied, or their harvest labours called them afield, and we were left comparatively to ourselves in the bare but pleasantly situated court-house.

The path to Shoda crosses the Rion and then traverses the cornland on the right bank of the river and the scattered streamlets of the water which descends from the glacier hanging high on the brow of Shoda, which is seen from the village. In place of following the narrow glen from which this stream emerges, we climbed by steep zigzags through a noble beech-wood. Some 2,000 feet above the valley the ascent ended and the track turned a sharp corner into a glen east of Shoda. From the angle there is a splendid view of the great peaks above the source of the Rion,* and of Bordjula immediately opposite. When we had turned our backs to this vista and entered the glen the scenery carried our memories away to the dolomites; beech-woods, craggy peaks, an open meadow, steep slopes dotted by haystacks: we might have been in the Trentino. The shepherds' shelter, luxurious for

* See *Central Caucasus*, p. 237, and *Alpine Journal*, vol. xii. p. 318.

the Caucasus, a tent-shaped hut of boards well lined with hay, was deserted. The sunset was superb, and from the meadows close at hand the Adai Choch group was splendidly seen. Two peaks were added to those I knew in 1868. One, already seen from the Goribolo, at the back of the double-headed snow-peak, occupied the position where a peak of 15,240 feet is indicated on the Five-verst Map.* It, too, was double-headed, but the tops were mainly rock.

Further to the N.W., somewhere between the Skatykom and Karagam névés, rose a blunt-headed snow-crest which held the sunset last, and must be among the highest. We know as yet but little of the internal structure of this interesting group, for my explorations were confined to the Karagam Glacier, and M. de Déchy had no view from his peak. I hoped to learn a good deal more from the top of Shoda. After sunset a sudden chill south-western breeze sprang up and drove us into the shepherds' hut. We had better have stayed outside. It was the only occasion in the Caucasus when I suffered severely from insects. I had foolishly left below my muslin armour.

In the morning mists, for the first time for many days, were driving about. Still the weather did not look thoroughly broken. By the advice of our porter, who remained below, we went up a very steep grass-slope dotted with haycocks to the level ridge dividing the two glens that fall from the N.W. and N.E. flanks of Shoda towards the Rion valley. The grass gave place to broken crags, and in order to turn the base of a bold spur of the mountain we had to scramble across some steep rock-faces. Above these a tiresome gully—tiresome because it was filled with loose small fragments of shale, which sank under the feet almost as fast as one climbed—led up to the buttress of rock which comes down from the ice, to which on this side it affords the only access. On our right the névé ended in broken cliffs, fragments from which reformed into a small *glacier remanié* far below us under the shadow of a dark precipice. On our left the mountain-side consisted of a curious slope of wet slate lying at a very high angle, as smooth as ice and far more inaccessible. The buttress, however, formed an easy natural path. On its lower portion I found a tuft of hay, obviously part of the stuffing of some hunter's sandal. There were no other traces of previous visitors to the mountain, and none at all on its summit. But, as it requires no ice-

* See plate, *Alpine Journal*, vol. xiii. p. 354.

craft, there is no reason why it should not have been climbed by Russians or natives. Shortly after we gained the ridge all distant view was lost. We trudged up the slopes of the snow-cap (20 minutes' walk) in grey fog. The top was a long level snow-ridge, resting on its farther southern side on rocks, which afforded shelter from the chill wind. We waited long but vainly. Some skirts of the veil were raised, but only sufficiently to show us the basin of Oni and the steep rough slopes, almost bare of snow, leading down towards the forests of the Radsha. Not a glimpse of the great chain was granted me. It was an ungenerous trick of the weather, for by evening the sky was again cloudless. From its position, absolutely isolated, 1,500 feet higher than anything near it, well thrown out from the main chain, and dominating all the lowlands, Shoda must command a glorious panorama. It occupies a post which may be compared to that of the Dent du Midi in the Alps.

At last we gave up all hope and descended. From the foot of the shale chimney we ran straight down a very steep hillside among streams and white rhododendrons into the head of the glen where our camp was. There was a snowbed, not worthy to be called a glacier—except perhaps in the United States—at its extremity. The flowers grew richly beside the undulating track, which, leaving the stream to fall directly to the Rion, brought us back to the meadow-platform, where our Gebiite was waiting for us. We took afternoon tea, and then sauntered down through the beautiful beech-woods, enjoying from time to time glimpses of the snows opposite, as the perverse mists melted away, one by one, from the peaks of the great chain.*

Next morning we rode to Oni, where we were delayed for horses. A long day's ride took us thence to Khibouli, and a shorter one to Ghelathi and Kutais, where we caught the afternoon train to Batoum.

I must compress what I have to say of the scenery of the Rion valley and of this part of the Caucasian lowlands. The scenery of the Upper Rion is less grand than that of Suanetia; the snowpeaks are less majestic; the mountain

* By taking a straight course up the ridge dividing its two northern glens Shoda may be climbed, I think, in six to seven hours from Gebi. It would be possible to traverse the summit to Oni. The climb from Oni (9,000 feet) would be very long, hot, and tiresome. The peak, though almost snowless on the southern side, is very conspicuous from the lowlands.

horizons not so wide and varied. Much of the Gebi branch of the valley is defaced by torrents, and the snowy chain is often hidden. But the landscapes near the Rion sources, and in the eastern head of the basin, round Shiora and Gurshavi, are very beautiful. The charm of the Caucasus, the close combination of snows and forests, is nowhere more conspicuous than at the foot of the Mamisson. To Suanetia the scenery of the Rion or Upper Radsha bears a relation similar to that the Oberland bears to the Pennines. The parallel must not be closely pressed; but it may serve to give roughly my impression of the relative scale of the mountains.

The Mamisson Pass, if the road is kept in a carriageable condition—doubtless a great ‘if’—will certainly give travellers a glimpse of the character of the Central Caucasus, which at present they do not get from the Dariel and Krestowaja Gora. By this new road Oni will become an easy two days’, and Vladikafkaz probably a four-days’, drive from Kutais. It will be possible to reach Gebi in two and a half days, though carriages of course will not go beyond the junction of the streams, two hours below that village, where the Mamisson road turns up the eastern tributary.

The scenery of the Rion valley below Oni is not remarkable; at least it would not be thought so on the Italian side of the Alps. The gates or gorges of the stream are picturesque, and have been much admired; but they are short and not to be compared to those of Val Mastalone. Nor are the impending mountains as beautiful in form as those of the Italian slope. The finest piece of scenery on our way down was on the short cut across the hills over the Nakarala chain behind Nihortsminda. Here, under singularly happy conditions, on a glorious summer evening, I thought the forest that clothes the broad limestone heights, with its stately pines and beeches, its rich undergrowth of rhododendron, box, and laurels, its sky-reflecting pools, and the distant views of the flushed snowy chain and the blue waves of lowlands, one of the most romantic scenes that had ever rewarded my wanderings.*

I slept that evening at a railway inn bearing the sign of the *Gostinitza London!* The coal mines of Khibouli have

* The Skenes Skali valley above Muri is one long romantic defile as far as Cholur. Telfer and Von Thielmann have described at length this road, or I should insist more on its beauty.

brought a line, which should be open this summer, to the foot of the forest ridge.

The outer limestone range, represented by the Quamli and Nakarala heights, marks the extreme edge of the mountain district. The remainder of the ride to Ghelathi and Kutais lies over undulating foothills. On the ridges, fringed with oak copses and azalea commons, the landscape, spacious and sunny, is illuminated from time to time by distant glimpses of the Suanetian snows, the horn of Tetnuld or the white wall of Shkara and Djanga. The valleys are featureless and tame. In the vicinity of Kutais interest may be found in the hamlets and houses of the old Mingrelian gentry, low one-storeyed dwellings embowered in vines, figs, peaches, and pomegranates. Groups of tall men and comely women sharing their meals under the shelter of the pine and plane, or of orchard trees, bring back to the mind Horatian measures. After this fashion surely must the classical world have enjoyed country delights. But Mingrelia has no poetry. It required the contrast and stimulus of a great capital, 'Fumum et opes strepitumque Romæ,' to create those admirable Alcaics which Eton stamps into the memory even of her dullest pupils.

But the next travellers will care for none of these things! They will take the train. This, I fear, may not be the only result of the new line. How long will it be before the nymph of the Nakarala has to lament the fall of her forests? How long before her tallest pines will be turned into 'sleepers,' or her box-trunks cut up into blocks to suit the purposes of some illustrated newspaper? The best one can wish is that they may, some of them, serve to illustrate the glories of their native heights, to carry back the memories of a few, and to stir the imaginations of many with shadowy outlines of noble scenery. Should these brief papers have in any degree a like influence, should they contribute to the fuller use and enjoyment by Englishmen of the Caucasus, to a revival in the Alpine Club of mountaineering adventure of the old sort—by which I mean the sort that relies on skill and judgment even more than on luck and hardihood—they will not have been written in vain.*

* See the *Proceedings of the Royal Geographical Society* for June last for a fuller account of Suanetia and its inhabitants, as well as for details as to the construction of the map published herewith. A paper on the *Peaks, Passes, and Glaciers of the Caucasus* will be published in the same Journal in December next.

Hints for Travellers in the Caucasus and Elsewhere.

Nomenclature.—The nomenclature of peaks is always a difficulty. The same difficulties arise in all countries. In the first place the mountain-people often speak a different dialect, or a different language, from the surveyors or travellers. Again, unless in the case of very prominent or isolated peaks, they frequently do not give a distinctive name to the individual summits. Or if a peak is conspicuous from two valleys it has two names, one of which has to be preferred. Sometimes a whole chain is named from the pasturage at its base, or from the valley that runs along it. This seems to be the case with the chain dividing Chegem and the Adyrsu, where three peaks are in the map described as Adyrsutau 1, 2, and 3. In such cases, when the hunters of the locality, generally the only authorities, can give or agree on no name, a peak may fairly be called after the glen or pasture nearest it, and from which it is best seen. Again, where a peak has two names, the one given to it on the side from which it is most seen should prevail; for instance, *Ushba* will be better than any Tartar name (if there is one) for that peak. A name given to a *massif* may always fairly be applied to its loftiest point, as was done in the Alps in the case of Monte Rosa and Piz Bernina. Where no local name is forthcoming, a name may suitably be found in some characteristic of the peak. One main point to keep in view is that the Government Survey is, or ought to be, the final authority, and that, when its decisions have to be altered, much literary and practical inconvenience is caused.

Geology.—Apart from their primary objects, mountaineers may find opportunities far exceeding those of the ordinary tourist for observing and collecting facts and specimens illustrating the nature and products of their field of work. *E.g.* They may collect (carefully labelling in each case the height and position from which they are taken) specimens of rocks, particularly of the highest rocks among the snowfields. Bits of the prevailing rock (not crystal and spar, which look pretty) are most useful. They should, as a rule, be broken off *in situ*, and not taken from moraines. But a collection of stones from the terminal moraine of a glacier, specified as such, will be valuable as showing roughly the geological structure of the ranges forming the glacier's basin.

Mineral springs, hot springs, and their temperature where they issue from the ground may be profitably noted, together with any evidences of volcanic action, recent or ancient.

Glaciation, &c.—The snow-line and timber-line (that is, the upper limit of forests) should be noted, and their variations according to rainfall, exposure, prevailing winds, &c. The heights of the lower ends of glaciers should be observed, and marks (with a date) placed on the rocks showing the exact present position of the end of the ice, so that its future movement of advance or retreat can be ascertained. Erratic boulders should be reported on, and unmistakable ancient moraines; rock surfaces scraped and polished by ice (*roches moutonnées*) are also worth notice, though less positively recognisable.

Botany and Natural History.—Rare specimens of the flora, particularly from the *highest* rocks, should be taken. Flowers grow at an extraordinary height (over 13,000 feet) north of the Caucasian chain among the snows on exposed rocks. Bulbs or seeds of any unusual species should be obtained whenever possible. Any uncommon objects in natural history (entomological, &c.) may of course profitably be collected.

Photography.—Photography is invaluable in the Caucasus, not only for topographical delineation, but also for obtaining types of the population, their dwellings, domestic furniture, antiquities, monuments, &c.

Anthropology.—Measurements of natives, made according to the principles set out in the Royal Geographical Society's 'Hints to Travellers,' p. 222, would be valuable.

Local Traditions, &c.—An interpreter of intelligence may aid in collecting evidence of old customs, religious or legal; forms of worship and modes of tenure of property. Also by copying down local ballads and traditions. In the Caucasus at this moment there is an opportunity in this respect which will be lost as civilisation and schools spread. Old burial-grounds, specially those where ancient objects have been found, should be noted.

Instruments.—Information as to instruments and instruction in their use may be obtained from the Map Curator of the Royal Geographical Society at 1 Savile Row on any day (except Saturdays) between 10.30 A.M. and 5 P.M.

D. W. F.

THREE NEW ASCENTS' IN THE BERNESE OBERLAND.

BY H. SEYMOUR KING.

(Read before the Alpine Club, May 1, 1888.)

WRITING a paper nowadays for the Alpine Club has become strangely akin to the task of the children of Israel in Egypt, and consists largely, I fear, of making bricks without straw.

The Alps have been so thoroughly explored by our predecessors, that only here and there the tiniest scrap of stubble remains ungarnered. A few years ago the humble adventures I have to narrate this evening would have been crowded out by papers relating doughty deeds of daring. But the necessity of providing the monthly paper for consumption by the Club, coupled with the decreasing number of Alpine ascents which by any stretch of words can be called *new*, has driven the Secretary to request me to fill up a gap to-night with a short account of three excursions I made last year, and to inflict upon you what I fear can only be considered a tale of very trivial adventure. At the same time it may be noteworthy, as showing that the Alps are