

not well represented; the elegant covering of yellow dust-like pollen with which they are covered is removed with the least touch, and renders them almost impossible to preserve satisfactorily. The *Clateride* are few in number and unimportant. The flower-infesting *Malacoderms* are only just commencing to attract attention, but appear, to judge from Mr. Ancey's *Voyage*, to be abundant, and to contain many new forms. The *Heteromera* I have already spoken of as the great feature of the place. The second section, of more flower-loving habits, is also well represented, especially the numerous varieties of blister-beetles or *Cantharide*. The orange and black *Mylabris* are everywhere in flowers, and are most variable. The *Curculionide* are but little known, though furnishing some interesting *genera*. More remains to be done in this group than in any other; and throughout the world it is of incredible richness, more than 12,000 species being computed to exist in collections. The *Longicornes* are tolerably well represented, especially by the comparatively gigantic *Prioni*, but the beautifully striped genus *Dorcadion*, so characteristic of Asia Minor and Turkey, is scarcely represented here. The herbivorous *Phytophaga* are abundant, wherever there is vegetation, and will furnish many new species; two extremely curious species of *Cassida* discovered by M. Ancey have quite an exotic appearance.

The lady-birds or *Coccinellide* are not abundant or remarkable; the common seven-spotted species appears to occur there without change, and is in fact spread over half the world. From this brief sketch it will be seen that the *fauna* has altogether an European cast, and to obtain much strikingly novel, excursions must be made eastward and southward. The grand mountain district of the Lebanon, while furnishing some interesting things, is very poor compared to any of the mountains of Asia Minor, as the Taurus, &c., which absolutely teem with insect life.

In conclusion, I can only say that if any one who may read this has specimens of this group of insects from Mediterranean districts, I shall be most delighted to render any assistance in examining and naming the specimens.

Cambridge.

G. R. CROUCH.

REMARKS ON A VISIT TO 'AIN JIDY AND THE SOUTHERN SHORES OF THE DEAD SEA IN MID- SUMMER 1867.

BY CAPTAIN WARREN, R.E.

IT being desirable to photograph several objects of interest in the southern shores of the Dead Sea, previous to the departure home of our photographer, an expedition was arranged. Our party consisted of Dr. Barclay, Mr. Eaton, myself, and Corporal Phillips (photographer).

Visits to this part of the Dead Sea had been hitherto made during the cold weather, and whether Franks could stand the heat in midsummer was quite a matter of conjecture; we knew that the Bedouin abandon the

lower shores at this season, and we went down fully prepared to beat a retreat if we found the heat too much for us. Many good friends endeavoured to deter us by evil prognostications, and conjured up horrors, by anticipation, on our road, sufficient to frighten a nervous person into a fever.

The ground about 'Ain Jidy belongs to the Resheidy, an insignificant little neutral tribe protected at present by the Ta'Amireh; and it was with a sheikh of the latter tribe that we were to make our agreement; he was to take us down to 'Ain Jidy and Sebbeh (Masada), and bring us home; he would not undertake to go farther with us, as even Masada was beyond the Resheidy's territory. It appears that the ground along the shore from 'Ain Jidy to Jebel Usdum is a sort of neutral ground, formerly claimed by the Jellabin, but, since their decay, under no control whatever. This road has been the highway for predatory bands passing north and south since the time of Abraham, and was just now considered particularly unsafe for Franks, unless escorted by a strong guard.

Of course we had to go through a considerable amount of coquetting with the sheikh before he would come to terms; but owing to the good offices of Mr. Wood, the acting consul, the arrangements were completed within twelve hours.

We had in the meantime been getting ready our caravan; and as we were going into a country utterly barren, we had not only to carry with us the whole of the corn for the journey, but also huge goat-skins for water, and spare mules to carry them.

We made the Frank Mountain our starting-point, where we found the tanks just running dry, and the water of the muddiest. Early next morning (Saturday, 6th July) we started, passing Tekoa, thence down Wady Hasâsa, and arrived at the top of the 'Ain Jidy pass about 4 p.m.

The view from this point was magnificent; the sky was clear; we were two thousand feet above the Dead Sea, and yet as it were hanging over it; the sea below us appeared of an intense blue, with yet a curious milky film over it, with here and there dark moving spots passing along, as if floating islands; the hills beyond were thrown by the setting sun into striking contrasts of light and shade, the rocks being of a rosy tint; below, on the narrow strip of the Ghor, a vivid green struck the eye, which one could almost conjure into the palm and other tropical trees we knew to be growing there. The hills themselves were not in one monotonous line, as seen from Jerusalem, but collected into masses of different heights, broken by deep and narrow gorges, above one of which Kerak was to be seen, the houses and battlements coming out most plainly in the glowing sunset. It is seldom that the atmosphere in summer is clear enough to allow of a view such as we saw that afternoon. We had to hurry on to get to our camp before dark; the road down is very bad, but not dangerous; it took us an hour to descend the fourteen hundred feet, and then we found ourselves on the little sloping spur, from the top of which 'Ain Jidy gushes, falling down by cascades into the sea some five hundred feet lower. We had felt the heat increasing gradually as we descended; and when we reached the 'Ain our thermometer (after sunset) stood at 95°

Fahr., and we were still a good height above the sea (500ft.), the hot air from its shores coming up constantly in most disagreeable and stifling puffs.

We found our guards bathing in the 'Ain; but we bundled them out and turned in ourselves, and had a most delightful bath, though the thermometer in the water stood at 81°.

We slept very little that night owing to the heat and noise. We had a guard of sixty men; we had only paid the sheikh for thirty, but we did not feel very comfortable in the country of the Jollabin, and each man had his double. All night long, camel loads of salt (from Usdum) were winding up the narrow staircase above us, and our guards kept up an incessant noise, talking to the camel-drivers, with whom they conversed at a distance of several hundred yards. It is astonishing to what a distance the Arabs manage to pitch their voices when they wish it.

In the morning (Sunday) we were awake by the first rays of the sun shining on our tent and raising the temperature to over 100°; we had to turn out quickly, swallow a hasty breakfast, and start off for shade, in the Wady Sudeir, in search of the grotto described in Tristram's "Land of Israel."

It was out of the frying-pan into the fire; for the spur on which we were encamped lies between Wadies Areyeh and Sudeir, and thus catches any stray puffs of fresh air that may happen to be straggling about; but Wady Sudeir is a regular sun-trap—a cleft with hills 200ft. in height at the mouth, and increasing towards the upper end. We soon became quite exhausted, struggling amid the tall bamboos; and we presented a ludicrous spectacle crouching down under the pieces of rock which gave a few inches of shade. Eventually somebody found an overhanging rock near the bed of the torrent, with bamboos making a lattice-work in front, and we here collected our forces, the Bedouins wanting to share the shade with us. It was a charming little retreat, only so very hot. When we had recovered, the church service was read, and somebody producing an "Ancient and Modern," we were enabled to sing a few hymns, the sound being mellowed by the rushing noise of the torrent hard by. An appropriate sermon on the Dead Sea fruit closed our proceedings. We dared not, however, leave our retreat until late in the afternoon, when we followed up the torrent, coming upon some beautiful cascades, one of them twenty feet high. After a little slippery climbing we arrived at the grotto of which Mr. Tristram speaks so enthusiastically. It is certainly a most beautiful spot (see photograph No. 282), but I fancy more water was flowing from it when we were there, as we were unable to get very near it without getting wet through; the sun was now low, and we clambered back to our tents.

The next day was employed photographing; it was very trying work; but Corporal Phillips took some capital negatives—two of the grotto and hill above, one looking up the hill, one of an acacia and of the apple of Sodom. The heat was extreme, and after sunset the thermometer stood at 110° on the shore of the Dead Sea.

9th July, 1867. After taking some angles with the theodolite, we left 'Ain Jidy at 6.40 a.m. for Sebbeh. At 8.50 a.m. we arrived at two fresh-

water springs near the seashore; here we filled our skins and jars, as we were told we should find no more drinkable water until we arrived at Wady Um Baghek, on the other side of Sebbeh.

The old fortress soon loomed in view, and we began to look out for shade among the curious flat-topped hillocks through which we were moving. We could find nothing approaching to shelter until we had passed to the south-east of the foot of Sebbeh, where we found one solitary rock standing over the bed of a dried-up water channel; at the foot of this was a narrow strip hidden from the sun, and here we were able to breathe freely. We arrived at 11 a.m.; waiting for our mules to come up, we commenced our lunch, and had just drunk some wine when we found that the remainder of our water had been drunk up by the Bedouin. We sent a mounted man back to get some more, but it seemed long enough before it came.

Our guides were very much exhausted, and our sheikh said he could not go any farther; we wished to go on to Wady Um Mogkik for the night, as there is plenty of water there; but he declined to go so far, as he had only contracted to go to Sebbeh; however, we put it to him that if he did not acquiesce to our plan, we should hold him to his contract to the letter, and make him take us up to the very top of the fortress, baggage and all. At this he gave in, quietly remarking that the English always had their own way; but we found afterwards that he intended to have his way, for after we had sent a written message to the baggage party ordering them on to Wady Um Mogkik, he sent an express messenger to say we had changed our minds and wished to camp at the northern foot of Sebbeh. For this little piece of treachery we were, at the close of the day, very thankful.

We now made arrangements for photographing, and left Corporal Phillips down at the bottom while we ascended; we started at 2.20 p.m.—Dr. B., myself, three Bedouin, and a little flask of water. Our men had never been up before, and as we were on the wrong side we felt doubtful whether we should double the southern side of the fortress and so get into the regular path, or should go towards the north. Circumstances guided us: we found that full on the eastern side we had less difficulty, and we thought to creep round at a higher level; when, however, we were about half way up we saw right above us a sort of broken path, and we were so knocked up that the danger of the short cut appeared as nothing to the long pull round. We commenced scrambling up by a path more dangerous than difficult, for the natural lay of the rocks is such that they crop out perpendicular to the steep side of the hill, and thus each stone you scramble up is overhanging and ready to topple over and crush you, should your weight be sufficient to overbalance it. One of the Bedouin suddenly disappeared over a rock; suspecting him, I caught him before he had quite finished the flask of water with which he had been entrusted. On getting close to the top we were nearly stumped: before us were two upright pieces of wall, of about fifteen feet each in height, without any apparent path; we found some toe-holes in these, and climbed up. A false step here would have been destruction:

we arrived at the top at 5.20 p.m. and gave three cheers, re-echoed from below: we found we had landed full on the middle of the eastern side of the flat surface of the fortress.

Whether the path we went up by or came down by is the "Serpent" spoken of by Josephus appears to be a question which cannot be solved by reference to Whiston's translation; but it seems probable that it should refer to the more difficult path to the east, by which we ascended.

Josephus, B. J. vii. 8, § 3. "Now of the ways that lead to it (Masada), one is from the Lake Asphaltitis, towards the sun rising, and another on the west, where the ascent is easier; the one of these ways is called the *Serpent*, as resembling that animal in its narrowness, and its perpetual windings . . . and he that would walk along it must first go on one leg; and then on the other; there is also nothing but destruction, in case your foot slip; for on each side there is a vastly deep chasm, &c."

Dr. Lynch's party, in 1848, went up by the western path, and conjectured it was the "Serpent," from its windings; M. de Saulcy, in 1850, also went up by the western path, and calls it the "Serpent;" but the latter, in taking Dr. Lynch's party to task on the subject, falls into an error in saying that besides the road he took "there is no other approach from the Dead Sea to Masada" (see note to page 228, English translation of De Saulcy's journey in 1854).

Mr. Tristram, in 1864, in "The Land of Israel," page 306, considers the "Serpent" to be the eastern part, and says: "The traces of this we could easily make out at intervals, but the pathway itself is completely broken away; and it is probable that, for many ages, no unwinged creature has ever reached the fort from the east."

Whether the "Serpent" is proved to be the eastern or western path is a matter of little moment, as they both wind considerably; but it is of some importance that we should have found the eastern path, and have come up by it, and have so far helped in a small way to verify the description of the Jewish historian.

As it would have been impossible for the photographic apparatus to be brought up by the eastern path, we shouted out for the party below to come round, and then we began to examine the ruins.

These are well described by Lynch, De Saulcy, and Tristram, and we were not long enough there to do more than make a short examination; but quite long enough to find that the place has not been half looked over, and that a stay of two or three days in the winter time on the top of this rock will be necessary before it can be properly examined and described.

We found a large tank 91ft. long, 27ft. wide, and 60ft. high, with a flight of steps leading down to it: on the plaster was written, "Cistern visited by William Tipping and Rev. Samuel A'Court, 14th March, 1842."

Some of the walls of the buildings are most curiously pigeon-holed. Photograph No. 288 shows one of these walls. We attempted to go down to the round tower at the northern end, but I doubted the ability of the Bedouin

to let me down 60ft. in safety. They might not have intended any harm, but their practical jokes are rather rough, and a playful little slip of the rope of four or five feet or so at the bottom might have sent me flying down the cliff. They never appear to calculate the results of what they do. Irby and Mangles describe a joke played on one of them by a Bedouin on the east of the Jordan : a scorpion was put up the sleeve of one of their coats.

After some delay, Corporal Phillips appeared with his implements ; he was looking rather the worse for the journey, having tried a short cut across the chasm, and got a roll down the hill of some 20ft. It was so near sunset that the view of the Lisan and the opposite hills would not develop, but some of the views of the walls, &c., were successful. A view was taken on either side of the pointed archway, on which are the mystic signs ♀ and Δ. I have seen ♀ on the flanks of the Jellahin camels, and believe it to be a Bedouin mark for the district or tribe. In Spain there are marks peculiar to districts and families, and the horses are all branded with them, just as we mark our sheep ; and the camels here appear also to be branded according to their tribes or owners. To show how easily the marks can be made on the pointed archway at Masada, I may mention that just before photographing, I found that another astronomical sign had been added : the artist, rather horrified to find that his handiwork was so soon to be put on record, hastily rubbed it out.

Our views were not completed by sunset, and as Corporal Phillips had got so knocked about coming up, he elected to stop at the top all night in preference to going down and up again in the morning. We promised to send him up some dinner, and started off by the western path. We had not gone down far before darkness came on, and we soon found ourselves in difficulties. Our guides hardly knew the way, and as we could not see before us, we expected each step to find ourselves treading the air, being somewhat impressed with the account Josephus gives of the chasms on either side of the road. Thankful we were when we met some men who had been sent up to find us with a light, but it was not pleasant to see that we had had some narrow shaves in the darkness. We were now very glad that our sheikh had placed the camp close to the foot of the fortress.

With regard to the height of Sebbeh above the Dead Sea, with two aneroids taken independently I made it fifteen hundred feet. Mr. Tristram makes it seven hundred feet higher. This discrepancy is very great ; but though I don't think there was any error in my observations, I cannot vouch for their accuracy, as the extreme heat made it impossible to observe with great care. We sent some dinner up to Corporal Phillips, and some of the water we had left from the morning, which was very nasty. The men, however, did not carry the water up. There is a nice little fountain near the top of Sebbeh, on the western side of the hills, which they knew of, and of which they told us nothing until next morning, after we had suffered several hours' thirst, and had had to drink stinking water. Next morning we awoke, dull and unrefreshed. As we looked out on the early dawn, a quivering mist hung over every rock ; a

heavy silence filled the air, and made us feel the utter desolation of the place; funny jagged flat tops of marly rocks jutted out in all directions, looking like castles slumbering under the enchanter's wand; not a sound from bird or beast could be heard.

The moment the sun rose all was changed: his rays lighted up and brought back life to the barren rocks, and we were in the world again.

Sending up Corporal Phillips his breakfast, we left him a horse and mule, and hurried on with the rest, for, poor beasts, they had had nothing nearly twenty-four hours, and were regularly parched up. Part of our way we noticed driftwood in a line thirty feet above the then level of the sea. Our road then lay through the water, as the rocky shore was too steep, and it was pitiful to see the animals sniffing up the salt, bitter brine. At 11.45 A.M. we arrived at Wady Um Moghik, and found a beautiful stream of water in a deep gorge, where we could hide away from the sun. We sat down to lunch, but were very anxious for our mules: they took so long to get along, and came straggling in, each looking more done up than his predecessor. Only one could not get up to the stream, and to it water was taken, and it revived.

After we had lunched we attacked our sheikh on the subject of paying a visit to Jebel Usdum. He refused decidedly, but to our surprise offered to go on and encamp for the night at Wady Zuweireh. This just suited us, and we said no more about it until we were ready to start. It appears that the sheikh was afraid to be caught in such a trap as Wady Um Baghik, and preferred to camp in Wady Zuweireh, because it was on the road to Hebron, and gave him some chance of beating a retreat if attacked.

When we were ready, we said we had made up our minds to go to Jebel Usdum, but that they need not come unless they wished, and we started. There was soon an uproar among them; one asked another how he could go back to face his family and say he had left the Franks to their fate, and started off after us; soon others came tailing in, and in a couple of hours we had a troop of some five-and-twenty volunteers at our heels.

It was rather pleasant to see that the Ta'âmireh had some code of gallantry left among them, for they have fallen very low of late years. It is very difficult for Franks to understand their ideas on etiquette. Sheikh Goblan told me that it was no disgrace for him to run away in battle, because he carried no ostrich feather on his spear. Like the pirate's flag, the ostrich feather is a sign of victory or death, and so the Bedouin who does not carry it can run away or fight it out, as he pleases.

As we passed the Wady Zuweireh mouth we noticed quite a change in our volunteers. They had before been slow to come on; but now they were regularly in for the game, they became cheerful and bright, delighted to have a chance of bearding the Jellahin in their country. We passed on by the curious hill of salt, and examined "Lots Wife," a very large pillar of salt, something like a figure out of a Noah's Ark. At the eastern end we came on the mouth of a large cavern in the hill, through which a stream appears to flow in winter time; inside, the temperature felt quite cold after the heat outside, though it was hotter in there than the aver-

ago temperature at Jerusalem in July. We now found it time to turn back, and immediately our men relaxed their strict silence, as if all danger was passed, and fired a *feu de joie*, shouting and jeering at their absent enemies. Had they known that a large party of Jellahin were watching them from over the mountain sides they would not have been so confident, as at one time they had not a shot ready among them. It appears that Mr. Peter Bergheim was just returning from Petra (where he had been successfully photographing) and, suspecting that we were with the Ta'âmireh, succeeded in restraining his party from coming to close quarters with us.

The rock of Jebel Usdum is partially formed of enormous masses of salt, presenting a series of pinnacles and sharp angles formed by the sun and moisture in winter. On our road we met with most beautiful specimens of salt crystals, like icicles, only pointing towards the sky: we collected some of these, but they melted away at Jerusalem. As we were moving campwards, and were talking of "Lot's Wife," the attention of all three was suddenly attracted. We saw before us among the pinnacles of salt, a gigantic "Lot," with a daughter on each arm, hurrying off in a south-westerly direction, their bodies bent forward as though they were in great haste, and their flowing garments trailing behind. We did not get to our camp until some two hours after sunset.

Next morning we started for Hebron over a long and uninteresting road; the men did not know the country, and appeared ill at ease. One of the muleteers had a violent attack of fever and could hardly stick on his donkey. We had been a day longer than was expected, and the mules had had no corn that morning.

Soon four horsemen appeared over the brow of a hill and then retired. Our Bedouin became alarmed, got the baggage together in a clump, and consulted what they should do. The scouts said there was a strong party of Bedouins dodging us to our left. Our men now began to get excited, pulled off their tarbushes and abbas and flung them to the muleteers, and looked very wild, nearly naked, with the long tufts from their heads floating in the air. One man would strike his breast and say, "Who says I'm afraid?" and then another would take it up. Eventually a great black negro nearly caused a fight among ourselves, as one of his comrades said he looked afraid, and the rest took sides. For several miles we went on parallel to the line of Arabs on our left, but gradually we lost sight of them. They appear to have been the party of Jellahin bound for Hebron, but not wishing to come in contact with us.

Towards evening we came to a well. There was only one bucket for drawing water, and a regular struggle took place. We had to fight our way among the savages before we could get to drink. It was now a question of what we should do, whether to stay by the water without food or push on to Hebron without water. We chose the latter, and succeeded in getting to Kurmel, a short distance south of Hebron, by ten o'clock. Here we were lucky enough to find some straw lying about, and our mules had a feed on it. Next morning we rode in to Jerusalem.

C. W.