

THE SURVEY OF PALESTINE.

LIEUT. CLAUDE R. CONDER'S REPORTS.

XVIII.

GILGAL AND THE PLAINS OF JERICHO.

'AIN EL SULTAN, *December, 1874.*

I AVAIL myself of the first spare day since last I wrote to send a monthly report.

The map shows our progress under the new arrangements which, Survey: by a certain amount of extra work on my own part, I have been able to make, doubling the detail parties by addition of myself and Lance-Corporal Brophy, and also doubling the observation parties, Sergeant Black and Corporal Brophy being accompanied by Mr. Drake, whilst Corporal Armstrong and myself take simultaneous observations at another point. We are thus enabled to reach, and even pass, the average which I had formerly promised. Moving from Bayt 'Atab to Bethlehem, and thence to Mar Saba and our present camp, we have laid in 280 square miles in a month. Lately, however, the weather and other causes have delayed us considerably, but the camp being well and centrally placed we have filled in 180 square miles of its neighbourhood, and the average is still above 250 square miles per month.

The labour of surveying the Zor or lower bed of the Jordan, as well as the land lying immediately north of the Dead Sea, was very great. The mud was so deep that it was impassable for horses, and a great part had to be done on foot. Sergeant Black and I have, however, succeeded in getting it finished at last in a satisfactory manner.

The following plans and surveys must be added to the list of forty-one already sent home:—

1. Plan of Cave Umm el Turraymín, 240.
2. General plan of buildings, Jebel Furaydis (Frank Mountain).
3. Plan of circular building on the Tell J. Furaydis, 240.
4. Plan of lower building, J. Furaydis, 240.
5. Plan of cave at Kharaytún (traditional Adullam).
6. Plan of chapels, Jebel Koruntil, 240.
7. Frescoes in central chapel.
8. Kasr el Yahúd (Double Plan, 240).
9. Kasr el Hajlah (Double Plan, 240).
10. Dayr el Kelt (Double Plan, 240).
11. Bridge near the same. Plan and sections, 240.
12. Castle at Khan Hadhrura, 240.

The fitting of the triangulation, large and well-shaped, with the old one, as tested at the important point of Kurn Sartabeh, is very satisfactory.

The Mar Saba camp produced scarcely anything of interest beyond the discovery of ruins belonging to Crusading vineyards in a desert now without a tree or a drop of water. It was, however, important for its geological indications. The present camp is surrounded with places of the greatest interest, of which I propose to give some account.

The total amount of country surveyed is now over 2,200 square miles, or one-third of Palestine.

ilgal.

The determination of this site has always appeared to me the most important and interesting point in this part of the country.

Dr. Robinson, in his earlier travels, says that he was able "to ascertain definitely that no trace of its name or site remains." He would, however, place it in the neighbourhood of the modern Er Riha, in accordance with Josephus's description, "on the east border of Jericho ten stadia from that city and fifty from Jordan." He was, indeed, informed that the name Jiljilia existed in the neighbourhood, but failed to identify its position.

I am indebted to M. Ganneau and to Major Wilson for directing my attention to the subject.* A German traveller (Herr Zschokke) travelling in 1865 speaks of the discovery of a Tell Jiljul, which he fixes by a compass angle to Kasr Hajlah. Yet, although I went to the spot in M. Ganneau's company, we failed to find the place, and it was not till after his return to Jerusalem that, on revisiting the spot, I found the name was still known to a few of the older inhabitants of Er Riha, though not to the Bedouins who now accompany us. I took every precaution in making inquiries, which I put in various forms to three or four persons, and came to the conclusion that the name, though almost lost, still lingered in the memory of a few.

On the north side of the great Wady Kelt (the traditional Brook Cherith), about one and one-third English miles from the tower of the modern Jericho (Eriha), towards the east, is a solitary tamarisk known as the "Shejaret el Ithleh," to which a local tradition points as standing on the site of the "City of Brass."

The tradition of its siege by a great Imam, of the fall of its walls when he had ridden round them, of the destruction of the infidel inhabitants, and of the miracle of the sun standing still over Koruntil at the Sultan's command; all these confused reminiscences of the great events of the life of Joshua and of the siege of Jericho point to a connection which may, indeed, date no further back than early Christian times; or, on the other hand, may be of really valuable antiquity, attaching the site to the history of the Jewish invasion.

There are not, however, any extensive ruins on or near the spot. A

* Herr Zschokke was chaplain to the Austrian Consulate at Jerusalem, and published a pamphlet on the identification of Jiljul with Gilgal, which was printed at Jerusalem in 1865.

pool, choked with soil, scattered stones, hewn but of ordinary size, and a large cemetery of tombs, seemingly Arab, though not strictly directed to the Ka'abah, were all we at first observed. On revisiting the place I found that the name Birket Jiljulieh undoubtedly applies to the pool in question, situate about 150 yards south-east of the tree, built with walls, some 2 feet 6 inches thick, of rolled pebbles, 6 to 18 inches in diameter, well packed. No cement is visible. The dimensions of the Birket are about forty paces by thirty.

The remains which will, however, prove perhaps of greatest interest are situate south-east and east of this point, being a number of small mounds, seemingly artificial, and known as the Tellayla't Jiljulieh. There must be about a dozen of them within a square mile, eight or ten feet diameter, and not more than three or four feet high. They are said to be very ancient, and remains of the City of Brass. The angle shows that it was to one of these that Herr Zschokke obtained the name Tell Jiljúl. I hope again to visit the spot and open one of the mounds, making a sketch and special plan of the site at the same time. It may seem bold to propose that these mounds are traces of the permanent Israelite camp on the spot, yet we know that nothing in Palestine is more ancient than are such earthworks.

It might be objected that perhaps the name is only the lingering remembrance of a Crusading or early Christian site for Gilgal, the tradition of a tradition, but the Crusading site seems to have been placed far south at Kasr Hajlah; and not unnaturally so, for at 'Ain Hajlah exists the only spring of fresh water in the plains of Jericho, and the road from the ford of El Henu to Er Biha passes close by. Even in earlier times Arculphus mentions the church of Galgalis (A.D. 700) as five miles from Jericho, evidently referring to the same site. It is, however, only fair to notice that Willibald (721—27) places it five miles from the Jordan; from it he went to Jericho, seven miles from Jordan. This would apply to the site of Jiljulieh at El Ithleh, but it would also, though perhaps less easily, apply to Kasr Hajlah, which is indicated by the earlier author, unless a corruption be thought to have crept into his text.

The long time during which the camp at Gilgal was maintained points clearly to its having been well supplied with water. There was also perhaps a city on the same site, although it does not seem by any means certain that this spot was the Gilgal visited by Samuel in his yearly round, which should rather be sought in the mountains; perhaps at the modern Jiljilia, situate south of Selfit and north of Attara. In any case it becomes, as the early traditions fully recognised, a point of great importance to find a water-supply sufficient for a large host.

On visiting Birket Jiljulieh to-day I found a rapid, though muddy, stream flowing right through it. This is generally diverted into other channels for the irrigation of the gardens of Jericho; but the very existence of a birket shows that the site was once well supplied with water, the most natural source for which would be the 'Ain el Sultan.

Jiljulieh is on the direct road from the upper ford at Kasr el Yahud (St. John on Jordan), about four and a half miles from this point, and one and one-third from Er Riha. The latter distance is exactly that given by Josephus from Jericho, and reading thirty for fifty (a very easy clerical error in the Greek) we get the exact distance from Jordan also correctly. The whole plain is only about fifty stadia broad, and thus the present reading will hardly allow a position for Jericho in the plain.

The interest of the site is great, not only for its own associations, but as showing the ford by which the Israelites would have prepared to cross the Jordan. Like many other of the sites which date from so remote an antiquity, in a country subject to continual inroads and devastation, there must naturally be a certain amount of doubt or difficulty attached to its identification, but it seems certain that no site previously fixed upon comes so near to the fulfilment of all requisites of the case.

Difficult as it seems to be to fix the site of the later cities of Jewish, Roman, and Byzantine times, there is happily but little doubt as to the position of the Jericho destroyed by Joshua. The "Sultan's Spring," or Fountain of Elisha, is indeed the only natural site for a city in the whole country surrounding it. Three fine springs are found within but a little distance of one another, while the rest of the plain can show but one, and that far less considerable. Nothing, indeed, but the curse on the site and the terror inspired by the subsequent fulfilment of that curse could account for the displacement of the city. The flight of the spies to the hills points to the same position. From modern Jericho flight in any direction would be equally dangerous, but from 'Ain el Sultan, a deep ravine covered with bushes of the Zakkum and Spina Christi, and filled with a jungle of cane, leads to 'Ain Duk (the ancient Doch or Dagon), at the foot of the cliff of Koruntil, amongst whose caves and rocky precipices the two Israelites, flying to "the mountains," might lie hid in safety.

The ruin at the spring itself seems to be that of a small Roman temple, such as is often found at springheads. Other foundations farther north contain capitals and shafts seemingly Byzantine. In the direction of Er Riha, foundations, low mounds, channels for water, and portions of roads hidden in the thorny copse which here covers the plain, seem all to point to the former existence of a great town.

Still farther south, near Wady Kelt, two large mounds or tells command the road as it descends the narrow pass from Bayt Jabr. These have been considered as remains of Roman Jericho; pieces of wall and, perhaps, of an aqueduct, with the *opus reticulatum* of its masonry, seem to confirm this theory. Close by is the fine reservoir, fed by aqueducts, known as the Birket Musa, measuring about 190 × 160 yards.

There is a very large number of tells in the neighbourhood, all of the most important having been examined and excavated by Captain Warren. Of these Tell el 'Ain el Samarát, Abu Zelef, Abu el Hindi and el Aráis, with the Tullul abu el Alayj are true tells, artificial mounds with a central building of unburnt brick. Tell Dayr Ghana'm, el Jurn,

el Mutlub, Derb el Habaysh, el Kus, el Mefuriyeh and Moghyfir, with others still less important, are but heaps of *débris* formed by ruins of various date.

Of our visits to the Hajar el Esbah, to Gumran, and 'Ain Feshkah, I The Plain: have nothing myself to relate. Nothing is more striking, however, than the general aspect of the country we have thus passed over. The broad plain, bounded east and west by the steep rocky ranges, at whose feet lie the low marl hillocks of a former geological sea; the green lawns of grass leading to the lower valley, where, in the midst of a track of thick white mud, the Jordan flows in a crooked milky stream, through jungles of cane and tamarisk,—are all equally unlike the general scenery of Palestine. Round Elijah's fountain a tangled wood of Zakkúm, Spina Christi, and near the water an occasional castor-oil plant, spreads out to Jericho. The yellow berries of the deadly solanum appear everywhere. The chorus of birds and the flow of water are sounds equally unusual and charming in the stony wildernesses of the Holy Land.

The palm groves of Jericho have disappeared since the eighth century. A solitary survivor grows close to the tower of Er Riha, and in the valley north of Kasr el Hajlah I met with another clump. When the cospes of the fountain are left behind, and the first descent is made into the flat mud valley below the half-consolidated marl cliffs at Kasr el Hajlah, then we are at once reminded of Josephus's expression, that the Jordan flowed "through a wilderness." The views of the lake—with its shining, oily surface, its salt and sulphurous springs, its brown precipices, with the fallen blocks at their feet, its white drift logs, crusted with salt, brought down by the freshets in the river, and now stranded along the crisp, shingly beach—are perhaps even more striking; whilst the soft shadows and rosy suffused light in early morning, or at sunset, make the trans-Jordanic ranges all an artist could desire to study.

Were it not that negative information is, next to positive, the The Cities
of the Plain. most interesting and useful, I should scarcely have touched on this subject, but having carefully examined in person the whole tract from Jordan mouth to the Ras Feshkah, I do not hesitate to say that, if the cities of the plain were within this area, all trace of them has utterly disappeared. The ruins, which have been described in language not sufficiently moderate for the cause of truth, at Gumran and at Rijm el Bahr, I have visited. The former are probably late; the heaps of unhewn stone at the latter (which seems to have been at one time the traditional site of the Pillar of Salt, judging from an expression of Maundrel) are, I think, unquestionably natural. A curious artificial tell—Tell el Rashidújeh, situate near the Jordan mouth—is the only evidence of man's work I could find on that side. It is strewn with ancient pottery, iron coloured and almost iron in hardness. It seems to me certain that the gradual rise of the level of the plain, caused by the constant washing down of the soft marls from the western hills, would effectually cover over any such ruins did they ever exist below the surface. The tract, however, presents literally nothing beyond a flat expanse of semi-consolidated mud.

'Ash el
Ghōrab.

I am tempted here to mention a curious possible identification of this point, though perhaps it will not stand criticism. The hill in question is a sharp conical peak, its name signifying, "The Raven's Nest." Two miles north-west of this is a wady and mound, known as the *Tuwayl el Diab*. Here, then, we have the two famous Midianite leaders' names—Oreb, the Raven; and Zeeb, the Wolf—in connection, reminding us of the passage (Judges vii. 25) relating that the men of Ephraim "slew Oreb on the rock Oreb, and Zeeb at the winepress of Zeeb." There is nothing in the Bible or Josephus to show that these places were east of Jordan, and it is quite possible that the kings, flying southward to Midian, sought to cross by the fords near Jericho, which had, however, been already seized by their enemies. The only difficulty is in the subsequent passage by Gideon at Succoth higher up. The peak is most remarkable, and would be well fitted for a public execution.

There is another point which might perhaps confirm this idea. Elijah, living by Cherith, was supported, as some suppose, by a tribe of Arabs living at an Oreb, or having that name as an appellation. The proximity of the 'Ash el Ghorab to Wady Kelt, the traditional Cherith, is interesting in connection with such a supposition, and it has been thought that this Oreb might be identical with the rock Oreb in the history of Gideon. I feel, however, that the suggestion is one not to be put forward as more than a possible one.

Convents.

The great events of which the Plain of Jericho had in early times been the scene, together with its traditional connection with our Lord's temptation, and actual interest with regard to his baptism, and other events, attracted the Christians of a very early age to this part of the country. Hence the precipices of Koruntil were burrowed with hermit's caves and small chapels, already described by Dr. Tristram, who seems amongst the earliest explorers. We were engaged for a morning in visiting those of most interest, planning the chapels and sketching the old and blackened frescoes on their walls. From Justinian's time the plain began to be covered with monastic edifices; the splendid cistern at Kasr el Yahud (St. John on Jordan), mentioned by Procopius as the work of this emperor, is still visible, in an almost perfect condition. The grand aqueduct from the 'Ain el Sultan to it is no doubt of the same date. The cistern is thirty feet deep, and is supported on rows of piers. The aqueduct is merely a long mound, showing hardly a trace of the channel, but running straight as possible through the copse over the flat plain between the mud mounds, until disappearing close to the convent.

The convent itself was destroyed and rebuilt in the twelfth century, to which date, in all probability, the ruins I have planned belong. The most remarkable point about the building is the use of an apparently artificial stone, containing flints and fragments of harder stone. The chapel is subterranean; the outer stones are drafted; fragments of tessellated pavement remain, and some inscriptions, or graphitæ, carved on

the walls. This famous establishment, with the small chapel on the banks of Jordan belonging to it, are mentioned by almost every traveller of mediæval times, and the "fair church of St. John the Baptist" was still standing when visited by Sir John Maundeville in 1322, but ruined before the year 1697.

In the fifth century there was another convent of St. Panteleemon in the plain, and in the twelfth the destruction of one of St. Gerasmius, near the Jordan, is mentioned. At this period of revival the greater number of these constructions were rebuilt, including the convents of St. Calamon and St. Chrysostom.

It does not appear that either of these names applied to the Kasr el Hajlah, which, however, no doubt dates from the same century. The ruins of this fine old religious fortress are better preserved than those of Kasr el Yahud, and the plan occupied nearly two days, having never, I believe, been previously taken. Though much shaken by earthquake, its vaults are entire. The apse of the large chapel remains, and the whole of the smaller, including the octagonal drum supporting its dome. The surrounding walls are entire, except on the north. The frescoes are much defaced, almost every inscription and all the faces being purposely erased. A certain limit is given to the antiquity of the building by the occurrence of the name of John Eleemon, Patriarch of Jerusalem in 630, attached to a figure. Crusading graphitæ—the names "Piquet" and Petre de — le Senchal—are scratched deeply, as though with a dagger, on the haunch of an arch. Tesselated pavement is found in fragments. The kitchen is entire, with its row of little ovens. Other cells, with a subterranean chapel, are covered with crosses and religious signs. The most curious frescoes are those representing saints receiving the white resurrection robe from attendant angels. They are fresher in colour and no doubt later than those of Koruntil.

Tell Moghyfir, the Gilgal of some authors, is the site of another such convent, now entirely destroyed. Scattered stones, with fragments of frescoes and Greek letters, painted pieces of tesselated pavement, a small cistern (well lined), and ruins of aqueduct channels leading to the spot, are all that remains. It seems probable that we have here the site of the convent of St. Eustochium, mentioned by Willibald in 721 as in the middle of the plain, between Jericho and Jerusalem, a description applying perfectly if he travelled by the Mar Saba route to the capital.

Kh. el Mifjar, north of 'Ain el Sultan, shows ruins excavated by Captain Warren, who found the apse of a chapel pointing south (perhaps the transept of a great church), remains of houses, and a chamber with frescoes; these have now disappeared. The site covers about 300 yards square, and is evidently that of an important establishment.

Yet another convent is to be found in the hills overhanging the north side of Wady Kelt, and a small rough chapel in Wady Dubbar marks the site of Dwyr el Mukelik. Thus we have five existing ruins, without

counting the church mentioned by Sir John Maundeville, and still remaining on the summit of Koruntil, whilst historically we know of the previous existence of no less than seven, of which, however, only three are identified.

Dayr Wady Kelt merits a more particular description. Like every other monastery in the hills, it is hung on a precipice. It consists of a series of cells, and a hall supported on vaults, through which lies the entrance. The chapel, perched close to the rock, is not oriented, being in a line of 49 degs. M., but the east window, beside the apse, is so turned as to bear at an angle 90 degs. M. The evident reason of this is the direction of the rock scarp. The rest of the building is not in the same line as the chapel. There are at least three dates discoverable, as two layers of frescoes cover the wall, whilst the inscriptions of the newest are covered in part by the piers supporting the ribs of the roof. The chapel is built of dressed stones, whilst the cells and vaults are of masonry roughly squared. This part bears every sign of twelfth century work. Perhaps the little side chapel, with rock-cut chamber, and the vault containing ancient bones, to which a corridor covered with frescoes representing the Last Judgment leads, is the oldest part of the building. Numerous caves, now inaccessible, are visible in the face of the cliff, which for a distance of eighty feet is covered with frescoes, now almost entirely defaced. One of these cells has at its entrance a heavy iron bar placed vertically, no doubt originally to support a rope or ladder. Like the upper chambers at Koruntil, this is probably a funeral vault.

A badly cut inscription in Arabic and barbarous Greek, over the more modern part of the door, commemorates a restoration by a certain Ibrahim and his brothers.

Aqueducts.

The examination of the very complicated system of aqueducts which are connected with the old irrigation of the plain, formed one of our principal investigations. I have had a separate plan made of them, and will endeavour to explain their arrangement. There are in all six springs from which the channels are fed, and twelve aqueducts. The springs are 'Ain el Awjeh, 'Ain Nuwaymeh, 'Ain Dúk, 'Ain Kelt, 'Ain Farah, and 'Ain el Sultan. From the first of these, situate about eight miles north of Er Riha, a cemented channel follows the course of the Wady el Awjeh on the south side. On gaining the plain it crosses the valley, and runs away north, having no less than five branches running about a mile from it at right angles, at intervals of a quarter to half a mile apart. There is no doubt that this is simply intended for irrigation. One branch leads to a mill. A second and far more important branch leaves the first aqueduct at about one and a half miles from its source. It winds away south in a very devious course for three and a half miles, when it reaches the two springs of 'Ain Dúk and 'Ain Nuwaymeh, situate only a few yards apart. It crosses the valley on a curious bridge of many arches, all pointed, and apparently late or modern in date. From this point the aqueduct inclines eastward and follows a course equally undulating for upwards of four direct miles,

passing through various cisterns by Kh. el Mifjar, and over another bridge with pointed arches, having a well cut cross on the haunch of one of the arches. A shorter aqueduct from 'Ain el Sultan, joins this at Khirbet el Mifjar, and has pipes for the water channel instead of the cemented channel of the other. This devious course terminates at length at a birket called Heydar, a cemented cistern, the total length from 'Ain el Awjeh to this point being over eight miles.

We next turn to the aqueduct from 'Ain Dúk, which is there joined to the last. It feeds the Tawahin el Sukkar, or Crusading Sugar Mills, and crossing Wady Kelt by a bridge now broken, terminates in the same ruins, including a birket not far east of Birket Musa. A fourth aqueduct branches from No. 2 (the long one) just before the latter reaches 'Ain Dúk, and runs east to the plain. I feel but little hesitation in attributing these aqueducts, with their branches, to Crusading times, with probable subsequent restoration by Moslem workmen.

We have next to consider no less than five aqueducts which follow the course of Wady Kelt, three from 'Ain Kelt and two from 'Ain Farah. A single channel runs from the former spring, crossing the tributary wadies by small bridges, and showing a cemented channel. Within a quarter of a mile east of Dayr el Kelt, it reaches a fine bridge placed at right angles to its course. This structure, now broken, reaches a height of over 60ft. above the bottom of the ravine. But the aqueduct is at a level nearly 100ft. higher, and is boldly brought down a slide of about half over the face of the rock, and enters the channel of the bridge on a curve. At the first, or north buttress, there seems to have been a shaft, and part of the water descends to a still lower level, and follows the north side of the wady, passing beneath the convent. The remainder crosses by the bridge, which again turns sharply at right angles, and another shaft allows part of the current to descend some 30ft., separating into two aqueducts at different levels. Thus from this remarkable bridge we have no less than three channels to follow, without counting the branch which passes above Dayr el Kelt at the original level of the single channel, and thus supplies the convent with water. The fact that the water has descended the great shoot, is shown by the sedimentary deposits found upon it. The sharp turns were no doubt intended to break the force of the fall, but must have severely strained the bridge by the unequal pressure so produced. The good masonry, round arches, and cement filled with wood ashes, which are remarkable in its structure, seem to point to its having been an early Christian work. I need scarcely say that we carefully measured and examined it throughout.

To follow the northern aqueduct—it continues to the bottom of the pass, and then turning north, terminates near the Sugar Mills. It has a cemented channel in which pipes are laid.

The two southern courses flow parallel to the mouth of the pass, where the lower terminates in a birket, and the upper disappears. They are structural throughout, and opposite Dayr el Kelt there is a fine wall

of well-cut masonry, on the top of which the upper aqueduct runs, whilst a channel for the lower exists in its thickness below, the wall being built up against the cliff, which was too precipitous to afford a channel.

The date of the next two aqueducts is possibly earlier. Side by side they run from 'Ain Farah, following the south side of Wady Kelt considerably above the last pair. At one point they cross and recross, and in many places they are tunnelled. One of the bridges, a solid and massive structure, placed to carry the high level, at a point where the low level, by a bend, is able to cross without, is remarkable for its rubble masonry pointed with dressed ashlar, for its rough but pointed arches, and for a vault or cistern probably of Crusading date. A second vault, known as Bayt Jubr el Fokani exists lower down, and here the aqueducts disappear. They run seemingly in tunnels to Bayt Jubr el Tahtáni, a small fort commanding the opening of the pass, and of Crusading date. Here the upper channel descends by a rapid shoot, and filling the birket immediately south of the fort, runs on to the great Birket Musa, which no doubt it was mainly intended to supply. The course of the lower channel, which is cemented without pipes, is not so easily made out, and it seems more than probable that the two unite at the tunnel and form one stream.

Only three more aqueducts remain to trace, which are fed by the 'Ain el Sultan. No. 10 crossing Wady Kelt by a bridge still perfect, with pointed arches (evidently a restoration), is traceable into the neighbourhood of Tell Moghyfir, which it was doubtless intended to supply. Here it is lost, and careful search makes me feel certain that it went no farther south. No 11 is a fragment also in the neighbourhood of Tell Moghyfir, seeming from its direction to have branched out of No. 12, the great aqueduct from 'Ain el Sultan to Kasr el Yahüd (a distance of six miles).

I have not been able to find any traces of cultivation farther south than Tell Moghyfir, or any aqueduct to Kasr el Hajlah, which must have depended for its water-supply on the great rain-water cistern, and on the neighbouring spring of 'Ain Hajlah.

Our best thanks are due to Mr. W. K. Green, the British representative at Damascus, for his kindness in the instruction of Corporal Armstrong and of myself in the art of bird-stuffing. We now find the full advantage of the acquisition on entering a region interesting as is the Jordan Valley. In a little over two months the collection has mounted up to nearly one hundred specimens. The large majority have been shot and stuffed by Corporal Armstrong, who is an enthusiastic collector. Occasionally I have been able to lend a hand when the number of birds was too great, or other work less pressing. Among the best specimens are the kingfishers, especially the gorgeous Smyrnian species in blue, chocolate, and white. Tristram's Grackle and the Passer Moabiticus, we have also obtained, with eagle owls and the famous sunbirds of Jericho. Bulbuls, the hopping thrush, doves, partridges, and many species of wader, desert, and Persian larks,

with a few sea birds obtained in our journey down the coast, may be added. The collection promises to be a good one, and will interest equally the naturalist and the biblical student.

We are now in the midst of that region in which the whole Geology. interest of Syrian geology centres. Having studied carefully the geology of the watershed and west plains, I am now endeavouring to connect these observations with others which shall point out the time geologically of the depression of the Jordan Valley. To write decisively would be premature; but the consistency of the old and new observations is instructive and encouraging.

The following succession of strata is observable throughout Palestine:—

Tertiary.	{	1. Nummulitic and Oolitic limestones of the Lower Eocene period, as at Nablus.
		2. Soft chalk with large flints, as in Galilee.
Cretaceous.	{	3. White marl with flint bands, as at Nablus.
		4. Hard white basebed with flints and fossils, as at Carmel.
Jurassic.	{	5. Compact limestone, with a few flints and fossils, as at Jerusalem. Dolomitic beds.

An unconformity is distinctly traceable between the two last groups in many sections. The Nubian grit underlies the dolomite, but does not appear in Palestine.

The numerous observations of dip and strike, with the levels and sections which I have collected, will, I feel sure, lead to a very definite theory on the formation of the Dead Sea and Jordan Valley; but it would be hasty and unwise to publish these notes before they are complete. That a great lake or sea of still water existed in the neighbourhood of the Dead Sea, but at a much higher level, I hope to make out clearly. At present at least three distinct levels are traceable:

1. The level of the Ghor, or mud valley, through which the Jordan runs.

2. The level of the plain of Jericho, consisting of soft white semi-consolidated waves, with salt and sulphur, evidently deposited in still water, with the exception of the later formations in the valley beds.

3. The level of the coloured marls of Nebi Musa, which are unconformable with the more ancient white cretaceous marls. The basin between Koruntil and Konaytra, formed by the dip of the older strata, is filled up with these deposits, and corresponds to a similar basin on the east of Jordan. The lake at this period would therefore have stretched to the feet of the main chain.

The Talmudical writers speak of a "long journey," and define it as being as far as from Jerusalem to Modin, or beyond. ^{Medyeh.}

Maimonides explains this as meaning fifteen miles. This is just the distance from El Medyeh to Jerusalem, and the Roman mile, if that is intended, only differs slightly from the English.

XIX.

EXCURSIONS FROM BLUDAN.

JERUSALEM, *Jan. 7, 1874.*

The exceptionally stormy year which (now that we have recovered from the severe attack of fever) still keeps us within doors at Jerusalem, leaves me time to fulfil the wishes of the Committee in forwarding a short account of some excursions made during our stay at Bludan.

Súk Wady
Barada.

The first of these was a visit to Súk Wady Barada, a site of considerable interest, being, as it is with great reason supposed, that of the capital of Abilene, mentioned by St. Luke (iii. 1) as the tetrarchate of Lysanias, son of Ptolemy and grandson of Mennæus king of Chalcis, about B.C. 60. The tablet, twice repeated beside the Roman road, records its reconstruction by the Emperors Marcus Aurelius and Lucius Verus, at the expense of the inhabitants of Abilene. The name Abila, applicable to the capital itself, is supposed to linger in the Kabr Abíl, or tomb of Abel, a huge sunken birket 30ft. in length on the heights above.

Súk Wady Barada is one of the most picturesque sites in this part of Syria. Travelling from Damascus along a desolate expanse of flat stony soil known as El Sahrah, we came suddenly to the feet of the precipitous chain of the Antilebanon, and entered a fine gorge overhung with craggy cliffs. Deep down in this the Barada (ancient Arbana) has worn its bed hidden by the thick growth of tall poplars and flowering shrubs, through which the refreshing sound of its brawling water strikes the ear. The steep high banks are formed of a sort of conglomerate, with a soft white matrix, in which the prints of leaves, branches, and twigs brought down and embedded by the river action, are most delicately preserved. The great depth of this formation, evidently marking the gradual deepening of the gorge by the powerful action of the rapid stream, together with the indications of date given by the species of the leaves, would enable a geologist to measure approximately the rate at which the water bores downwards. The modern village, watered also by streams which run from the hillsides, lies low down among the poplars. The extensive use of wood in its construction, its flat mud roofs projecting over verandahs which surround the houses, give an almost Swiss appearance to the hamlet, contrasting forcibly with the bald, comfortless appearance of the villages of Palestine set among the stony mountains, treeless and unwatered.

On the north side of the river, below the precipices, lies the necropolis of the ancient town. Higher up, the stream turns sharply round in the very narrowest part of the gorge, and falling by a succession of small cascades, each with a deep pool beneath, it passes under a modern single arch. Above this point the course is still between

poplar beds, but the gorge opens until the long plain of Zebedany is reached, where at the foot of a craggy ridge the Barada springs up full-grown in a blue pool surrounded with rushes and extending to an unknown depth.

Súk Wady Barada is a well-known site, and the history of its capture by the Saracens in 634 A.D., during the annual fair, is supposed to be the origin of the modern name, "The fair of Wady Barada."

I am not, however, aware that the ruins have ever been systematically studied, although several inscriptions have been obtained from them. We executed a sketch survey of the site, and took plans of over a dozen tombs, examining about twenty. They are of great interest as forming a clue to the date of other tombs of similar construction, and thus giving a basis in the comparison of the great number of specimens we have already collected. The inscriptions which we obtained not already known have been communicated by Mr. Wright to the Fund; they are all in Greek, and without exception tombstones. One found in place consists of four tablets over a sunken tomb; three are inscribed, but much defaced. The name Archelaus as a patronymic occurs in two: a column fallen into the stream beneath is inscribed at the top and near the base, the latter giving σ λουκιος υιος εθηκεν. The remainder, numbering six in all, some very well preserved, were lying loose in various places near the town.

The Roman road with its tablets, the aqueduct beneath, part rock-cut, part built with large slabs against the cliffs, the façades with pediments and figures much defaced, are too well known to require description. We noticed a great number of fine stones in the village itself, and the remains apparently of a temple, now transformed into a school; it seemed doubtful, however, how much of the material was *in situ* and not taken from another site. North of the road, and east of the village, a wall with fragments of cornice and pillars indicates the position of another classical building.

Descending the stream still farther, and crossing by a most picturesque bridge, we reach the place of another small temple, the best preserved ruin in the neighbourhood. The eastern and southern walls are easily traceable, and the spot might repay excavation. I took measurements of the pillars and cornices which appear fallen in confusion. They are bold and massive in character and formed of large blocks. There are several mounds in the vicinity which no doubt mark the sites of other buildings, giving the idea that in Roman times the mouth of the gorge was occupied by a large and important town.

Our second expedition was to Baalbek, where we remained a day, returning on the third. The object of this was to enable me to send in a report on the present precarious condition of the ruins, which has already appeared in print. The discovery which we made, but which requires further examination, of a pillar-shaft built into the foundations exactly beneath the famous trilithon, cannot fail to be considered of the very greatest importance.

Circumstances considerably delayed our projected visit to Hermon, and it was not till after a shower or two had fallen that the atmosphere became sufficiently clear to allow of our attempting an expedition intended for the observation of very long distances. At length, however, we started; Mr. Green, Her Britannic Majesty's representative at Damascus, came with us, and Mr. Wright, accompanied by Corporal Armstrong, was to join us at Rukhleh. The first day we slept at Rashayah, an important town three hours north of the summit; the second we passed on the top itself; the third at Kala'at el Jindel; and on the 11th September we returned by the eastern slopes and through the gorge of the Barada to Bludan, a march of nine hours for the horses and fourteen for the mules, including the stoppages.

We passed, in the first instance, by the fine ruin of Dayr el Ash'ayir, which has been visited and described by Captain Warren. The walls are standing to the height of the capitals, which are Ionic, with a Greek fret beneath the volutes. There are vaults in the stylobate which are at present inhabited. Anxious, however, to reach Rukhleh at the appointed time, we did not even dismount at this place.

The road ascends a steep narrow wady winding between huge boulders of rock. We here missed our proper path and entirely lost Corporal Brophy, who subsequently met the natives sent to look for him. Some charcoal-burners brought us back to a little plain from which a steep track leads to one of the ridges. Here we found another great valley running eastwards, with the village on its southern slopes, whilst beyond towered the steep sides of Hermon with the knife-like ridge which culminates in the principal summit.

Rukhleh also has been visited by Captain Warren, and I only add such notes as are supplemental to his. There are four principal buildings. The upper eastern temple, the upper western temple, the lower northern temple, and a building called El Burg north of the last upon a high point of rock. Of these his notes are principally confined to the second. (See *Quarterly*, January, 1870.)

There are several Greek inscriptions lying in the indistinguishable ruins of the higher eastern temple. Of these we copied two, one on a pillar, of which a copy has already appeared (*Quarterly*, March, 1870). The transcription, however, resulting from the joint efforts of Mr. Green, Mr. Wright, and myself, is more perfect, although it is extremely difficult to see the letters under the ordinary light. A sort of cartouche surrounds the central portion of the inscription, which seems nevertheless to read straight across. It is most interesting as referring to a certain Epiarch of Abila, whose name might perhaps be made out by a copy taken at night with a lamp; it refers to the guardians of the temple, and a certain Bernice, as having done something (probably in restoration or adornment of the temple) at their own expense; it also contains a date.

The second inscription, on a large stone, was more rapidly copied, and would repay the trouble of a squeeze. It commences, *θεας*

λε(υ)κοθεωα, and the words αυτοις ἀργυρια ἀναλωσαντ'... ὑπερ της θυρας are distinctly legible in one part. There are in all eight lines, the longest containing twenty-two letters: the *ιεροταμιαι*, or guardians of the temple, are again mentioned in it. I am not aware that it has been previously made public.

The second building is farther west, about the same height, but hidden between houses which are on the level of the vaults in the stylobate. The roof of a house covers up the eastern end, but there is no doubt that this was a temple also. Its extreme width is 24ft. 3in., and the height of the stylobate, a fine piece of work, the profile of which I have carefully measured, is 5ft. 7in. It consists of very large blocks of stone. The building is divided by a cross wall at a distance of 22ft. from its east end, and the door of this was surmounted by a massive lintel of bold mouldings, which I also measured. The most curious point in the structure is the existence of an apse at the *western* end having a good hemispherical dome of small well-cut masonry. There is no special sign of this being a late addition, as although the ashlar is smaller (which is commonly the case in Roman buildings in Palestine), the stone seems to be of the same character.

This building is locally called Kala'at el Melek, or the King's Castle. An inscription on a tablet upon a small pillar is here built vertically into a wall, so that only half is visible. It was copied by Captain Warren, but we add a few letters to his. It is well preserved, and should be taken out, when the whole would be legible.

The third building is the famous temple with the head of Baal in its wall. This has been described many times, and especially by Captain Warren. Its dimensions are 56ft. from north to south, and 82ft. to the line of the apse, interior measurements. The bearing we made to be 120 degrees, but Captain Warren 127 degrees. It has been said that the apse at the eastern end has been added at a later period, but I should feel inclined to go even further, and consider that hardly a stone in the building is *in situ*, and that from the present dimensions we cannot judge without excavation of those of the temple. The courses of the south wall, of which I took a careful sketch, are extremely irregular; a portion of a cornice is built in at the east end, then comes the slab 5ft. by 6ft., the height of two courses, on which is the head of Baal, of fine classic outline, but much defaced. It is surrounded with a border of honeysuckle pattern. Next to this two courses—the upper 3ft. 2in. in height, the lower 1ft. 10in., the upper of two blocks 5ft. 1in. and 6ft. 1in., the lower of six stones in the same length. A stone 4ft. long follows in the upper course, and then a succession of much smaller masonry in five courses, reaching to the fine sculpture of an eagle, which resembles the Roman eagle on the soffit of the great lintel at Baalbek.

In the western wall the courses vary also considerably; the jambs of the door seem very probably to have been pieces of a cornice. In the north-west corner a bit of cornice is built in horizontally, at the height

of the lintel of the door. The ground here, either from the natural slope or from the accumulation of rubbish, reaches up to this fragment.

The northern wall is almost entirely of small stones. The apse courses differ considerably in height, and on the outside various niches are built into the wall in a most irregular fashion. Thus no wall of the building can be pointed out as probably remaining intact from the earlier times. The church was divided into a nave and two aisles, the latter being 16ft. wide. There were two rows of five columns each, the two attached to the corners of the apse being probably a trifle larger; the average diameter is 3ft. and the height 22ft. 6in., including base and capital. The latter are of Ionic order. Of all these details I have carefully measured sketches. There appear also to have been two rows of pilasters attached to the outer walls, also of Ionic character, and having a fret similar to that at Dayr el Ash'ayer below the volute. Above these, both inside and out, was a cornice, and a plain architrave connected the columns. Of the roof, however, there are no indications. The door in the west wall was not central, but communicated with the southern aisle. There was also a smaller door on the north, but whether any on the south appears to be extremely problematical.

Between this ruin and the former there are many fragments of cornices, pillars, and niches, a large birket now dry, and a deep funnel-shaped well with a flight of steps. Just opposite the modern Druse village are ruins of houses which we did not examine. There are two illegible inscriptions in Greek, one on the east wall, the other towards the south-west corner, inside the church. South of the village is a regular cemetery of rock-sunk tombs, and a cave with two compartments containing loculi parallel to the sides.

There only remains one building to describe in Rukhleh, and this is called El Burj—the tower. It is on a high knoll north of the church, and presents a platform of rock about 10ft. high and 12 by 15 paces area. A building on a low stylobate, with large well-cut stones, showing no traces of mortar or of drafting, stood on the platform. On the east is a lower building, six paces broad, which seems to have contained rough columns supporting the roof.

There can be no doubt that this village was once an important town. The occurrence of the name of Abila in two of its inscriptions is curious. It would well repay further investigation and excavation when visited by our American colleagues.

Leaving Rukhleh late in the afternoon, we pursued a path more rocky, it seemed to me, than any I had as yet seen in Syria; after passing a narrow ridge we began descending a long, narrow valley, at the end of which the Druse village of Kefr Kúk stood above broad slopes of vineyards, brilliant apple-green in colour, and lighted by the setting sun. Below, on our right, was the curious plain which in winter becomes a lake. Some few days after heavy rain a roaring noise is heard beneath the ground, and a stream issues from a cavern,

quickly submerging the whole extent of flat ground lying between steep mountain ridges.

After sunset we reached Aiba, where the remains of a temple are visible, but as darkness came on we did not stop, but hurried on to the great town of Rashaya, placed on two low hills facing one another, and filling the low ground between them. Here the kaimakam, on a prancing steed, hurried out to welcome the English consul's party. The infantry of the garrison, four soldiers and a sergeant, advanced in Indian file, turned into line, and presented arms. The irregular cavalry rode madly about over one another, and finally one of their number fell over his horse's head. At last all our cavacade was jammed in a narrow street, where the horses of the English party began to kick out, and the kaimakam, having thus fulfilled his duty, speedily retired.

Next morning a great deputation waited on Mr. Green. The kaimakam, the Druse shaykh, the chief Greek priest, and the Protestant schoolmaster, came amicably together, surrounded by their admirers and followers. This audience having been brought to a close and return visits paid, we commenced the ascent of the mountain, a long, steep slope of small loose shingle most fatiguing to the horses.

Our camp was pitched in a sheltered hollow, but we experienced a difficulty rarely felt, of the want of water. Not a vestige of snow was to be found on any part of the mountain, and we were obliged to send the animals down again to the 'Ain Jerniyeh, a spring one and a-half hours from the summit on the western slope. We were engaged till after sunset in taking observations, and after dark we fired the surrounding patches of a prickly shrub, which burns for a very considerable time, thus announcing our safe arrival to the ladies at Bludan, whose return watchfire we, however, unfortunately missed seeing. The night was extremely cold, in spite of our wraps. The non-commissioned officers remained up all night, taking observations for latitude. In the morning we rose before sunrise, and the day being fairly clear we obtained some good observations, especially a line to Carmel, which has thus been observed both ways. Safet, Tiberias, and many of the ruins in the northern district of our Survey, kindly picked out for us by Mr. Wright, were well seen. We took a few shots into Lieut. Steever's country, and angles to all the villages visible on the slopes of the mountain. There is a district on the south and south-east of the summit which has, I believe, never been explored, and which cannot fail to contain many ruins of interest.

My next care was to obtain a careful survey of the summit of Hermon, and a plan of the temple, intended to supplement that of Captain Warren. The top of the mountain may be described as consisting of three peaks, of which two are approximately north and south, and of almost equal height, being joined by a flat plateau depressed in the middle. The third peak to the west is considerably lower, and divided by a valley-head from the former.

The name of this third peak is El Mutabkhiyát, which means, I am informed, the "place of cooking." The plateau is called El Dar, the northern peak Káwasr el Dar. The southern is that on which the temple is built, for which our informant (an old goatherd, who had lived many years on the mountain) gave the name of Kasr el Shabib. The name Kasr el Antar is incorrect, referring to another building. He denied that the name Kasr Nimród, given by Captain Burton, was correct; and I am inclined to believe it is applicable rather to the building at Kalaat el Jindel, which I shall describe later. The building itself is a small temple on the southern side of a block of rock which is surrounded by an oval of well-dressed stones. On the top of the block is a rectangular sunken trench or birket, and close to it a round shaft, not deep, unless it is filled up, and supposed, as Mr. Wright informed me, to have been the flue of an altar. The surrounding wall seems to me never to have been more than a dwarf wall. A great quantity of ashes is still observable on the west, without its boundary. There does not appear to me ever to have been any outer enclosure. There is, however, south of the temple, a retaining wall of rough stones, evidently intended to bank up the earth at the head of a small valley which starts on this side. The stones of the temple wall are drafted, and one measured 4ft. 4in. by 2ft. by 2ft. 8in., with a face smooth-dressed and a draft $\frac{1}{2}$ in. deep, 6in. wide one side of the stone, 3 $\frac{1}{2}$ in. on the other. A fragment of a very simple cornice we also measured. A Greek inscription is said to be still lying on the spot, but we searched for it in vain.

The cave upon the plateau I also entered and measured; it is rough in shape, 15ft. 6in. by 24ft. 6in. in dimensions; the roof is partly supported by a rough rock-cut pillar. The height varies from 7ft. to 8ft. It faces very nearly east. A rock-cut stair of three steps leads down to it, and a small lintel was thrown across this outer entrance. Above the cave the rock is cut down, leaving a rectangular flat space 26ft. by 33ft. I have no doubt that there was a building over the cave at some period.

These notes are all that we are able to give in addition to the full account of Captain Warren, and supplementing the careful survey of the summit and plan of the Kasr el Shabib which we executed.

The chief interest which Hermon possesses for the Biblical student is as the traditional site of the Transfiguration of Christ. The narrative relates (Mark ix.) that being then at Cæsarea Philippi our Lord took his three disciples "into a high mountain apart." That reference is thus made to some part of Hermon there can be no doubt. It is a curious observation that on the summit of Hermon there is often a sudden accumulation of cloud, as quickly again dispersed, often visible when the remainder of the atmosphere is perfectly clear. I have myself noticed this on more than one occasion, and we had some fear that during our stay on the summit our view would be thus suddenly cut

off. We cannot fail to be reminded in this phenomenon of "the cloud that overshadowed" the apostles.

A short day was necessitated both by the time taken in observations and by the fatigued condition of the baggage animals. We therefore fixed upon Kalaat el Jindel, a Druse village on the east of the summit, as our camping-ground.

This point was not visited by Captain Warren. The name is applied to the village itself, and the castle is said to be the resting-place of one of the sons of Nimrod, if not of the hunter himself; for which reason no dew ever falls in Kalaat el Jindel. The two are separated by Vandevelde, who shows the Kalaat on the wrong side of the wady.

The building is a curious one, and its origin may be very ancient, though I am inclined to look upon it as mediæval. It is a rectangular fort commanding a narrow gorge, and almost entirely cut in the rock, facing 190 degrees in the direction of its length. It is divided into two compartments, the western of which contains a Mohammedan kibleh niche, and another recess with jambs and lintels moulded, on the west wall; whilst on the north is a loophole of mediæval character, and a broad rock-cut window exists on the south. The eastern chamber had structural walls on all sides but the south, where a step 3ft. or 4ft. high leads to an open window. Through this we gain a passage on the same level, running parallel to the two chambers, and looking down a steep scarp into the valley below. Both the chambers have been cemented at some time or other; the masonry is of large proportions. A cave, which is not easily accessible through a small window in the east face, exists below the building, in the scarp. Close to it on the west is a tomb resembling somewhat those at Sûk Wady Barada. If this were originally a temple, it is the only known instance on Hermon of a temple facing west.

From Kalaat el Jindel I accompanied Mr. Wright on a visit to Burkush, which was the last site we investigated. It was situate one and a-half hours' ride north of our camp, to which we returned. The following day we were too much occupied to allow of our stopping, nor did we pass any very remarkable ruins.

The ruins at Burkush are the finest which we examined, but they have been very fully described by Captain Warren. I, however, took the plan as carefully as time allowed.

On approaching the spot, one sees a strong, well-built platform wall Burkush. from which a row of cantilevers for supporting arches project. On the platform are foundations of a large Byzantine building, and small hovels of the modern Druse village are built against the eastern wall. At a distance north of this of 175 feet are the remains of another building, with a tumbled mass of masonry belonging to the upper courses.

The plan of the substructures I take to have included two great vaults running the entire length and breadth (130 feet and 160 feet) of the building, with a roofing of flat slabs upon arches at intervals of 3 feet

6 inches. The southern of these vaults is now broken down; the western I could see still exists, though it is not attainable, and much choked with rubbish. On the north the ground attains the height of the platform, and is in places cut away. On the east there are smaller vaults and chambers. There is also another pair of vaults with simple barrel roofs on the west; of all these I have obtained a perfect plan, with their relative positions. From the great south vault, which is 19 feet broad, we enter into some small chambers and a passage placed in the south-west angle of the platform. There are two very small cells, one of which I should take for an oratory, having a niche for holy water or something of similar character in the northern wall. The other is a chamber for washing, or latrine. Another flight of steps here leads to further ranges of vaults beneath, but having no candle we could not examine them in the time at our disposal.

Over the doors of several of these chambers and on the interior walls the following signs are cut severally.

+ 10 Δ ε L M

The second occurs frequently, the rest I was inclined to look on as numbers to the various cells. Several crosses are cut carefully on stones of the outer wall, but probably late.

A very simple cornice runs along the south wall; its moulding is the *Cyma recta*.

The building above must have consisted of three walks, the central one 36 feet broad. The rich and fantastic moulding of the capitals, many of which I measured and copied, show it to have been a very magnificent building. The magnetic bearing in the direction of its breadth was 124 deg. Of this also I found time for a plan. The masonry is very large, twelve courses giving 40 feet height at the south-east corner of the platform.

I was at the time inclined to consider the building as of one date, but Captain Warren's discovery of an Ionic capital in the ruins militates against this, and there is no doubt that the apse of the second structure is built on. Of this structure I made a careful plan, and sketches of the two small attached columns on stools flanking the doorway. The masonry is very large and well-cut except in the apse, and no drafting appears in any of the stones.

There are a great number of ruins round this central basilica, showing the remains of a large town; and a building halfway down the hill, whose foundations only remain, seems to have been a church. At the foot of the hill is a huge sarcophagus, with a bust in basso-relievo, and on a stone close by is an illegible Greek inscription.

There are considerable traces of ancient cultivation on Hermon. In the deserted plain on the east, in the rocky fastnesses at Rukhleh and its neighbourhood, old stone terraces and vineyard watch-towers are scattered. At the present day the long slopes of vineyard, especially remarkable at Kefr Kúk, Rashayah, and Burkush, with the scanty patches of barley, are all that remain.

In conclusion to this report I will note that the fine temples at 'Ain ^{"Ain Fijl."} Fiji, near Súk Wady Barada, have just escaped a great danger. They owe their preservation to Mr. Wright, who passed them when the Wali of Syria was engaged in their destruction. The arch from which the stream flows beneath the temple was stopped up, and the ingenuity of Syrians could suggest no other method of clearing it out than blowing up the building itself. The expostulations addressed by Mr. Wright to the Wali stopped these proceedings for a time, and I at once sent Corporal Armstrong to make a plan of the ruins. The workmen were by that time withdrawn, and the buildings have, I hope, escaped destruction.

XX.

JERUSALEM, Jan. 30, 1874.

GEZER, MODIN, GIBEAH, AND AI.

I am at length able to report that a full sheet of the map, probably Survey. the most difficult and interesting of all, has been completely filled in. The Jerusalem sheet contains over 1,400 names, and the number of ruins planned and drawn is very large. We worked in the Ghor till the commencement of the heavy rains, and have—round Jerusalem and from a flying camp at Dayr Diwán—filled in on the few fine days such portions as could not be reached from other stations. During excursions which I have made when weather allowed, I have visited every important site within twenty miles of the city, and have increased the number of special surveys to sixty-three, including seven churches not to be found in M. Du Vogüé's "Churches of Palestine," and among the later additions the survey of Tell Gezer, the plan of the tombs of the Maccabees, the great church at Ramleh, &c.

Of late, however, the whole country has become unfit for outdoor work, and we are engaged in getting our materials into order, a work which will occupy us all our time until the Jordan valley shall have become fit for camping, when I hope to return to it for survey.

The two principal excursions have been that to Ramleh, undertaken by myself and Mr. Drake, and that to Dayr Diwán, where Sergeant Black accompanied me. We camped for two days at this place, and filled in about twenty-five square miles during very bad weather and a violent hailstorm. I propose to give a short account of each of these journeys.

Leaving Jerusalem on 17th, about 8 a.m., we proceeded by Kolonia, where I noticed the building with drafted stones. There are many vaults and foundations round it, and I think it probably is the site of one of the Crusading conventual edifices, in which the masonry of an older date is constantly used up again.

At Khirbet Ikbala, near Abu Ghosh, we examined a very prominent ruin. It proved to be a convent, probably, from its style, of the same date as the neighbouring church. Numerous masons' marks are found

on the walls, but the chapel has been ruined, and was not traceable. A strong stream, dropping over the rock ledges in little cataracts, runs by it. Even in summer there is a good water-supply, and a grove of indian trees may be the remains of the old convent garden.

At Latrún are the confused and scattered ruins of another Christian site. The rain, however, obliged us to keep straight on for Ramleh, leaving this and Tell Gezer till later.

Starting on the following morning for the latter site, we crossed the swampy plain, and reached Abu Shusheh at nine in the morning. There is no doubt that in itself, apart from the strong argument in its favour, the site is most striking and remarkable.

Tell Gezer.

Situate on a swell of the low hills, its tombhouse is visible in every direction from a distance, and forms a conspicuous object from the Jerusalem road. We have on the Tell a fine site for a city. Though not remarkable in a military point of view, it commands the pass to a certain extent. The fine spring of 'Ain Yerdi, on the east, would supply an unlimited amount of water, and the rich cornland in the vicinity stretches down to the sand dunes on the coast. The view is very fine. The plain of Sharon lies spread out like a map, the fantastic minarets of Ramleh and the white columns at Lydda set in its dark olive groves; the emerald plain lapping the feet of the dark Judean range, which were then covered with heavy wreaths of cloud; beyond all, the blue sea, shining as it always does under the winter sun. The Tell is long and irregular in shape, and on its sides are terraces, which prove supported by long walls of great unhewn blocks. Near the eastern end is a square raised platform of earth, about 200 feet side, also containing similar blocks. This is no doubt the foot of Gezer; I was not, however, able to find the foundations mentioned by M. Ganneau, although there are many ancient quarries, while rough tombs and oil-presses exist below the Tell on the north and north-west. The ground is everywhere strewn with small fragments of pottery and of glass. The curious idol found by M. Bergheim, as well as a number of worked flints, have been already mentioned. The house he is building, and the kubbet, with its graveyard, are the most conspicuous objects on the spot.

Ramleh.

The afternoon we devoted to the two principal buildings in Ramleh, the church and the white mosque.

The church is supposed to be of the 12th century. In the 10th two churches existed, which were destroyed and rebuilt. The only other notice I have been able to find is that by Sir John Maundeville, who in 1322 speaks of "a fair Church of our Lady," "beside Ramla," "where our Lord appeared to our lady in the likeness that betokeneth the Trinity." M. du Vogüé in 1860 could not enter it, but the fanaticism of the Moslems is less marked nowadays, and our survey cost only 5s. as "backsheesh."

The building, which I have been, as I believe, the first to plan, consists of a nave and two aisles, with the principal and side apses, and with seven bays of clustered columns. The nave is built with a clerestory,

the greatest height being about 40ft., the length 150ft., and the breadth 75ft. It is the finest and best preserved church I have seen in Palestine. The spaces between the piers are irregular, varying from 12ft. to 14ft. This is not uncommon in Crusading work, and I believe the inaccuracy of many plans arises from only taking a single measurement, supposing the building to be symmetrical. I am, however, careful to take every measurement, as such variations are curious and interesting. The thick coat of plaster which the Moslems have added, as the ordinary embellishment of a mosque interior, has covered the delicate tracery of many capitales, and makes the finding of masons' marks impossible.

The Jam'ia el Abiad, or White Mosque, at the opposite extremity of the town, is as fine a specimen of Saracenic architecture. It has been known under the erroneous titles of "Church of the Templars," and "Cistern of St. Helena;" and its tower, as that of the "Forty Martyrs" (an important point in our triangulation). Robinson has, however, pointed out that there is no reason for supposing it other than a Moslem construction, and the date, 1318, on the great tower, is not improbably of its building. Christian masons' marks do, indeed, appear on some of the steps of its staircase and on a window, but these stones no doubt belonged to the 10th century churches, and the style of the building seems Saracenic in its details. The massive walls, strong core, and well-finished pilasters and windows, make it one of the most beautiful and best built of the edifices of the country. Shaken often by earthquake, it still stands almost uninjured, and affords a striking view from Kalkilia on the north, down almost to the limits of Palestine on the south. The name Arb'ain Maghazi (Forty Champions), is applied to one of the three extensive vaulted colonnades beneath the mosque court, to which a pilgrimage is made once a year, and which is filled with the little piles of stones used to mark all such sites throughout Palestine, notably at El Mesharif and other points from which Jerusalem is first visible.

The double colonnade of the mosque itself, fast falling into confused ruins, is on the plan of the Damascus and other ancient mosques. I took a plan of the whole enclosure, as of architectural interest from the date attached to it.

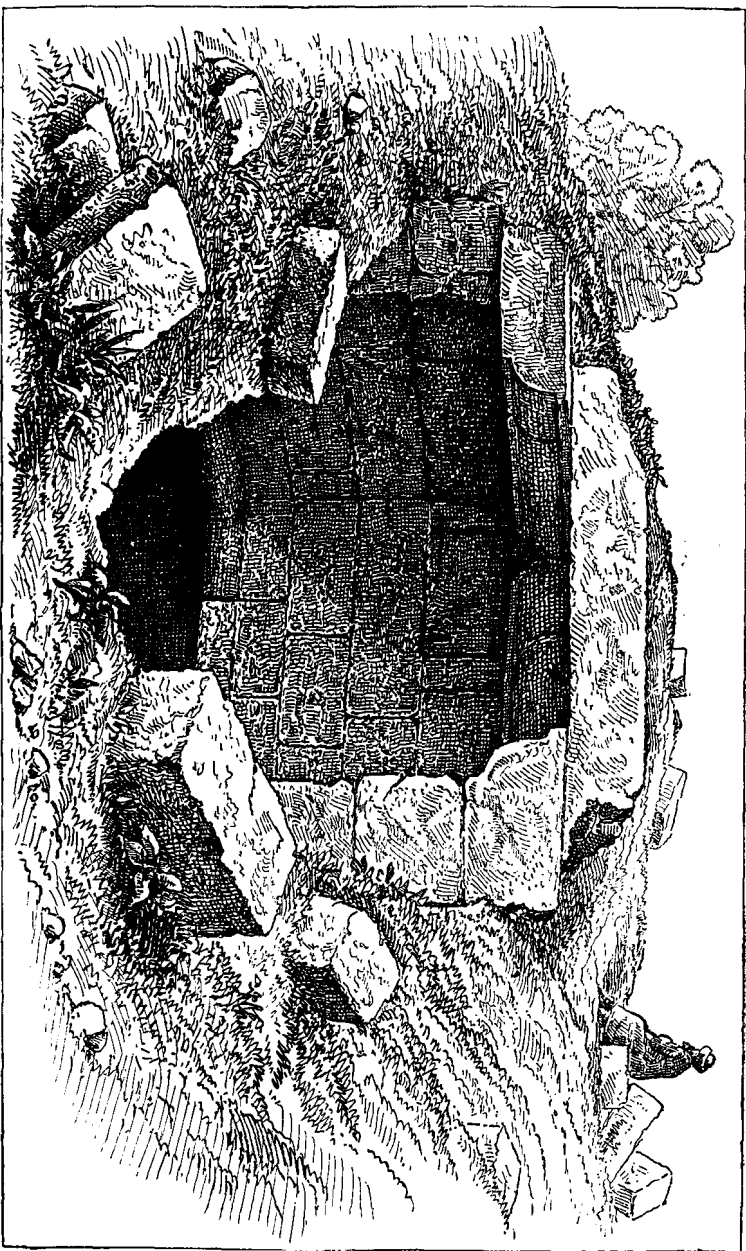
Starting on the following day to return to Jerusalem, we took the Lydda. more northern route through Lydda, Beth-horon, and Nebi Samwil. At Lydda I re-examined the famous Cathedral of St. George, an important building mentioned by nearly every mediæval writer as far back as St. Willibald. The present ruins are about the 12th century. There is no question in this case as to the name of the patron, which since the 8th century to the present day has been that of St. George, whose body is supposed to lie in the crypt, under the high altar.

This church is an instance of the rapid demolition of many such edifices in Palestine. When visited by Du Vogüé, the south apse was quite perfect; but now that it has been restored by the Greeks, and a modern church made out of the first two bays of the nave and north aisle, the southern one has been quite destroyed, and I did not remark any traces of its apse.

M. du Vogüé does not, however, appear to have entered the mosque, the courtyard of which is bounded on the east by the west wall of the Greek church. In this I found a pier and pillar belonging to the south aisle, not noticed in his plan. The number is thus brought up to five or six bays, which would make a well-proportioned church, the total length either 130ft. or 150ft., and the breadth about 80ft. The beautiful moulding of the capital and other details has been well reproduced by the French artist. Another visit may, perhaps, enable me to settle the question of the total length, in a perfectly satisfactory manner. In the meantime I may note that my measurements agree perfectly with both those of Robinson and of M. du Vogüé.

El Medyeh. Leaving Lydda we ascended gradually to El Medyeh, passing Kh. Zakariyeh and Kh. Kelkh, Christian sites of some little interest, the details of which, including the curious Hermit's Cave of El Habis, I measured. The plan of the tombs of the Maccabees—the structural monument, north of Dr. Sandreczki's rock-cut sepulchres, known as the Kabúr el Yahúd (probably a Frank name), I was now able to complete. It is extremely interesting, and a point about it which I had not previously noticed is, the apparent existence of a little court or vestibule to each tomb. The general appearance presented is that of an oblong building, with cron walls. These are not indeed always visible, and without efficient excavation it cannot be said certainly that more than two intermediate and two end walls exist; still the appearance of the ground, sinking in seven wells of rubbish, plainly intimates that formerly there were originally five intermediate. It was in the thickness of these walls that the tombs were built, being about 3ft. 5in. broad, and the wall having a thickness of over 4ft. 6in. The tomb was open on the eastern side, and the grave itself sunk in the floor of the chamber and covered by a slab. Thus the present sunken pits, about 6ft. 9in. square, appear to form vestibules between the tombs. From the discovery of a capital of most primitive appearance, roughly approaching the Ionic order, each would seem to have been ornamented by a column, probably supporting a level roof. There would probably be steps leading down into these, thus explaining how the intermediate tombs, to which there can have been no other means of communication, were reached. It may be to these pillars that Josephus (*Ant.* xiii. 7. 6) and 1 Maccabees (xiii. 27) refer; that they were monolithic is highly probable, though they hardly deserve to be called "great pillars." The "cunning device" round about which they were set, and spoken of as *in* the pyramids, may be supposed to be the vestibules in question; and it is noticeable that Josephus does not speak of the pillars as in the cloisters.

By the latter expression I understand the enclosure, equal in extent with the monument on its western side, surrounded by a fine wall, with stones 8ft. long in parts, and measuring about 80ft. each way. It is remarkable that the outside walls are 5 cubits thick (a cubit of 16in. as generally accepted), the interior 3½ cubits, the vestibules 5 cubits square;



EL MEDYEH (TOMBS OF THE MACCABEES)

From a drawing by MR. C. F. TRENHITT DRAKE

and the length of the graves also 5 cubits, an unusual length, and greater than that prescribed by Talmudical rules.

The last question with regard to this monument is its height, which is described in both accounts as being very great. The question of the height of the pyramids is included in this. It has been said that the sunk centres of several stones show the resting-places of these structures, but this is doubtful for several reasons. First, that only one of these stones is *in situ*. Secondly, that the sunk portions do not occur in the middle of this slab which covers the east tomb. Third, that in the case of another stone not *in situ*, the sunken portion is not central. It is still not impossible that the theory is true, in which case about 3ft. would be the side of the base of the pyramid, which would not allow a greater height than 9ft. or 10ft. The height of the rest of the building was 8ft., and thus the maximum was under 20 or about 15 cubits.

The graves beneath are rock-cut, and may have preceded the monument, as is rendered probable by the two accounts. Two small towers 5 cubits square flanked the entrance to the vestibule of the eastern tomb. Thus we have a monument capable of reconstruction in cubits within a foot of my measurement of the total length.

Josephus speaks of the stone used as "polished," but it seems to me not impossible to have been *whitewashed* or plastered, in which case from its position it could not fail to be conspicuous from the whole extent of the sea-shore, visible from about the latitude of Mukhalid far down towards Gaza.

From El Medyeh we returned to Jerusalem, passing beneath Nebi Samwil, which I had visited on a previous occasion, and a short account of which may therefore find a proper place here.

Nebi
Samwil.

Nebi Samwil was known to the Crusaders under a variety of names, to which they added one of their own, calling it Mount Joy. The strong rock-cut passage to the east of the church, with vaults of good masonry, a Crusading fireplace, and other details of similar character, may very probably belong to this period. No plan of the fine church has been as yet, I believe, published, although of considerable interest. It was cruciform in plan, with a sort of side building added on the north of the nave, although it is doubtful whether any corresponding structure was built on the south. It is worthy of remark that the present cenotaph placed in the ends of a modern building occupies the exact centre of the old nave, and is thus probably of Crusading date, although the *tomb* of Samuel is never mentioned by early writers. The south transept is perfect, with a Mohammedan niche in its wall; the north has been filled up with irregular cells of Moslem work. The choir probably terminated in an apse, but this is quite destroyed, and a modern wall cuts short the edifice.

My second expedition was commenced on the 22nd inst. Our way lay first through Hezmeh, where I measured carefully the five curious tombs called Kabúr bení Isr'aim, and planned their relative positions

and distances, taking carefully the bearing of each. Their construction is interesting, and points to the antiquity of drystone monuments in the country. In the disposition of a series of chambers included in one rectangular wall they resemble the El Medyeh tombs, but are not separated by intermediate vestibules. There seems no rule as to their orientations, and lengths and widths seem to have no connection.

We next pushed on to Jeb'a, a point of extreme interest in connection ^{Gibeah.} with the history of Saul and Jonathan. It is a small village, and conspicuously situate over the rocky slopes of one of the branches of Wady Suwaynit. The road to Mukhmas (Michmash) descends the hill in an easterly direction, and a path equally rugged and precipitous leads up to the latter place, situate at a considerably lower elevation. It is not, however, at the village itself that we should look for the site of that famous camp of the Philistines which was attacked by Jonathan and his squire, prototypes of later chivalry. Josephus describes the site of that encampment as being "on a precipice which had three tops that ended in a small sharp but long extremity, whilst there was a rock that surrounded them." Such a site exists on the east of Michmash, a high hill bounded by the precipices of Wady Suwaynit on the south, rising in three flat but narrow mounds, and communicating with the hill of Mukhmas, which is much lower, by a long and narrow ridge, the southern slope of which is immensely steep.

Whilst thus presenting an almost impregnable front towards Jeb'a, the communication in rear is extremely easy; the valley here is shallow, with sloping hills and a fine road, affording easy access to Mukhmas and the northern villages. The hill in question forms, therefore, the foot of Michmash.

We have now to consider the position of Saul's camp, whence Jonathan started. Both Geb'a and Michmash had been taken by the Philistines, and Jonathan had only lately succeeded in forcing from them former possessions. "The fortress of the Philistines" in Geb'a is generally identified with the present Jeb'a, from which, therefore, they had fled across the deep narrow valley. Saul then came down and remained "in the uttermost part of Gibeah under a tree which is in Mizron," that is to say "among the precipices." From thence the contest and the flight of the enemy were visible distinctly, and the sounds so loud that the greatest hurry in arming was thought necessary. Coupling these facts with the expression of Jonathan's crossing "to the other side," as if already on the bank of the great valley, there can be little doubt that the place in question was very near to Jeb'a, probably in those "fields of Geba which must have lain east of the village on the broad corn plateau overhanging Wady Suwaynit." That the site should be found at Tell el Ful, from which Michmash is not visible, is of course impossible, nor do other arguments in favour of the latter site appear to me of any great weight. Without entering into the question of the probable identity of Gibeah of Saul with Gibeah of Benjamin, I would simply add that Geba often is found in the Hebrew where Gibeah

occurs in the English, and that on the whole it seems most rational to suppose that the name refers to a district of which Geba was the capital. Josephus mentions the village of Gabaath Saulé, near the Valley of Thorns (the name of which is still preserved in that of Wady Suwaynit) at 30 stadia from Jerusalem. This does not indeed agree with Jeb'a, which is 40, but Tell el Ful, situate about 22 from the capital, is also inconsistent with the historian's measure.

Intermediate between these two camps were the "teeth of the cliff" or "sharp rocks," Seneh and Bozer. So steep was the slope that it "was considered impossible not only to ascend to the camp on that quarter, but even to come near it."

How it should have been possible for Dr. Robinson to find two hills in the valley to which such a description should be applicable, is inexplicable to me, for it is steep and narrow each side, formed of sharp ledges and precipitous cliffs; the passage of which still seems an almost impossible feat, and indeed would have been so, had not the outposts, who might have destroyed the climbers with a single rocky fragment, been, as Josephus describes, withdrawn.

The name Bozer, if meaning shining, would well apply to these smooth and polished rocks; and Seneh Mr. Drake identifies with Suwaynit,* and Josephus's Valley of Thorns.

Here, then, the heroic prince, climbing with difficulty down, and yet more painfully up the opposite side, fell upon the strong post of the Philistines, who in their panic smote one another down, till the "spoiler quaked," and the watchmen saw "the multitude melted away."

The passage of Wady Suwaynit by the road to Mukhmas, though at a point where no cliffs occur, still occupied nearly half an-hour. At Mukhmas we found traces of an ancient town, large stones, a vaulted cistern, and several rough rock tombs.

Near to Dayr Diwán is the extremely interesting site of El Tell, which has been identified by Major Wilson with Ai. My first inquiries, put in every variety of form to various inhabitants on and around the spot, were directed to determining whether the name was simply El Tell, or whether some descriptive adjunct, such as Tell el Hajar, was added. The replies of more than a dozen separate witnesses fully corroborated Major Wilson's former conclusion that the name is El Tell, "the heap," which is used in that passage of the Bible (and in only three others) where Joshua is said to have made Ai "a heap for ever."

The present condition of the site is interesting; conspicuous from a distance, the long mound dipping in the same direction with the strata towards the east, stands out in contrast of grey stone from the rich brown soil of the fields. A few ancient olive trees stand on its summit

* The modern Wady Suwaynit corresponds fully with the Hebrew סנה, a thorn bush: Josephus calls the place full of thorns.--C. F. T. D.

surrounded by huge mounds of broken stone and shingle ten feet high. On the east a steep slope of fifteen or twenty feet is covered with the same *débris* in that part where the fort of the town would seem to exist. The town must literally have been pounded small, and the fury of its destruction is still evidenced by its completeness. The interest which will, to my mind, attach to other sites, where the similar appearance of broken masonry is observable, will be very great as *possible* marks of Jewish invasion; these, though not numerous, are very remarkable, and they have been noted in each case on the Survey.

The north side of the town is protected by the deep valley (Wady el, 'Asas) which runs straight down to the Jordan valley. On the west however, there is a curious conformation. A steep knoll of rocky masses, called Burjmus, rises to a narrow summit, and is divided from El Tell by the head of a valley down which the ancient road from Bethel passes. The result is that on this side the view is entirely cut off. Another feature noticeable is that the valleys here run nearly due south for many miles, to meet Wady Suwaynit. The deduction from these facts is evident. The party for the ambush following the ancient causeway from Bethel to Jordan (which we have recovered throughout its entire length) as far as Michmash, would then easily ascend the great wady west of Ai, and arrive within about a quarter of a mile of the city, without having ever come in sight of it. Here, hidden by the knoll of Burjmus and the high ground near it, a force of almost any magnitude might lie in wait unsuspected. The main body in the meanwhile, without diverging from the road, would ascend up the gently sloping valley and appear before the town on the open battle-field which stretches away to its east and south. From the knoll the figure of Joshua would be plainly visible to either party, with his spear stretched against the sky. It is interesting to remark that the name Wady el Medíneh, a name we have never met before, "valley of the city," is applied to this great valley, forming the natural approach to Ai. There are no other ruins of sufficient magnitude to which such a name could be applied, and the natural conclusion is that El Tell was the city so commemorated. In the wady, about half a mile from the town, are ancient rock-cut tombs, seemingly as old as any I have yet seen, and extensive quarries. Farther up, three great rock-cut reservoirs, 36, 15, and 46 paces long respectively, and, I am informed, of great depth (they were then full of water), are grouped together. They are known as El Jahrán. Numerous other cisterns exist near the ruins, and mill-stones of unusual size.

The view from this point eastwards was extremely striking. The rocky desert of the Judæan hills, grey furrowed ledges of hard and water-roughened limestone, with red patches of the rich but stone-cumbered soil, stretched away to the white chalky peaks of the low hills near Jericho. The plain beyond, green with grass, stretched to the brown feet of the trans-Jordanic chain. Heavy cloud wreaths hung over these, but their slopes gleamed yellow and pink in that wonderful

beauty with which they are ever clothed by the sinking sun. The calm water of the salt sea, with a light mist brooding above, added to the charm of the view. Well might Lot, who from nearly this very spot looked down on this green valley, contrast it favourably with the steep passes and stony hills which he relinquished to Abraham. Half the breadth of sea and plain was visible; the western half is hidden by the hills. The cities of the plain, placed, as we conclude, at a distance from the "mountain" to which Lot could not fly, and in the vale of Siddim, "which is the salt sea" (Gen. xiv. 3), were therefore in all probability visible in gleaming contrast with their green palm groves, now, alas! extinct, but still standing in the times of Arculphus (A.D. 700), thus resembling Damascus in its oasis of trees.

Having worked through a severe hailstorm on the following day, I returned to Jerusalem on the 24th, passing the Basilica of El Mukátir, which Major Wilson supposes built on the traditional site of Abraham's altar. This, as well as the Church of Birch, I planned carefully, as no plan has been as yet published. The curious church of El Khadhr, near Tyyibeh, was measured and drawn by Sergeant Black in the same expedition, and the total number of these valuable plates of unplanned monuments throughout Palestine is thus brought at present to 63.

CLAUDE R. CONDER, Lieut. R.E.,
Commanding Survey Party.

MR. TYRWHITT DRAKE'S REPORTS.

XVI.

JERUSALEM, *January 3, 1874.*

Kal'ah,
led also
e Tower
David.

SOME time ago I was induced by the patchwork appearance of this building to make a careful examination of it in company with Herr Schick. The general impression left on my mind after this examination is that the stones (of the lower part) are *in situ*—that is to say, that the building has not been reconstructed with old materials. The upper part need not be taken into consideration, as it is of undoubted mediæval construction. The basement of the tower is concealed by a glacis and other constructions, which probably date from the period of the Crusades. Eight courses of large stones are visible above this. On some of them there is a double draft, which, being in an unfinished state, leads to the conclusion that the draft was worked after the stones had been set in their places. The width of the draft, as I measured it, in many places was 3, 4, 6 or 7 inches, the greater breadth being always at the sides or bottom, usually the latter. The height of the courses varies from 4ft. 1in. to 4ft. 2in. The following are the lengths of several stones which