

Notes on Mont Everest.

By General J. T. WALKER, C.B., late Surveyor-General of India

IN his notes on Colonel Tanner's Report in the November number of our 'Proceedings,' Mr. Douglas Freshfield, Sec. R.G.S., repudiates the name "Mount Everest," which has been attached to the highest yet measured on the earth's surface, for the following reason:—

"The proper rule seems to be that where a characteristic local name exists should be kept, and that what may be called personal or monumental nomenclature should be reserved for the nameless summits now frequently the subjects of braided arrangements. . . . M. Reclus and the editor of Petermann's 'Mittheilungen' followed by a large number of Continental geographers, adhere to the high-sounding Gaurisankar in place of 'Mount Everest or 'Everest,' and I propose to use the influence I may possess over the literature of orography in the same direction."

I propose to show how the peak acquired the name of Everest in the first instance, and subsequently that of Gaurisankar.

In 1856, Colonel (afterwards General Sir Andrew) Waugh, Surveyor-General of India, informed this Society that a peak, designated X in the official list of the great Himalayan peaks, had been found to be higher than any other hitherto measured in India; that it had no local name which the survey officers had discovered, or were likely to be able to discover while debarred from entering Nepal; that he always scrupulously adhered to the rule of assigning to every geographical object its true local or native appellation; but here was a mountain, most probably the highest in the world, without any coverable local name; thus, the privilege, as well as the duty, devolved on him "to assign to this lofty pinnacle of our globe a name which it may be known among geographers, and become a household word among civilised nations;" he had determined therefore to name it "Mont Everest" after his late respected chief and predecessor.

Six months afterwards, Mr. B. H. Hodgson, who had resided in Nepal as Political Officer for twenty years, intimated to our Secretary that "the mountain in question does *not* lack a native and ascertainable name; that that name is *Dévadhúnga*, Holy Hill, or Mons Sacer; and that it is expressly referred to under that name in our Journal." Mr. Hodgson at the same time wrote to the same effect to the Royal Asiatic Society, and received the following reply, accepting "*Dévadhúnga*" and repudiating "Everest":—

"Your letter of the 27th October, together with your observation on the incongruity of assigning a European name to Indian localities already provided with native appellations, was received and read at our last meeting of the 17th inst. and I have the pleasure to inform you that the members present unanimously expressed their concurrence with your view of the case.—E. NORRIS, Sec. R.A.S."

Thereupon Colonel Waugh convened a Committee of four officers, one of whom was Lieutenant (now Major-General) Tennant, R.E., to report on the subject, which they did very fully, their reports filling several pages of vol. ii. of our 'Proceedings,' 1858.

They came to the conclusion that the identity of Dévadhúnga and Everest was not only doubtful, but far from probable. Mr. Hodgson had written under the belief that Everest was so remarkable a natural object that it would not have been creditable to him, after twenty years' residence in Nepal, had he been unable to identify it; remarkable it doubtless is, from some points of view, but not from any part of Nepal accessible to Mr. Hodgson; at Kathmándu, where he resided, it is probably wholly cut out from view by a great intermediate mountain which culminates in peak XVIII. (height 22,000 feet), and if visible at all, it must be of *apparently* less elevation than that peak. In transmitting the reports of the Committee for publication, Colonel Waugh observed:—

"You will perceive the gist of the question is not whether the mountain should be called Mont Everest, or by its true native name (which is a principle not disputed by any one), but whether it can be called Deodangha without risk of error, in the absence of satisfactory proof that this is really its native name."

In 1862, the Messrs. Schlagintweit published vol. ii., *Hypsometry*, of their 'Results of a Scientific Mission to India and High Asia,' from which it appears that Hermann Schlagintweit had visited Nepal in 1857, and ascended a hill named Kaulia, a few miles north-west of Kathmándu, whence he saw a distant snow peak which he believed to be Everest and was informed by the natives that its name was Gaurisankar. He says of this peak,—

"I saw it first from the Singhalila range (on the Sikkin frontier) at a distance exceeding 84 miles. The Hindu name I found, when later in Nepal, to be Gaurisankar, Gauri = white or fair, a name of Purvátí the wife of Shiva; Sánkar, or Sánkara, one of the forms assumed by Shiva. Gaurisankar is the term in use among the Hindu Pandits of Nepal. The name given to it by the Tibetans, and that by which it is generally known in the northernmost parts of Nepal, is Chingopámari.

"In the Kaulia panorama it is the most eastern peak in the snowy range."

He gives the following further information regarding the name of this peak in vol. iii. :—

"Mr. B. H. Hodgson, who with his well-known scientific energy made numerous inquiries from Darjeeling to ascertain the proper native name of this peak, had the kindness to communicate to me before I came to Kathmándú the following names:—

"*Nepalese.* Devadunga, Bhairab-than, Bhairab-langur.

"*Tibetan.* Gualham, Tangla, Gualham-tangla.

"In his papers on the Himalayan Mountains and Nepal ('*Calcutta Government Selections*,' 1857, xxvii.) he had printed Nyanam, Dhevadhunga, and Bhairab-langur, as the names then most probable to him.

"However, when in the spring of 1857 my visit to Nepal enabled me to direct my telescope, in the presence of Jhang Bahádúr and several of his well-informed

Pandits, to this mountain, which is such a prominent object in most of the v the Sikkim and Nepal Himalayan crest, they most positively only called it sánkar, or Chingo-pá-ma-ri in Tibetan; and when then asked about the other they had mentioned to Mr. Hodgson, they repeatedly averred that they had clearly understood which was the particular mountain meant in the previous tions, alluding to the difficulty of finding the exact peak asked for without an definition than the latitude and longitude."

A panoramic profile of the view of the snowy range from Kaulia (on horizontal and vertical angles measured with a theodolite), chart of the geographical positions of the principal peaks and of K are given in Part II. of the Schlagintweit Atlas. The numerical v of latitude, longitude, and height are given as below * in v furnishing data which enable the true bearing, distance, and app elevation of each peak, as seen from Kaulia, to be readily calculated this has recently been done by General Tennant and myself, ind dently, with the following results:—

Peak.	Azimuth from North.	Distance in miles	Apparent Elevation.
XXI.	78 1	59·0	1 57
XX.	79 51	72·7	2 1
XIX.	80 13	78·6	1 48
XV. Everest	82 8	108·6	1 32
XVIII.	84 57	81·3	1 30

On comparing the true bearings with the order of succession of peaks from left to right, in the panoramic profile and also in the c I find that Hermann Schlagintweit has made several mistakes in identifications. In the profile, XVIII., XIX., and XX. are shown to left of XXI., which is impossible, and the supposed Everest appears a angular elevation 10' above XXI., whereas if visible at all, it should seen 25' below; in the chart the ray to Everest falls between the ray XX. and XXI., which is impossible. Obviously, therefore, Gaurisan the easternmost point of his panorama of the snowy range, cannot b been Everest, and the great pinnacle must have lain hidden away f his view by intervening mountain masses. At Kaulia he was not fac the range, but viewing it "end on," so that all the distant eastern pe

Peak.	Lat. "	Long. "	Height, feet.
XV. or Everest	27 59·3	86 54·7	29,002
XVIII.	27 52·8	86 28·5	21,987
XIX.	27 58·3	86 25·1	23,570
XX.	27 57·8	86 18·3	23,447
XXI.	27 57·5	86 5·5	19,560
Kaulia	27 47·0	85 9·0	6,977
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XIII. or Makalu	27 53·4	87 4·5	27,799
Falut	27 13·7	87 59·8	12,042

All the longitudes are 3½' less than the published G.T.S. values.

appeared nearly in a line with each other; in such a position identification would not be easy even for a person well acquainted with the topography of the country and the varied aspects of the peaks from different points of view, which he was not; he was never within 80 miles of, and, indeed, it is doubtful whether he ever saw, Everest; at Kaulia he was 108 miles west of Everest, with a number of prominent peaks between him and it. He saw a great mountain from his station, Falut, on the Singhalila range on the Sikkim frontier, which he believed to be Everest, and he made a drawing of it, from a point S.E. of, and 1007 feet lower than Falut, which has been well reproduced in colours in a large plate accompanying his volume, and is a very striking illustration of Himalayan scenery. That mountain, however, was not Everest, but another, almost as high, in its neighbourhood, Makalu, of which the summit is the G.T.S. peak No. XIII. The apparent positions of the two peaks, and the distances, from Falut, are as follows:—

Peak.	Azimuth from North.	Distance in miles.	Apparent Elevation.
XIV. or Everest	308 22	84·7	1 39
XIII. or Makalu	309 4	72·6	1 54

Thus it is geometrically certain that Everest and Makalu are nearly in the same line from Falut, and that Makalu, though 1200 feet lower, has the greater *apparent* elevation because of the earth's curvature; it must therefore shut Everest out of view from Falut, and still more so from the point whence the drawing was made. This is corroborated by the following remarks of Colonel Tanner's which are taken from the report of the Indian Survey for 1883-4:—

“Sandakphu, on the Darjeeling and Nepal boundary, commands the finest view of Everest that is anywhere obtainable from British territory. The mountain from that place is 90 miles distant, and though so remote, is a fairly striking object, and would appear to better advantage were it not that Makalu, which is 12 miles nearer, to some extent shuts out the view; and as the latter peak is exceedingly bold and picturesque in appearance, it generally comes in for more attention than its higher neighbour. . . . As one proceeds north along the Sandakphu ridge, Everest gradually becomes hidden behind Makalu, and does not re-appear until the foot of Kabru is approached. . . . With the exception of the Kinchinjunga peak, No. XIII., or Makalu, is the finest yet fixed in the Eastern Himalayas. It stands apart from the Everest group, and exposes a great mass of snow towards the Sandakphu ridge. From the south, in the plains of Bhagulpur and Purneah, it is the most striking object in the panorama of snow. It has a remarkable cup or hollow which extends for about one-third down its slope, by which it may be recognised.

Falut lies some miles to the north of Sandakphu, and at a rather greater distance from the foot of Kabru, in a position where, according to Colonel Tanner, the view of Everest is hidden by Makalu.

Hermann Schlagintweit gives a geometrical profile of the Falut panorama, showing two peaks which he supposes to be Everest and XIII., the latter under the name of Sihsur, but with the G.T.S.

co-ordinates of XIII.; he makes the horizontal angle between exceed 5° , whereas the true value is only $42'$; his drawing something very like Colonel Tanner's "remarkable cup"; he obviously have mistaken Makalu for Everest and Sihsur for Thus his statement that Everest is known to the natives by the Gaurisankar cannot be accepted.

The native name of the great pinnacle, if it has one, is still unknown to Europeans, as it was thirty years ago. The mountain masses between the Bhotia-Kosi and the Arun rivers, of which it is the highest are known to the Nepalese and Tibetans by the various designations mentioned by Hodgson and Hermann Schlagintweit, and of Dévadhúnga—the Home of the Gods—may well be preferred as in harmony with the religious instincts of the people of the country also as known to Indians and Englishmen. But we do not know what extent of region this name applies, whether to the whole mountain to a single peak, or, as is most probable, to a group of the most prominent peaks which are seen from Nepal and the British provinces. Waugh named was the pinnacle itself, not the general mountain and for this reason he called it "Mont Everest," not Mount Everest is situated on the back of the range, some distance to the north of the general line of peaks, and from most points of view in Nepalese territory it is not nearly such a prominent object as the more southern peaks XIII. (S.E. 27,800), XIV. (S. 24,000), XVII. (S.W. 22,800), and XVIII. (W.S.W. 22,000). English geographers have done quite right in associating Everest's name with this, the highest point yet measured on the surface of the earth, and Continental geographers who desire to be accurate should follow their example and abandon Gaurisankar.

Whether a higher mountain exists, anywhere, remains to be proved. Mr. W. Graham and his companion Herr Boss claim to have ascended the high peak of Kabru on the Nepal-Sikkim frontier, and from their summits to have seen Everest and two towering peaks on a far distance beyond, and they believe "the unknown peaks, one rock and one snow" to be the loftier. I have recently had an interview with these gentlemen, and I find that their ideas rest purely on eyesight and conjectural estimates of the relative distances and elevations. Everest is nearly 80 miles from Kabru, and the two peaks were believed to be about as far again beyond; they were less elevated above the horizon, but their appearance was such, that, having regard to the greater distance, it was concluded they must be higher. The only observation taken instrumentally was a bearing with a small pocket compass to the two peaks, making them "almost due north-west with a trifle west."* Nothing corresponding at all closely to them is to

* See Mr. Graham's reply to Sir Joseph Hooker, 'Proceedings' vol. vi. (1854) p. 447, on the occasion of the Evening Meeting, June 9, 1854, when he read his paper on "Travels and Ascents in the Himálaya." In the paper itself (pp. 439-40)

met with in the maps of the Trans-Himalayan explorers; but the "one snow" may very possibly be identical with the "very high snow peak" west of 87° which was seen by Pandit No. 9 on the Tibetan range north of the Dingri plateau, in much the same direction from Kabru, but about 50 miles nearer than estimated by Messrs. Graham and Boss; the "one rock" has no representative on the Pandit's map, though a pinnacle higher than Mont Everest, and so perpendicular as to be bare of snow, must have been a very remarkable object which should not have escaped the Pandit's notice. The two peaks must also lie far to the west of the "two immense mountains very distant," which are noted by Sir Joseph Hooker in his map of Sikkim and Eastern Nepal as having been seen by him from the hill of Bhomtso on the Sikkim-Tibet frontier, and which he was at first inclined to think might be identical with them.*

A special interest attaches to Hooker's observations, as they were the first ever taken to the peaks of the Tibetan range, north of Nepal and Sikkim, which constitutes the remarkable water-parting wherein lie the sources of many rivers which flow down into India, cutting their way through the great Himalayan range. He gives the bearings of the "two immense mountains" and the vertical angle of the highest; but never seeing them again from another point of view, he was unable to determine their distances; he estimated this to be from 80 to 120 miles, and computing with assumed distances of 80, 100, and 120 miles, he got heights of 23,400, 24,660, and 27,304 feet. The mountains have been plotted on sheet No. 9 of the Trans-Frontier map at an assumed distance of 100 miles from Bhomtso, and the highest is marked 24,500 with a ?. It so happens that Hermann Schlagintweit gives a distant peak in Tibet called Langur, with co-ordinates $28^{\circ} 56'$ by $87^{\circ} 22'$, and height 24,660 feet, and the remark "the height, which I obtained in the Kathmandu Residency, is based, I am told, on angles, though very small ones, of the G.T. Survey." Now no officer of the Survey is known to have reached a point from which this peak is visible until within the last ten years; but Hooker's Himalayan Journals were published in 1854, and the co-ordinates and height of Langur must almost certainly have been derived from his observations, as the former correspond very closely with the position, and the latter is identical with the height of his highest mountain at the assumed distance of 100 miles from Bhomtso. The assumption is, however, very doubtful; the maps of the Trans-Himalayan explorers do not show mountains in the corresponding position, but on the contrary,

states that "North-west, less than 70 miles, lay Mount Everest," and if this bearing had also been taken with his pocket compass it would prove conclusively that some other mountain had been mistaken for Everest, as the true bearing of Everest from Kabru is 290° not 315° . But he informs me that he did not observe Everest instrumentally, and is certain that the two distant peaks appeared over its slope, "further north," as is elsewhere stated in his paper.

* See Sir Joseph Hooker's remarks at p. 425, 'Proceedings,' vol. vi. (1881).

they show the plains of the Sanpo or Upper Brahmaputra valle the river running within 10 miles; on the other hand, Montgc map of the Dingri-maidan and Upper Arun river, which was c from the surveys of Pandit No. 9, shows a mountain marked high" in $28^{\circ} 41'$ by $87^{\circ} 44'$, the bearing of which from Bhor practically identical with Hooker's "true bearing," but the dist only 65 miles. This is 15 miles less than Hooker's smallest assur but considering the admitted difficulty—I should say, impossibili estimating such great distances with any exactitude, it must be ac for the present as indicating the position of the mountain with g probability; it also indicates that the height may not materially 22,000 feet.

The Chains of Cassius and Amanus.

By Prof. GEORGE E. POST, M.A., M.D., Syrian Protestant Colle,
Beirût, Syria.

THE following description is based on notes made by the author d two journeys into the region described, in the summer of 1884; th in company with the late Dr. Dodds, of Lattakia, and the second Professor Porter, of the Syrian Protestant College at Beirût.

The Nusairy Mountains end in the cul de sac formed by the Orontes, as it sw the west, after emerging from the canyon of Derkush. A low range of hills, tr about S.S.W., parallel to the course of the Orontes after its bend to the west, co the northern extremity of the Nusairy chain with Mount Cassius, which ma sequently be considered as a spur of that range. To a traveller approaching l Cassius from the plain of Lattakia, it appears as an almost isolated cone, risi steep angle from the sea, and breaking away into the above mentioned chu hills, in such a manner as to leave a decided gap between the ranges of Cassiu the Nusairy Mountains. The roots of Mount Cassius to the southward are in a c ridge, which separates Wady Qondil from the Lattakia plain. This ridge is : five hours north of Lattakia.

Wady Qondil is a beautiful valley, at the bottom of which flows a small str in which water is to be found all summer. The course of the valley is south until within an hour of its mouth, where it is sharply deflected to the west b chalk ridge above alluded to. The mountains which flank it are covered w new growth of mostly deciduous leaved trees and shrubs, mingled with pines. mountain mass which forms the western boundary of Wady Qondil terminat the west in a bold headland, called Ras Basit (the ancient Poseidon). This m separated from the main body of Mount Cassius by the Wady Kershish.

Mount Cassius itself (called in Arabic el Jebel el Aqra', the Bald Mountain) limestone cone on the igneous base which underlies the range all the way : Antioch to Wady Qondil. It is easily accessible on horseback from its ea northern, and southern sides, but breaks away very steeply, and in places cipitously, to the sea on the west. I made the height by aneroid 6400 feet. sides of this mountain, from a level of 2000 feet above the sea, are almost ba trees, and the lower levels of the range, which were, until within a few years, cov