

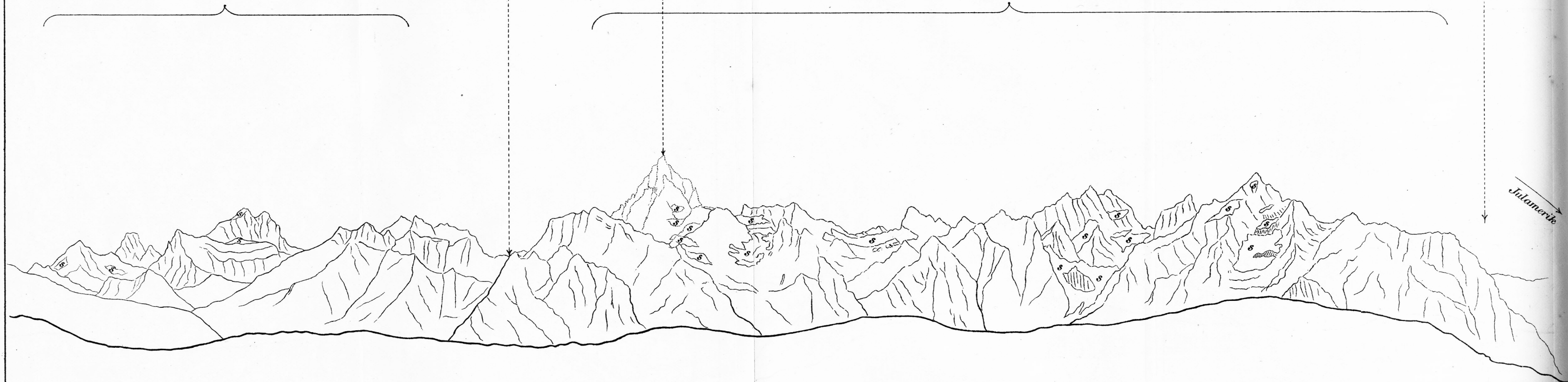
Jelu Daghlar

Pass into Jelu

Suppa Durek

Sumbel Daghlar

Zab River



s = Snow

MOUNTAINS OF JELU FROM A SKETCH TAKEN 24TH JULY, 1880.

E. Clayton, del.

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THE MOUNTAINS OF KURDISTAN.

BY E. CLAYTON.

SPEAKING very generally, the great Armenian plateau may be said to be upheld on the north by the Caucasus, and on the south by a parallel chain, the southern slopes of which look out over the plains of Mesopotamia. The portion of this chain which lies between the point of junction of the two upper branches of the Euphrates, the Murad Su and Kara Su, near Keban Maaden and the Lake of Urumiah, has no distinctive name that is generally accepted, but may, I think, very well be called the central Kurdistan range; and it is with regard to this range, and the portion of the Armenian plateau in the neighbourhood of the Lake of Van, that I am encouraged by the Editor to throw together a few notes, founded upon my experience when vice-consul at Van from the spring of 1879 to the autumn of 1881.

The position of the beautiful Lake of Van is a remarkable one. Abruptly from its southern shores rises the central Kurdistan range, with its rugged roots dipping deep and sheer down beneath the blue waters, while west, north, and east plains and low ridges are broken by huge craters, volcanic cones, and outbursts of igneous rock. The greatest length of the lake from north-east to south-west is about 80 miles, while its greatest breadth is about 40. Very lovely indeed was the first view I gained of it when on my way to Van in 1879. On attaining the edge of the low plateau separating the lake from the plain of Mush it lay before me, its bright blue waters sparkling in the sunlight, the rugged slopes of the southern shore clothed with dwarf oak and cedar close at hand on the right, the peaks of Warak, that overlook Van, just appearing in the far distance, while

across the western bay of the lake to the left rose the snow-capped cone of the Sipan Dagħ. Farther still to the left, and rather behind, lay the Nimroud Dagħ, an extinct volcano, enclosing within it a vast circular crater some four or five miles across, but not showing its full proportions from this point of view, the best view of it being gained from the lake. I had an opportunity of visiting this great crater in June 1881, having come across the lake from Van for the purpose of bringing some relief to a village named Tegħourt, situated on the flank of the mountain, which had been destroyed by an earthquake on May 30, with a loss of 93 lives. Leaving a village, Aghagh, on the shore of the lake, at 6.15 A.M. on horseback, accompanied by the Armenian head of the village, his brother, and my dragoman, we rode first over a gently rising plain of disintegrated lava, which forms a very fertile soil, growing excellent crops of wheat. Halting from 7 to 8.30 at a village for breakfast, we then began to breast the steeper slopes. About 10 A.M., on reaching some good grass, we halted to let the horses graze, and starting again at 10.45 continued to mount on foot, leading our horses, and reached the edge of the crater in about twenty minutes. An aneroid observation made this point 2,740 feet above the level of the lake, or 8,210 feet above the sea. The point we had reached is the lowest in the whole rim of the crater, and is at the eastern extremity of its east and west axis. The highest points, which lie at the ends of the north and south axis, are from 700 to 900 feet higher. We here stood on the edge of a gigantic circular hollow, the black precipitous walls of which, lined and seamed with the whitest snow, stood out in marked contrast with the broken dome of greenery and the blue tarns which filled the depression. A path used by the inhabitants of the villages at the base of the mountain for fetching wood from the crater soon led us down to the edge of one of the tarns, offering a most picturesque scene. Many-coloured rocks peeped through cushions of moss and grass; dwarf birch and a creeping yew clambered over the broken slopes; while above all frowned down those grim black walls with their silver belts. In and round this tarn bubbled up numerous hot springs, in which one could only just bear to keep one's hand. Six or seven other tarns lie among the hollows at the bottom of the crater, about 870 feet below the point at which we crossed the rim. Looking from such a point of vantage as the Nimroud Dagħ it is clearly seen that the volcanic phenomena of this region had an origin subsequent

in time to the elevation of the central Kurdistan range. On the southern shore of the lake there is a crater the wall of which has been breached, allowing the water to enter and forming a singular land-locked harbour. Viewed from Nimroud it is perfectly easy to see the beds of ashes, &c., cast forth by this crater lying unconformably on the top of the rocks forming the outliers of the mountains, thus evidencing the more recent deposition of the volcanic débris.

While on Nimroud on this occasion a theory also presented itself to me to account for the formation of the Lake of Van. This lake has at present no outlet, and the waters are strongly impregnated by alkaline and saline matters, and the question is how to account for the existence of this deep enclosed basin. Now, an observer placed near the centre of the lake sees all round him ground elevated above the level of the waters, formed of aqueous metamorphic rocks as distinguished from volcanic ejecta. Therefore ever since the surface of the land attained its present form the drainage must have been into the basin where the present lake lies. At one point only does something like a gap appear. The Nimroud Dagh is connected with the central range by a narrow neck rising only about 450 feet above the level of the water. On one side of this neck lies the lake; on the other side lies a wide valley leading into that of the Euphrates near Mush. This valley lies 1,000 feet lower than the present level of the Lake of Van, and the neck of land between them appears, as far as my observations go, to be formed wholly of lava. The idea, therefore, presents itself that where the Lake of Van now exists there was once the confluence of the two principal rivers that now run into the lake, the Khoshab from the east and the Bende Mahi from the north-east, and that the united streams poured through the gap between the Nimroud and the central range, and joined the Euphrates near Mush. Then came an outburst of lava from Nimroud, closing the gap, and the imprisoned waters accumulated and formed the existing lake.

The Sipan Dagh is an isolated volcanic cone of stately form which rises on the northern shore of the lake. Its height must be some 7,000 feet above the level of the water, or upwards of 12,000 feet above the sea, and perpetual snow rests on its summit. There appear to be still volcanic forces at work, connecting it with the Nimroud Dagh, as the earthquake that destroyed Teghourt caused damage in other villages in the line connecting the two mountains, but nowhere else. At one time, moreover, it is probable that this

group of volcanoes had an underground connection with Ararat, for north-east of the lake, near the source of the Bende Mahi, on the road from Van to Bayazid, rises another volcanic cone from which a great stream of black lava has been poured forth, and the four great vents are almost exactly in a straight line.

Besides these actual volcanoes there are many outbursts of igneous rocks, such as traps, porphyries, and basalts, breaking through the stratified rocks which form the greater part of the surface of the country. One of these outbursts has formed the bold mass of the Warak Dagh, which rises behind the city of Van. The city itself lies in an alluvial plain at the foot of a curious isolated rock of limestone, and the ground thence rises gently over swelling waves of thin-bedded, marly sandstones, until the fire-scathed rocks of Warak burst suddenly through. The Warak massif consists of two parallel ridges running nearly north and south, connected in the middle by a lower ridge, so as to form somewhat the shape of a letter H. At the mouth of each of the side gorges is situated an Armenian monastery, the most important of which—that to the southward—is called Yedi Kilissa, or the Seven Churches, the remains of seven churches actually existing still within its walls. It stands in a glorious situation, about 1,500 feet higher than the city, looking over the whole expanse of the lake framed between the central range and Sipan, with the great crater of Nimroud hanging its graceful curve across the gap. The notables of Van are accustomed to use the monastery in summer as a health resort, its bracing air being a welcome change from the stuffy city below. The highest ridge of Warak is about 10,000 feet above the sea and is perfectly easy of access, though once going up in winter from Yedi Kilissa, with my gun slung at my back, in search of wild sheep, I was glad to have an ice axe with me to cut steps in the hard snow of a steep gully.

But by far the most important orographical feature of this country is what I have called the central Kurdistan range. This range is a most intricate network of ridge and valley, the ridges being generally very uniform in level, with few marked peaks. The chain is chiefly composed of metamorphic rocks, such as mica-schists and crystalline limestones, but there occur in various places great outbursts of basalt and porphyry. The lower slopes and valleys are usually clothed with forest, consisting principally of deciduous trees, such as dwarf oaks, birch and walnut, with a few

cedars and other conifers. In some parts, especially towards the western end of the range, the ridges, composed of comparatively soft strata, are rounded and waterworn with scree-like slopes, and the upper parts covered with herbage; but the eastern end of the chain, where crystalline rocks are more prevalent, is much bolder in outline; the ridges and peaks are rocky and precipitous, the gorges deep and rugged, and the scenery reminds one very strongly of the sub-Alpine regions of Switzerland and Tyrol. In the early summer of 1880 I proceeded from Van to Sert by a direct route through the mountains that, as far as I know, had not previously been traversed by any European traveller. The greater part of the route led through the very narrow gorge of a river which rises close to the Lake of Van and falls into the Bohtan Su, which is an affluent of the Tigris. The scenery was most picturesque: a rocky ravine, with slopes more or less clothed with trees; small villages built of rough red stones wherever a shelf gave a little level ground; clear waters foaming at the bottom, and occasional glimpses up side gorges of loftier mountains, at this time (June) heavily streaked with snow. At one point we diverged from the river, the gorge of which became impassable, and after proceeding up a side ravine into a plain containing the little town of Karasu, the chief place of this region, crossed a low ridge of sand and looked over into a basin like an English park set down in Tyrol. The floor of the basin was undulating grass studded with clumps of trees; lanes ran between hedges bright with flowers, among which gleamed conspicuous the bright yellow cups of the Persian rose. Beyond this valley sprang, rough and rugged, a chain of dark mountains, whose rocky summits nursed many a bed of glistening snow. In this valley stood the Tekié, or abode of a noted holy man, Sheikh Jelaleddeen, where he dispensed law and hospitality to the neighbouring tribes of Kurds. I did not succeed in obtaining an interview with him, but was much surprised at seeing at the back of the house in this wild country a large pile of red draining-tiles. In no other part of the country have I ever come across any such evidence of advance in modes of culture, the prevailing methods being apparently exactly the same as they were in the times of the Hebrew prophets. But it is very curious how bits of Europe are found in the East in most unexpected places. On another occasion I went to visit the great Sheikh Obeidullah, and on being ushered into his room to return his call the first thing that caught my eye was an iron

French bedstead, the whole of the rest of his house being furnished entirely in native Persian fashion.

This journey to Sert led me through a country apparently abounding in game, for the same day on which we passed Sheikh Jelaleddeen's Tekié a herd of deer crossed our path in one place, my men saw two bears, and when we pitched our camp at night we saw glittering on all sides the fires where the peasants were watching to keep the wild pigs from their scanty patches of cultivation.

But the culminating portion of the range, where alone the peaks attain anything like real Alpine proportions, is in the district of Jelu, south-east of Van, in the country where dwell the Nestorian Christians, surrounded on all sides by some of the wildest of the Kurdish tribes. This district is still nominally under Turkish rule, but it is very weak there. The Tiyari branch of the Nestorians have for some time kept the Turkish troops and tax-gatherers out of their barely accessible valleys, and Sheikh Obeidullah only so far acknowledged submission to the Sultan as to permit a Turkish mudir to live in his village; but the whole taxation of the district for many miles round Neri, his village, was swept into his coffers, not that paid by the Kurds alone but also that paid by the Nestorians who were within his reach. His revenue was estimated at 7,000*l.* a year, and certainly enabled him in 1880 to invade Persia at the head of 20,000 men. The Turkish Government, however, succeeded in getting hold of him in 1881, and sent him into exile, where he was afterwards reported to have died, and I do not know if anyone else has succeeded to his authority.

The mountains of Jelu are a very high, rugged group, the peaks of which are distinct and characteristic in form. Kiepert gives the highest an elevation of 15,000 feet, but I should consider that much too high an estimate. My own estimate would put it at between 13,000 and 14,000 feet. Very little snow lies on these mountains all the summer, but this is principally due to the fact that the climate is extremely dry. No great amount of snow falls even in winter, and none at all for months in the summer, when not a cloud obscures the sun's rays, so that the winter covering is not sufficient to withstand the melting and evaporation of the summer. My duties did not allow me to spare time to attempt any ascents in these mountains, but from their appearance some of them would, I think, afford some good rock scrambling. I was never near enough to them to be able to ascertain what rocks they are composed of, but the

forms of some of them reminded me a little of some of the Tyrolese Dolomites. The sketch I made was taken from the opposite side of the gorge of the Zab River, near Kochannes, the village where resides Mar Shimoun, the Patriarch of the Nestorians. My point of view cannot have been much less than 8,000 feet above the sea, but I had not my aneroid with me that day, so I cannot tell exactly the height. The level of the Zab River is at this part of its course but little over 4,000 feet, so it may be imagined how effectively the mountains lift themselves from their bases into that clear atmosphere which makes everything look so deceptively near. The valley of the Zab immediately below this point forms the district of Tiyari, inhabited by a part of the Nestorian people. The passes into and the paths in this district are so exceedingly difficult and bad that the people have for some time defied the Turkish troops and tax-gatherers, and having recently repudiated the authority of Mar Shimoun, their own Patriarch, on account of the weakness of his character and his supposed betrayal of their interests, are living in a condition of practical independence.

I was unable to discover among the mountains of Kurdistan any *unmistakable* evidence of ancient glacier action, but I noticed at the mouth of some ravines mounds which might have been moraine matter and rocks which might have been smoothed by ice; and near the summit of a peak overhanging the village of Atanan, in the south-eastern bay of Lake Van, a kind of cirque of rocks is seen, the floor of which has a very strong resemblance to *roches moutonnées*.

When looked at from the point of view of a field for mountaineering, it must be confessed that the extent of mountainous country offering even any probability of interesting ascents is so small that an expedition to explore it alone would not have a sufficient object; but the whole country is of much interest both historically and in its present condition, and there is plenty both in the country itself and in the manners and customs of the people to repay the traveller. It is very curious to notice the sort of contrariety or upside-downness there is in the East. All locks are put on as we should consider wrong side upwards; shoes are taken off when going into a house instead of the hat, so that when visiting Armenian schools I have often been amused on entering the vestibule at seeing, instead of rows of hats on the walls, rows of shoes on the floor; and whereas a European, when he has a bit of work to do or a walk to take in hot weather, disburdens himself of

his coat, an Armenian or Turk under the same circumstances takes off his trousers! The sporting capabilities of the country too are good enough, though I do not wish to encourage exaggerated ideas of the sport to be obtained. I was never able to devote time to the object of sport alone, and I therefore do not know exactly how much might be expected, but in my journeys I have found very generally game of some kind. Partridges, both of the ordinary kind and red-legged, are found almost everywhere; I have shot duck both on the shores of Lake Van and on the Zab River; snipes and hares are found in some places, and round the lake I have seen abundance of more unusual birds, such as geese, pelicans, and flamingoes, though I am obliged to confess that all my attempts to get near them were fruitless. Of larger game there are wild sheep and goats on the mountains, besides deer; bears are not uncommon, and wolves abound in winter, coming in troops even into the streets of Van itself. And as a *rara avis* there is the great Our Keklik, or gigantic partridge, which is described as being as big as a turkey and is only to be found where it is within reach of snow all the year round. I regret to say I never saw one, though Sir Henry Layard especially recommended it to my notice, and I tried my best to obtain a specimen. I was told of more than one being in captivity, and was promised one, but somehow they always died or escaped just before I could get within reach of them. So far as I am concerned they have not got beyond the mythic stage, but it would be a great triumph to bring one home, and I beg to recommend it as an object.

Van would be the best base of operations, and it may be reached either by way of Trebizond and Erzeroum or through Tiflis and Erivan. In either case the latter part of the journey must be made on horseback. A party would have one great advantage, that of being certain of perfect weather. The climate too is excellent. Hot it certainly is, but not oppressive, and at night in the mountains it often freezes in July. Care must therefore be taken to avoid chills and not to camp in swamps; but that is all. It would take me beyond the limits of this paper to go into details about the requirements for an expedition to this region, but if any members of the Club should meditate making one and would communicate with me, I should be only too glad to give them any information in my power.