THE JOURNAL
OF THE
ROYAL GEOGRAPHICAL SOCIETY.

VOLUME THE FORTY-SECOND.

1872.

EDITED BY THE ASSISTANT-SECRETARY.

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LONDON:
JOHN MURRAY, ALBEMARLE STREET.
Boroton's Notes on an Exploration of the Tupil el Safi. 49
and tides were contrary, and our ground tackle was not to be trusted—the
anchor having been already lost and a light gale only remaining.
From Seder Negus (the representative of the Mamelukes of Mousilous
at Lernos Mousilous), who had travelled on the Nile up between the Lignia
and the sea, most valuable information was collected with regard to the river.
This gentleman reports it as broad and deep—"large enough for a frigate."
when you cross the bar—and describes the bed as most fruitful and
capable of producing immense quantities of rice. This, too, is the report of a
practical rice-plantation, and his statements regarding the wonderful luxuriance
of the wild plant fully bear out my own observations and reports.

II.—Notes on an Exploration of the Tulul el Safi, the Volcanic
Region east of Damascus, and the Umm Ni'ma Core. By
Captain R. P. Borton, R.G.I.S.

Boroton, upwards of a year and a half sojourning at Damascus, had
been tantalised by the sight of the forbidden Tulul el Safi, the
Vellis or hillocks of the Safi region, the Oriental Trench
(Topique, i.e. "rough region") of the Greek geographers. These
monuments, hardly bigger than baby fingers, sit on the eastern
slopes within easy sight, and purlong northwards the humpy
top-line of the Jebel Darzu Hauran, which appears to reflect
the opposite wall of the Anti-Libanus. Many also were the
vague and marvellous reports which had reached my ears con-
cerning a castle, tomb, or cave, called by the few who knew it
"Umm Ni'ma," the Mother of Fire—that is to say, the "burn-
ing," probably from its torrid site, the great basaltic region of the
Eastern Darzu line. It is alluded to in 1609 by Dr. J. G. Wett-
stein, formerly Prussian Consul for Damascus (note 1, p. 38,
"Reisebericht über Hauran und die Trachoniten", Berlin, Reimer,
1893), an official whose travels and whose writings, not to men-
tion his acquirements as an Orientalist, have perpetuated his
name in Syria. After a journey through the Saiifa and the
Hauran Mountains, peculiarly rich in results, he was prevented
by the imminence of the Damascus massacre of 1609, from
exploring Umm Ni'ma. The cave also escaped, in 1867, Mr.
Cyril Graham, whose adventures much is too little known,—a
collection of his papers, scattered throughout various periodicals,
and published in a handy form like the "Reisebericht," would
be a valuable addition to modern travel-tale in Syria.
The danger and difficulty of visiting these places arose simply
from certain petty tribes of Becharin, they are large descendants
of the sedentary robbers of the Trachonitai, who, to revenge the
death of their captain, Naub or Nubius (El Nukaryh, diminu-
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tire of El Nahkh?), rise up against the garrison of 2000 Damascus, stationed in their country by Herod, son of Antipater. They number nine clans, and they are known by the generic term Urban of Jebel, Ama of the Mountains, because they dwell in the highlands of the Haaran, under the patronage of the Emirs of Damascus. The western are the Ghyas and Shidlay, who, although they have given hostages, were allowed, during my stay of Damascus, to rule the country within three hours of the walls, to plunder the villages, and generally to make paying work for the trivulcns. They never hesitate to attack a strong fortification, however secure, without the guidance of a fel- low-traveller. Hence the three broken-down Damascus con- vants called El Diviëk (the Days) have never, to my know- ledge, been visited by an European traveller. I was fortunate enough to reach them in December, 1869 and 1870; on the latter occasion, however, the Ghyas Damok formed a line of some 30 skirmishers, and, advancing steadily as if on parade, treated us to a shower of bullets, severally wounding my galant companion, Rohy Bay, son of the deceased Kandakudd, Rohy Khan Pasha.

I found nothing remarkable in the Diviez, except their ex- cellent state of destruction, in which man has left them unscathed. Their site is the Léf, the Hebrew Koub, the masted and raptorial edge of the torrent-fortress poured out by the volcano Tishin. This hill forms a true crater to the alluvial ground, over which runs the Besg el Ghanbat, or Robbers' Road; westward are the Damascus Laken, more properly called svampe, the "Panges" of Sim, a salt-clay-thick in the dry season and a draining-ground for the Bumada and the Amsel when they have any water which the irrigated fields can spare. I often visited, at all seasons, those features which appear upon the heaps nearest mentioned and skilfully like the Lake of Lencore, but I never saw a drop of surface-water in any one of the four different beds. The architecture of the three convents, like that of the Haaran Monastery, is a complete plan, and that of the Léf, on uplift, northwest of Haunan, in old Christian, dating from the days when the Besg Ghosna (Ghassanu) of Yemen ruled the Damascus. The material is basalt, generally porous; the stones are for the most part rudely trimmed, and the shape of the houses is that of a polygon. The monks who owned the religious houses doubtless converted into hunting fields the now desolate clayfields which separate the swell from the true cove. In the present day the rains might be utilized

*Murray's Handbook (p. 11) translates El Léf of the "caverns," it is certainly not a "narrow slit of the plain extending round the Léf."
feeds the Leja with a "sweyer lavarot," proceeding in an artificially straight line from Jebel Kilayb, and flowing from south-west to north-west. We ascended, by careful inspection, that this feature does not exist. At Ksirs, the ancient Kenath and Canath, M. C. F. Tywhurst Drake secured the fine altar-lead of basalt now lying in the rooms of the Anthropological Institute. At the noble ruins of 836 (433) were found two Pahyrna inscriptions, showing that the Palmyran of Palmeng extended to the north-west, far beyond the limits assigned to it by the moderns. We then ascended the Kilayb for the purpose of mapping the tops of many craters which appeared to be scattered in confusion. Viewed from the heights of the Liburns, the Anti-Liburns, and the Hamrun, this mountain appears like a dwarf pyramid, standing the crest of a changeless blue wall, and it is popularly supposed to be the apex of the range which palaeographers have identified with the Ptolemaic "Alexandria Mena." The name is erroneously written Kilayb (قلياب), meaning "little dog," and is misappropriated Kilayb. The orthography is Kilayb (قلياب), "little heart," or "turning-point," and the latter is doubtless the correct sense, as the central ridge of the Jebel Hausras here drops suddenly into the upper upland valley. On a nearer view, Kilayb has one peculiarity: where all the cones are bunched heaps of red and yellow matter, it is feathered with trees up to the summit. A little south of the apex we found a diminutive crater opening southwards. The rim is now 435 feet lower than the summit of the Cedar Block, the greatest altitude in Syria and Palestine; the R.P. 205-90 (temp. 73°), and the hypsometer supplied by Mr. Capella stood at 0°.

The ascent of Kilayb gave us two valuable observations. The apparently confused scatter of volcanie and cratered hill and hillbok fell into an organized trend of 30° to 170°, or nearly north-south. The same phenomenon was afterwards noticed in the Safa Region, and in its outlying, the Tail of the Jordan, lying hard upon a meridian. Thus the third is a northeast trend ranging over the Mediterranean from the Expanse Desert, does not run parallel with its neighbors the Anti-Liburns and the Liburns, which are disposed north-east and south-west.

The second point of importance is that the "Turning-point Mountain" is not the apex of the Jebel Daraa Hausras. To the

بيركرو: نسج على إكضيالة تأذ فيلاب. 52

east appeared a broken range whose several heights, beginning from the north, were: -

1. Tell Jihals bearing 38°, and so called from its village, able by a heap of ruins looking from afar like a caim, and it is backed by the Umm Halfa hill bearing 94°.
2. Tell Kufr, rock and fountain of Akbara* (Dr. Weitzel's Akbara), bearing 115° 20'.
3. Tell Manda, bearing 116° 36'.
4. Tell Jafud, a false mountain with a caim at the east, bearing 120°. During the course of the day we passed between Nos. 1 and 2, and ascended and skirted level, taken from the summit of Kilayb, was not far wrong in assigning 300 feet of greater height to Tell Jihals. But though the "Turning-point Mount" is not the apex of the Hausras highlands, it conceals the

* In Syria and Palestine there are many Akbara, two villages of this name, and another west of Nabata, described with Ezekiel (Ch. vii. 15), and represented as the capital of the Aramaean district.
count. Here we were received by the Druze chief, Kahlába el Bahlalay. This person had met us at Kasawwà, and had promised an escort to Unam Kifân. He now warned us that his people were on bad terms with the Ghjirha Bebait, who were in their summer quarters, the Bahbahah, distant only about 15 geographical miles from the cave. Fortunately we found out their only objection to our expedition a considerable demand for some ten horses—a smaller number would fear to travel. We at once determined to make our point de départ the little village of Tayma, lying about 8 miles to the south-east. It was out of our way, but the Sheikh Yassa Shabat had shown himself our friend, so in justice to the Druze, I must remark that Kahlába el Bahlalay was the sole basis exception to the hospitality of his race, and to the national affection with which they regard their old friends the Bebait. And as a proof that his conduct was generally probated, six youths, the sons of Shabat, or chiefs, at once volunteered to escort us, and refused all remuneration.

Despite the stiff sirocco, which blunted the outlines of the distant highlands, before beautifully crisp and clear, we left Tayma at 1.45 P.M., on Friday, June 2nd. The bridle-path led past Sunday small villages of Druzes to the well-defined Wady Jabiyya, which after rain discharges seaward into the bahaitic estuary, known as El Harrah, the "island" or "built hand." One hour's ride over rough but not difficult ground placed us at the Kifân el Dib (a1162), which is simply a low-torrent, showing volcanic dykes, secondary centers, and blow-holes, with bars arbitrarily disposed at all angles. The two normal forms, the long burrow and the round burrow, are sketched by Dr. Westaen (p. 18). He considers them to be big bubbles, whose petrified centers is almost invariably blown off at the top, or split away in the ridges by the bursting of the gases which extended them. In some cases, however, the narrowness and sharpness of the gashes at the summits, and of the clots which divide the lengths of the bubble to argue that the mere extraction of the cocoon mass is sufficient to part and split it; moreover, not a few burrows look as if they had been made by and dotted. Evidently the balaitic formation of the Trachites is of younger date than that of the Hermes. An active volcanic protrusion the neighborhood of the sea or of some large lake. The

"A certain correspondence upon this subject took place in the "Field" newspaper of Dec. 10th and 20th, (7-1.) The reporter of the latter could not understand why geographers were so slow and timid in resolving him (Captain Baraza) and advanced warning wa—measuring the projéct of volcanoes (at least it was so stated). The test will show that I did not "think any originality of idea will regard to the fact"—I have simply asserted that it is generally known.

Bou:ons Notes on an Exploration of the Trachites of Safa. 55

break probably belongs to the days when the Eastern Desert—

a flat steeple tract extending from the Trachites to the

northern limit of this extinct Mediterranean may be found

in the Anti-Libanus, upon whose southern and eastern part Pal-

actual tectonic Great River. At the river known as Kora of

el Huyr (s317), in the Jayrâd-Palmyra Valley, I found the

stone composed mainly of scarpers or pectores so honestly unex-

pectedly that the fingers could pick them out.

We crossed the Kifân in 35 minutes, and entered the Nuba of

bassalt which, during wet weather, fills the feet so as to pre-

vent walking, and in which, during the dry season, horses sink

Our passage of the Nuba occupied two hours. We then

and fell into El Harrah: the only difference in the aspect of the

land was a trifle more of stone, whilst the bassalt was either

hamp-black or snow-white with the usual cryptogenia. Those

of terrains, however, trifling. The lands in the north—a mixture

of clays and stone—were called El Harrayyiah; the stone

ground to the east in the Wâr, the usual generic term; and

still on our right ran the rocky Wady el Kifân, which we had

crossed and left northward.

Here we had our first fair view of the Safa. The little volcanic

block, with its seven main summits, is well laid down in outline of

omas and centers, which the Druze youths called Tabul of Danamara, where no observers can be seen. A deeper bluegray

latter is a rolling waste of dark basalt, broken by and dotted

shimmering in the summer sun, and known as "Ghâdir," or hollows were water stagnated and produced an agglutinian formation. In the far distance, extending from the ground of the basalt which lay beyond our rolling volcanic

—the mysterious doors never yet crossed by European foot.

Here we began to appreciate the peculiarity of occurrence by
which the old Roman soldiery kept the Bedawin at bay. Far to the east, and in the heart of the Harkah, which is beset by a military road, are shown their outposts, Khubat of Baja, El Ouzaylul, and Nimza, which must have been impenetrable to the wild man, and behind which lay the waterless waste investing the fortifications of Syria.

As the shadows of night deepened around us and the clouds, which at times shed heat-strips, obscured the moon, though near the camp, we could see nothing but the wild, black stone-region now in front, then on either side, and we could distinguish only that we were following the course of a wady, which became so wide and deep that it ran south-east and even south instead of north-east. At last, after 6 h. 45 m., of this weary work, we halted a half mile or not to exhaust horses already thirsty.

Our escort wanted water enough for a week; they were more utterly helpless than children would have been under similar circumstances, and at last, reckless of water or wood, all slept the sleep of the weary. Our day's work had been a total of 6 h. 50 m., which may be summed as 17 indirect geographical miles.

The night was peculiarly severe. We left our hard beds at 4 A.M., and a few yards of advance showed us the Ghadir El Sallur, the "Valley of the Father of Brochel," where we had been promised water. This deep depression in a shallow wady underlies a heap of rock which forms the right bank, and the yellow surface of level and curving hill appeared to us that it had been bedecked for the last six hours. Here again we fell into the "Sultani," a main track which we had lost during the night; and, after half an hour, we struck El Nahash, a depression in the slope with the shapeless ruins of a settlement upon both sides. Then bending to the south-east, where a network of paths converged, we struck, at 6 A.M., the Ghadir el Kahl (Khal),此次 expediting a total of 8 h. 40 m., upon a march which was, may be covered by 125 camels and over 3 h. 3 h. 50 m. This basin, according to our guides, the drainings point of the Wady el Kahl. At the season of our travel it appears to be a more sink without watered; trending cast and east, it is about 90 yards long and some 4 feet deep: it does not reach the year, and its highest water-mark is not more than 4 feet above the actual level when it would flow the eastern clay-plain.

We spent 2 hours 50 minutes at the water, and then the watch showed 7 h. 15 h. We retraced our steps and fell into the Saut (Sawt), or whip-thong. This is a line of dark-coloured clay, which submerges the western Léch or ruins of the northern

Burton's Notes on an Exploration of the Tielt of Safah.

Tabih al Safah. Fresh new of a drummed appeared upon the older footprints: the road was evidently bound, like ourselves, not the object of exploration, and we gave the illuminated footprints the Léch of the Léch, a created "uninhabited" and yokes. It is evidently the bank formed by the lateral force of a dyke, the pressure and flow of heated matter in its roar, the dyke, the pressure and flow of heated matter in its roar, and under the band, on the north and south sides of the track.

From the west side was lamb-black, and the eastern reversed. In fact, we could only determine that the fiend of stones apparently swept down from the Léch, we turned a break; here it was submerged by several parallel which bore a grim and ghastly scene of volcanic ruin and devastation, there gloomiest black, and both glowing under the grey sun of the light east breez of the north ceased when we left the El Fadhum, admirably submerged the best: the air was first of all Damascus, by Ghadir, and the shape, as well as the components of the "Wall," worked, affecting man and beast with indescribable thirst. All we rested in a shady fissure, however, where we remained. We were presently surprised, at 4.20 a.m., by seeing the dark outline some from their horses, and by holding themselves. We had occupied 4 h. 20 m., and the day's 17 hours, which result was a distance of 204 direct geograpical miles.

The feature, concerning which we had heard so many curious and contradictory tales, lies at the western foot of a long-shaped
seeped and wood-blocked block, which the Arabs called El Zirs (الزيرس), from its likeness to a grinder-tooth. Occupying the eastern slope of a rounded hillock of basalt, the mysterious cupolas of El Zirs (1377), with a central arch of clay which at first sight appears artificial, and it is burnt by a circular hollow of clay, to which water seeps from the steep eastern escarpment. Approaching from the west, and both show that at times the water is excessively used. All above this cove is dry as the sand of Sina: after rain, however, there is evidently a stream from the breasting banks into the cave.

A plan drawn by my friend and fellow-traveller will explain the form of Umm Nu'air better than any words of mine. The floor, covered with shallow dry mud, is of rough and other broken irregularities. It is easy and regular. The roof shows a longitudinal ribbing, as if the breadth had been nearly doubled. A sensible widening, with a力争-shaped pier, the rock being left to act as column, succeeds the low and narrow slit through which a man must creep. Passing from this bungle to a second shaft, after a total of 290 yards we reach the water, a dish-like cloudbed, averaging 4 feet in breadth, with Mastaba, or flat benches of cut rock, on either side, varying from 2 to 6 feet wide, to the line of the breast at an angle of 50° to the maz. Here, by plugging his head below the water, and by raising it beyond where the roof-apses descended, my companion found an unshaped chamber, still traversed by the water. He could not, however reach the end: a little beyond this point the arch-cracking and the water met. The supply was perfectly sweet, and the thermometer showed 71° to 72° Fahr. the atmosphere was close and damp, and the basin roof was dripless. The water varied in depth from a few inches to half-body, and the total length was 140 feet. Thus the total length of the tunnel was 360 feet, but it may be greater. According to the Arabs, it is supplied by springs as well as by rain, and the hottest season fails to dry it.

The cause of the water or its coursing is evidently natural, but it has been enlarged and disused by man. There is no local legend concerning the origin of a work so far beyond the powers of the Bedouin and desert-dweller: we could only conjecture that it was made by some of the old kings of the Damascene, who enlarged the approach for the benefit of their flocks and flocks gathered to the Arab caravanners. The guides knew nothing of ruins or of "written stones" in the neighbourhood, and we could see only the roost of dry walls used to shelter the sheepfolds from wind and rain.

We are now at the southern limit of the northern Tell el
We reached the fort in 20 m., and thus ended our total of 7 h. 48 m., the work of that day. We had great trouble in finding the well which maps place to the south-east of the Baldeh. It really began 10' and 50' south from the Tell Kasum.

The next day (Monday, June 5) was the last of our desert excursion. The Druzes quietly left us during the night, under the cover of one of their caravans. Mahomed Kazanhanz, who, though badly wounded in a late fray, followed us to Damascus and received a breech-shot revolver as a reward. But instead of making for Damascus on the Druze road, we followed the wadi of Banias, fortunately for us we determined, despite the unusual heat and stifling winter, to inspect the Druze Mount, upon which so many of our fellow-countrymen have cast longing looks from the minarets of Damascus. The view from the summit enabled us to correct the position of the Selaik Highlands, or Three Brothers. As will be seen, they adjoin the Druze, whereas our maps place them upon a parallel instead of a meridional line, and give them the correctly corrupted name "Tibessar." At 4.00 p.m. we reached the Druze village, where we were received with enthusiasm by the good Rashid El Botli. We had covered 29 indirect miles from Jebel Druze, a day's total of 30.

III—On the Neighbourhood of Bander Marashab. By Captain S. B. Miers, F.G.S.

[Read January 80, 1872]

BANDER MARASHAB, in lat. 11° 45' N., the chief port of the Mijarbad tribe of Souli, is situated at the foot of the range of hills bearing the same name, which rise about a mile behind the town to a height of 4000 feet. The town extends nearly half a mile along the bend, and contains upwards of two hundred houses, about a quarter of which are built of sun-dried bricks, and the remainder of wattling. The permanent population of the town is only some six or seven hundred, but during the trading season, when the kaffals arrive from the interior with goods and other produce, and the Arab merchants come across from the opposite coast, this estimate must be quite doubled. The largest and most commodious building is the Sultans's, situated at the back of the town, it is of Hindustan fashion, is several stories high, and was built forty years ago: there are several others also of the same style and almost as large. There are three mosques, all whitewashed, but in rather a dilapidated state; the town also boasts a school, attended by thirty