

happy solution of that obscure problem—the “watercourse” of Jerusalem. Further, it is, as Mr. Macalister has justly observed, a very suggestive element in the study of the famous caves of Beit Jibrin (*Q.S.*, p. 17). Here, then, is enough to justify both the admiration which this magnificent discovery evokes, and the immense interest which is attached to every new revelation for the history and the archaeology of the Bible produced by the successful and scientific excavations at Gezer.

NOTES OF A VISIT TO ENGEDY, MASADA,
AND JEBAL USDUM.¹

By DR. E. W. G. MASTERMAN.

THE last week of last January I had the privilege of accompanying Prof. Francis Brown, of the American School of Archaeology, and two of his students, to a comparatively little visited part of the western shore of the Dead Sea. As the places visited, *Ain Jidy*, *es Sebbeh*, and *Jebal Usdum* have not been referred to in the *Quarterly Statement* for many years, a short description may be of interest, while a few travel notes may be of use to any who desire to visit these deeply interesting spots.

It is essential to make this excursion in the coolest winter months. M. de Sauley went early in January (1851); Canon Tristram in the latter part of January (1864); Lieutenant Van de Velde was there at the end of March (1852), but he complained much of the heat, and he and his whole party suffered much from

water was not considered (p. 32). But these excavations were only soundings or partial, and are insufficient to authorize a decided assertion. In any case, up to November 30th, Gezer could have been included among the examples cited. Now, however, the existence of the tunnel descending to the spring at Gezer could even allow the belief that there were similar installations at the incompletely excavated tells of Taanach and Megiddo; and it seems very evident that the care of providing water in times of peace, as on the occasion of a siege, was one of the most essential cares of the old Palestinian engineers. Thus, the tunnel has something to teach us even in the department of Biblical archaeology.

¹ The photographs illustrating this article were taken by Professor Francis Brown, of the Union Theological Seminary, New York, a Member of the General Committee of the Fund.

thirst ; Lieutenant (now Colonel) Conder and the P.E.F. party were there at the end of February and the beginning of March (1875). Many parties from the Dominican College and the German Archaeological Institute have gone in recent years, but always at this season. In spite of heavy rain one day and comparative cold all the time, we were quite satisfied with our choice of season. The earlier travellers had much difficulty in obtaining escort and safe conduct. The condition of the land is very different to-day, and we found a couple of ragged *Ta'amereh* Arabs—at the total cost of little over a pound for the whole six days—all that we needed.

We left Jerusalem (January 23rd) about 9 a.m. and rode to Bethlehem, where we had some little delay in waiting for our Arab guide. At 11.20 we passed on our left the road to the Frank Mountain, and twenty-five minutes later we left the *Wady ed Diyá* and turned up a rocky valley to the right (south), which our guide called *Wady 'Ain Harrida*. After a quarter of an hour (at noon) we halted at the muddy well-like spring *'Ain Harrida*. After fifty minutes for lunch and refreshment we started again and wound up the wady, keeping to the left branch. A steep and rocky ascent brought us in twenty minutes within sight of *Khurbet Taká'a*, which we turned aside to reconnoitre. The hill on which lies this extensive ruin is magnificently situated ; though bordering on the desert, it is surrounded, particularly to the west and east, by rich arable lands. To-day the place is utterly deserted ; not a tree remains, though the ancient olive-presses show there must once have been plenty of olive trees there ; the fields around are partially cultivated by the pseudo *bedu*, but practically speaking the surroundings have been allowed to lapse into semi-desert. The extent of the ruins is considerable, but all that lies on the surface appears to be late Byzantine and Arab ; there are, however, many ancient tombs in the neighbourhood. There can be no reasonable doubt that this is the site of Tekoa of 2 Sam. xiv, 2, 4, 9, and 2 Chron. xi, 6, and xx, 20, and that being so, it is a place which would repay excavation. Its situation, within easy reach of Bethlehem, its present entire desertion (not even a *wely* marks the site), and its undoubted antiquity, all mark it out as one of the most hopeful sites for excavation in the hill-country of Judea.

We left *Kh. Taká'a* (Bar. 27·3) at 1.50 p.m. and rode south. We had allowed our guide to go on with the baggage, and, as it turned out afterwards, we kept too directly south. Our path, however,

was interesting, following most of the way the water-parting between the *Wady Hassāsah* and the *Wady el Jihar*. After about two hours our *Mukarri* perceived his mistake, and led us abruptly into the upper reaches of the former wady. We passed several camps of the *Ta'amereh* Arabs, where we received news of our camp being ahead of us, and at length, at 4.45, we found our men erecting our tent beside a shallow rain-filled *birket* known as *Mutukh Hassāsah*. The pool lies in the midst of a sloping sterile plateau, with low hills all around. Water is very scarce in this district, and the three deep pits which we passed in the bed of the *Wady Hassāsah* were all quite dry, so that this pool, though small and shallow, must be an important spot. Here we camped. Bar., 28·9; Temp., 8 p.m., 55·4° F. During the night there was a cold wind from the west and some light showers.

Second day.—At 7.15 a.m. temperature was 48·2° F. We were off at 7.53. After crossing some open stony ground and passing some sheepfolds we descended the rocky *Khallet el Muktār*, and at 8.20 crossed the *Wady el Māterdah*; proceeding south-east, in five minutes we entered and commenced to ascend the *Wady Mukeiberah*. Our guide pointed out on our right a hill, apparently entirely natural, which he called *Kuḅat el jūsh*. At 8.40 we ascended the *Wady Nuweita*, and in a quarter of an hour reached a heap of stones known as *Rejum Nuweita* (or as the guide pronounced it, *Inweita*). From this spot a fine view is visible; to the east the road before us traverses the deep *Wady Shukf*; north-east there is a peep at a corner of the Dead Sea; then to the north the Mount of Olives, Bethlehem, the Frank Mountain, and, in the distance, the mountains of Samaria are all visible. We now descended into the *Wady Shukf*—the bridle-path here, as on our whole route, was in good condition,—evidently an ancient and long-used track.

We crossed several branch wadys, and at 10.15 were joined by an important and ancient road from the north, which must run to *'Ain Feshkhah* and to *Mar Saba*. Close to this point there are a number of graves which our guide called *Kuḅar Dawayereh*. Many of these looked as if they had been recently disturbed by animals or man. On one of them, which appeared to be more important, lay an old and much-rusted knife, an old Byzantine copper piece, and several pieces of metal shaped like coins. Here our guide recited the *fatah*, but with his back to Mecca. After a quarter of an hour we passed, on our right, the high road to Hebron, and crossed

(10.35) the *Wady Mākhōmah*, a tributary of the *Wady Sudeir*. At 11.5 we reached the top of the descent to 'Ain Jidy. A great stretch of the Dead Sea lay below us. The "white line" was very distinct down the centre of the lake, with a fainter line running from it towards the west and another running from the main line north-east. At the point where the narrow part of the descent commences the barometer was 29.74, at the 'Ain itself it was 30.72, and at the Dead Sea level 31.23. The descent itself bears evidence of a great deal of construction in ancient times, and with a very little labour might be made very fairly good for led animals—of course no one in his senses would ride down it. There are two or three places where our horses hesitated a little, and our baggage animal had to be practically unloaded in the middle section of the *Nekk*. It was surprising, however, how easy we found the ascent on our return. Descending slowly I reached the spring in an hour and a quarter, but going up we all did it well under the hour. We arrived 12.15 p.m. Temp. (air), 64.4° F.

'Ain Jidy itself bursts forth (Temp. 84° F.) below a mass of rock in two heads, and forms a small shallow pool from which the water runs off at two corners. In the neighbourhood of the pool flourishes the strange 'Usher tree (*Calotropis procera*) with its large fleshy, obovate leaves, its crumpled, corky bark, and its curious deceptive fruit—full of dusty threads and air instead of succulence. These are considered by some to be those Dead Sea fruits described by Josephus (*B.C.*, IV, viii, 4), which "from their appearance would be supposed edible; but on being plucked with the hand they resolve themselves into smoke and dust." The colocynth, however, which also flourishes in these parts, answers at least as well to the description. Quantities of solanum (nightshade), of tamarisk, of *Sidr*, crowded with dōm fruit, and of reeds flourish here. The most characteristic and striking tree of this district, and of the whole western shore of the Dead Sea southwards, is the *Sayyāl*, or gum acacia tree, of which we recognised two varieties. This beautiful tree, with its dark green foliage, made up of tiny bipinnate leaves, its sharp prickly branches, and its tiny yellow flowers, is, in many of the wadys, the only object which redeems the scenery from utter bareness. It frequently takes the characteristic umbrella-like form, but many of the larger kinds look, from a distance, like miniature cedars. We gathered considerable lumps of gum arabic from the branches as souvenirs.

The situation of 'Ain Jidy is charming. From the platform, where the spring bursts forth, there is a splendid view of all the southern half of the Dead Sea. Due south the mighty rock of Masada is recognisable at a glance: *Jebal Usdum* stands out on the southern horizon; just opposite to the east is the chasm of *Mojib* (the Arnon), and, south-east, part of *Kerak* can be seen very distinctly. Towering behind the spring, to the north-west, is the abrupt and pointed mountain known as *esh Shulef*. The little stream from the 'Ain gives rise, in its downward course, to a tangled mass of reeds and thorny shrubs, and irrigates a few brightly-green patches of corn in the level delta plain below. The spot is one of enormous

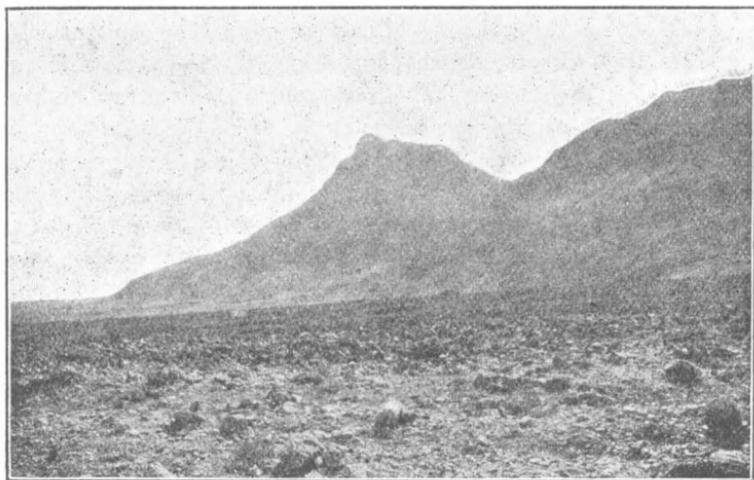


FIG. 1.—Masada from the North.

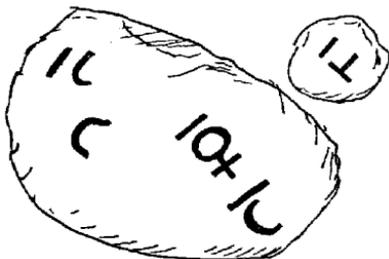
latent possibilities. We could see the hill sides terraced all around for the once famous "Vineyards of Engedy," but not a vine remains; the plain 500 feet below the spring is strewn thick with Roman and Arab pottery and the ruins of house walls, testifying to the considerable population which once flourished here, but now not a house remains—the few Arabs who live here inhabit the caves. Once the city which stood here, Hazazon-tamar (Gen. xiv, 7, 2 Chron. xx, 2) was, as its name implies, famous for its palms; to-day not a palm is visible, though fragments of trunks and leaves, saturated through and through with salt, lie dry and glistening along the whole west shore. In Roman times, and again in the

days of the Crusaders, this was a well populated and highly cultivated oasis, but to-day the spot has lapsed into little better than a wilderness. The old aqueducts are broken, the terraces are fast falling out of all recognition, the house walls are now unrecognisable heaps of stones; yet, even so, a spot so richly supplied with water, with such a panorama around it, cannot but remain attractive.

Both in going and returning we spent much of our time in the delightful *Wady Sudeir*, the northernmost of the two valleys which demarcate the 'Ain Jidy plateau. Those who have read Tristram's *Land of Israel* will remember his graphic description of a large grotto he found there. We set out to look for it, and one of our party, more adventurous than the rest, reached its mouth, but was unable to get up to it; the rest of us were more than content with our success in discovering the true source of the stream in the *Wady Sudeir* in a charming little grotto buried away in reeds higher up the valley than the great grotto of which Tristram speaks. For the sake of any who may wish to follow our footsteps, let me say that, to reach this spot, one must go direct northwards into the wady without descending from the level of 'Ain Jidy. Probably the easiest route to find it is, as we did, to make towards a cave under a great slab of rock situated above where the reeds end, and, having crossed the wady at this point, to clamber down over the rocks and through the reeds in the direction of the sound of the loud-murmuring water. Among the reeds the water rises by several adjoining heads amidst festoons of long maiden-hair fern and under a canopy of enormous reeds. It is possible, in returning, to scale the wet peaty bank and reach the south bank of the valley direct, but for approach, the route I mention is easier to find and far cleaner. We pitched our tent just above and west of the spring. Temp., 8.20 p.m., 61·7° F.

Third day.—Temp., 7.40 a.m., 58·1° F.; Bar. 30·73. Light south wind, later in day south-east. Clouds all over the sky. Started at 7.40 a.m. We descended from the spring by a sloping road—clearly ancient—of a comparatively easy gradient, we crossed the *Wady 'Areyeh*, and had to wait for the camp some twenty minutes on its southern bank. Our road ran near the shore; at 9.15 we passed a spot where the smell of sulphuretted hydrogen is strong. At 9.35 we reached an extensive shallow lagoon, separated from the sea by a narrow sand bank, known as *Birket el Khalil*. Our guide accounted for the name Khalil, the usual Moslem name for

the patriarch Abraham, by the following tale. Abraham once sent two of his servants with a mule down here to get salt while he waited on the adjoining mountains, at a spot still pointed out, for their return. The lazy rascals came back saying there was no salt here, only earth; the patriarch, full of anger, exclaimed "Let it be earth there!" since which all the salt here has been earth, and this lagoon, though apparently like the salt lagoons elsewhere along the shore, yields no salt. Soon after this we turned inland. At 10.15 we noticed a remarkable isolated pillar of marl, about half a mile on our right, which our bedawy called *Katara Makhrús*. A little further on we crossed some very soft ground, and at 10.30 we left the main road and took a small path on our right running in the direction of Masada, which we saw in increasing detail before us. For a quarter of an hour we crossed a great stony plain, part of the ancient delta of the *Wady Khasheibeh*. In the wady bed itself we passed remarkable perpendicular cliffs of stratified marl—the parallel strata standing out with wonderful distinctness. At 11.17 we crossed *Wady Sufseif*, and at 11.35 the deep *Wady Sayyál*, a valley with high perpendicular banks. A quarter of an hour later we found a small pool of rain water in a natural rock basin, and, as it was considered by our guides that we might find no water at all at *es Sebbeh* (an experience common to travellers) we doled out the water to our animals—two small tin basins to each. This turned out to be unnecessary caution, for our guides found a much larger rain pool close to our camp. A few yards further we passed two rocks inscribed with the *wusám* (sing. *wasm*) of various branches of the *Jehalín* Arabs.



Our bedawy explained that the cross sign was not really a cross, but represented the two lines made by the nose (perpendicular) and the eyes (horizontal); he drew his hand across his face to explain us this. As we approached the foot of Masada (*es Sebbeh*)

we traversed, for about a quarter of a mile, a clearly defined ancient Roman road.

At 12.40 we reached our camping-place within the northernmost of the smaller ruined forts of Flavius Sylva. The enclosure was about 150 by 140 feet; the walls, though now but elongated heaps of stone some two to three feet high, are still practically complete, and afforded us a pleasant sense of security. The great rock of Masada, from here an acutely conical mass, towered above us. The day, which had begun cold and cloudy, had now developed into one of cloudless sunshine, and while the men erected the tent-roof as a shelter for lunch, we all gladly divested ourselves of superfluous clothes in preparation for our coming ascent.

We started at 1.55. Bar., 30.87. Much has been said about the difficulties of the path, but with needless exaggeration. Except that it is a stiff pull up of about 1400 feet—and on any but an unusually cool day, for this region, might for that reason be exhausting—I cannot see that there is anything that anybody, properly clothed and shod for a mountain climb, can call dangerous. Starting from our camp the track runs to a cave whose blackened mouth yawns some fifty feet up and thence passes in a long curve northwards (*i.e.*, in a direction *away* from es Sebbeh) before turning towards the great rock. After reaching the plateau above the ascent, we crossed the ruined Roman siege wall, passed the great north-western square camp enclosure, and then turned east on to the great earth embankment erected by the Roman general to carry his siege machines up to the wall. The path along this great work is easy, but the last hundred yards from its end up to the ruined gateway is perhaps the most troublesome of the whole ascent. We reached the summit (Bar., 29.96) at 3.5; our ascent thus took us eighty minutes, but we returned in exactly half this time. I fear it is quite impossible to convey adequately the impression of the site. Certainly no place I have visited in this land has so impressed me with a sense of grandeur and romance. Far the best pictures I have seen are those, drawn more than half a century ago by Mr. Tipping, which are reproduced in Traill's *Josephus*;¹ the frontispiece, in particular, is very faithful to nature. The great rock itself is best described as a fragment broken away bodily from the mountain range behind, and that, too, with such violence that

¹ Published by Houlston and Sons.

its sides have, on almost the whole circuit, a precipitous fall for many hundred feet. The summit of the rock is a comparatively level plain two thousand feet long (north to south) by one thousand feet wide, strewn thick throughout with Roman pottery. The greater part of this area was evidently, in the days when the fortress was inhabited, given over to agriculture.¹ Scattered about on the surface are a number of ruins. At the northern extremity of the rock, but below the plateau-level, are some curious outworks—a circular and a square fortress apparently—the exact purpose of which has never been satisfactorily explained. Across the whole northern end of the plateau runs a great wall, on the northern side of which are many elongated ruined chambers, in all probability largely store-houses for the vast accumulations of food which we read in Josephus² were here preserved against emergencies. Near the centre of the plateau is a ruined church of the Crusading period, or perhaps earlier, and not far from this are the great piles of massive stone blocks, which compose all that remains of Herod's once imposing palace. Many cisterns and caves are scattered about; of the former, the most noticeable is a great structure, some 80 feet long, 20 feet wide, and perhaps 30 feet deep, which even to-day is fully plastered. A flight of twenty-six steps inside the cistern itself is almost perfect; near this is a later rectangular open *birket*. The buildings are by no means all of one period: the substructures of some may go back to Jonathan the Maccabee, who first fortified the spot. The most massive of the works are undoubtedly Herodian; while some, specially the arched gate near the point of entrance, are certainly of the Crusading period, or thereabouts. Around the whole circumference may be traced the relics of the once powerful embattlements. In places, notably not far from the above-mentioned gate, the work belongs to two periods, both the style and the materials used being quite different in parts. We tried to trace both from above and later from below the remains of that winding eastern approach described by Josephus³ and called by him "the Serpent." Practically the whole of this has been swept away. It is true that intrepid climbers like the late Sir Charles Wilson and Dr. (later Bishop) Barclay scaled the heights from this side, but they could have had little help from any traces of the ancient ascent.

¹ *B.J.*, VII, viii, 3.

² *B.J.*, VII, viii, 4.

³ *B.J.*, *loc. cit.*

These human remains are, however, not the features which most vividly recall the tragedy of the place. Rather is imagination quickened by the mighty precipices of the rock and of its opposing valley-sides, and even more by the wide view to north and east which, for wildness and grandeur, touched as it is with the historical tragedy, has, I suppose, no equal. Before us stretches the Dead Sea, its width narrowed immediately opposite to us by the queer flat peninsula, *el Lisán*. Behind that rises the long range of Moab, not as we see it from the Mount of Olives, a level wall, but broken up into many heights. To the north-east one can see the plains of Jericho, and behind that *Jebal Osha* above *es Salt*. At the foot of Masada is a strange and weird stretch of stony plain—the old lake bed—overlaid in places with the delta detritus from the great valleys, once the beds of raging rivers. Since the shrinkage of the sea this lacustrine deposit has been torn into a hundred valleys by the later torrents. In parts it lies stony and brownish grey, but seawards it has been cut into a labyrinth of passages, whose steep sides are composed of countless almost level strata of whitish marl. The coloured picture given in Tristram's *Land of Israel* (p. 319) is a very successful attempt to represent this extraordinary appearance.

More impressive, perhaps, than either ruined palace or the wonderful, wild beauty of the sunlit landscape, is the great encircling wall which we saw below us, and the square enclosures of the Roman camps. Our eyes followed that wall across rocky gorge and up steep mountain side until we assured ourselves that even to-day it encloses the fortress in one vast unbroken circle. Nowhere in the land is one so impressed with the iron might of Rome as standing there in sight of this vast work—the completed circle, the two great camps and the six smaller enclosures, the walls running up semi-precipices and down again into the deepest valleys, the great earth embankment at the gate—all made to shut in less than a thousand fanatic survivors of poor conquered Jewry. A waterless wilderness, a poor bedraggled remnant, and yet Rome, now master of Palestine, summoned the whole army of the land and made these mighty works to stamp out with ruthless stroke the last smouldering traces of Israel's great fight for civil freedom. Josephus' description (*B.J.*, Book IV, ch. ix) of this great tragedy gains vastly in vividness when read in the geographical surroundings he so faithfully describes.

Fourth day.—Next morning we took our hurried breakfast and packed our belongings under the light of a half-moon shining fitfully through driven clouds. Above us, stark and grim, rose the black mass of Masada: the wind blowing in gusts around us alone disturbed the silence of the wilderness; below us lay the long level line of grey water, and beyond, in dim outline, stretched the great hills of Moab. The ruined camp at our feet, the silent, solitary rock, the surrounding wilderness, in which we met not a single soul from 'Ain Jidy to Jebal Usdum and back again, all stood in



FIG. 2.—Embankment of Flavius Sylva.

startling contrast to the wild and bloody scenes which had once been here. At 6.15 a.m. we were off (Bar, 30.68). Our road led us across the *Wady Hafhāf*, the continuation of that great ravine which isolates the rock es Sebbeh from the mountains to the south. We descended parallel with the heaped line of stones which to-day represents Flavius Sylva's Wall. This latter descended into the bottom of the wady and was only broken at the deeper central channel which to-day forms the torrent bed. It is evident from this fact that all the now permanently dry channels have been high and dry since the time of the Romans, and that the central channel

down which plunges to-day the winter's rain-torrents was, at the time of the siege, in exactly the same condition. This is a remarkable demonstration of how unchanged have been the physical conditions in practically two millenniums. Many travellers crossing these wide torrent-beds along the Dead Sea Valley must have wondered, as I have often done, how long they have been in their present condition; manifestly they must have been formed at a time of much greater rainfall. Here we have proof that present conditions are unchanged for nearly nineteen centuries, and, I suppose, it is not going too far to say they have probably not changed during the whole period of known history. All the evidence is in favour of this conclusion.

On a stony plateau to the south of *Wady Hafhaf* we found the great south-eastern Camp of Flavius Sylva—a huge square, which according to the measurements paced out by one of our party, is 450 feet by 360 feet wide. The main features of the camp are evident to-day—the four sides, north, south, east, and west each with a central entrance, protected from a sudden rush of the enemy by a sharp turn to the left immediately inside the door: the open space free from all buildings just within all four walls: the four main roads from the gates converging upon the commander's headquarters—all these can be seen at a glance. We left this camp at 7.10 and after traversing a rough and stony plateau, we descended into the *Wady Buka'a es Sayyâl*, noticeable for its precipitous cliff to the south. Here we turned eastwards and reached the neighbourhood of the sea-shore about 8. The soft sandy soil of the level plain was here marked by the recent footprints of a hyaena, and there were several well defined raised beaches belonging to earlier levels of the Dead Sea, such as I have described elsewhere.¹ In twenty minutes we again entered the marly hills, and in a few minutes more we found the path obstructed by a dead camel, whose torn and bleeding throat witnessed to the recent work of our hyaena, while a group of magnificent vultures, well gorged by their horrid repast, hopped heavily out of our way. At 8.57 we crossed a small wady and at 9.3 we traversed the important *Wady Rabad el Jamûs*² just to the south of which is a small group of acacia and other trees looking like a deserted garden. Dark rain-clouds had for some time been

¹ *Q. S.*, 1904, pp. 163-167.

² *I.e.*, the "Valley of the haunt of the Buffalo."

advancing towards us from over *Jebal Usdum*, and now the rain burst upon us. After the stretch of level sand just south of Wady Rabaḍ el Jamūs we, at 9.20, had to strike into the hills, the sea here washing against the cliffs: close to this spot are a number of sulphur springs, black in colour and stinking of sulphuretted hydrogen. For an hour the path now wound over rocky hills or curved along the sides of semi-precipitous slopes, washed at their base by the white-crested waves. At length we descended into and crossed the narrow but deep *Wady Hatrūra*, and then struck S.S.W. towards a mediaeval ruin crowning a low hill and known as *Kula'at M'baghik*¹ beyond which we descended into the deep *Wady M'baghik*. As we were to leave our camp here, we rode up the valley until we encountered (10.50) a small stream running from an abundant spring. Like the stream at *'Ain Jidy* the water, though full of crabs and molluscs, was destitute of all fish life. After such a dry wilderness as we had passed through we found this wady delightful, and after we had finished the day's work and returned from *Jebal Usdum*, some of us explored it for some considerable distance. For a mile or more the valley bottom is full of reeds nourished by the running water, and the appearance of this long winding line of bright green between the lofty grey cliffs on each side is striking. The limestone cliffs were in many spots overlaid by gravelly deposits belonging to the beach of the ancient sea which must have flowed far inland up these ravines.

After pitching our tent, we, at 11.15 a.m., started again southwards. The road ran along a particularly dreary stretch of shore, and then, after about an hour, we entered the *Wady Zunceireh*. Here the ground is intersected by countless stony channels from this and the adjoining *Wady el Muharwāt* for perhaps a mile, while seawards, there are large clumps of thorny acacias. We crossed the line of the channels diagonally, making for the north-eastern corner of *Jebal* or *Khashm*² *Usdum*. At 12.40 we passed a curiously sharply sunk depression in the ground, perhaps seven feet deep and ten feet across. Our guide called it *Mugharet en Nijmeh* (the Cave of the Star), and assured us it had been made originally by a falling star. Probably it is really due to waters having here found an easier channel seawards underground. On our return, when rain had swept across the hills to the south, a small rivulet was emptying its

¹ More classically spelt *Mubaghik*.

² *Khashm* = nose.

contents into the hollow, the water disappearing in the soft marly bottom. About 1 o'clock we found ourselves close to *Jebal Usdum*. We took the narrow path between it and the sea, which we pursued until we found our progress blocked by the waters washing up against the perpendicular cliffs. Till recent years there was a much used path along here, and its submergence, since about 1893, is one of the proofs of the general rise of level in the Dead Sea. Shortly before the path becomes submarine there is a shapeless heap of stones, known as *Rejum Umm ez Zughal*. There may have been some tower here long ages ago, but there is nothing to-day about the *rejum* to suggest anything but a purely natural heap of stone. *Jebal Usdum* has often been described—as it is essentially—as a great mountain of rock-salt, but this description does not enable the stranger in any degree to picture its actual appearance. The solid mass of salt forms the inner core of the whole mountain, but above it are three or four hundred feet of brownish marly deposit, while all along the base of the hill the salt is almost entirely hidden by great heaps of fallen marl. Between the upper sedimentary deposits and the fallen *débris* is a great mass of crystallised salt, dusted, however, all over by yellow-brown sandy material; it is only in places that the greenish colour of the semi-translucent salt appears. The rain has seamed deep sea-running channels in the hill, and it is up these that the true structure of the mountain is most apparent. We chanced upon a very attractive one, which reaches the sea a little north of the *rejum*. Some fifty yards inwards we reached a kind of grotto, at the mouth of which we left our horses, while we ourselves climbed in to eat our lunch safe sheltered from the rain. Here salt lay all around us; below, half hidden by yellow sandy soil, but from the roof depending in long and very hard stalactites, and at other spots projecting from the ground in masses, scored into fantastic shapes by the rain. The steep channel above us wound upwards into the mountain side, and scaling its bed—all solid salt—we came to a spot where the salt lay on three sides of us in vertical slabs twenty or thirty feet high, capped, along a perfectly level line, by the yellow marl. The rain, acting through long ages, has carved out queer intricate fissures in the salt, and, in many spots, the ground sounds hollow to the tread.¹ Considering that *Jebal Usdum* is seven miles long

¹ Farther south there is a large cave in the salt, but this can now only be approached by a long ride through the sea.

and the salt extends to quite 100 feet above the sea, besides going down to an unknown depth, the mass of salt deposited here must be enormous, and, properly exploited, its value to the country might be great. It is now a government monopoly, and private dealers must smuggle it; this, however did not deter our bedawy guide from shouldering the largest lump he could carry, to which, through thick and thin, he clung all the way back to his cave in Ain Jidy.

We left *Jebal Usdum* at 2.30. Our return journey was brightened by some beautiful atmospheric effects. The dark rain-clouds lay about the mountains of Moab so that they looked to me more like a scene on the shores of a Scottish loch than our familiar Palestine. At times a rainstorm passed rapidly across the lake from south-west to north-east, and for a considerable period the sunlit *lisân* stood out brilliant yellow in striking contrast to the cloud-encircled hills. Some gaudy rainbow fragments lay over the north-eastern extremity of the lake. We reached camp at 4.15.

Of the return journey it is not necessary to write in much detail. The night at *Wady M'baghik* was enlivened by a cold wind of extraordinary violence, accompanied by heavy rain, into the midst of which I had, after midnight, to go and rouse the muleteers to hammer home the tent pegs.

Fifth day.—Bar., 6 a.m., 30.94. We started at 6.37. The sea as we approached it looked like a boundless ocean; the opposite shore was blotted out with clouds, and foam-crested waves thundered on the shore. In crossing the headland of *Jebal Hatrâra* (at 7.30) I noticed, high on the cliffs to the north-west, against the sky line, a curious rocky point, which at first looked like a great statue: the head and bust looked very distinct. At 7.40 we reached the level beach, and at 8.15 crossed the *Wady Rabad el Jamûs*. The rain and wind had gradually been gathering in violence all the morning, and now commenced to fairly sweep us along. At the *Wady Buka'a es Sayyal* we waited, partially sheltered by the high cliffs, for our camp and guides, and when they overtook us we resumed our march. We crept along the high road near the shore almost the whole way, and at many points traversed the actual beach. The roaring foam-crested waves, the fierce wind—fortunately at our backs—and the drenching rain made some four hours of that morning the wildest ride in my recollection. My memory is chiefly of keeping my eyes upon the naked legs and dripping *Abâ* of the poor shivering Arab

who trotted over the shiny plains in front of me; to turn to look toward those behind was impossible, and the only course of safety was to keep in his footprints, as some of our animals, who tried their own route, found to their cost.

When, at 12.20, we stopped to lunch in another wady, the sun commenced to peep out, and we could see the long threads of many waterfalls which coursed down the western mountains to our right, while across the sea all the mountain heights of Moab were crested with dazzling snow. We learned on our return that we had had but a taste of the violence of the storm which swept over the highlands. We started again at 1.5, passed *Birket el Khalil* at 1.20, and reached *'Ain Jidy* at 2.45. Bar. (7.15 p.m.), 30.66.

Sixth day.—Bar., 6.30 a.m., 30.79. We started at 7, and reached the top of the pass, *i.e.*, the end of the narrow part, at 7.45. Bar., 29.87. The actual top or end of the ascent was a few minutes further on (Bar., 29.79). There was a good deal of delay in getting our mules re-loaded and the burdens re-adjusted. We started off at 8.30. At 8.40 passed the Hebron road on the left, and the *'Ain Feshkhal* road on our right at 9.7, and reached *Rejum Nuweis* at 10.13. From here we saw a beautiful rainbow stretching over the snow-besprinkled hills. At 11.12 we watered the animals at the *Mutukh Hassasah* (Bar., 29.12).

About 12.15 we passed two camps of the *T'amereh bedu* (where we left our first guide), and soon after we stayed half an hour for lunch near their graveyard. At 2.30 we passed near *Khurbet Taká'a*; at 3.47 passed the turning to the Frank Mountain (*i.e.*, where one turns off in coming from Bethlehem), and we reached the Jaffa Gate, Jerusalem, about 5 p.m.
