At "Mau" there is a shrine which has been about 100 years in existence, and the tradition is that the old fort was then in the same state as it is now. The walls are very high and in wonderful preservation; and, if the conjecture is right that the passage in the Chachnama above-mentioned refers to these forts, they must be 1300 years old, as "Chach," who succeeded Sohas XI., ascended the throne of Sinde in Hijiri 10, corresponding to A.D. 594.

XVI.—Notes of a Reconnaissance of the Anti-Libanus. By RICHARD F. BURTON, F.R.G.S., and CHARLES F. TYRWHITT-DRAKE, F.R.G.S.

Many readers, even professional geographers, will think that we are to pass over trodden ground, and that in describing the Anti-Libanus we can do nothing but fill up with details the broad outlines traced by predecessors. The contrary is positively the case. I expected great things from 'L'Anti-Liban, par Gérard de Rialle' (Bulletin de la Société de Géographie, tome xvi. 1868), and found that it treated of only the well-known lower altitudes well trodden by a host of travellers. Surprising as it may seem, it is still true that the best and most modern maps do not name a single valley north-east of Zebedání, nor a single summit, except the "Jebel el Halímeh," an utter misnomer. They show merely the long conventional caterpillar, flanked by the usual acidulated drops, and seamed with the normal cobweb of drainage: when they have disposed all this parallel with the Libanus, they have apparently done their duty. Thus they neglect to show, amongst other things, the important changes in the chain, whose northern half becomes exceptionally arid, whilst the southern is remarkably fertile. This is also true of the windward and seaward chain of Libanus. but to a lesser extent. The traveller in Syria and Palestine is also left in ignorance of the fact that the general aspect of the range is superior to that of the maritime Sierra, that the colouring of the rocks is richer, the forms are more picturesque -often, indeed, "weird, savage, grand, almost magnificent, like parts of Moab "—that the contrasts of shape and hue are sharper, and that the growth in places assumes the semblance of a thinned forest. Of the Anti-Libanus we may say, of the Libanus we may not, that "ravines of singular wildness and grandeur furrow the whole mountain-side, looking in many places like huge rents, whilst the views from the summits are far superior in extent of range and in variety of feature."



Moreover, the chain which is thus in many points richer and more remarkable than its western sister by the attractions of novelty, may fairly be called a section of new ground in an old land. The French traveller, indeed, declares that, in consequence of want of guides, water, and roads, the difficulties of

exploration are all but insurmountable.

During my twenty-three months of service at Damascus I had twice inspected the most interesting features of this Jebel el Sharki, "the Eastern Mountain," the modern equivalent for the ancient Hebrew "Lebanon towards the sun-rising." In August, 1870, I had ascended the Haláim block, and in November of the same year I had stood upon the Naby Bárúh range, but the snow had begun to fall before its outlines could be traced. Finally, on July 31, 1871, taking advantage of a visit from Mr. Charles F. Tyrwhitt-Drake, I resolved to connect the two excursions by a march along the backbone from the Jebel el Shekíf to the northern end. My fellow-traveller had, as usual, the barrel of the mapping and of the route-sketching, whilst

the humbler task of keeping the journal fell to my lot.

The Anti-Libanus proper begins with the new French diligence-road in N. lat. 33° 30', at the north-western flank of the Hermon, which I am disposed to place in a separate mountainsystem. About N. lat. 31° 28', it falls into the Hasyah-Hums plain, whose altitude is, in round numbers, 1600 feet. The total length is thus 58 direct geographical miles, and the lay is northeasterly (38° mag.). The breadth varies; the maximum from the eastern mouth of the Wady Zummarání to the Fíkah settlement may be assumed at 14 direct geographical miles, and the minimum from Baalbak to the Assal el Ward village, without including the rolling eastern outliers, would be $11\frac{1}{2}$ miles. The northernmost section is bounded eastward by the upland plateaus of Kárá and Assál el Ward, and westward by the valley of Baalbak, the northern prolongation of the Buká'a in Cœlesyria. Southward the mountain is flanked by extensive buttresses and even by lateral chains. For instance, about Zebedání the Buká'a is broken on the east by a line of detached upheavals, called after the settlements Kafar Zabad, Naby Za'úr, and so forth, while still farther east is a rugged mass of highland with crest scarped towards the rising sun, and known as the Jurd, or "highland," of Zebedání, of 'Ayn Haur, of Sargháyá. and of the other villages occupying its flanks. This great outline is bounded north-east by the Wady Yahfufah, and south by the Wady el Karn, through which runs the French road between the capital of Syria and Bayrút, its port.

Our preparations were easily made. We carried with us a few necessaries for a bivouac, not forgetting the indispensable

water-skins, and two mules, driven by as many men, were lightly loaded with all our belongings. The point de départ was B'lúdán, a little Christian village, Greek-Orthodox and Roman Catholic, which clings to the eastern flank of the Zebedání valley, bearing 285° from that important Moslem town. The valley is well known to travellers, because it leads from Damascus to Baalbak: in it we find the official sources of the Barada, or River of Damascus, and the pool from whose head it jumps lies at an angle of 239° from Mr. Consul-General Wood's summer-quarters. The geographical or true source must be sought some 5 miles to the north-east; it is called 'Ayn Haur ("Poplar Fountain"), from the little village of the same name, and it is fed in winter by the Sayl or torrent of Jebel el Shekif. The water flows down a broken and clearly defined valley, divided into sections, every one, as usual, amongst these ungeneralising races, with its own distinctive term, e. q. Wady el Kabír, Wady 'Ayn Haur, and Wady Dillah: in summer, however, its precious supply is drawn off by the fields, hence it has not the honour of being popularly known as the Barada head. The mythological source is the Jurah, or "swallow-hole," in the western block which separates the valley of Zebedání from the Coelesyrian vale: this sink was until late years used as a Tarpeian rock—the offenders being of the sex formerly sacked at Damascus and Stambul.

B'lúdán lies about 1000 feet above the sole of the Wady Zebedání: its site is a bulging shunt of fertile red humus, secondary limestone, iron-clay, red-black sandstone-grit, and here and there a bit of basalt. The general slope of this Wady el Mu'allakah, or upland of B'lúdán, is 9°, and the rhumb 285° (mag.). Although neither striations nor burnish are now retained by the easily degraded rock, it has all the appearance of an old moraine, deposited by glaciers that once debouched from the upland upon the Zebedání valley, and which hollowed a passage from the Barada through the heart of the Anti-Libanus. Similar features occur in the Cedar Valley; in the red ground north and south of the Zahlah gap, which blushes so beautifully in the evening sun, and, without mentioning others, in the heaps at the gorge-mouths to the east and the north-east of Iskanderún or Alexandretta.

The upper section of the B'lúdán valley is a complicated bit of ground, bearing 41° from below, and wheeling suddenly to 60°. It is bounded eastward by a crest-line, which M. Gérard de Rialle, with the guide-books, calls the "highest summit of Anti-Lebanon," but which has no claim to that honour. Impassable during winter by reason of the snows, in fine weather this B'lúdán block commands a noble view, especially to the south and

south-east. Here the eye clearly defines the three great lateral gradients which form gigantic steps, each averaging 700 to 900 feet above its neighbour, and leading from the Padan Dammesek ("upland plain of Damascus") to the oriental base of the true Anti-Libanus. The highest is the Assál el Ward terrace; the middle gradient is that of Kárá-Nabk; and the lowest is the Saidnává-Jayrúd, which runs almost without a bend to Palmyra.

The B'lúdán block is fronted on the west by the Jebel el Shekif, or "Mountain of Clefts," a name sometimes erroneously applied to the higher elevations on the east. Three principal buttresses are seen towering like titanic steps in the clear blue air by those who take the French diligence from Bayrút to Damascus. No. 2 from the bottom bears the name of Davr Naby Yunán: the picturesque ruins upon the summit are connected by the people with the Prophet Jonah. We found two Greek inscriptions, both sadly mutilated; one of these was cut upon an altar much resembling that which we brought from Kanawát. No. 3, the Khashshá'a el Shekíf, "rough ground of the Shekíf," is well grown with the Lizzáb, a juniper which has almost disappeared from the lower altitudes. This is the home of the bear (*U. Syriacus*) which uses the night to destroy the vetches and grapes raised upon the fertile dark lands below. In the summer of 1870, I was shown the pelts of a full-grown male and a cub that had been killed; in 1871 a second peasant was mauled by a hungry bruin whose meal he had unwittingly interrupted. The result was that Nátúrs, or gardes-champêtres, armed with firelocks, passed the night amongst the crops, but, when shooting, they were careful not to wound. They divide bears into two kinds, the Akish, or vegetarian, and the Lahham, or meat-eater, who often takes a fancy for a lamb or a kid. They all agree that the bear hibernates during the Marbá'níyyah, or forty days following the winter solstice, and that the best season for sport is in early September, when the vendange brings him down from his hidden haunts. I could never afford time, at least a fortnight being required, to make a bag, and though the spoor and sleeping-places were everywhere visible, I only sighted one, which scrambled out of view before a shot could be fired.

Our route lay up the Arz el Mu'allakah, or upland B'lúdán valley, which is bounded on the right by the B'lúdán block (Jebel el Ahhyár), and on the left by the Jebel el Shekíf. After one geographical mile from the village, we passed out of the limestone into a band of pure sandstone: it alternates with limonite, iron-revetted clay, slag-like masses, and purple grit. degrading into a blackish humus. In 2 hours (= $3\frac{1}{6}$ direct geographical miles) we reached the Marjat 'Ayn el Nusúr, "Plainlet of the Vultures' Spring," showing some twenty fountains. The upper part is a versant, the northern waters escaping through the Wady el Manshúrah into the Cœlesyrian vale. After one direct mile from the "Vultures' Spring," we halted at a cold pond, the Birkat el Mudawwarah, or "Round Tank," which showed 54° Fahr., whilst the air was 65° Fahr. Here we collected a variety of water-beetles, which, according to Mr. G. R. Crotch, "are, from the arid nature of the country, rare, but abundant when found."

A little before noon, as the cloud-pack coming up rendered the air delightfully cool, we rounded the southern head of the Wady Manshúrah. The latter shows a big square block of limestone, split, not by contraction and expansion, but by Zú'l Fikár, the irresistible sabre of Caliph Ali. We afterwards saw several boulders in the same condition, but this was the only one with a legend attached to it, unlike the Sinaitic rocks, upon so many of which Hazrat Músá (Moses) has left his mark. Upon the col, or pass, dividing the Manshúrah valley from the Wady el Hossa (Hasá), we picked up stones richer in copper

than those of the old Wady Magharah diggings.

The col presently placed us upon a conspicuous summit, the Ra'as Zahr Abú 'l Hin, "Head of the Ridge of the Father of Henna"—that is, of the wren, a name as sensible as Shrimp Mountain (Camarones), applied to one of the tallest volcanoes in intertropical Africa. It is the apex of the Manshurah arc, which resembles the Cedar Valley, but upon a small scale. Here the wintry winds must rage furiously. The Lizzábjuniper is blown to the north and north-east; a few young trees show that even the goats spare the place, and in the older growths the wood is ridiculously out of proportion to the foliage. The height of a tree girthing some 12 feet at 20 inches above the ground will, perhaps, be 10 feet, whilst the roots, peculiarly long and strong, will contain double the timber of the bole. The bilberry throws itself upon the nearest stone, and clings to it as though fearing to be blown away into space. And the rest of the vegetation, especially the rose and the thistle, is exceptionally stunted, when the actual altitude is considered.

From this summit we could see to the north-east, and divided by a water-parting, another steep valley, flanked by the axis of the Anti-Libanus, resembling the Manshurah and the Arz el Mu'allakah, or upland of B'lúdán. The eastern or higher lip is the normal crest of palisaded cliffs (Hawálís), above which the goat-paths run, and it is capped by rounded summits of redyellow humus, scattered over with stone. On the west are rock-waves and crag-islets, the "Ilheos" of the Portuguese, separated by torrent-beds, which, like those of the Jebel el Shekif, drain the surface into the Ma'arabún gorge below. The unusual quantity of vegetation, especially juniper—by some mistaken for cypress—that finds a footing in the jagged limestone gives this view the most pleasing aspect. The chord of our second valley runs 33° 30' towards the Ra'as Rám el Kabsh, far on the N.N.E. As usual in these lands, the whole lacks a generic name; it is sectionally called after its springs, which patch the surface with nettles and green weeds, Wady 'Ayn el Báridah; Wady 'Ayn el Sakhrah; Wady 'Ayn el Za'arúr ("of the hawthorn"), and so forth. From above, the floor appeared smooth and easy, but experience proved it to be otherwise. The material is sandstone, alternating with lime, in detached blocks, forming what appeared to be sections of pavement. Plots of wheat and tobacco, which never pay tax nor tithe, flourish in sheltered places, but at times, when rain is wanting, the seed refuses, it is said, to sprout. In this part of the highlands such growths will extend to 6000 to 7000 feet above sea-level, and perhaps higher: the wheat is horny and stunted, and the people declare that grazing animals will not allow barley to be reaped.

We descended some 800 feet by the Wady Juwar el 'Akkúb ("Sinks of the Artichoke"), and we struck the No. 3 valley, where the 'Ákibat el Hamrá, a red col, is traversed by the Sargháyá-Rankús road. We passed successively on the left the Wady 'Ayn el Za'arúr, and the Wady el Naháir, the latter headed by a large cornfield. These names were given to us by the goatherds. After a rugged ride, crossing the eastern crest of the Anti-Libanus, we fell, about sunset, into the Wady 'Ayn el Durrah, "of maize," which the Rev. Mr. Porter ('Five Years in Damascus, p. 311, 2nd edit.) calls "fountain of Dura." This valley, well sheltered from the biting draughts of the passes, sheds from the western Sierra to the Assál el Ward upland on the east. It has a fine fountain, which waters horses and neat cattle, and which feeds a Himah, or trenched field of vetches. The owner was a Rankús man, who, with his two shirtless and sharp-witted lads, occupied the place during summer—it is too cold for permanent settlement—and he passed his nights in shouting and in firing random shots to scare away plundering bears. We secured a kid. These animals, covered on the yurd, or upland, with fat an inch deep, contrast wonderfully with their lean, dry brethren of the plain.

After a cool night, we were in the saddle at 5.20 A.M. (Tuesday, August 1, 1871), and, traversing the Wady 'Ayn el Durrah, we ascended the direct mountain-road from Mu'arrá to Baalbak. Then, rounding the head of a parallel valley—the Wady el

Maksam — in which, as the name denotes, the highway anastomoses, we found on our left a dwarf depression, separated by a watershed from valley No. 3; this is apparently the northeastern end of the lateral basins which subtend the western crest of the Anti-Libanus.

A ride of 50 minutes (= $1\frac{1}{3}$ direct geographical mile) placed us at the head of the Wady el Hawá, a long depression leading from the chine to the south-western part of the Assál el Ward plain. It contains the 'Ayn el Hassíní, and, some way down it, there is, they say, a ruin called Kabr el Shátir ("of the rogue" or "the running footman"), with a "Hebrew" inscription, probably some insignificant marks in the stone. We walked up the crest on our left, a prolongation of the Abú 'l Hin ridge, which gave us a fine front and back view. From that point, travelling along a knife-board, with a succession of Júrahs, "sinks," or "swallowholes," to the right, we headed the Wady el Marhalah, and, threading huge walls like cyclopean masonry, we ascended the south-eastern flank of the Ra'as Rám el Kabsh, "Head of the High Place of the (Wild) Ram or Mufflon" (Ovis musimon).

Here the regular cliff-like crest which we had followed on our left or westward from B'lúdán apparently ends, but presently to reappear as a central spine. We could see nothing in front (35° mag.) but a long perspective of lateral ridges, running parallel, but palpably detached, and broken ranges streaked with trees, and evidently parted by the deepest gorges. The general direction is somewhat south of east (80° to 100°), towards the Assál el Ward plain, and the drainage eventually feeds the waters of Yabrúd. Their names, we afterwards learnt, are—1. The Wady Bir Sahríj, which lay at our feet. 2. The Wady Bir el Washil ("of water-pits" which never dry): this Finmara anastomoses with the lower course of the former. 3. The Wady Zuwayyik, or the "narrowish," said to contain ruins. 4, 5, and 6. The Wadys Butrah, Za'arúr and Bir el Khashabah, the latter rounding the southern base of Naby Bárúh, whose hogsback arose in the distance. The "Prophet" was backed by a cone, which we presently were able to call Tala'at Músa, whilst, far upon the north-eastern horizon, appeared the Haláim block. Evidently we might have kept our course along the western ridge by rounding the valleys for some 6 miles, which would have brought us to cultivated ground. But we wanted a guide, and our horses were threatened with thirst, as well as with hunger; so we resolved to follow the nearest long depression, which we knew must lead to the Assál el Ward village.

Descending into the Fiumara head, we struck the excellent road of a slate-like surface, naturally macadamised, which threads the gorge. Its most remarkable growths are the barberry, the true currant (a Ribes), and the wild honeysuckle. After two hours we came upon the Bir Sahríj, an old and solidly built well 12 feet deep. Then, cresting the tall ridge to our left, we saw broken and detached rocks, perfectly simulating ruins. Here was the anastomosis of the Wady Bir el Washil. Lower down, the heights were seamed with paths; wood-cutters, charcoal-burners, and goatherds, presently appeared, and, finally, cultivation marbled the gentler slopes. Mortally long seemed the rest of the way. After a ride of $10\frac{1}{2}$ direct geographical miles down the Quebrada, it was 11 A.M. before we debouched upon the plain of Assál el Ward.

The Wady Bir Sahríj evidently divides the comparatively well-watered southern section of the Anti-Libanus from the parched and dusty northern half. We can only suggest that here the limestone formation becomes more deeply cracked and fissured, and less able to retain the springs, which directly disappear underground. The same rule holds good in the Libanus, where the northern and higher is less fertile than the southern

and lower half.

We halted within sight of the large bluish-grey ash-heaps and hillocks upon which Assál el Ward is built, and of the dozen poplars that garnish its upper spring. My old friend Shaykh Sálih gave us the usual hospitable welcome; here the people, uncorrupted by travellers, are always civil in the extreme. The men, Shaf'rí Moslems all, may muster 250 guns; they are more intelligent than usual, and are never unwilling to fight. Assál "of the Rose" is a well-to-do place, and the cold keen air, which compels the houses to be windowless, reddens the fat cheeks of the children, and preserves the fresh

complexions of the greybeards.

On the next day (August 2) we set out betimes, accompanied by my good friend Shaykh Kásim, our host's brother. We took the southern or upper road to the hogsback, a little Hermon known as Jebel Naby Bárúh—" of Baruch the Prophet." No one pretends that the Scribe actually visited this wild spot, but a dream or a vision always suffices to create a place of holy visitation. There is also a northerly line, viâ Wady el Maghárah, where a cavern is said long to have sheltered certain rebels of the Harfúsh family. Dismounting beyond the vineyard, we walked up a stiff slope, lying nearly north-east (mag.) from Assál el Ward, and we inspected the Maghárat Taht el Karnah ("under the horned hill"); the cave proved to be partly artificial and partly natural. Conspicuously seated on the summit of the same eminence are the ruins known as Dayr Taht el Karnah or Wady Bárúh; they bear 5° from Assál el Ward, and 34° from the Bárúh summit. The remains are evidently those of a Baal temple, converted into a church and convent, and we came to the conclusion that it was perhaps the most ancient which we had seen throughout Syria and Palestine.

Resuming our ride towards the mountain, we entered its eastern outliers, and passed on the left the Wady Za'arúr, up which there is a foot-path to Baalbak. Thence crossing a high hill-spur, we fell into the level at the south-eastern base of Jebel Bárúh, and we visited the (eastern) Bir el Khashabah, which gives its name to this Wady; the well was, however, almost dry. From that point my friend walked up the western slope of the hogsback, whilst I followed the south-western path, which my party had taken in November, 1870. The latter, beginning through cultivation, zigzags over broken ground, which here and there caused all to dismount, and leads after some 50 minutes to Makám Naby Bárúh. The "visitation place" is a rude circle of dry stone wall, utterly modern, and built by the well-known Rufá'í family of Yabrúd, descended from the great Sufi Ahmad of Baghdad.

We resumed our way to the north-eastern peak, upon which eight months before I had built a cairn or bench-mark. The apex gave us a view to the north-east, before concealed; here rose straight in front of us the Shaykh el Jibál, "le Roi des Montagnes," the very summit of the Anti-Libanus. It is variously called from its component parts Tala'at Músá; Jebel el 'Aawaj, from a Wady and a village; Jebel Fatli, after a deep bay in the mountains; and Jibet el 'Uyún, from certain unnamed springs. We distinguished it as the "Fatli block," supplementing the absence of a general term amongst the natives. When asking for it, however, the traveller must call it Jurd Mu'arrat el Bashkúrdi, and carefully distinguish it from the Ra'as Rafí'a, alias Rafí'a Mu'arrá, a reddish buttress, prolonged to the northeast (46° mag.) of the Fatli proper.

After resting under a juniper, we rode along the northern crest, and an hour's march placed us suddenly upon the Wady el Fatli. This gorge, which divides the Naby Bárúh block from the apex of the Anti-Libanus, yawns some 700 feet deep, and in many parts is impracticable. We had some difficulty in getting down our baggage animals: arrived at the Bir el Fatli, a well sunk 10 feet in the shelly limestone, we not a little surprised the civil goatherd As'ad ibn Yusuf, whose green turban showed that he belonged to a Holy House.

Resuming our way, we crossed the Wady el Fatli, and then breasted the Anti-Libanus summit, by an easy incline known as Tala'at Músá, "the Ascent of (a?) Moses." After some 45 minutes (= $1\frac{1}{2}$ geographical mile) we stood on the top. From this commanding site we observed that the apex forms a regular circlet

of ridge, which viewed from below, and indeed from almost every quarter, assumes the appearance not inappropriate of a mural crown. The "Fatli block" is bounded north by the greater Wady el 'Aawaj, and south by the Wady el Fatli. The highest point (Ra'as el'Aawaj) that caps the crest, and bears 18° 30' (mag.) from the summit of Tala'at Músá, was shown by a small clinometer with spirit-level to be some 20 feet higher than that upon which we stood. The aneroids, afterwards corrected by the mercurial tubes, and computed by Captain George, R.N., gave 8721 feet; the temperature was 75° (Fahr.), showing that the Tala'at Músá height cannot be less than 8740 feet. Thus the true apex of the Anti-Libanus, from which the Cedar Block bears 311° 30′ (mag.), is not at the south where MM. Porter and Gérard have placed it, with an inadequate allowance of 6800 for 7736 feet, nor at the extreme north, where Lieutenant van de Velde has located it, with the shabby establishment of 5000 feet, instead of 8257 feet. Its real position is at the head of the second third beginning from the Hermon, and thus it is almost a central massif.

Descending the eastern slope of Tala'at Músá, and winding down the southern flank of the Rafí'a Mu'arrá, we fell into the vineyards and fig-yards outlying the little old settlement Mu'arrat el Bashkúrdi, of the "Mad Kurds." The peasants insist upon entitling it Básh-Karriyah, "the Mad village." As it is mentioned in the guidebooks, I need say nothing about it; in this out-of-the-way place we were of course hospitably received: the Shaykhs, who, according to custom, number half-a-dozen, contended for the honour of lodging us, and Shaykh Sa'id carried away the prize almost by force. He also told off a brace of his relations for the consideration of ten piastres or two francs per diem to guide us on the next day, and we soon found out that we had to guide Sa'id and Táhir.

At the late hour of 8 A.M. (August 3) we bade adieu to our host, and took a northerly direction, with bends to east and west, over the Kárá-Nabk upland. Here the wintry cold is extreme, explaining the native saying—

" Bayn Kárá wa Nabki Banát el mulúk tabki."

"Twixt Kárá town and Nabk the Steep,
Daughters of kings (i.e. fur-clad women) must often weep" (for cold).

Hard by on our left lay the long line of the northern Anti-Libanus; the blocks and buttresses were separated by Wadys, of which the most important is El Zummarání, "the Piper," so called from the wailing music of its wintry draughts. The course is a little south of west (mag.), and from its mouth Kárá town bears 85° (mag.). It is the southern limit of the VOL. XLII.

Haláim properly so called. The classical Arabic word would be Hilmah () in the plural Halmát ("nipples"), here corrupted to Halímah and Haláim. Viewed from the eastern heights, this northernmost block of the Anti-Libanus seems to consist of a range ending north and south with two great buttresses; whilst the latter supports a broken stony line of paps and cones somewhat inferior in elevation. The four greater Haláim running from south to north are—

1. Halímat Wady Zummarání, bounded on the south by the Piper, and north by the Eastern Kurrays; the long saddle seen from Nabk to the south-east suggests an elephant's back

with head and ears.

2. Halimat Kurrays, "of the Edible Nettle." From the eastern plain it appears a table-mountain: one standing upon the northern heights sees a double and parallel line, bearing north-east to south-west, separated by a gorge, and connected by a band of rock.

3. Halímat Kur'á (زرعا), "the Bald Pap," because comparatively bare of trees, also called Halímat Kárá, from the neighbouring town of Kárá, the Comochara of the Greeks. It is a round and humpy eminence, presenting to the eastern plain two large and sundry smaller shields of limestone, whose strata

are almost perpendicular.

4. Halímat el Kabú (قبر) "of the Covered Cistern;" this pass is called par excellence El Halímah, but not "Jebel el Halímah (Van de Velde). From the eastern plains it appears a small saddle-back topping the Kar'á (No. 3), and hardly to be distinguished as a separate feature, although parted from it by a deep gorge. The Cedar Block shows it standing boldly up; seen from between Hasyah and Hums, it rises during the winter a tall snowy peak. North of Jebel el Shekíf it is the only feature given by Van de Velde (Stanford's edition), and he declares it to be the "highest top" of the Anti-Libanus, which it is surely not by 460 feet.

At the mouth of the Wady el Mál, the next in importance to the Zummarání, we bent west towards the nearest water. The col was remarkably easy, and hence a descent led to a bubbling fountain, the Washlat Kurrays, at the southern end of the western "Nettle-pass," and heading the great Wady Fárih. It lies 5 hrs. (= about 12½ direct geographical miles) from, and

almost due north of, Mu'arrat el Báshkúrdi.

After resting, we proceeded to ascend the Halímat el Kabú. Descending a deep valley, we fell into the Sultani or high-road from Fíkah to Kárá, which runs up and down the Wady Már Tobíyá (St. Tobias). Then turning suddenly to the left, we

ascended in 40 minutes the long south-eastern spur. The upper fourth of the peak is revetted with hard limestone rock, compelling horses to go round by the north. The Kákúr, or stone man, which I had planted on the summit, was found overthrown probably by treasure-hunters. Here we caught a number of ladybirds (Coccinellæ) nestling under the stones as in the chinks of the dome of St. Paul's.

An east-west section of this the northernmost line of the Anti-Libanus gives—

1. The outliers of the main ridge, such as Jebel Kar'á and its dependencies, called the Huruf of Mar Tobiya; 2. The Halimat el Kabú, which is the eastern apex of the main block, and bounds a large valley opening and draining to the west; 3. An upland plain of rolling ground, broken and treeless, but not wholly uncultivated, shedding towards Coelesyria; and 4. The western ridge of rough and barren hill which forms a right bank for the

head valley of the Orontes.

The prospect from the Halímat el Kabú is at once extensive and picturesque. Southwards, where there is the finest view. appear in lengthened perspective, and differently tinted by distance, the several planes of ridge separated by their respective gorges. Below the vertical precipice under our feet, and beyond the skirts of the Halímah, rise the two parallel lines of the Kurrays, steep savage hills, flat-topped, and disposed like dykes, their sides banded with stony outcrops, and dotted with the darkest Farther off in the bluer air stand the waving Hurúf of Abú Idrís, backed by the Sadr el Bustán and the Hurúf 'Ayn Sharkiyin, "the points or peaks of the Fount of the Easterns," a labyrinth of ranges and chasms. Farthest upon the azure horizon is the diademed head of the Fatli apex, still showing three peaks, and connected by a narrow ridge with its subject height. the Ra'as Rafí'a Mu'arrá. Contrasting with these bold altitudes lies the south-eastern plain of Assál el Ward, divided from the Kárá-Nabk terrace by the picturesque Sierras of Marmarún (or Danhá) and Rankús. To the west, beyond the valley of the Orontes, where the white patch of the Hurmul village and its decaying pillar are conspicuous, rises the lumpy dome, reddishyellow and tree-dotted, known as the Sha'arah of Baalbak, the outworks of the highest Libanus. Above this feature towers the bold chine of the Cedar Block, upon which still linger long lines and large spots of snow, which glow like amethysts in the evening light. The three summits, of nearly equal altitude, fret the sky-line, and the 'Uyyun Urghush buttress is set off and detached from the wall-like surface by the shadow which it casts upon the lengthy and regular ridge that backs it. Farther north, the apex of Libanus falls into the Jurd of Tarabulus

(Tripoli), speckled with black points, and dotted with cones, while farther still the mountains are absorbed by the valley of the Nahr el Kabir, the Eleutherus River. To the west there is a gleam of distant sea, adding another glory to the view, whilst, almost melting into a blue cloud of hill, the Jebel el Húlah, or southernmost heights of the Jebel Kalbiyyah, defines the haunts of the mysterious Nusayri. Between the n.n.w. and n.n.e. the glance, passing beyond the foreground of ever descending ridges and hollows, falls upon the Orontes Lake and thready stream; upon the rich cultivation of Hums and Hamáh, one of the gardens of Syria; upon the tiny clumps of trees, each denoting a settlement; upon the ridge of Salámiyah, that outpost of ancient Tadmor, and upon the unknown steppe * El 'Aláh and the Bedawi-haunted tracts which sweep up to the Jebel el Abyaz, whilst on fine days, it is said, the castle of Aleppo bounds the northern horizon.

After observations we descended the N.N.W. flank of the Halímah, guided by a civil goatherd, to inspect the Kabú or vault which gives a name to the peak. At the very base we found the ruins of a small and rustic sun-temple, and farther to the north-east a dry cistern, which might be of any age. From that point a weary ride, rounding the western flanks of the Halímah, and many a long and rough ascent, led us back to the encampment at the Kurrays fountain. That day had given us 15 hours of hard work, and we uncommonly enjoyed the fine cool night, illuminated by the first annual fall of "shooting stars."

On the next morning (Friday, August 4) we resolved upon returning to Assál el Ward by a long circuit to the south-west: thus we should be able to prospect the third part of the east-west section of the northern Anti-Libanus, including the Baalbak crest, which we had missed by travelling down the Wady Bir Sahríj. Our course began down the long Wady Fárih; we then passed on the left the Wadys el Dubb, "of the Bear," and of Zummarání, "the Piper." At this elevation, the Fiumaras, whose mouths are so deeply cut and precipitous where they debouch upon the Assál el Ward terrace, disappear in the upland plain of rolling ground which bounds the main ridge on the west. We afterwards found the same to be the case at the Baalbak crest; and it became at once apparent why the gorges of the Anti-Libanus opening east and west bear different names. In Arabia generally Wadys are seldom called the same on both sides of a watershed; here, however, there is no connection

^{*} It has lately been explored by my friend and fellow-traveller, Charles F. Tyrwhitt-Drake, and I have published in 'Unexplored Tyria,' his account of a most adventurous journey.

between them and the lines of road, as the valleys traverse, as it

were, neutral ground.

The Sahlat or plainlet at the head of the Zummarání was cultivated with upland wheat, a pigmy growth of a few inches. country was well clad with wild almond and pear, whilst the abundance of maple suggested that the sugar-tree of southern Italy and Canada might here be made valuable. Presently we struck upon a large and well-defined Fiumara, which, as usual, rejoices in as many names as an Iberian grandee. Here it is called Wady Khirbat Yunin, from a deserted settlement, apparently of the old Troglodytes, which hugs the left bank of the torrent-bed. We then fell into a road running north-east to south-west, with sundry windings, and separating the Bilád el Sharkí (eastern countries) about Kárá from the western, the Bilád el Gharbí, whose head-quarters are Baalbak. The valley is hemmed in and protected on both sides by hill and mountain, mostly stone-lined and cliff-topped; over the sole were scattered ploughed fields, and, with the assistance of tanks and cisterns, it might once more become a land of plenty. Now it depends wholly upon the rains, which at these altitudes are even more precarious than the snows. It wants a Brigham Young to order a round million of trees.

Presently we came upon the western Bir el Khashabah, a masonry-lined pit 10 feet deep, which gives its name to the southern prolongation of this long line. Its continuation, the Wady el Hikbán, becomes more irregular, closing in and flaring out. Then begins the Wady el Ruhwah, bending to the westward, a via mala only 10 to 12 feet wide, with tall, upright sides, and a floor of white limestone, polished like glass by the myriad hoofs of goats and sheep. The sun, which in the lower valley had scorched us, and had made our muleteers very quarrelsome, was now tempered by the cool brisk atmosphere of the heights, and the novelty of the scenery was charming to our eyes.

At length, traversing a small black circus, a rond-point, where the charcoal-burner had been at work, we debouched upon the Wady el Biyárá,—"of the wells." As usual, it is a widening of the Fiumara, a meeting-place of four shallow passes. We had travelled 4 hours 50 minutes, representing some 10 direct geographical miles, from the Washlat Kurrays, and

were not sorry to take rest in a pair of dwarf caves.

As the flocks began to gather, we resumed our way to the north-west, exchanging the Wady el Biyárá for a succession of stony ridges, which led to the Wady Barbarús ("of the barberry"). In this shallow slope we found two wells, the lower scanty, the upper full. Many goatherds, all more or less armed,

were here watering their charges, and their aspect, gestures, and manners, showed that a fight at the well is as easily managed now as in the days of Abraham and Lot. We vainly endeavoured to hire a guide; all refused to leave their charges.

Travelling for thirty minutes over a down-like country, with gentle waves of grassy ground, and for twenty minutes across upland cultivation, we traversed a short divide of limestone ready cut into self-faced slabs by Nature's hand. Here and there it was piled up in landmarks, to show where the flocks might and might not go; the stranger will everywhere find in Syria and Palestine these primitive contrivances, which, however, cannot privily be removed, as every neighbour knows every inch of his own ground. Presently we sighted to the left, or E.S.E., the lofty walls of the Wady el Fatlí, and here a goatherd, who had been a linesman in the Sultan's army, and who had fought in the Crimean campaign, gave us exact directions. The guides declared that he was sending us a long way round, but we preferred his certainty to their uncertainties.

We then passed into El Khashshá'a, the rough red region lined with trees which we had seen bearing westward from the summit of Naby Bárúh: apparently this outcrop is a central spine, which continues the cliff-crest facing to west between the Jebel el Shekif and the Ra'as Rám el Kabsh. It is a goatherd's paradise, a succession of the hardest limestone crests and ridges, bristling with bare rock and crag that shelter tufty vegetation, and divided by such a continuation of grassy Júrahs or swallow-holes, that we could find no better name for it than "Sinkland." These features are rarely round, mostly of the long-narrow order; now they are single, then a huge pair will be parted by a natural bridge. The junipers are mostly large and patriarchal, but in some places we saw young shoots; clumps are rare, and the branches invariably grow so low that nowhere could we have ridden under their shade. The road of polished stones and steps, with sidings in the worst places, leading from the Assál el Ward plain to Baalbak, was distinctly bad: in most parts a horse could hardly have travelled off the path, and each tongue of ground, however well covered with humus on the top, was bounded on the sides by falls of stone, which the rains, snows, and winds had laid bare.

After 1 hour 10 minutes of slow riding to the west, we passed out of the Khashshá'a proper. The country again became a counterpart of the down-land above the Wady Bir el Barbarús, although in places it was scattered over with vertebræ from the main spine. The hollows contained mud, the result of the heavy showers which had fallen between the 26th and 29th of July, and the limestone again changed from rough lumps

to thin slabs. Another 40 minutes upon the high-road, spanning shallow rises and falls, placed us at the head of the Wady Jammálah; here the watershed changes, and the path drops

westward into the Coelesyrian plain.

Then turning a few paces to the right, we found in a swallow-hole the Hajar el Mukattab, or "written stone," of which every goatherd had spoken to us. It was a block of limestone, whose edges had been chipped off by the treasure-seeker, and it bore a mutilated mortuary inscription in Greek. Upon the summit of the sink-hole's western lip lay another "written stone"; the legend, however, was too much defaced to be worth copying. About it was strewn a shapeless scatter of ruins; some of the blocks were of considerable size, but there was nothing to tell whether the site had been part of a temple or of a townlet.

From the Hajar el Mukattab we rode a short distance down the head of the Wady Jemmálah, which, as is here usual, appeared to become narrow and gorge-like as it descended. We then struck abruptly to the south-east, across country, over sundry sinks and divides, the latter mostly grown with an asphodel, whose vein-like leaves are refused by horses, and whose tall thin stem has obtained for it the name of 'Asayat el Rá'í, "the Shepherd's Staff." Near the Dead Sea it is called 'Asáyat Sayyidná Músá, "of our Lord Moses," and Burckhardt says that it makes good glue. After 50 minutes we reached Khirbat 'Ayn el Shams ("Fountain of the Sun"), which is included in the Jurd ("uplands") of Baalbak; its title has a significant resemblance to Heliopolis. On the north of the ruins is a large swallow-hole, while to the south a deeply tunnelled cave, with a fragmentary ceiling and a dry sole, may of old have represented the solar "eye." The Khirbah is evidently a little rustic temple, roughly Oriental, and mostly composed of uncut stones set in cement.

We then rode northwestward, up a dwarf eminence, to the Dayr or monastery, a rude hermitage, built of the slabby limestone scattered all around it. After that, our course lay southwestward in the direction of the Kala'at Jubáb ("of the wells"), the high cliff defining the left jaw of the Fiumara so named. It is no exception to the general rule which makes the western Wadys of the two Libani better forested and more fertile than those opening eastward—the effect of the damper sea-winds. After crossing the usual succession of divides, we struck in 20 minutes the right side of the picturesque ravine, and, descending by a goat-path into its sole, we reached the upper well in 25 minutes. The bottom was the usual excellent travelling, and the drainage of the spacious bulge in which the water lay was derived from three large and three smaller torrent-beds. Closely cropped

grass still carpeted the ground, and semicircles of dry stone, opening to the west, defended travellers from the raw eastern or land-breeze which at night pours down the gap. We were not sorry to rest and warm in the genial blaze limbs somewhat cramped by 9 hours and 30 minutes of hard walking and slow riding.

At dawn on the next day (Saturday, August 5) we discharged our muleteers, at their own request, and gave them pay, presents, and provisions for their way home direct to B'lúdán. At 5 p.m., mounting to the tune of many benedictions and valedictions, we rode gaily to the south-east up the Wady Jubáb. The upper part soon breaks into sink-holes, and reaching the counter-slope after 20 minutes, we fell once more to the Khashshá'a, which we had crossed diagonally on our last march. This rough ground again cut off all connection between the gorges opening into the eastern and western lowlands. Sundry paths struck to the north or left, and an error in the bearing of a mountain made us cut across for the direct track leading due east to Mu'arrat el Bashkurdi. Presently, guided by the well-known hogsback of rugged old Bárúh, we fell into the comfortable Wady which prolongs the "Bayn el Kala'atayn" gorge into the eastern Fiumara of the (eastern) Bir el Khashabah. Our horses were starving, and the loosening of their foreplates threatened to lame them; this untoward state of things prevented our seeing the Hajar el Manshúr, or "Sawn Stone," known as 'A'bid el Rumád—it is said to lie in a lateral Cañon north of the Wady Jubáb. After a total of 3 hours 30 minutes direct from the nighting-place, we found ourselves once more in our former quarters at Assál el Ward. The whole march had taken a somewhat longer time, I was anxious to find a level path leading from the village to the south-eastern slope of Naby Bárúh, and, obeying my memory, I found how easy it is, in these regions, to get off the road, and how difficult it often is to recover it.

That day ended with a gallop of 16 to 17 miles, to the market-town of Yabrúd, where we were anxious to inspect certain skulls and mortuary lamps, lately found in a tomb near the settlement, and kept for us by the energetic young schoolmaster Ibrahim Kátibah. Early on the next day we returned once more to Assál el Ward, and were duly escorted by the Shaykhs to a ruined Doric temple, distant 2 hours' ride, and known as Kasr Namrud ("Nimrod's Palace"). It was late before we sighted the whitewashed dome, which covers the remains of Shaykh Mohammed el Na'aanawi, the patron saint of Talfítá. We were received with all the honours by the Shaykh el Balad Mahfúz, and by his villagers, who had long been my clients:

half their pauper homes had been destroyed, and the rest were threatened with ruin by certain villainous usurers under British protection. On the next morning we rode into Damascus, viâ the well-known Wadys of Minnín, Ma'araba, and Barzah, rich and well-watered gorges, whose dark green lines in the barren yellow hills are miniatures of the typical Barada valley. They are known to every handbook.

Our excursion over the Anti-Libanus had lasted eight days, between July 31 and August 7 (1871). We had seen four temples, of which three are probably unknown. We had prepared for local habitation in the map of Syria and Palestine the names of five great mountain-blocks, Abú 'l Hín, Rám el Kabsh, Naby Bárúh, the Fatlí apex, and, to mention no others, the curious Haláim. We had traced out the principal gorges, the Wady el Manshúrah, upon whose upper lip an outcrop of copper was found; the Wady el Haúr, the Wady Bir Sahríj, the Wady Zummarání, the Wady el Mál, and the Wady Már Tobíyá,

before absolutely unknown to geography.

XVII.—Journal of a Tour through parts of the Provinces of Echigo, Echiu, Kaga, and Noto, Japan: April 3rd to May 4th, 1871. By J. Troup, Esq.

April 3rd.—Started from Nügata at 8 A.M., arriving at Akatsuka at noon, and Yahiko in the evening. Found the peasants occupied in manuring the corn-fields, and such-like operations, the snow having disappeared from the low grounds. The Shinan-gawa was flooded from the melting of the snows in the mountains, and much of the rice-lands were still under water. Yahiko is a village of some eighty houses, and is the chief seat of the Shinto worship in Echigo.

4th.—Proceeded from Yahiko, through Teradomari, Yamada, Idzumozaki, and other towns and villages, to Shüya. Visited the works on the cutting in progress from the Shinan-gawa to the sea near Teradomari, and found they had made considerable progress since my visit to them last year; workmen having been employed on them, while the weather permitted, during the winter. In view of the progress hitherto made, however, it is clear that the cutting cannot be completed this year, notwithstanding the statements repeatedly made to me that it was intended to have it opened in the autumn. Observed in the lower parts of the cutting that, under the sand, beds of slaty clay in some places, and of shale, showing an inclination here and there to turn into lignite, made their