

M. de Déchy may be held to have shown that the incidents of his climb, as now elucidated, on the whole fit better with Adai Khokh than with any of the neighbouring and lower peaks.

It is to be hoped that some strong party will before long camp on the upper Zea Glacier, climb the two still maiden peaks between Adai Khokh and Khamkhaki Khokh and attempt to traverse Adai Khokh by a combination of M. de Déchy's and Mr. Holder's routes. There is much besides in this noble group that awaits the explorer. I may add that in Dr. Ronchetti's photographs the N. side of our 1889 pass, now called the 'Freshfield Pass,' looks very awkward, and any party who may wish to repeat it will be well advised not to take it—as early in the season we did—from the South.

Dr. Ronchetti's article is illustrated by a very instructive panorama of the Zea summits, and details of the eastern face of Adai Khokh may be studied in the telephotographic view on p. 39 of vol. i. of Déchy's 'Kaukasus.'

THE EAST OR MACUGNAGA FACE OF THE NORDEND.

By J. P. FARRAR.

It may be interesting to record here all the ascents of this face so far as I can trace them. The article in 'Bollettino del C.A.I.' vol. xxvii. 1894, 'Il Nordend,' should be studied, as it is accompanied by a sketch map of the routes, while the frontispiece to the volume is one of the finest pictures of this almost unrivalled face which I have seen.

1. July, 1876.

Signor Luigi Brioschi. Guides, Ferdinand Imseng, Abram Imseng.—They camped at x shown in 'Bollettino,' xxvii. p. 51, following the *right-hand* route. Left Macugnaga 2 A.M., arr. bivouac 7 P.M. Left bivouac 2 A.M., reached summit 7 P.M. They always kept to the right. No original account of this great expedition appears to have been published.

2. September 11, 1893.

Signor Carlo Restelli. Guides, Mattias Zurbriggen, Luigi Burgener.—This expedition is fully described in the 'Boll.' above referred to. They left the Marinelli hut 2.30 A.M., arr. summit 6 P.M. Forced to bivouac on the way down. Their line is the *left-hand* route in the sketch, and this line was invariably followed by Zurbriggen in his later ascents. It appears, however, much the more exposed to stones.

3. September 9, 1898.

J. P. Farrar. Guide, Daniel Maquignaz. Porter, G. B. Pélissier.—Note of ascent attached. We followed approximately the right-hand line.

After leaving the avalanche bank at the foot of the face proper, the way lies for some hours up a broken rock face, so much broken up that even if stones did fall there would be ample cover. Higher up the arêtes become more defined, though there is no real main arête except the N. arête leading from the Jägerjoch (far away on the right).

Left Marinelli hut 4.15. At first to right of arête above the Marinelli couloir, then gained broad snow ridge (avalanche bank) leading to rocks forming the base of the mountain. Crossed Bergschrund rather to right of highest point of avalanche bank. Reached rocks 6.15. Straight up over steep at times, but easy rocks, rather to left, overlooking a flat slope of shaly rocks. Breakfast 7-7.35. Followed the granite till 8. It ends in a big grey-faced rock.* Then rock changes to rotten reddish. Pass a sleeping place 8.10, then up a stone couloir immediately behind it. Aim for left of big overhanging red wall. Just under this forced away to left over easy Geröll, then up to right and over steep slabby rocks to foot of red wall (foot slabs put on rope 9.5, slabs bad, top of slabs 9.25). They lead to a snow ridge abutting against main mountain mass. Cut up this (ice) to the right to gain its crest (stones fell either side). Now much higher than Jägerhorn. Follow crest to rocks again 9.45. Rested till 10.5. Follow then ridge bearing generally to left till this ridge runs out in a short snow arête against the left foot of a big broken red ridge to right 11.5. Crest of this up slabs 11.30 (steep). This arête at first fine, well stepped, then forced off it on to its right ice slope for a couple of steps, then over rocks, finally cut up ice-slope to foot of arête, bearing away to right 12.50. Rested till 1.10. Leave the snow arête and take to rocks on left. Became gradually steeper and more difficult (arête above-mentioned abuts against impossible cliffs). About 1 hour step-cutting. At 2.15 quit arête, crossing a small couloir (twelve steps) to right to main mass of mountain, at top of which loomed a big red summit. Up these rocks to right to a short snow ridge 2.40, which led at 2.45 to main ridge close to summit. This is a big broad ridge running N.E. to Jägerjoch. Dep. 2.50. Summit of Nordend 3.5; cards 'Schuster Felix, Friedmann and Krafft.' Dep. 3.25. Cut all way to Silbersattel 4.45-4.50. Took to rocks of N. face of Grenz Gipfel immediately to right of a slope of snow running up just to right of main watershed ridge to some white rocks. Struck arête close to Grenz Gipfel 5.30-5.40. (Grenz Gipfel is

* See Forbes, *Travels through the Alps of Savoy* (new edition 1900, by Dr. Coolidge), p. 348: 'The rocks are a fine-grained gneiss and a beautiful silvery mica slate.'

apparently a grey one.) We went to highest point on the E., but not to the grey point. 5.50 Ost Gipfel (note of Henry Speyer and a bit of old wood initialled, illegible). Top Dufour 6.4, dep. 6.12. Sattel 6.47, rocks 7.42, Bétemps 8.30.

4. August 14, 1900.

Signor A. Facetti. Guide, Antoine Maquignaz. Porter, B. Maquignaz.

Signor G. Ongania. Guide, Corsi (the survivor of the Imseng-Marinelli accident). Porter, M. Zurbrücken.

Cf. R.M. 1901, p. 241.

This joint party left the hut 2.50 A.M. intending to follow Brioschi's—viz. the right-hand—route. They gained the base rocks of the Nordend at 5.* 'At this point there commenced a magnificent scramble over the rocky rib composed of enormous superimposed boulders. . . . The difficulties are not extreme, but continuous, and the vertical boulders are not provided with a superfluity of good holds and require all our care. . . . Midday brought us to a little platform which apparently forms the terminus of the rock rib. We are a little higher than the famous snowy Y† so obvious from Macugnaga. . . . The good rock buttress changed into a knife-edged ice-crest marked at intervals by a treacherous snow-crust . . . and so sharp was the edge of the crest that the bit forming the bank of the right branch of the Y had to be traversed mostly à cheval . . . the lateral gullies being of an appalling steepness.' Continuous step-cutting fell to Antoine Maquignaz. There followed what the author terms the 'Lenzuolo,' or very steep icefield or small glacier above the Y.

'About 5 P.M. we attain, crawling between two enormous boulders overhanging the abyss, the spot where the névé of the "Lenzuolo" joins the snows of the other slope by means of an icy crest shaped like the back of a mule . . . with the usual treacherous snow crust, and required continuous care and hard step-cutting.

'At 6 we attain the base of an extremely steep gully which appears to lead to the (summit) ridge, . . . but a volley of stones greeting our arrival at the base of the gully sent this idea of mounting in it far out of our heads. Accordingly there remained no other way but to gain the edge of the N. bank of the gully and by it to join

* Major Strutt has again supplemented my scanty knowledge of Italian by making a free translation of the whole article from which these extracts were taken.

† This is a small snowfield on the face of the shape of the letter Y. It is marked on the sketch, p. 57, *Boll.* xxvii. It is frequently referred to in accounts of this ascent, but ought not to be touched on either of the routes so far made up this face. Cf. also Sir Martin Conway's paper *A.J.* xi. 193 seq., 'The Passes across the Weissthör Ridge.' On the panorama accompanying this valuable topographical study the route marked up the Nordend is approximately Brioschi's except that the lower part is shown too much to the right. The Y snowfield is seen about one inch directly under the summit.

the summit ridge. . . . But it is formed of a rock wall rather overhanging than perpendicular, almost destitute of holds, and covered with a sheet of hardest ice. The two Maquignaz are simply marvellous in the keen struggle to make height bit by bit. . . . This was without doubt the most critical moment of the whole day, but fortunately the end of the struggle. Having overcome some tens of metres, the holds became first more frequent, then free from ice, then better; the edge of the gully is attained; finally a last slope of fairly good soft snow; and behold us at length on the summit ridge, but a few paces from the actual top! It was 7.20 P.M.'

The party finally reached the Bétemps hut at 2 A.M. Signor Facetti lays great stress on the 'long and continuous difficulties' of the ascent.

5. August 17, 1901.

Dr. Fritz Reichert, Herren Dorn and Brindlinger.—Left hut 1 A.M. At 3.10 they took to the Marinelli couloir itself and mounted in that for two hours close to the rocks of the Nordend, then climbed to the crest of the ice ridge on right. This got extremely steep (rocks) and greatly delayed them. At 4 P.M., at a height of 4200 m., they got to the snow slope, which went at first well, but then turned to hard ice, 55°. Cut steps for 4½ hours. At 9 P.M. reached the S.W. arête of Nordend N.E. of the Silbersattel. Reached summit 9.30 P.M. Attempted to descend, but forced to bivouac on the rocks of the face of Grenz Gipfel. Herr Dorn amused himself by making a night ascent of the Dufourspitze. Bivouac midnight to 4 A.M. Thus their line lies even more to the left than Zurbriggen's route and is nearer to the Marinelli couloir.

6. August, 1905.

Dr. Graziadio Bolaffio of Triest. Guides, Mattias Zurbriggen, Cyprien Savoie.—Dr. Kugy was kind enough to tell me of this ascent. It followed the same line as his own detailed below.

7. August 7, 1906.

Dr. Julius Kugy. Guides, Mattias Zurbriggen, Joseph Croux.—Camped high up about 3800 m. in the rocks left under the foot of the Y. Followed Restelli's route. Left camp 5 A.M., top about 2.30 P.M. Mountain in good order, little ice on rocks. The ice ridge at the end of the great rock buttress between the Y and the hanging glacier to the left, and which leads to the summit wall, cost two hours' very careful cutting. Position very exposed.

'While climbing the great rock buttress we kept on the lower middle parts more to the left than the earlier climbers by this route. Zurbriggen's line of ascent is always to the left of the Y, whereas the Val Tournanche guides cut across the lower part of the Y,

climb up on the farther side, but then have to return in a great curve.* . . .

'The tour much exceeded my expectations in grandeur and beauty, but is dangerous to a high degree from stones.'

'The view from the great final wall down into the ghastly ice gully of the Marinelli couloir is doubtless one of the great sights of the Alps.'

'I should call the Nordend my second greatest expedition.'

Cf. 'Ö.A.Z.' 1907, p. 10, and my friend Dr. Kugy's letter to me.

8. September 7, 1906.

Professor Giuseppe Lampugnani. Guide, Mattias Zurbruggen.—The following is an extract (translated) from my very amiable friend's letter of April 1912:

'My ascent was easy in point of view of orientation, as I was accompanied by Mattias Zurbruggen, who had already made two ascents this same year,† one with Bolaffio and the other with Kugy. We followed Restelli's route, . . . but at the foot of the great ice arête we were able to make a very useful variation which spared us the long axe-work along the crest of the shoulder. At the foot of the arête we took to and cut up the extremely steep couloir on our left which discharges into the Marinelli couloir, gaining thus the rocks of the wall (paroi). These rocks are not difficult, but I was not able to appreciate very closely the technical difficulties, as I was that year very highly trained. I think in any case that the Nordend does not present any enormous difficulties, but it is continuously trying and long. Its very great importance is derived from the continual danger of avalanches of stones, and of atmospheric changes, which at that altitude must be terrible. . . .

'I am aware that several ascents were made last summer. The mountain, however, in such admirable conditions as then reigned lost much of its aristocracy.

'My ascent was made on September 7, 1906. We left the hut 1.30 A.M., passed Kugy's bivouac at 4, just as the moon went down, and reached the summit about 11.30 (halts came to about two hours). The rocks dry, little ice but black, many stone avalanches.'

See also 'R.M.' 1907, p. 116.

* No doubt Dr. Kugy refers to the fourth ascent detailed above, but it will have been seen that the great Val Tournanche master, Daniel Maquignaz, chose quite independently the much safer right-hand route of Imseng and Brioschi, although Luigi Delponte, brother of Mattias, who brought up our provisions to the hut, pointed out and strongly recommended the left-hand route followed by his brother on the second ascent. Daniel, however, flatly declined to have anything to do with it, and during the whole of the day of our ascent we were never threatened by falling stones or ice. The day was, however, perfect, no wind, and no snow on the lower rocks. Nothing fell all day in the Marinelli couloir, which was, however, far away on our left. It is, however, well to arrive at the top of the avalanche bank referred to about daybreak.

† It will have been seen that Dr. Bolaffio's ascent was the previous year.

9. 1906.

Signor Antonio Castelnuovo and two others.—They were forced to turn round a few metres under the summit on account of violent wind, and descended the same way. See 'R.M.' 1907, pp. 112 and 168.

No particulars have ever appeared, I believe, and I do not know whether the two others were Signori G. Bompadre and P. Sommaruga, who were killed with Signor Castelnuovo in 1909 in attempting to repeat this same ascent. This accident was fully described in 'A.J.' xxiv. 673–674. It is very doubtful whether in 1906 the party attained anything like the altitude they imagined, as they would never have ventured on the terribly arduous descent had they been 'a few metres under the summit.'

It will be remembered that the bodies of the unfortunate travellers were never found, although the face was thoroughly explored from above and from below by search-parties of guides. Some of their effects were, however, found by Mr. Oliver's party in 1911, as described in 'A.J.' xxv. 751.

10. 1910.

Signor Oberto of Macugnaga with Macugnaga guides. No particulars are available.

11. August 11, 1911.

J. E. C. Eaton, E. G. Oliver. Guides, Jachini Battista of Macugnaga, Julius zum Taugwald, Heinrich Burgener, Ferdinand Furrer.—For details see 'A.J.' xxv. 751.

12. August 18, 1911.

Dr. O. K. Williamson. Guides, Jean Maître, Heinrich Fux, and a porter.

'Started 2.38 A.M. Ascended (obliquely to the left) to a snow ridge on the true left of the Marinelli couloir. We then traversed to the right across a couloir which is somewhat dangerous from falling stones and so reached the E. arête in 2 hrs. 25 mins. from the start. We followed this as far as its junction with the main N. arête. The climbing was at first on loose red rocks which after a time steepened. A short ice arête was climbed, then rocks alternating with snow. The ridge then became narrow, the rock grey and firmer than below, then more level. The ridge then became steeper and less well defined. On its true left here is a couloir bounded on its other (N.) side by a steep, apparently inaccessible, wall of rock. The crest of the arête was turned by the rocks at the side of this couloir and this was the most difficult part of the whole climb. The party regained the actual crest at the point where the slope eased off. Easy loose rocks then brought them to the main N. arête 5 hrs. 50 mins. from point where arête had been first struck. 55 mins. later the summit was reached (1.55 P.M.). The Bétémps hut was reached in 3 hours via the Silbersattel, and the Rifelhaus in 2 hours from there (8.45 P.M.).

The conditions were very favourable except on N. arête where there was some ice. Many and long halts for photography.

The times given above are actual times of walking.

Summary of times (approximate) :

Ascent (from hut)	= 9 hrs. 10 mins.
Descent	= 4 hrs. 50 mins.
Halts	= 4 hrs. 0 mins.

Total = 18 hrs. 0 mins.

13. September 2, 1911.

L. W. Rolleston. Guide, Josef Lochmatter ; Porter, Albert Chanton.

E. A. Broome, H. K. Corning. Guides, Heinrich Fux and Brantschen—See Mr. Broome's paper in the present issue of the Journal.

The quite abnormal conditions of the splendid 1911 summer have unduly depressed the former reputation of this great expedition. I do not, however, hesitate to repeat my previous description of it—viz. :

‘ In any case the ascent, even under good conditions, is very long and makes great demands on the endurance of the party, although the technical difficulties when the mountain is in good condition are not so serious as might be expected.

‘ It cannot be too strongly urged that an expedition of this magnitude imperatively demands that the rocks shall be dry (for it is for the greater part of the way a rock climb), the weather perfect, and the climbers thoroughly experienced and in first-rate condition.’

THE BRENVA ROUTE UP MONT BLANC.

MR. COOLIDGE'S ASCENT IN 1870.

DR. WILSON has received from Mr. Coolidge (‘ to be used as desired ’) the following interesting account of his ascent of Mont Blanc by the Brenva route on July 15, 1870. It is clear that Miss Brevort's remark that the party came into sight at the top of the Corridor must not be taken literally—as Mr. Coolidge states, both here and in his note in the ‘ Alpine Journal ’ (vol. v. p. 135), that they kept to the left of the Col de la Brenva, and joined the usual Corridor route up Mont Blanc near the Petits Mulets. To anyone familiar with the locality it is easy to follow his general route, though the crossing of numerous stone-raked