

bottom of the pool without a second series of arches midway; if, on the other hand, the passages do not reach to the bottom of the pool, it would be interesting to know whether they are built up on *débris* or on rock: a shaft is now being sunk under one of the arches, but the owner of the ground is a little diffident about our working there, and may place obstacles in the way.

On January 1st, 1869, the garden, north-west of Birket Israil, on the other side of the road, was examined; and an entrance to a cistern found at 61ft. north of the Via Dolorosa, and 33ft. west of the road leading north from Bab Hytta (see Ordnance Survey Plan, $\frac{1}{25000}$, the contour line 2,419 passes through the garden). The height of this entrance is 2,421ft., for about the first 20ft. down there is a shaft 2ft. wide; below this it opens out to west to about 8ft., and at 36ft. is the rock, forming in part the roof of a small chamber or cistern: this chamber is cut in the rock, and is filled up within six feet of the top with mud: close to the shaft already described, is a parallel shaft, giving the impression that water was obtained from this chamber by means of a *n'aura* (water wheel).

It remains to be seen in what manner sufficient water could have been got into this chamber to cause a water wheel to be necessary for lifting it; if practicable, a shaft will be sunk through the mud at the bottom of this chamber.*

January 1st, 1869.

Rock-cut Passage at 'Ain el Luz'h.—The passage was followed up until 170ft. from Bir Eyub, where another staircase was found, the steps of which are in very good preservation: the passage was then continued to north, for upwards of 100ft., until 12th December, 1868, when a heavy downpour of rain stopped the work, Bir Eyub overflowed, and the rock-cut passage was filled up with a stream of water, which found vent by the two lower staircases.

The rain fall in December of 1868, was much greater than usual; up to 15th of the month, 8·703 inches had fallen, and it is interesting to find that the overflowing of Bir Eyub is due, not so much to a steady long continuous rain, as to a sudden heavy fall.

It is now nearly certain that the rock-cut passage does not communicate with Bir Eyub, as we are only 70ft. to south of it, and at least 70ft. to west.

January 2nd, 1869.

Arak el-Emir.—I have got over from Arak el-Emir (Palace of Hyrcanus) the capital of a pilaster shown in de Sauley's "*Voyage en Terre Sainte*," vol. 1, page 229: it weighs about 3 cwt., but as the back is all rough it might easily be reduced to 1 cwt. Will you let me know whether the Palestine Exploration Fund wish to have it for the new museum?

Khureitun.—Last Tuesday I accompanied Dr. Petermann and party to the Cave Khureitun, west of the Frank Mountain, the traditional Cave of Adullam.

We went in search of the passage described by Dr. Tobler, in which he found some sarcophagi and Phœnician inscriptions. Sergeant Birtles and six

* See subsequent letter, February 1, 1869, v.l.b Plan No. 36.

fellâhs were also of the party, to excavate and examine the bottoms of the large caves.

We arrived at the cave at 10 A.M.; the Ta'amireh at first objected to our digging, but were soon quieted.

We went through to the last cave spoken of in Murray's Handbook, whence Tobler's description of the passage begins. On our way we found a passage to the left, half filled with the refuse of bats. After crawling for about two hundred feet on our elbows and knees we came to a shaft leading upwards, about 15ft. high, climbing up this we found ourselves in a passage, about 6ft. high, leading north and south: to the north we went perhaps 200ft., when the passage ends in a cave, from which, after passing a small hole, are many other passages leading in all directions. To the south we went about 100ft. and found some broken stones which had been hewn. Over a little passage to the east we saw a Jerusalem Cross smoked on the wall. Finding the time was passing quickly we returned and followed into the last cave spoken of by Murray. Here in the north-west corner is a small opening, and over it written "No outlet here," and it was in this, as far as we could understand the description, that Tobler had found an outlet. Crawling up this passage we found to be most difficult, and only to be passed in one place by lying on the side and wriggling through. After this there is a small passage for about 30ft., and then it opens into a passage running north and south, which proved to be the passage we had been in before when we had found the Jerusalem Cross. It will be thus easy at some future period to go up the first passage we explored, and thus miss the very difficult pass from the last cave; but to explore the cavern properly (if it be worth the trouble) people should encamp near the cave for a day or two. Although we got in such a little way we were at work over five hours in the caves.

There are four large caves; in the fourth and last no excavation was made.

In the third the rock was found at 2ft. 6in. No pottery.

In the second, after working through a loose brown loam abounding in pottery, a stalagmite floor 3in. thick was reached, at 4ft. 6in.; below it for 18in. was a white dust and then hard rock (*melekeh*). No bones.

In the first cave the stalagmite floor was reached at a depth of 7ft., the white dust between it and the rock having a depth of 15in., the 7ft. of loam was full of broken pottery. No bones.

January 2nd, 1869.

South-east Angle, Haram Area.—The heights of courses 2, 3, and 4 were given in last letter as 4ft. 6in., 4ft., and 3ft. 9in. respectively; they should have been 4ft. 3½in., 4ft. 2½in., and 3ft. 7½in.

I have carefully tested the angle of the base course and find it to be 92° 35', while that at the surface I make 92° 5'. Captain Wilson in his notes gives the general direction of the walls 92° 50'; the eastern wall is somewhat irregular, the first 120ft. only being in a perfectly straight line (excluding the offsets), after which there are several slight bulges; it is, however, very probable that the courses below the present surface are in a straight line for the first 260ft. to the north, as in that distance the inaccuracies do not amount to

more than a foot; at this point there is a small postern on about the same level as the single gate on south side; from this postern the wall takes a slight turn to the north-east, so that in 650ft. it is about 8ft. to east of a line in production of the first 260ft. of the east wall (see Ordnance Survey Plan 3177).

On 2nd December I stated that at about 895ft. from the south-east angle, along the east wall, there is a break; I took this dimension from plan, but I find on measurement that it is 909ft.—only 14ft. less than the length of the south wall.

The rock at the S.E. angle into which the base course is let is very soft. At 3ft. to the east of the angle a hole was found scooped out of the rock, 1ft. across and 1ft. deep; on clearing the earth out of it, a little earthenware jar was found, standing upright, as though it had been purposely placed there.

A gallery was driven to the east from the angle for about 8ft., when the rock was found to slope away at an angle of about one in nine; this gallery was then tamped up, and a search was made around the corner stone for any means of getting under it, at ft. north of the angle close to the wall, the rock was found to be cut away in the form of a semi-circle or horseshoe, 2ft. wide and about 2ft. 8in. deep; dark mould was found in it; on clearing it out it was found that the base course rests upon very hard rock (*mezzeh*), the soft rock extending only to a depth of from 2 to 3ft.: the base course is 3ft. 8in. in height.

Upon the soft rock there rests an accumulation of from 8ft. to 10ft. of a clay mould, abounding in pot-sherds; this mould does not lie close up against the Haram wall, but is at top about 12in. from it, and gradually closes in to it; between it and the wall is a wedge of stone chippings; it is quite evident that when the wall was built, this 10ft. of mould and pottery was in existence, and that it was cut through, and the soft rock also, for the purpose of laying the stones on a solid foundation, and it is probable that the horseshoe hole cut in the rock (above mentioned) was for the purpose of allowing the tackle to work when lowering the corner stone into its bed. The pottery found in the clay is broken up into fragments, and no shapes can be recognised; a long rusty iron nail was however found. As this is the weather side of the Haram Area, and as there is such a deep valley below, the *débris* about here is less damp than in the Tyropœon Valley, and there is a much better chance of any articles being preserved in it. One would expect amidst all the chipping to find some broken tools, or something of that sort; and it is most remarkable that nothing ever turns up of importance.

The layer of clay mould slopes to east at an angle of about one in four, the layers of stone chippings, &c., above, at an angle of one in three. I find that the point where the layers slope down towards the wall is merely local, and that the general slope is towards the east. A gallery has been driven along the second course to north; the first stone is very roughly dressed, and is 10ft. 6in. long; the second stone is 4ft. 9in. in length; it is well dressed and has the usual style of bevel; at about the centre is a deeply engraved mark, like the Greek H, only that the horizontal line is about one-third of the way up the upright lines, it is cut in above 1in.; on the south lower corner is another engraving (see Plan No. 29); about the stone are many flourishes with red paint, but whether they are monograms or merely "fantasia," it is difficult

to say, and in black paint there is a mark (Plan No. 29); the stone, shortly after it was uncovered, began to exude moisture, and it would not be prudent to take a squeeze of the two engraved marks until the paint is dry, as it easily rubs off.

We are also driving a gallery along the wall to the north at a higher level, baring courses 4 and 5. Two more characters in red paint have been uncovered; the first (see Plan No. 29), and the second simply a round O.

It is curious that the third stone in the fifth course is very roughly dressed within the bevel. It does not appear that these rough stones form any pattern on the wall, and one is almost led to suppose that the builders were unable to find suitable dressed stones for breaking joint, and had to take those that were unfinished.

There is a most beautifully dressed stone in third course, but, as it is between the two galleries, it would be dangerous to examine it just now.

On examining the chippings at the base of the wall, I find they are in many cases rounded and unlike what would result from stone dressing, having more the appearance of the backing used in the walls at the present day in Palestine. Close up against the wall is a small quantity of chips, but nothing to prove that the stones were dressed after they were laid; and the fact of the horizontal bevels in adjoining stones being altogether unlike is of itself sufficient to lead one to suppose that the stones were finished at the quarries.

The third stone to north on second course was uncovered last night, and on it are found, in red paint, the marks (as in Plan No. 29). This stone has no bevel at top, but a bevel of 13in. at bottom. The marks have been very hastily sketched.

January 2nd, 1869.

Neba.—Robinson, in his list of places in el-Belka, south of es-Salt, gives "Neba (Nebo?)."

M. de Sauley appears to have been the first to discover the site of Neba, on 13th April, 1863 (see "*Voyage en Terre Sainte*," p. 289). When passing over the Belka, between Hesban and Ma'ain, he was pointed out "Djebel-Neba" to his right, and the following day (14th April) he passed "Ayoum-Mousa, Sources de Moise," at its foot.

It appears from the plan, published in 1865, that the Duc de Luynes camped at "Ain Musa" on 13th and 20th April, 1864, and that he ascended Neba, which he calls "Djebel Musa."

On 30th April, 1864, only ten days after the visit of the Duc de Luynes, these springs were visited by the Rev. H. B. Tristram, F.R.S., who refers to them in his speech, 11th May, 1867, at Cambridge. Mr. Tristram also ascended Neba, and gives a graphic description of the view from it in "*The Land of Israel*."

The discovery, then, appears to have been made independently by at least two of these three gentlemen, and, to a certain extent, the results differ in detail.

M. de Sauley places the springs to the south of Neba; but, as he only *saw*

Neba, and came to the springs after making a long detour round by Ma'ain, he may easily be in error in the location of the two with reference to each other.

The Duc de Luynes places the "spring" (he calls it 'Ain) to the north of Djebel Musa (Neba); and Mr. Tristram does not mention the two with reference to each other.

I found (22nd July, 1867) the Ayoun Musa situated in a ravine to the north-west of Neba. South of the springs, and west of Jebel Neba, I found extensive ruins of the same name; they consist of a confused heap of stones, 300 yards from east to west, and 100 from north to south, lying on a spur of Jebel Neba. There are scattered about the remains of several columns and cornices; also the remains of a temple, 70ft. in length, and some vaults beneath. We descended into these vaults. They are divided by piers 2ft. 3in. thick; arches 16ft. span, and 6ft. rise; the arches are 1 foot thick, and are paved over with flagging 18in. square. This paved place is west of, and in some connection with, the temple. We also found the appearance of a city wall. The stones about were very much worn.

In the vaults we found the remains of four women and those of some children, who had apparently been murdered and thrust down these places.

Jebel Neba is a hill (see photographs 301, 302) on the edge of the swelling ground round the west end of the Belka. It can be seen from the wadies Hesban and Keferein, and from near Tell Keferein it appears as a lumpy hill above the high lands; it is 400 feet above the ruins of Neba, and about one mile and a half distant; it is about 2,670 feet above the sea level (Mediterranean), and is therefore close on a level with the Mount of Olives.

To the north of Neba there is no hill of equal height, overlooking all the plain of the Jordan, until we come to Jebel Husha, though to the north-east the ground rises 200 ft. above Neba.

From Jebel Husha to Jebel Atarus there is not a point which commands the high lands on the west of the Jordan.

In the wady, forming the northern boundary of the Jebel and ruins of Neba, are the springs of Moses. They gush out of the limestone rock, and are numerous; the highest and lowest differ about 100ft. in elevation; the lowest being about 1,100ft. below Jebel Neba. The wady is a ravine broken up by precipices (see photograph No. 301), the water from the springs running down in a succession of cascades of about 20ft. to 30ft. in height. Several of the springs issue from small caves, where the water lies in basins 3ft. to 4ft. deep.

This wady can be seen from Neby Musa, on the west side of the Jordan; and as points from which you can see a distant holy place are venerated among the Mahomedans, I have to suggest the question whether this Neby may not have originally obtained its sanctity from the people having been able from that spot to see up the ravine of the Springs of Moses.

In many places on the east of the Jordan we found piles of stones marking spots from which Neby Musa could be seen.

If there happened to be one spot on the eastern bank from which Neby Musa could be seen, and if it were difficult for any number of years for the Bedouins to cross the Jordan, is it not probable that in course of time this spot would be looked upon as the true Neby?

On this principle, in default of a better argument, may we not suppose that originally Neby Musa was the spot from which the Ayûn Musa could be seen, and that, when in process of time it became difficult and *inconvenient* to cross the Jordan, the Mahomedans were content to accept the shadow for the reality?

XXXVI.

JERUSALEM, *January 12th, 1869.*

Robinson's Arch.—In my last account of the excavation at Robinson's Arch, I told you that we had followed the rock-cut passage to the south, and had found a circular rock-cut cistern, and from thence an arched passage leading to east towards the lower part of the Tyropœon Valley. We have since found that the first 30ft. of our gallery was driven along the bottom of an aqueduct 13ft. 6in., and about 3 to 4ft. wide, arched over at top. As our galleries are at most only 4ft. 6in. in the clear, we did not find this out until lately, and now we have been able to knock down the silt from the top to the bottom of the aqueduct, and have been able to recover all our gallery frames, having an arched roof over our heads. Just where we happened to get through into the aqueduct, two large stones have fallen and smashed in the arch, of which there is no appearance for some feet north and south. These two large stones are over 4ft. cube, and appear to be voussoirs of an arch which spanned the gallery previous to the building of the arch, the fallen voussoirs of which are to be seen resting on the pavement 20ft. higher up.

Waiting to hear from you with regard to this aqueduct to the south, I have opened it to the north, and for 50ft. it runs in a straight line 10° more westerly than the west Haram Wall. We have just found that this part of the aqueduct is also arched over (3ft. 6in. wide), and part of the way the arch is most peculiar, it has the appearance of having been pressed in on the western side; but, on examination, I am inclined to suppose it was built as it now remains. It has five stones, and is in the form of a skew-pointed arch, the chord to east being about 22in. with two stones, and west 33in. with three stones; it has a very comical appearance. Beyond this part of the aqueduct, we find another circular rock-cut cistern, about 14ft. 6in. in diameter, and beyond it a rock-cut passage for 10ft., where it branches off right and left: to the right it opens into another rock-cut circular cistern, which is *half cut through* by the west Haram Wall (see Plan No. 28); and on the left it bends again to north, and is connected with a long straight-arched passage, about 3ft. to 3ft. 6in. wide, arched over, and running about 120ft.; that is to say, about opposite to the Bab al Magharibe (Barclay's Gateway).

We cannot clear it out without great trouble, and I wish to hear from you on the subject. It is choked up with silt on the northern end.

The fact of one circular cistern being cut through by the Haram west Wall, and

also a passage south of the bridge being cut in the same way, leads one to the conclusion that this aqueduct existed before the west wall was built. It is quite evident that this aqueduct was for running water, partially for the supply of houses or gardens in the Tyropœon Valley, as every few feet we met with shafts for lowering buckets, quite similar to those found in the older portion of the aqueduct leading from Solomon's Pools (described 2nd September, 1867). The presumption is, that when the Haram Wall west was built, the part of the aqueduct lying west of the wall was left intact, but that when the wall cut through it, straight lines of arched passage were built to connect the older portions.

To the west of the circular cistern to north of Robinson's Arch, some curious rectangular chambers have been opened; they are cut in the rock (about 16ft. by 6ft.) and are arched over (semicircular), in one is a flight of steps leading apparently nowhere. In one of these chambers we found the base of a column which had fallen in through a hole in the roof, a sketch of this column has been forwarded, we have also found several curious rock-cut passages about 2ft. square, the object of which is not apparent.

Presumptive Evidence.—1. The winding rock-cut aqueduct was constructed.

2. The west Haram Wall was afterwards built, and part of the aqueduct falling on the inside of the wall, the outside portions were connected with arched masonry passages, and the rock-cut parts were at the same time arched over. At the same time a bridge was built connecting the Haram Area with the western side of the valley.

3. The arch of the bridge fell (two voussoirs still remain), smashing-in part of the arch of the aqueduct.

4. *Débris* began to fill up the valley, a pavement was constructed upon it, which still remains, about 20ft. above the top of the aqueduct; in order to obtain water readily shafts were constructed at intervals from the pavement down to the aqueduct.

5. The arch fell and now rests upon the pavement.

6. *Débris* began to fill up the valley over the fallen arch, the pier of which standing out was removed all except the three lower courses.

7. Houses were built on a level 20ft. above the pavement.

8. These houses fell into ruin and the *débris* accumulated to its present level, viz., 45ft. above the pavement.

Pool of Siloam.—On the road leading from Burj al Kibryt to Pool of Siloam, about 400ft. from the latter, water was observed, during the heavy rains, to disappear rapidly through a hole in the ground; an excavation was commenced 15th December last, at 9ft. 6in.; a pavement of stone flagging was found and a small water duct 3in. square. This duct was followed to south-west for about 26ft., when it was found to run into a rock-cut tank, 12ft. square and 15ft. deep; roof of rock.

The gallery passed through the remains of an oven composed of large fire bricks.

A piece of fine white marble belonging to the capital of a Corinthian column was found in the shaft.

Birket Israil.—The floor of the northern arch is found to be 36ft. 5in. below the crown, that is to say, 48ft. above the bottom of the pool; the work is still in progress.

Extra Tower and Wall of Ophel.—This tower (previously described) was found to rest upon rock, which is so scarped as to overhang 18in. at top (see Plan No. 30). There is a perpendicular scarp of 14½ft., and then a small gutter for water; below this the rock is cut away so as to form a water channel, 10ft. high, and about 18in. wide, open at the top. This channel was found to be too narrow to follow up. The rock scarp was traced to N.N.E. for about 25ft, when the rock was found to be wanting, a rough wall taking its place.

With regard to the extra wall beyond the tower, it is found to be at present 66ft. in height and 80ft. in length; at its southern end it turns to west towards the Ophel Wall, and becomes so much decayed that further excavations about it were considered undesirable; it is partially plastered on the outside, and so likewise are the large bevelled stones of the extra tower.

The Ophel Wall has been traced for 700ft. S.S.W. of the first tower, it then ends abruptly; it is in a straight line, but the line is broken by the projections of the second and third towers. About 200ft. south of the point where the wall ends, and in the same straight line, some massive walls have been uncovered; they have been built over subsequently, and it would be very difficult to determine their original objects: at this point there is a rocky knoll, and the earth is only about 12ft. in depth. Looking at the remains from a professional point of view, I am inclined to think that what we call the Ophel Wall, was here terminated by a tower, placed on the rocky knoll, and that from thence the wall ran up towards the Dung Gate. (Plan 30.)

We have found, however, no trace of the wall within 200ft. of the rocky knoll, but it is exceedingly unlikely that the wall would terminate in a hollow with rising ground a few feet in front of it; as the earth about here only covers the rock to a depth of from 12 to 15ft., it is possible that the wanting portion of the wall may have been taken up and sold for building stone by the fellahin, who at the present day frequently go down to that depth in search of cut stone. Cut stone in Jerusalem is much in demand, and on the grounds of the fellahin, all traces of walls at or near the surface are fast disappearing; the rock-cut steps and caves which existed along the slopes of Ophel are also fast becoming obliterated, the farmers find that these are the places where they have least trouble in blasting and quarrying the rock, and within the last few years many old features on the southern side of the old city have vanished; thus year by year the old Jerusalem will become more difficult to be understood.

It appears likely that the Ophel Wall was built in two or more steps, with a road at the bottom of each wall, as we find that in the first wall the stone is roughly dressed to a certain height above the rock, and that to this height there is an outer wall of cut stone about 20ft. to the front of it.

XXXVII.

February 1st, 1869.

Curious gateway and chamber, 50ft. below the top of the great causeway of Tarik Bab es Silsile.—Uniting the upper part of the city to the Haram Area at Wilson's Arch, is a great causeway which we have lately discovered to be a succession of vaults upon vaults; and I have now to relate a further curious circumstance relating to this matter. The causeway at its eastern extremity (Wilson's Arch) is elevated about 80ft. above the bottom of the rock on which the west side of the Haram Wall is built, and is about 26ft. above the present level of the ground at the same point, that is to say, the level of the Haram Area is 2,420, the present surface of ground (Jews' Wailing Place) 2,394, and the surface of the rock 2,340ft. above the Mediterranean.

On 2nd September, I told you that we had been unsuccessful in our endeavours to explore the secret passage under the great causeway further than 250ft. west of Bab es Silsile, or Wilson's Arch, and that we found it to run immediately under the street of the same name (Bab es Silsile), which is formed from the upper part of the causeway. At 220ft. from the Haram Wall the passage is terminated abruptly by a comparatively modern wall, and an opening to the south leads into an ancient vault, and further on into a place used as a donkey stable. On examining farther west we found the passage as far as 250ft. from the Haram Wall; it is here used as a cistern, and is under the house of Joseph Effendi. The Tarik Bab es Silsile, or upper part of the causeway, is up to this point from the gate of the same name nearly on a level, that is to say, it is about 2,422ft., and the level of the secret passage is, at the springing of its arch, nearly on a level also, about 2,410ft., the crown of the arch being about 8 to 9ft. below the level of the street above it: it is exceedingly difficult to level through a succession of vaults underground, with the earth nearly up to the crowns of the arches, and I cannot be certain of these levels to a foot either way. The continuation of the secret passage beyond the tanks has not yet been found, but in examining the place a curious chamber and gateway has been found at a lower level. (See Plan No. 31.)

The portion of the secret passage (shown A on section) used as a tank opens from a vaulted chamber (H) on the southern side of the causeway, and a little to the east of the production of the street El Wad: it is shown on the plan of this causeway sent home 2nd September. (Plan No. 17.) In this chamber (H) Joseph Effendi told me he had found the mouth of a cistern some years ago which had been covered up with refuse from the house; the present floor of the chamber (H) is on a level with the springing of the secret passage A. It took some time to find the mouth of the cistern in question, as it is over six feet below the present bottom of the chamber; and when found it was a question whether it could be descended. It consists of a shaft, for 25ft. below the bottom of the chamber, so narrow that we could not use our legs for getting up the ladder; and it was found at last that the only way it could be managed was to be hauled up by the rope about a foot at a time, and then the strain on the rope from the friction of the body against the sides was very great. Having arranged for our ascent, we descended, and found the shaft

to open through the crown of an arch into a chamber (B) running east and west, and about 4ft. to the south of the secret passage above. The crown of the arch of this chamber is 13ft. 6in. below the bottom of the cistern A (in which there was water) and 40ft. below the level of the street above. This chamber is 14ft. 6in. in length, 8ft. broad at the western and 10ft. 6in. at the eastern end. It is plastered. Its roof is peculiar, it is a straight-sided pointed arch, the rise at the widest part is only 2ft. At the western end of the chamber a hole was made in the masonry, but after going 4ft., damp earth was met with and no signs of the continuation of the chamber. We had to be very careful, as in case of our breaking through to water there would have been a difficulty in getting up the working party through the shaft in safety. The *débris* was next cleared away, and a hole made in the wall, when it was found to be a doorway, closed up, which leads into chamber C.

This chamber is very peculiar; it has apparently been used as a vestibule or guard-room to a postern at its eastern end. It runs east and west, is 18ft. long, and like the first chamber B, it is wider at its eastern extremity, being 12ft. to west and 13ft. 9in. to east. There is no plaster about this chamber. The arch is nearly semicircular and the courses are 19 in number, of nearly equal dimensions. At the eastern end there is a semicircular arch of 5ft. span, resting on a lintel 12ft. long and 2ft. high; this lintel forms the top of a doorway whose height was not ascertained. This doorway, 5ft. wide, leads to a passage only 2ft. 6in. wide, and covered over with blocks of stone laid horizontally. At 10ft. to east there is the appearance of some building having given way and fallen into the passage, and I considered it prudent not to meddle with it.

It will be seen on inspection of the plan and elevations of this chamber that the gateway at the eastern end is of a description only likely to be used as the entrance to a passage, and it will also be noted that the gateway to west is peculiar.

In the chamber C a volute of an Ionic capital was found, a sketch of which has already been forwarded.

It is not very clear whether this chamber C was constructed at the same time as the causeway or previously, but in either case it would appear to have been a means of getting from the upper city out into the Tyropæon Valley.

It will be interesting to ascertain where and on what level the present main drain crosses the causeway on its way down to the Dung Gate. I have not been able to get any authentic information on the subject.

The Gate Gennath (so called).—H.R.H. the Archduke, Duke of Modena, through the Austrian Consul, Count Caboga, expressed a wish that we should re-examine the Gate Gennath (so-called), and he gave a donation in furtherance of that object.

On Thursday week a shaft was sunk down alongside the northern end of the gateway, and the arch, which is very much battered and weather-worn, where exposed, was found to be in very fair condition, immediately below the service of the road, and to spring from an impost or capital 2ft. 1in. in height; below this the doorpost is composed of three stones giving together a height of 7ft.

4in. (See Plan No. 32.) The lower stone of the doorpost rests on a stone forming a sill, which projects into the roadway and under the arch about 12in. No pavement has been found.

The arch of the gate is composed of 11 stones, 2ft. 3in. long, and also 2ft. 3in. wide at the extrados. The keystone is 2ft. 6in. in length, the extra three inches appearing to project beyond the archivolt (as shown in elevation); but of this I cannot be quite certain, as a settlement in the arch might have produced this effect. The arch is semicircular, the span being 10ft. 5in. The springing of the arch is flush with the doorpost, the abacus and mouldings projecting 3in. The impost is in good preservation; a sketch of it is enclosed.

The height of gateway from sill to top of impost is 9ft. 5in.; and adding to it the rise of the arch, we have a total height from sill to crown of 14ft. 9in. (See Plan No. 32.)

On getting down to the sill of the gateway a gallery was driven to south, when it was found that there was a second doorpost of more modern construction within the first. On getting under the centre of the arch some earth fell in, and, on its being cleared away, it was found that we were under a pointed arch. On examination I found that the gate Gennath (so called) is cased inside with doorposts and a pointed arch of comparatively modern construction, as shown on plan. This inner doorway is recessed four inches; a simple moulding (astragal) runs down the jamb, projecting four inches, so as to be flush with the front of the outer gateway. I cannot see if the moulding runs round the arch, as there is some masonry in the way. This inner pointed arch forms part of the roof of a dyer's shop; and I understand that it was under the arch inside that the first excavation two years ago was made. Except at the point where our shaft is sunk, there is masonry encasing the old gateway, and one might dig about it for a long time without getting upon the old gateway as we have had the luck to do.

The sill of the gateway (Gennath) is about on a level with the Sûk, at Biyar, and also of the floors of the two towers to west of the gate, described in Lewin's "Siege of Jerusalem by Titus," page 216.

This is not the only instance where I have found old work smothered in on all sides by more modern masonry; and it has sometimes occurred to me that the pointed arches at the Mahkama conceal more ancient arches above—certainly in two places this can be observed.

From the battered condition of the exposed portion of the gate Gennath, it is evident that a vast number of years must have elapsed since the two gateways were closed up; and as the inner gate was probably built to be used when the outer gate became decayed or distasteful in its architecture, we may safely assume that the gateway is of ancient construction, especially as its style is Roman.

South of Haram Area.—(See Plan No. 33.)—Two shafts were sunk in search of any traces of a wall running south from the west side of the triple gate. The upper shaft, No. 34, was commenced 132ft. south of the triple gate, and to the west of a cistern; rock was found at 22ft., and a drain at same level was broken into, in which were found a great number of glass bottles and earthenware lamps, which

are supposed to date from about the third century of our era. A gallery was then driven along the surface of the rock for 25ft. to the west, but no wall was found. Objections were made to our continuation of the work to the west under the adjoining property.

To the east of No. 34 shaft is a cistern in which there is a large cross (of St. John) moulded on the plaster, and also some hieroglyphs, a sketch of which was forwarded home in the spring. The cross is placed in a little alcove in the cistern, so that it would only be seen by persons looking for such marks. This cistern would appear, then, to have been plastered in the times of the Crusaders or of the early Christians; if of the time of the Crusaders, the cross would probably be that of the Templars who were quartered just above. It may perhaps be attributed to the early Christians, as we find the drain with the Early Christian pottery so near to it.

The second shaft, No. 42, was sunk at a distance of 260ft. from the triple gate, and in the production of a line perpendicular to the eastern jamb of the centre arch. Rock was found at ft.; a gallery was then driven to the west, and at 10ft. a drain was broken through, the same as was met with in shaft No. 34; also a branch drain coming from north-west; this was followed up until at 30ft. from the shaft a massive stone wall was met with, running apparently in the direction of the eastern jamb of centre arch triple gate; the wall was then followed 31ft. to south, where it becomes lost, and 35ft. to north, where it is succeeded by a wall of rubble masonry, and there lies on it (not *in situ*) a small well-cut bevelled stone about 2ft. by 3ft. 6in. The wall was then followed 10ft. farther to north, but apparently it still continues of rubble masonry; just at the point where is the bevelled stone the mouth of a shaft was found leading down to a rock-cut cavern, which will be described.

The wall is not yet examined thoroughly; one stone appears to be 15ft. long and 3ft. high (without a bevel); but there is a good deal of cement on the stones and the joints may be concealed; the wall appears to consist of one course of larger stones resting on a wall of rubble, and the impression it gave me at first was that it might be the wall of a ramp leading from the Wall of Ophel up to the triple gate; I shall perhaps be able to judge better in a few days.

At point marked on trace No. 40 a shaft was sunk for the purpose of examining the rock under the hollowed piece of ground south of the double gate; rock was found at 27ft. 6in., and to the east some rock-cut cisterns and a passage with steps leading down into them. A gallery was then driven to north, and another cistern about 17ft. square met with; the gallery was continued along the rock for 60ft. in search of steps leading up to Double Gate, but without result; the rock was found to have a scarp or steep down to east along the line of the gallery; I have since found the rock cropping up to the present surface about 100ft. higher up the hill, so that there is no chance of steps from the Double Gate having extended so far down.

Is there any chance of the theatre of Hadrian having been located near this spot? It is the only place that I have observed near the walls of Jerusalem where the ground takes the form of a theatre.

At No. 38 a shaft was sunk and rock found at 12ft., but we just happened upon a place where it is scarped down towards the west for 12ft. to 14ft.; this scarp was traced for about 15ft. to north-west and south-east.

I have elsewhere suggested that the Ophel Wall may have terminated on a rocky knoll about 200ft. south of the point to which we have traced it, and that then it may have taken a turn up towards the south-west angle of Haram Area; it would in such a case run very close to this scarp at 38 (see contour Plan), which might have been cut to give additional height to the wall; the plan gives the contours as obtained from the several points of rock we have at present met with.

At shaft No. 31 rock was found at 33ft. and a drain cut in the rock, in which some lamps were lying. (For direction of drain see Plan .) The rock is stepped out in a puzzling manner, and to west the jambs of a gateway were found; width from post to post 12ft.

At the point where is the rocky knoll we have found cisterns and strong walls, but they are built over with more modern masonry, and the whole is so blended together that I can make nothing of it; the more modern building has a floor paved with tesserae.

At each shaft sunk south of the Haram Area, we have found the remains of buildings, drains, scarped and cut rock, and we may draw the inference that this portion was once covered with houses; we have, however, found no architectural remains *in situ*, and nothing that would repay the expense of keeping the ground open. As the work is generally 20ft. to 40ft. below the surface, it can only be got at by driving galleries at such depths, and as in this country the wooden frames quickly decay, it becomes a matter of necessity to tamp up the galleries soon after we have opened them. I am now tamping up all the galleries south of the Haram Area except two, where the Wall of Ophel can be seen by any travellers who come here during the ensuing spring months.

Cavern south of the Haram Area.—The cavern previously mentioned as having been met with in gallery from shaft No. 42, is cut out of the rock. The roof is flat; it consists of two chambers: the northern appears to have been about 12ft square, but a portion is taken up to east by a masonry wall; on the sides of the rock are small holes punched as though for some instrument to rest. (See Plan No. 34.)

The southern chamber is irregular in shape, and a portion of it is divided off by stone columns cut from the rock. Mangers or shallow vats exist round the chamber; in some cases the rock is cut in under, as in Plan No. 34, and in other cases the troughs are cut out of steps projecting from the face of the rock. They are from 18in. to 20in. wide, and where unbroken are 6in. deep; in one I found a plug hole, which shows that the vat was intended for the reception of some liquid. In the roof, on the walls, and at intervals under the troughs are eyes cut in the stone through which a 1½in. rope may be drawn. These eyes are formed by cutting two groves in the rock about 2in. apart, and then connecting them by a small hole, half-inch in diameter, about 1in. below the rock surface.

As we find the cave at present, it has the appearance of having been last used as a stable, and the floor is about 2ft. below the level of the mangers, but it cannot originally have been cut for such a purpose, as we find that the

true floor of the cavern is 11ft. below the troughs; so that it is apparent that the original object was not connected with housing and feeding cattle.

On entering a dyer's shop in Jerusalem you will find vats ranged round the room, and staples let into the wall from which lines are stretched for hanging up the cloth to dry. The difference is that at the present day the vats are circular, and those of the cavern are long and narrow. I have to suggest that this cavern may have been a fuller's shop, where clothes were cleaned or made white. Tradition relates that St. James was cast over the outer wall of the Temple enclosure, and that "a fuller took the club with which he pressed the clothes, and brought it down on the head of the just one."

The eyes made in the walls are similar to those cut in the piers of the substructions at south-east angle of Haram, which are sometimes called Solomon's stables, described in Captain Wilson's notes.

At the south-eastern side of the cavern there is a masonry wall, perhaps to support the rock roof which here appears to have cracked. Attempts were made to go through this wall, but it was not considered safe to continue the work.

About half the earth in this cavern has been turned over and a considerable amount of pottery has been found, but all in fragments. Also the lower part of a copper candlestick, which was found in two pieces that had originally been soldered together. The upper part has been turned in a lathe, the lower part has been probably pressed on a block. A sketch of this will be sent.

The rock above this cave is $4\frac{1}{2}$ ft. thick, and in the earth above is a drain containing glass and pottery, supposed to be early Christian; it must then have been some time back when this cave was used as a stable, and further back still when it was used for its original purpose.

In the roof is a peculiar cutting, as though for a piece of metal; and I cannot at present ascertain whether such a hole is made in oil-pressing rooms, &c.; but I have observed a similar cutting in the lintel of a doorway in Hârat ad Dâwâyeḥ, and perhaps some person may be able to explain it; but the dyers, fellahin, and others about Jerusalem, say that they do not know its object.

*Substructure in the Haram Area, near Bab Hytta (Plan No. 35).—*At the northern end of the Haram Area east of Bab Hytta are two tank mouths, 16 and 17, which were not examined by Captain Wilson. They are closed by heavy stones. To the west of these is a private garden which projects out into, and forms part of, the Haram Area; in this garden are two other tank mouths. I examined one of these some months ago, but was unable to get down the other on account of the small size of the opening. On Monday last I went again to this garden to have another try at these cisterns, and first examined that to the west, which is simply a tank about 8ft. by 15ft., with a semicircular arch over it and no appearance of rock about it. I then went to the other, situate at the south-east angle of the little garden, which at this point is elevated about 10ft. above the Haram Area at mouth of 17 (the mouth 17 appears to be at an elevation of 2,413ft.) On sounding I found it 42ft. down to the water. I tried to descend, but to no purpose until I had nearly stripped

to the skin, and even then in my contortions I managed to slip the rope over one arm. The narrow passage was only for 3ft., and 10ft. from the surface I came on the floor of a little chamber about 6ft. square, apparently on a level with the Haram Area. The shaft down to the cistern continues through the floor of this chamber; and is a moderate-sized opening. On getting down to the water I found it only three feet deep, and concluding from the size of the cistern that help would be required in measuring, I signalled for Sergeant Birtle to come down.

On lighting up the magnesium wire and looking about me, I was astonished, my first impression being that I had got into a church similar to that of the cathedral (formerly a mosque) at Cordova. I could see arch upon arch to north and east, apparently rows of them.

After floundering about some little distance, however, I could see that there was a limit to these substructures at no great distance to north and east. In the meantime Sergt. Birtles was making great efforts above with very little result; do what he would he could not get past the narrow opening to the cistern, and at last had to give up the trial and go and get leave from the owner to pull down the upper mouth of the shaft; and then he very soon appeared at the bottom, his shoulders considerably injured in his exertions. In the meantime the excitement of our "find" had begun to wear off, and the water felt cold. I was just giving the sergeant some sage advice as to how he should direct his steps to the best advantage, when I stumbled over a large stone and fell into the water flat on my face. As just at present the weather is frosty, and the rain is generally accompanied by sleet or hail, a bath in one's clothes is anything but pleasant. I found the stones on which I stumbled to be about six in number: they average about 7ft. in length, and 3ft. in depth and width; I could see no inscriptions on them; they appear to have fallen in by accident.

The substructure, now used as a tank, is 63ft. from north to south, and 57ft. from east to west, thus being nearly square; its northern wall is 23ft. 6in. from the south side of the Birket Israil. It consists of nine rectangular bays, formed by four piers, cruciform on plan, equidistant from each other and from the walls, from which spring arches. The arches between the piers, and between the two northern piers and walls, are stilted or pointed; those from the two southern piers to the walls appear to be flying buttresses, unless the remainder of these arches are concealed behind the east, west, and south walls of the substructure. The dimensions of arches and piers all vary somewhat (see Plan No. 35), which may arise from the thick coat of plaster which exists up to the tops of these arches, that is, to about 14ft. above the floor of the tank; these arches support nothing, they merely strengthen the piers and resist any lateral thrust against the side walls.

The whole of the substructure is covered in by vaults intersecting in groins over the bays. Surface-ribs (of cut stone) are thrown over from the piers to the sides, the remainder of the arches being composed of rag-work; the vaults are pointed. The springing of the vault surface-ribs is 14ft. above the floor of the substructure, and the cement does not reach higher than that point. The vaults from springing to crown are also about 14ft. in height, giving a total of 28ft. from floor to crown.

In the south wall is a staircase leading up to the surface of Haram, which I

understand has been open within the memory of man. Near the bottom of the steps is a shaft leading up to entrance No. 17, and in the centre bay is an opening leading up to entrance 16. There is no appearance of an open continuation of these vaults in any direction. There is an opening on the northern side about 2ft. in height, and 1ft. wide, on a level with the top of the cement, which lets in light; and on examining the pool Birket Israil, I find a grating in the south wall (2ft. square) exactly opposite the opening in the substructure, and which undoubtedly communicates with it, but whether directly through the thickness of the wall, or whether through another chamber in the wall, has yet to be determined; through this opening any superfluous water in the substructure would flow into the Birket Israil.

The impression that I had got into a church still remains on my mind, I do not exactly know why; the vaults are so unlike any known tanks in Jerusalem, and so very different from the substructions at the south-east angle Haram Area. I cannot believe that such a structure as this was built merely for a tank, and if it was simply to support the present surface of the Haram, then there is probably more of it to be found to south and east.

We were altogether three hours in the water measuring, and I took everything I could get at, and have put the most important measurements on the 10ft. to an inch plan.

The vaults look small when compared to the Birket Israil in section, but then the Birket is really an enormous reservoir, nearly 100ft. deep.

The large stones I found huddled together at the bottom in the water, are, I think, evidence of the roof having once fallen in and been replaced.

Birket Israil (Plan No. 36).—Under the northern vault, 9ft. from the entrance, a shaft has been sunk, and at a depth of 14ft. 6in. a floor of concrete has been found, which at this point is 36ft. 6in. below the crown of the arch, and 43ft. 6in. above the bottom of the pool.

The floor has a slope towards the entrance where there are four stone steps 16in. broad and 7in. in height; the bottom step is nearly flush with the west wall of the pool, and from this step to crown of the arch is 49ft.; beyond this there is a landing 8ft. broad, and then a drop of 4ft. Attempts were made to get through the concrete at this point, but the instruments could make no impression on it; the gallery was then driven down along the face of the concrete to east, which is found to consist of irregular steps (see Plan No. 3). The concrete was followed down until at a point 22ft. above the bottom of the pool, the rubbish was found to be in too loose a state to work through, and the gallery has been discontinued; it is probable that in any case we could not have continued more than a foot or two deeper on account of the water in the pool.

What we learn from this work is, that the northern end of the pool, unlike the other sides, is built up of steps of concrete, similar to those found at the pools of Solomon; and the natural inference to be drawn is that there is no rock on any side above the bottom of the pool except to the north. We are now trying to drive through the concrete again in search of rock, but it is so hard that we make very little impression, and I don't wish to blast just at this point.

I send a trace (Plan No. 36), showing the nearest known points of rock to the Birket Israil.

We have been excavating in the cistern in garden N.W. of the Birket, where I thought there had been a N'aura, but we can find no signs of any aqueduct by which water could have been brought in; the cistern is 20ft. deep.

At the point where the Bab el Aten enters upon the Tarik Bab Sitti Maryam, close to the traditional tower of Antonia, I have opened another cistern, and found rock as shown on trace; running north and south on the rock is an aqueduct which apparently filled the cistern in passing, and may have been used for the supply of the Haram Area or of the Birket Israil; it is blocked up after a few feet at each end, and the owner of the property would not have it opened.

Each step we take about the north-eastern end of the Haram Area tends to point out that there is a great depth from the surface to the rock.

XXXVIII.

February 11, 1869.

The Triple Gate and Tunnels on South Side of Haram Enclosure.—In my letter of 4th December, 1868, I said, "originally the so-called Triple Gate was a double tunnel, proof of which will be found on examination of the $\pi\tau\tau$ Ordnance Survey Plan." I have since seen that the eastern of the three tunnels extends further to the north than is shown in the Ordnance Survey Plan by at least two bays. It is, however, very much choked up by rubbish, and it may extend still further north as a third tunnel, or it may be continued further east in another set of vaults (see Plans 37, 38).

The vaults at the south-east angle are now very difficult of access. Some years ago a door opened into them from the "mosque of the cradle of our Lord Jesus," but subsequently it has been plastered up, and the entrance was from the surface over the remains of a fallen arch. Last year this arch was built up, in consequence of some report of deserters having secreted themselves in the vaults while the troops were at prayers in the Sacred Area.

At present there are only two means of entry, the one through a loop-hole (9in. wide and 19in. high) on the staircase leading to the "mosque of the cradle of our Lord Jesus," by a drop of 40ft., past an overhanging mass of crumbling masonry; an entry which, having once passed in safety, I am not anxious to try again. The other entry is by getting down tank X., and then up again through an old aqueduct into the vaults.

A few days ago, finding that I still required some measurements for the completion of an elevation of the western wall of the vaults, I went in through tank X. You enter from the surface of the Haram Area. There is first a shaft about 16in. square, and about 3½ft. to top of the tank (rock), then a drop of 24ft. to bottom of tank, and 18ft. up again to the aqueduct leading to the vaults. The small ladder we could get down was only 12ft. long, and another, which we eventually got to lash on, was of slender proportions, having been made to assist young pigeons in getting up to their cote; the two together did not reach up to the hole, and we had considerable difficulty in getting up.

In tank No. X., in the roof of rock, is a space of 4ft. covered by a flat white stone, and Sergeant Birtles observed some carving upon it. It can only be seen in a certain light, but I have made an approximate sketch of its appearance. It must be nearly 30ft. below the surface of the Haram Area, and is probably very ancient, as it would appear to have been put over the cistern before the *débris* accumulated (see Plan No. 37).

The plans forwarded herewith consist of a plan of the Triple Gate, with elevations of interior and exterior, an elevation of west wall of vaults, and detail plans of the little that can be seen of three engaged columns. It will be seen on examination of the exterior arches of the Triple Gate and the arches of the west wall of tunnels, that they are of very similar construction.

The arches of the Triple Gate on inside are elliptical, and the jambs are formed of rather smaller stones than those on the outside. I can find no trace of any "colossal monoliths" about the gateway.

Forming part of the jambs of the western arch are two portions of engaged columns (see Captain Wilson's notes, p. 38) shown on plan. In the western wall there is a portion of an engaged column formed of two stones placed side by side, which, together with two other stones on either side, have every appearance of being *in situ*. This course appears to be about 4ft. 4in. in height.

The roadway up from the Triple Gate throughout its length is within a foot or two of the rock, and in three places the rock is cut down, and forms part of the western wall. I have examined the supposed lintel of a gateway in the western wall; it is part of the solid rock, and the narrow vacant space beneath appears to be a natural crevice.

Pottery.—Sketches of the most remarkable specimens are being got ready and will be sent as they get out of hand; as soon as the sketches are made the pottery will be packed up to await instructions, whether they are to be sent home or not.*

It is desirable that instructions should be sent as to the style of pottery most worth keeping; at present all specimens are kept, whether Arabic, Christian, or otherwise.

At the rock-cut passage at Ain al Luz'h no pottery was found (except fragments) until the seventh staircase was opened, when three lamps were brought out from different depths: they are of different construction; the first is similar to those found near the rock at Ophel, and which have been pronounced to be lamps of the third or fourth centuries; the second is not like any I have seen elsewhere, and the third is similar to one found in the older *débris*, which existed when the Haram Wall at south-east angle was built.

We observe that the whole of the ground of Ophel between the South Haram Wall and the Pool of Siloam has been built over, and lamps of a particular type (two of which have Greek inscriptions) are found there, and in no case has any known Arabic pottery been found. On the other hand, at the Birket Israil the pottery is totally different: it is in many cases highly glazed, and has patterns on it, and when it is unglazed it has bands of red or brown and other marks, very similar in appearance to the specimens of pottery found at Athens

* Some of these sketches are now mounted and can be seen at the office of the Society. The Pottery has all been brought home by Mr. MacGregor, and can be seen also at the office.

and Melos, and yet among this we have found two pieces of glazed jars with raised Arabic or Cufic inscriptions, the one being the usual invocation of Allah. It is curious that the only other instance in which we have found anything similar to the Grecian pottery was at the Muristan, where the rubbish accumulated is comparatively modern.

It is possible that if the jars were properly cleaned, characters might be found scratched upon them, as some of them evidently were used for religious or superstitious purposes. For example, the jar found placed in the hole in rock at the south-east angle of Haram Area.

I have carefully avoided cleaning any of the pottery for fear of damaging it.

Two stone weights (?) have been found; one at Ophel, weighing 2301·8 grains troy, the other at the south end of the bridge, at Robinson's Arch, above the pavement, and weighing 2885·5 grains troy; this gives a ratio of 4·5 within eleven grains; and if we divide by these numbers we get 575·4 and 577 grains troy as the unit of weight. The weight found at Ophel has a geometric figure on it, a sketch of which has been sent home.

Birket Israil.—The concrete floor under the northern Souterrain has been broken through, with great difficulty, and rock has been found at about 4ft. depth; that is, about 40ft. below the crown of the arch. The work is still in progress.

I believe this will be considered an important addition to our knowledge of the topography of Jerusalem.

First. It shows that the Birket Israil never extended further to the west than its present limit, at its present depth.

Secondly. It is apparent that the engineer would not have gone to the trouble of scarping down the rock on the other sides of the pool, and have left it in its natural state to the west; and this leads us to the fair inference that the pool has only rock on its western side.

Thirdly. We may draw the inference that no other enormous pools exist similar to and to the west of Birket Israil; that any ditches or pools to the west of it will be found to be cut out of the rock, and of comparatively small size, similar to that found near the Sisters of Sion Convent; and that if ever the Birket Israil was of larger extent than it is at present, it would only have been by a portion of the pool running north towards the west end of the Church of St. Anne, or south into the Haram Area.

Golden Gate.—Gallery has been commenced, and progress is slow—soil very loose and treacherous.

East of Olivet.—Two curious pot-like holes in the marly rock have been opened, and a good deal of pottery has been found, sketches of which will be forwarded.

Gate Gennath (so called).—A shaft is being sunk under the gateway.

WORKS IN PROGRESS.

February 2nd, 1869.

Shaft near Golden Gate.—Sinking through loose soil and rubbish; depth about 15ft.

Robinson's Arch.—The southern course of the arch has not yet been recognised among the *débris*, and the party are now clearing out a passage to the north.

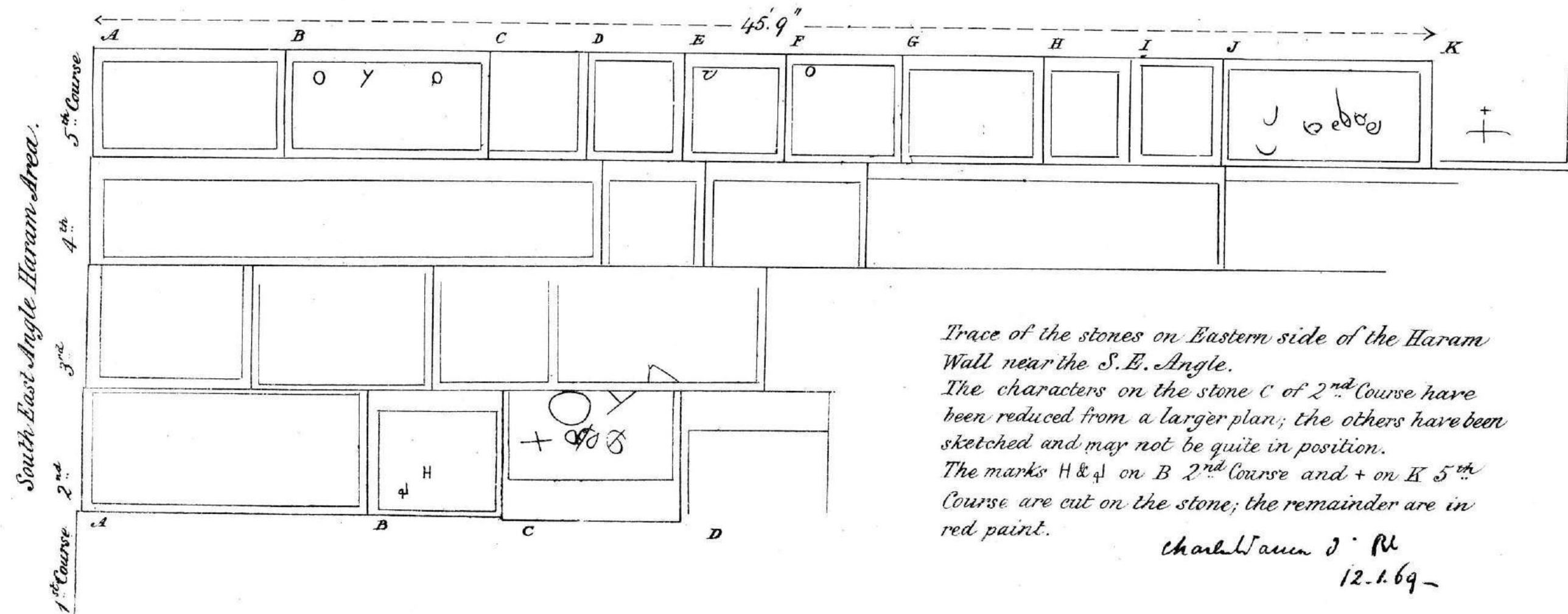
Shafts and Galleries at Ophel.—Two parties are engaged tamping up.

Gennath Gate (so called).—Sinking shaft in front of sill of gateway; depth, 6ft.

Birket Israil.—Searching for rock.

South-east angle Haram Area.—Examining wall. Another H has been found cut on a stone, but it has not yet been examined.

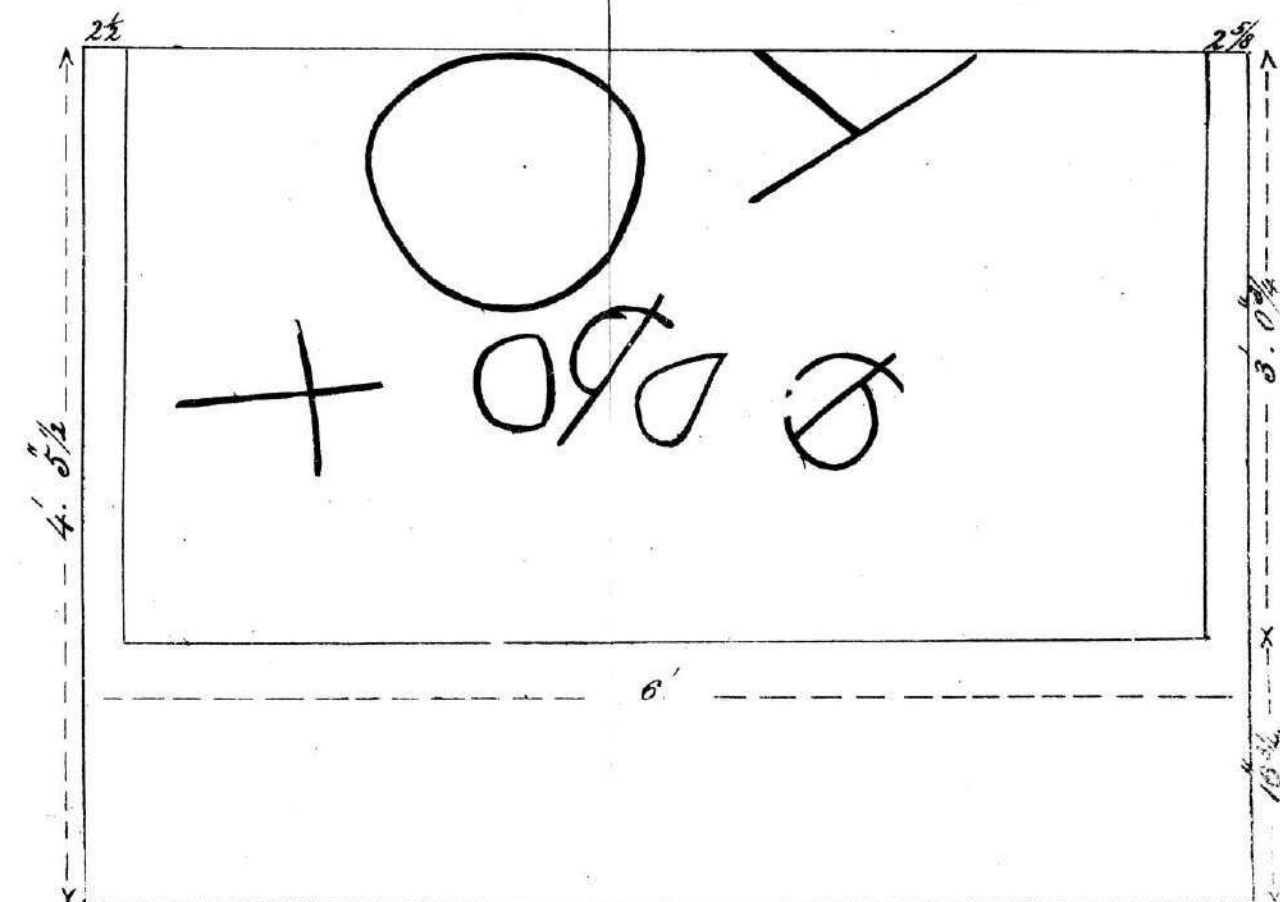
Scale four feet to one inch. $\frac{1}{48}$.



Trace of the stones on Eastern side of the Haram Wall near the S.E. Angle.
The characters on the stone C of 2nd Course have been reduced from a larger plan; the others have been sketched and may not be quite in position.
The marks H & q on B 2nd Course and + on K 5th Course are cut on the stone; the remainder are in red paint.

Charles Warren J. R.
12.1.69

Scale one foot to one inch. $\frac{1}{12}$.

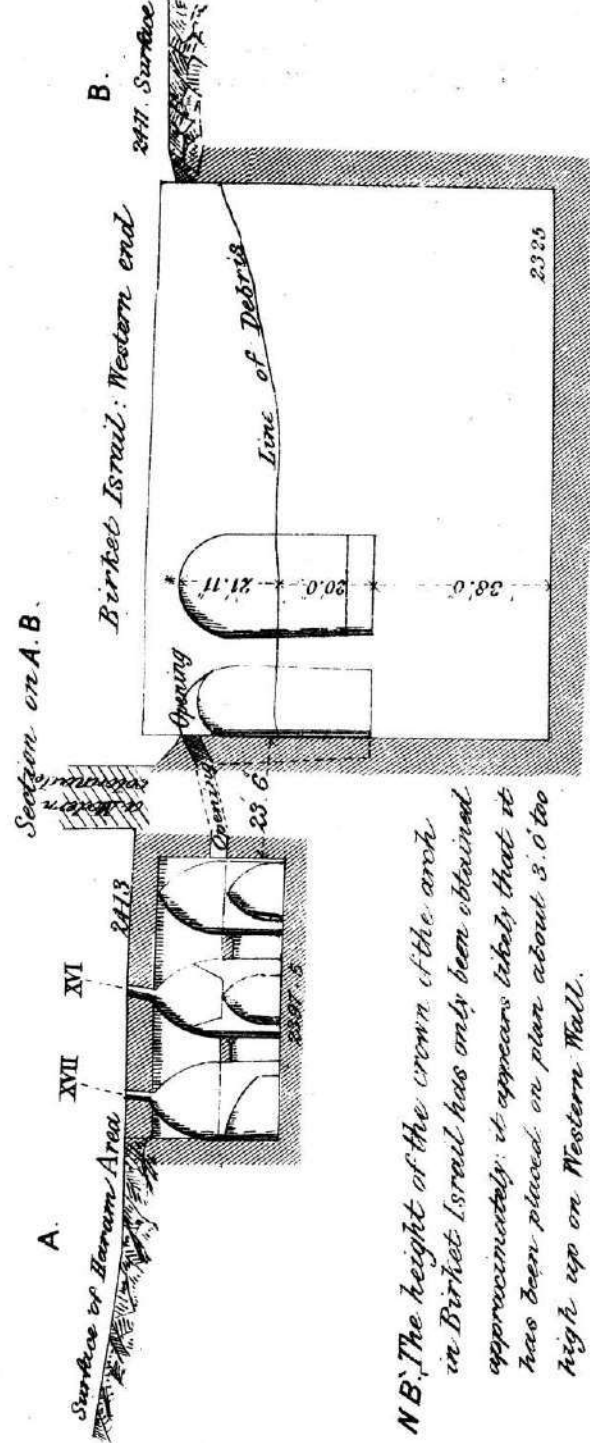


Stone C of 2nd Course on Eastern Wall, S.E. Angle of Haram Area: but at line of 228.2' 1st Distance of S. end from S.E. Angle 15.3"

Plan 33 referred to in
Lieut Warren's letter of Feb. 1st 1869

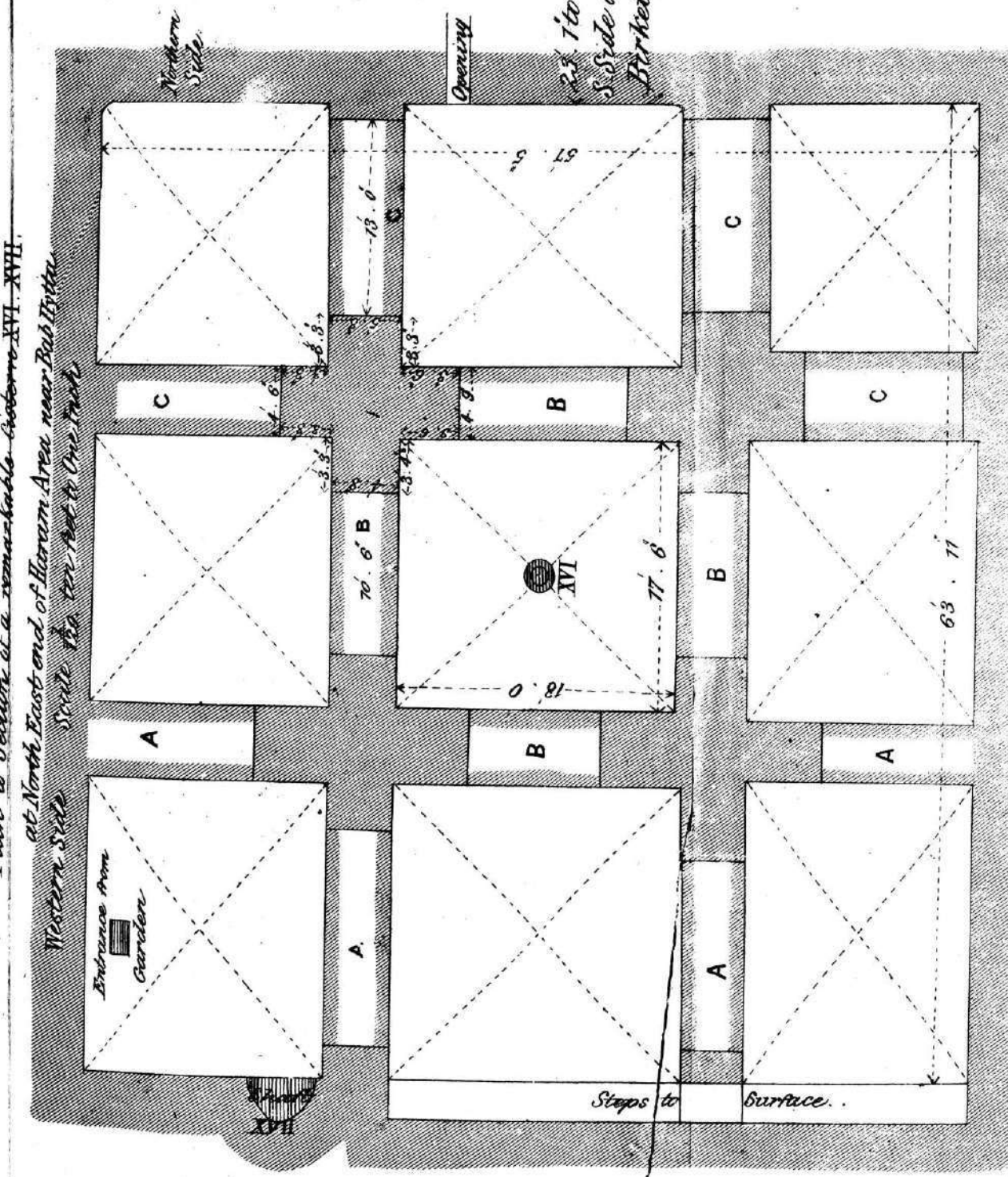
Area with regard to Birket Israil examined
& surveyed 26.7.69.

Scale $\frac{1}{500}$ See plan: same scale.

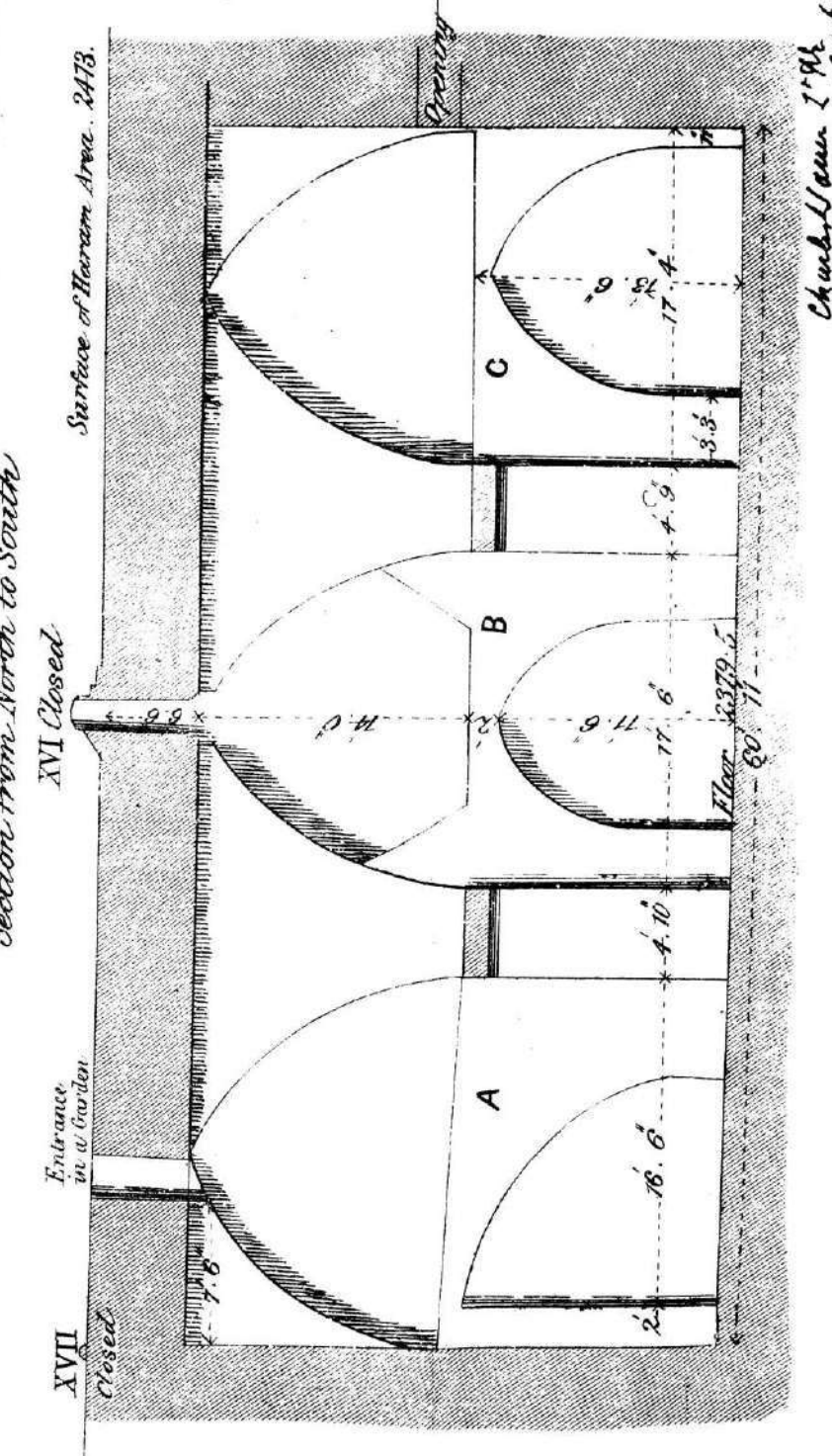


* N.B. The height of the crown of the arch in Birket Israil has only been obtained approximately: it appears likely that it has been placed on plan about 3.0 too high up on Western Wall.

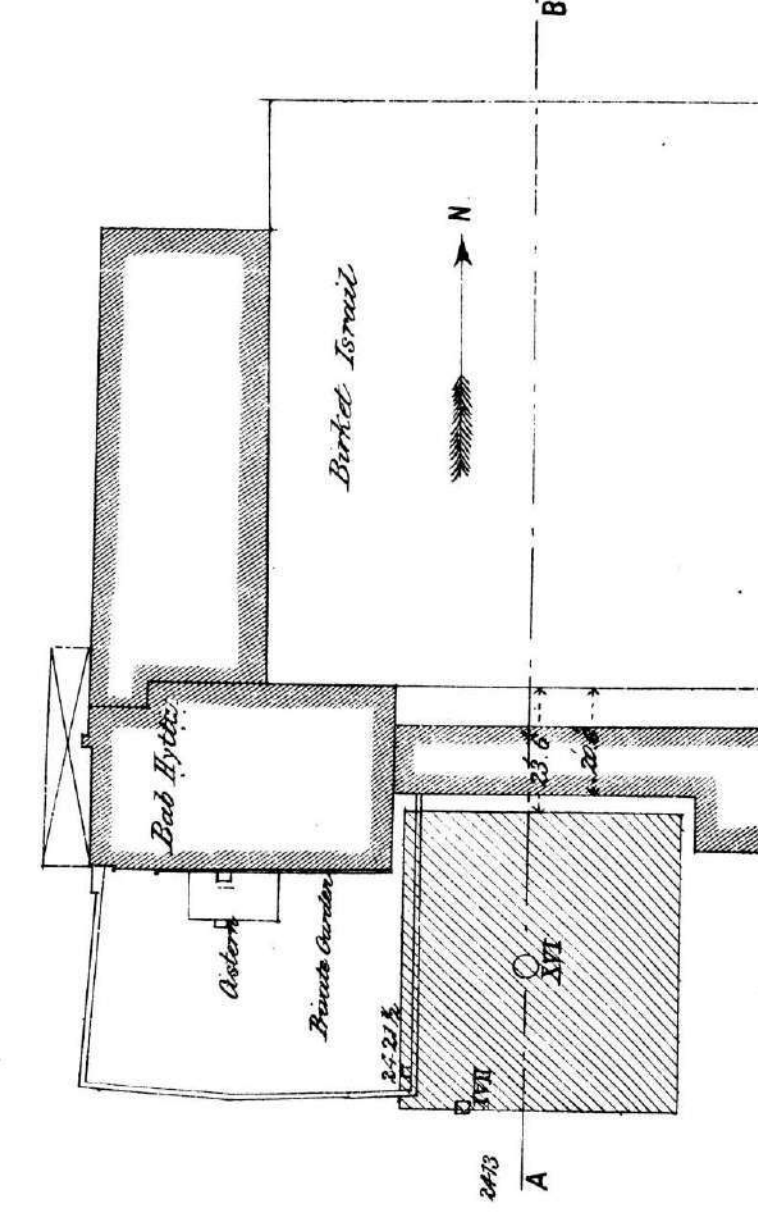
Plan & Section of a remarkable Cistern XVI-XVII



Section from North to South



Trace showing the position of Cistern XVI, XVII, with regard to Birket Israil: See Ordnance Survey Plan of the Haram Area. $\frac{1}{500}$



THE
PALESTINE EXPLORATION FUND.

PATRON.

HER MAJESTY THE QUEEN.

OFFICE-9, PALL MALL EAST, S.W., LONDON.

*Reports on Progress of Works at Jerusalem and elsewhere in the
Holy Land, by Lieutenant Warren, R.E.*

XXXIX.

April 10th, 1869.

The Sakhra.—On Thursday, 8th inst., I visited the Dome of the Rock ("Mosque of Omar") and examined the Rock or Sakhra. On the north side there is a gutter cut out of the solid, leading from the western upper side to the northern lower plateau. The gutter is shown on the Ordnance Survey detail plan of Captain Wilson; extending in a northerly direction from the gutter for about 5ft. are two pieces of flagging lying horizontally on the rock, about 2½ft. in width. This flagging conceals an opening in the rock 5ft. long and 2ft. wide. Inside is a passage or cutting 2ft. wide and about 11ft. long, leading nearly due north; it commences from the end of the gutter, and the rock is cut down perpendicularly on both sides and at the southern end. At the northern end it could not be ascertained whether it was the rock or masonry. The first 5ft. of this passage is covered by the flagging, then for 4ft. its roof is of rock only about 4in. thick; beyond this the pavement round the Sakhra covers the passage.

At present this passage or cell is about 3ft. deep, but it is filled up at the bottom with soft earth or rubbish, and the real depth cannot be ascertained. It is not easy to determine the object of this passage or cell. It is unlike the tombs and loculi seen about Jerusalem, and it can hardly have been for draining the rain-water off the surface into a tank, as the gutter commences from the higher portion of the rock.

Sir John Maundeville relates (apparently of this Dome of the Rock) A.D. 1322:—

"And in the middle of the temple are many high stages, 14 steps

high, with good pillars all about, and this place the Jews call the holy of holies. No man except the prelate of the Saracens, who makes their sacrifice, is allowed to come in there. And the people stand all about in divers stages, according to their dignity or rank, so that they may all see the sacrifice." From this it would appear that the present exposed rock was then concealed by a raised dais, with steps leading down all round, in which case the gutter may have been used for carrying away the water when the dais was washed after the Moslem sacrifice.

I may here offer a suggestion with regard to the Dome of the Rock, which I have not seen hinted at in any work, viz., that it may be the Sepulchre of David. Messrs. Fergusson, Thrupp, and Lewin object to the traditional site of the tomb of David (at the Cenaculum), and the two former place it near to the temple area.

XL.

11th May, 1869.

Golden Gate.—The Golden Gate occupies a position in the east Haram Wall, where an examination below the surface would probably afford much valuable information. Unhappily, the greater portion of this east wall is lined with Mahometan tombs, and we are precluded from digging near them. It is true that a shaft could be sunk through the cemetery without in any way interfering with the graves, but it is very doubtful whether permission for this could be obtained.

It does not appear that there is any real feeling on the subject, as we find on all sides tombs, Jewish, Christian, and Mahometan, used as dwelling-places and stables by the people of the country, and sarcophagi used as watering troughs; but there is a certain amount of sentiment involved, and the same people who see no harm in the destruction of tombs while quarrying, in using them as stables, and in building the tombstones into their houses, think it desecration for a Frank in any way to examine these interesting relics.

It being desirable, then, to examine the wall at the Golden Gate, the only method was to sink a shaft at some distance off and drive a gallery up, so as to be altogether out of the way of the cemetery. (See plan 39.)

The nearest convenient point was found to be 143ft. from the south end of the gate, and in a line perpendicular to its front, in a piece of ground through which a shaft was sunk in 1867.

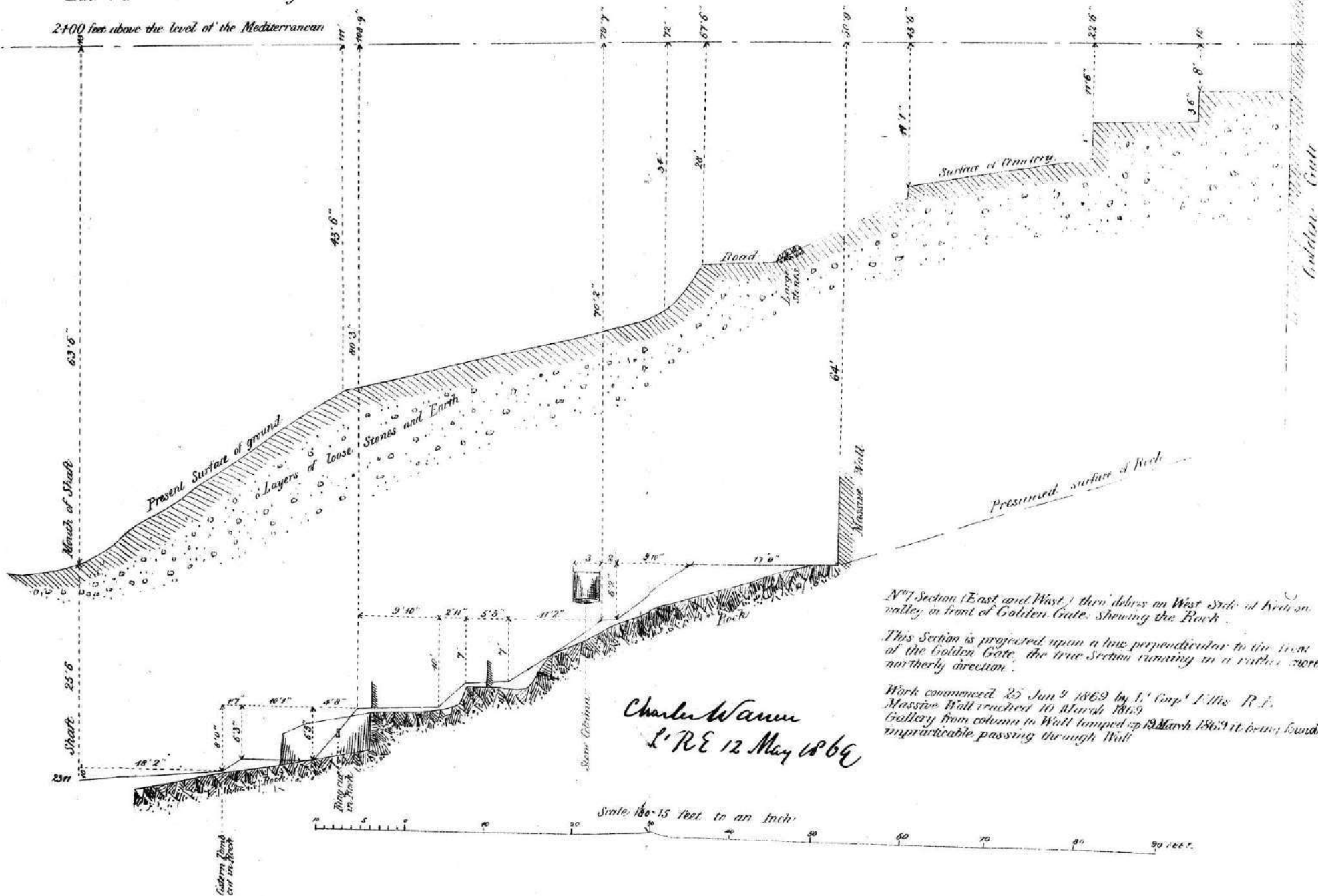
This point was found to be 55ft. 6in. below the level of the ground outside the gate. The shaft was commenced 25th January, 1869, and sunk down 25ft. 6in., giving a total difference of level between the ground outside the gate and the bottom of the shaft of 81ft. (See section. Also for nature of soil sunk through see Letter V., 12th September, 1867.)

Palastine Exploration Fund

Plan N° 39 referred to in

Lieut Warrens Letter of 12th May 1869.

2400 feet above the level of the Mediterranean



N^o 1 Section (East and West) thro' debris on West Side of high on valley in front of Golden Gate. Showing the Rock.

This Section is projected upon a line perpendicular to the front of the Golden Gate, the true Section running in a rather more northerly direction.

*Work commenced 25 Jun 9 1869 by L. Corp^t Ellis R.E.
Massive Wall reached 10 March 1869
Gallery from column to Wall tamped up 13 March 1869 it being found impracticable passing through Wall*

*Charles Warren
L.R.E 12 May 1869*

Scale 100-15 feet to an inch

A gallery was then driven in to west, and at 10ft. 3in. the rock was struck, rising about one in four to the west; the gallery then rose gently with the rock until at 18ft. 6in. a tank or rock-cut tomb was crossed. The examination of this was reserved, and the gallery continued, until at 27ft. the rock was found to present a cut scarp of 3ft. 9in. height, on the south side, running in a north-westerly direction, the natural surface of the rock inclining to the north. The scarped rock was followed for over 10ft., when it suddenly took a turn to north, and it was necessary to cross over it. On top of the scarp a rough masonry wall was found, which was broken through. At this point, 37ft. from the shaft, the total rise in the gallery was 8ft.

The rock is *mezzeh*, and on the scarp, about 2ft. 10in. from the bottom, was found a hole cut for passing a rope through, similar to those found in the cavern south of the Triple Gate (described January 30th, 1869). This ring or hole was apparently for tying up animals to.

The gallery was now continued on a gradual rise through a loose and dangerous accumulation of stones. At 47ft. the rock was found to rise suddenly to a height of 4ft., and at 53ft. another rough masonry wall was encountered and broken through. At 63ft. a portion of the shaft of a column (3ft. in diameter) was met with, placed erect in the *débris*, and about 3ft. above the rock. (See sketch in "Illustrated London News," page 425, April 24th, 1869.) On the bottom of this shaft of column are what appear to be masons' marks, of which I have taken a cast.

From this point forward the work became very dangerous, the gallery being driven through a mass of loose boulders alternating with layers of shingle, which on being set in motion runs like water.

At 85ft. from the shaft, the gallery had ascended 25ft. 6in. The *débris* now began to run into the gallery, forming a cavity above; and to prevent further falls fifty old baskets were stuffed in, and a quantity of old timber. After a considerable amount of labour the gallery was continued, and at 97ft. (*i.e.*, 46ft. from the Haram Wall) a massive masonry wall was reached, running north and south.

An attempt was made to break through this wall, but after getting in 5ft. it was abandoned: the stones being of large size it was also found not practicable to get over the wall, as it appears to continue up to a considerable height. A gallery was then driven south along the wall for 14ft., but there was no appearance of any break. The *débris* pierced through was of the loosest description, and the gallery had become in a highly dangerous state. I therefore had it tamped up, leaving in all the frames for about 30ft.

The tamping up was continued as far as the hanging column, and at the same time a branch gallery was driven to north from a point immediately east of the column. At 14ft. it was turned-in to the west (see plan 35^{1/2}). It was found that there was here about 3ft. of solid earth between the *débris* and the rock, and by very careful management the gallery was driven on for 34ft. from the turn. At this point the massive

wall was again met with, running in a north-westerly direction; the gallery followed along it, but the layer of solid earth gradually diminished in thickness, until on 28th April, when 55ft. from the turn, the shingle suddenly came in with a rush, quickly filling up 6ft. of the gallery, and burying some of the tools. An attempt to remove this shingle was of no avail; when touched it only ran further into the gallery, and I have, very reluctantly, been obliged to abandon the work.

Although we have not succeeded in our object at this point, we have at least obtained some interesting results.

1. It is now nearly certain that at the Golden Gate the Haram Wall extends below the present surface outside, to a depth of from 30ft. to 40ft. (See section $\frac{1}{3}\frac{1}{5}$.)

2. It appears that the rock has an inclination to the north near the Golden Gate.

3. The massive wall where first encountered is about 50ft. in front of the Golden Gate. It appears from thence to run to north and gradually turns in to west, apparently following the contour of the ground.

This wall is composed of large quarry-dressed blocks of *mezzeh*, so far similar to the lower course seen in the Haram Wall near the Golden Gate, that the roughly dressed faces of the stones project about 6 inches beyond the marginal drafts, which are very rough. The stones appear to be in courses 2ft. 6in. in height, and over 5ft. in length. On trying to break through the wall a hole was made 5ft. 6in., without any signs of the stone terminating. The horizontal joints are not close, but appear to be about 12in. apart and filled in with stones 6in. cube, packed in a very curious cement, which now looks like an argillaceous stone and has a conchoidal fracture. The fellahin pronounce it to be formed of lime, oil, and the virgin red earth, and state that such is used at the present day in the formation of cisterns. Specimens of this cement have been sent home.

It is disagreeable to have failed in reaching the Golden Gate, but to pierce through the *débris* of the nature encountered, some special machinery would have to be used; and it is dangerous to put anything but the simplest instruments into the hands of the fellahin.

We also cannot work more than a certain number of days at a time at a difficult place, as the constant danger causes the nerves to become unstrung after a time, and then a few days at safer work is required; only those who have experienced the peculiar effect of the rattling of the *débris* upon the frames, with the prospect at any moment of the boards being crushed in by a large stone, can appreciate the deterring influence it has upon the workmen. The non-commissioned officers have to keep continually to the front, or the men will not venture up.

It appears probable that the massive wall met with may continue up to the surface, as immediately above it, in the road, are some large roughly bevelled stones lying in the same line.

I send by this mail a section ($\frac{1}{3}\frac{1}{5}$) of the rock in the Golden Gate, and

to follow is an approximate elevation of the East Haram Wall (333) and a section through the Haram Area.

XLI.

May 17th, 1869.

Bab el-Mathara.—Having failed to find any entrance similar to Barclay's Gate in the West Haram Wall, south of Wilson's Arch, I have been making a search to north of that arch. Any examination here is difficult, as the present surface outside is generally about the same level as, or higher than, that of the Haram Area.

Twenty feet to the south of Bab el-Mathara is a large cistern (numbered xxx. on the Ordnance Map), which was discovered and surveyed by Captain Wilson: it runs east and west, and is shown as piercing the Haram Wall. On plan it is singularly like the vaulted passage leading from Barclay's Gate; it is of the same width, and runs the distance into the Haram Area, but it does not appear to turn round at the inner extremity, as the other passage does.

It would be very interesting to ascertain whether over this cistern (xxx.) there is a lintel similar to that at Barclay's Gate.

Yesterday, when examining the Haram Wall on the outside, in an Effendi's house, I found a cistern which, on examination, proved to be in direct prolongation of cistern xxx., but not so wide. It was nearly empty, and I was able to go down and measure it. It is 34ft. 6in. from surface of ground to bottom; width from north to south, nearly 12ft.; and length from east to west, 14ft. 9in. On the south there is a recess, so that the Haram Wall is exposed over a surface 28ft. in height and 12ft. in length, but it is for the most part covered with plaster. At 22ft. from the bottom can be seen the springing of a modern masonry arch, which is apparently the western extremity of the vault of cistern xxx. There are no signs of any lintel or large stones, but the surface here is over 6ft. above the general level of the Haram Area, and the wall, free of plaster, could only be seen to a depth of 12ft. below the surface, that is to say, it could not be seen so low down as the level of the upper bevelled course at the Jews' Wailing Place. It is very necessary that the plaster covering the wall should be removed, as by so doing the wall would be bared to a level lower than the bottom of the lintel at Barclay's Gate.

It is desirable that Captain Wilson's description of this passage or cistern xxx. should be published. What I have here written is in continuation of his remarks.

No. 1.—Return showing the height, &c., of Courses of Stone at Barclay's Gateway, exposed by an excavation commenced 17th March, 1868, and completed. The stones 1 to 8 are above ground, and were observed about 40ft. from Barclay's Gate to north; the remainder, from B to V, are beneath the surface of the ground.

		Height of Course.		Top Bevel.		Bottom Bevel.		North Bevel.	South Bevel.	Set-out.	Depth of Bevel.	Remarks.	
		ft.	in.	ft.	in.	ft.	in.	ft.	in.	ft.	in.		
Squared stones ...	8	3	5							0	0		
	7	2	5			No bevels.				0	1		
	6	3	10							0	1		
	5	3	8							0	1		
	4	3	4	0	6½	0	2½	0	2½	0	1	Worn.	
	3	3	6	0	4½	0	2	0	1½	0	0½	Worn.	
	2	3	8	0	4½	0	2½	6	10	high	0	0½	Worn.
				Lintel course.									
	1	3	2	0	3½	0	1½				0	0½	Worn.
	A	3	5							0	1	0	Very much worn.
Bevelled stones	B	3	8	0	3	0	3½	0	3½	0	3	0	In good preservation.
	C	3	7	0	3½					0	1	0	Worn at bottom.
	D	3	3	0	3½					0	0½	0	Broken at bottom.
	E	3	8	0	2½	0	2½				0	0½	In good preservation.
	F	3	8½	0	2½	0	2½			0	0½	0	Stone worn.
	G	3	8	0	2½	0	2½					0	Well preserved.
	H	3	9½	0	4½					0	0½	0	Top in good pres., bottom worn.
	I	8	4½	0	4	0	2½	0	2½		0	0½	Broken sill, course of gate.
	J												
	K	7	8½	0	5½								Not seen.
	L	3	10½	0	5½	0	4½			0	0½	0	Well preserved.
	M	3	9½	0	4½	0	3	0	2½	0	1½	0	Ditto.
	N	3	11½	0	3½	0	3	0	2½	0	0½	0	Ditto.
	O	8	6½	0	5	0	1½	0	2½	0	2	0	Ditto.
	P	3	6½	0	4½	0	4½	0	2½	0	2½	0	Ditto.
Q	3	5	0	4½	0	2½			0	1½	0	Top well pres., bottom broken.	
R	3	6½	0	4½	0	3	0	3	0	2½	0	Ditto ditto.	
S	3	6	0	4	0	3				0	1½	0	Ditto ditto.
T	3	5½	0	3½	0	2½	0	2½	0	2½	0	Ditto ditto.	
U	3	7½	0	3	0	3½				0	0½	0	Ditto ditto.
V	2	5½								0	0		No bevel, stone embed. in rock.
Total distance from Rock to Lintel		78	8½					Total set out		0	12½		

20th May, 1869.

CHARLES WARREN, Lieut. R.F.

PALESTINE EXPLORATION FUND.

No. II.

Return showing the height of Courses of Stones in the Haram Wall immediately south of Wilson's Arch, exposed by an excavation commenced in November, 1867.

The second column shows the height of each course at Barclay's Gateway.

		Height of Course, Barclay's Gate.		Height at Wilson's Arch.		Top Bevel.		Side.	Bevels.	Set-out.	Depth of Bevel.	Remarks.
		ft.	in.	ft.	in.	in.	in.					
Squared stones.	8	3	5									
	7	2	5									
	6	3	10									
	5	3	6									
	4	3	4	3	4½							
	3	3	6									
	2	2	8	3	6							
	1	3	2	3	3							
	A	3	5	3	6							
	B	3	8	3	6							
Bevelled stones.	C	3	7	3	6							
	D	3	3	3	4	...	...	...	...	...	...	Broken away.
	E	3	8	3	9½	4	3	4	2½	1½		
	F	3	8½	3	8½	...	4	2½	2½	1		
	G	3	8	3	8	2½	4	2	2½	1½		
	H	3	9½	3	9	2½	...	3	2½	1		
	I	3	4½	3	3	...	...	...	...	1		
	J	7	8½	4	1	...	...	...	...	0½		Very rough.
	K			3	11	5	2½	...	...	1		
	L			3	11½	5	2½	...	...	1		
	M	3	9½	3	10	5	3	...	...	1		Very nicely worked and preserved.
	N	3	11½	3	9	5	2½	...	...	1½		Very nicely worked and preserved.
	O	3	6½	3	9	...	3	...	...	2½		Much worn.
	P	3	6½	3	6	6	...	...	...	1½		
	Q	3	5	2	10½	No draft.	...	...	...	3		

May 21st, 1869.

CHARLES WARREN, Lieut. R.E.

The fifth course is bevelled under the Mahkameh, but not so at the Wailing Place.

May 21st, 1869.

West Wall of the Haram Area.—That portion of the Haram Wall to be seen above ground is described in Captain Wilson's notes; I will now describe those portions of the wall which we have exposed below the surface to west.

Excavations have been made along the Haram Wall to west in three places, viz., in front of Robinson's Arch, Barclay's Gateway, and under Wilson's Arch.

At Robinson's Arch we were not permitted to excavate near the wall; we therefore commenced a shaft at a distance of 72ft., sunk down to rock, and then drove in towards the wall, passing the pier and getting among the voussoirs of a fallen arch. Not being able to make our way through these voussoirs, we sunk through the pavement on which they rest, and 20ft. lower down came upon a rock-cut aqueduct, with two circular pools cut out of the rock to the north and south of the bridge. The Haram Wall was then reached and examined, but only at its foundations, where it rests upon the rock. The stones here are bevelled, but rather carelessly worked.

At Barclay's Gateway we exposed the whole of the courses in the Haram Wall, from the lintel of the gate down to the rock, a depth of 78ft. 6in.

At Wilson's Arch we also bared all the courses, from the springing of the arch to the rock, a depth of 54ft. 8in.; and also in a chamber of the Mahkameh, to the south of Wilson's Arch, we bared the wall for 17ft. in search of the second suburban gate. A return of the stones met with in the wall is given (see pp. 108 and 109), showing the heights and width of drafts. From this it may be seen that the courses of stone at Wilson's Arch and Barclay's Gateway differ in height sometimes to as much as 2in. There can be no doubt, however, that they are the same courses throughout.

We find that from stone C to E, at Wilson's Arch, it measures just 25ft., and at Barclay's Gateway the same; and in the same way, taking any number of the courses together, and comparing them, we find that they agree in height. We therefore presume that from the northern end of Wilson's Arch to Barclay's Gateway it is one wall from course 4 to the rock, and that in this space there is no other existing gate similar to that of Barclay.

We have, then, in the western portion of the Haram Wall, two bridges and one gate, and the two bridges so far correspond to each other that they have the same span to 6in., and the spring of Wilson's is only 7ft. above that of Robinson; in other respects, however, they differ. The pier of Robinson's Arch is of bevelled stone, and appears in every way similar to the wall of the Haram. The pier of Wilson's Arch, on the contrary, is for the first 19ft. built up of rough blocks, and after that height of large squared unbevelled stones, similar to those above the bevelled stones at the Wailing Place: also the voussoirs of Wilson's Arch are of a style which, I understand, is not met with until

late in the days of the Roman Empire. This, together with the fact of our having met with a great heap of masonry (apparently voussoirs) in the place where a former arch would have fallen, may lead us to suppose that the existing arch of Wilson cannot date so far back as the building of the Haram Wall; the stones at the springing and for the first two courses are, however, apparently of the same age as the Haram Wall.

May 20th, 1869.

Haram Wall, at Wilson's Arch.—The ground about Wilson's Arch, below the surface, was examined in the latter end of 1867. (See letters XX.—XXII.)

On 20th November, 1867, a shaft was commenced alongside the Haram Wall, immediately under the southern end of Wilson's Arch (see elevation), in the Pool el-Burak. The bottom of this pool is composed to a depth of 3ft. 6in. of a very hard concrete, formed of stones about 3in. cube, set in a hard cement. The first course below the surface is cut back about 18in., apparently for the skewback of an arch. Below this the stones are very similar in appearance to those at the Wailing Place, but in better preservation. After passing through the concrete we came upon black soil, and at 21ft. we came in contact with a mass of very large stones, apparently the voussoirs and bevelled stones of a fallen wall and arch. We were here delayed some days, as the stones, being of *mezzeh*, could not be broken up with the hammer. Eventually a hole about 2ft. square was cut through, and we were able to continue our shaft. The stones passed through appear to be similar to those in the Haram Wall, and the mass of them together is about 8ft. deep. Continuing down, we arrived at water at 44ft. from the surface, which, on being observed for several days, was found to bubble in at the northern end of the shaft and run out at the southern end; but after a night of heavy rain the water disappeared (see letter of December 21st, 1867), and we were able to continue down the Haram Wall until at 51ft. 2in. from the surface, or 54ft. 8in. below the springing of Wilson's Arch, we came upon the rock. The last stone (Q) of the Haram Wall is let into the rock, and we sunk down about 18in., until we could see the bottom of the stone. There has been water on the rock since we opened the shaft until the present time, and it appears to have a very gentle motion towards the south; at certain times it rises 2ft. or 3ft. The last 8ft. or 10ft. we passed through before coming to the rock is full of limestone crystals.

We now made a landing at 21ft. from the top of the shaft above the large stones we had met with and drove a gallery in to south along the Haram Wall, in search of any appearance of the second suburban gate. At 23ft. we came upon a wall of well-dressed stones, 2ft. by 2ft., butting on to the Haram Wall. We were close to the top of it, and, passing over, found a pavement extending 11ft., when we came upon a wall

immediately below the southern wall of the Pool el Burak. Having found no signs of any gateway in the Haram Wall, this gallery was abandoned.

We now sunk a shaft about 18ft. south of the southern end of the Pool el Burak, along the Haram Wall, to a depth of 17ft., in search of the gateway, with no result.

The width of Barclay's Gate is nearly 19ft., and it can be seen on looking at the elevation ($\frac{1}{126}$) that if a second suburban gate existed to south of Wilson's Arch similar to Barclay's Gate, it would have been visible in the shafts or gallery, or in some part of the Haram Wall which is to be seen in the chambers under the Mahkameh.

We now commenced a shaft on the east side of the pier of Wilson's Arch, about 7ft. from the southern end, and found it to be built of large, well-cut, squared stones, rather larger than those in the Haram Wall, but without any bevel. At 11ft. 6in. we came upon a recess in the pier, covered over with a great lintel, and similar to the recesses found in the pier at Robinson's Arch, except that it extends through three courses instead of two. It is 9ft. 5in. in height, and about 6ft. wide, and reaches 5ft. into the pier. Apparently it has once been used as a gateway, as there are grooves cut in the stone as though for an iron gate. Below this recess the pier is formed of great roughly-hewn stones, to a depth of 19ft., when rock was struck. A gallery was now driven along the rock across the valley to the east, from the bottom of this shaft, until we reached the other side, close to where our first shaft is. In this gallery we found the rock to have a general inclination towards the east. There was a good deal of water in this gallery, and at last we were nearly swamped out of it.

It is apparent that the lower part of the pier, below the recess, was built after the *débris* had filled up the Tyropæon Valley to that height, and that the portion above and including the recess has the same appearance as the portion of the wall (four courses) of squared stones *above* the bevelled stones at the Wailing Place.

It is also to be remarked that at 21ft. down the eastern side of this pier we met with the same kind of fallen masonry as in the shaft along the west wall, from which we may infer that an arch existed previous to the present one, and that it fell after the *débris* had filled up over the rock to a height of from 20ft. to 30ft.

Barclay's Gate.—In the west wall of the Haram Area, about 270ft. from the south-west angle, immediately under the Bab el-Magharibe, is an enormous lintel, which, it appears, was first prominently brought to notice in this century by Dr. Barclay, of the United States, in his "City of the Great King."

As there does not appear to have been any generally received name for the gateway over which this lintel rests, we have called it after Dr. Barclay.

In 1866 Captain Wilson excavated to a depth of about 25ft. in front of the north jamb of the gate without reaching the sill. He also explored a cistern in the Haram Area, which proved to be the continuation of the Mosque el Burak, the two together forming the passage leading from Barclay's Gate to the Haram Area above.

A brief description of the lie of the ground at this point may be necessary. The general level of the Haram Area is 2,420ft. above the Mediterranean, but near the Bab el-Magharibe it is 2,416ft. Immediately outside this gate the general surface is about 2,395ft., and a ramp leads up to the Bab from the ground below. This ramp, near the wall, is formed by two vaulted chambers, one over the other; in the lower one the lintel can be seen. The height of the lintel is 6ft. 10in., the total length visible is 20ft. 1in.; the bottom is at a level of 2,393ft. 5in., being 5ft. 5in. above the surface of the ground at that point. The northern jamb of the gate can be seen; it is flush with the northern side of the older portion of the passage inside, which is here 18ft. 8in. wide, and we may reasonably suppose the gateway to be the same width. The lintel would then be 24ft. 8in. in length.

The space below the lintel, forming the gateway, between the two jambs, is built up in rough rubble, with here and there a few cut stones. Immediately above the lintel there are no courses of bevelled stones; the masonry is modern, and the stones are small. At the Jews' Wailing Place there are two courses of bevelled stones and four of squared stones above the level of the top of the lintel, but these all terminate abruptly at about 12ft. from the gate.

An excavation was commenced here on 17th March, 1869. It was desirable to sink the shaft at some distance from that of Captain Wilson, as where the soil is very loose it is dangerous to work again in an old excavation. We commenced about 7ft. north of the jamb of the gate alongside the Haram Wall. A description of each stone met with in the Haram Wall is annexed. About 5ft. below the surface we came upon a lamp and a good deal of broken pottery, of a different description to what we had hitherto met with, and bearing beautiful impressions of scrolls and other devices. At 14ft. a gallery was driven in to south, until we reached the north jamb of the gateway, the soil being black and very loose. We here came upon the shaft of Captain Wilson, and a rush of earth came into our gallery. On looking up into the void space a stone corbel was seen to be built into the rubble masonry under the lintel. It must, of course, have been placed there when the gate was blocked up, and was probably for the foundations of a house to rest on. I imagine that the foundations of the vaulted chambers on which the ramp leading to Bab el-Magharibe is laid rest upon similar corbels on the side near the Haram Wall. A plan and section of the corbel is given.

Having made secure the gallery where the rush had taken place, a shaft was sunk down along the northern jamb, through hard earth mixed with large stones, some of them 2ft. long. At about 23ft. from the surface the sill course was met with. This course, however, is

broken, so that it cannot be said whether the top or bottom of it is the true sill of the gate. The top is 28ft. 9in. below the lintel, and the bottom is 32ft. 1in. below it.

We now continued our shaft, and 9in. below the bottom of the sill course came upon stone flagging forming the flat roof to a drain running along the Haram Wall towards the south-west angle. This drain is 2ft. 4in. wide, and 5ft. 6in. high. It is the same drain which we found *above* the pavement at Robinson's Arch, and which we followed up to Barclay's Gateway. (See letter xxvii., 22nd August, 1868.) Men were sent to knock at the extremity of this drain from Robinson's Arch, and they could be heard quite plainly, but we could not communicate through to our shaft at Barclay's Gate, as rubbish had fallen in and stopped up the passage.

Sinking through this drain, we came upon the top of a wall, perpendicular to, and abutting on, the Haram Wall, at 31ft. below the surface. We first sunk to south of wall, and found ourselves in heavy masonry; then sinking to north of it, and finding the face to be of well-dressed squared stones, in courses, we continued our shaft alongside of it until at 66ft. 7in. from the surface we passed its foundations. We then continued along the Haram Wall, and at 73ft. 7in. struck the rock, which is cut horizontally, and the bottom stone of the Haram Wall is let into it.

For the last 30ft. we had passed through *débris* composed of hard earth and broken cut stones, many of them 3in. by 2in. by 1ft. 6in. On tamping up, a gallery was driven to south, through the wall butting on to the Haram, to a distance of 8ft., where it was found that it had been a retaining wall, about 6ft. thick, there being no southern face to it. From this it appears that the road to Barclay's Gate from the Tyropœon Valley may have been by means of a causeway, raised 46ft. above the rock. Whether it may have been solid or supported on arches is not apparent.

The shaft at Barclay's Gateway has now been tamped up.

The Haram Wall has thus been bared to a depth of 78ft. 6in. from the bottom of the lintel of Barclay's Gate to the rock, and the stones are of one appearance throughout, and are probably *in situ*. There are twenty-six courses of bevelled stones in all, twenty-two below the lintel, two on a level with the lintel, and two above it. These two latter courses do not now exist immediately above the lintel, but can be seen a little further to the north at the Wailing Place. Above these, again, are four courses of squared stones, without bevels, except in portion of the fourth and lower course, at the farther end, near the Mahkameh, where bevels are to be seen.

It is interesting to compare the stones above ground at the Wailing Place with those we have bared beneath the ground at Barclay's Gate, and for this purpose I annex a tabular form (see p. 109), showing the height of each course in the wall at this point, and the width of bevel or marginal draft, and also the set-out of each stone.

The first course below the lintel is very much worn, and is shown on

plate 12 Ordnance Survey, as being 3ft. 2in. in height. By taking it in conjunction with the courses above and below I find it to be 3ft. 5in. in height.

The stones we have laid bare are in a much higher state of preservation than those at the Wailing Place. It is curious that many of them are in good order at the top and damaged at bottom.

With one exception we have found the top bevel to be a little broader than that at the bottom, and this we observed, also, to be the case in the stones uncovered on the south and east faces of the Haram Wall.

XLII.

May 31st, 1869.

Haram Wall to West, continued.—I have levelled round from the Wailing Place, and find the line of springing of Robinson's Arch to be on a level with the bottom of Stone C, Barclay's Gate, and the first courses above and below are similar at both places; so that, though we are not yet in a position positively to assert that the same courses run through from Wilson's Arch to the south-west angle, yet it does seem likely that this is the case. We must now, if possible, sink a shaft down along the Haram Wall under Robinson's Arch, and another at the south-west angle, to bring the matter to a satisfactory conclusion.

We may now, with the accompanying elevation of the Haram Wall to west, examine into the ancient lie of the ground in the Tyropæon Valley.

We find a drain running under the level of the sill of Barclay's Gateway and over the ruins of the upper arch of Robinson; and we may therefore suppose that Barclay's Gateway was in use after the fall of Robinson's Arch. Now the *débris* of what appears to be the first arch of Wilson is on a level nearly with the sill of Barclay's Gate, and also within two or three feet of a polished marble (*mezzek*) pavement, which we found round the south-west angle. Are we, then, to suppose that at one time there was a nearly level pavement round the west and south walls of the Haram Area, and that at that time the first Arch of Wilson and the Gate of Barclay were in use, but that the Arch of Robinson was in ruins? And because we find that below this level the pier of Wilson's Arch is roughly built, are we to come to the very awkward conclusion that Robinson's Arch was in use and in ruins before the present causeway going over Wilson's Arch was constructed?

I call it a very awkward conclusion, because I cannot at present see how it can be avoided; and yet it does not appear to accord with the account of Josephus; and it is the more difficult to comprehend because the secret passage which we have discovered running under the cause-

way must be identified with that described by Mejr-ed-din in the sixteenth century. As this is a question of some moment, I will quote from the translation of Mejr-ed-din given in Williams's "Holy City" (i. 157):—"The Street of David.—This is the great street which commences at the Gate of the Chain (Salsala) of the Mosque el-Aksa, and leads to the city gate, once called of the Mihrab, now of Hebron (Kahlil). . . so named from a subterranean gallery which David caused to be made from the gate of the Chain to the citadel, called the Mihrab of David. It still exists, and parts of it are occasionally discovered. It is solidly vaulted."

I suggested some time ago that originally Wilson's Arch was only 20ft. wide; and if this is so, we might find that the northern portion of the pier is more ancient than the southern. Objections are made to our digging any more under the Mahkameh, or this point might be settled.

It is to be observed that the aqueduct running under Robinson's Arch is vaulted as far north as Barclay's Gateway, and beyond that its roof is formed of flat slabs. Under the street leading to the Jews' Wailing Place the aqueduct is cut through by the foundations of a building, and we could not examine it further; but I am under the impression that it is in connection with the aqueducts we found under the causeway leading over Wilson's Arch.

Sculptured Slab.—A short time ago a fellah, when digging on the south-east side of Mount Sion, found in a hewn cave a slab of sculptured marble, in size and appearance very similar to those found built into the walls of the mosques in the Haram esh-Sherif (see Plates 13 and 14, Ordnance Survey Plans).

This slab has a cross upon it; and also the ornament inside the wreath appears to be a cross coupled with a fleur-de-lis, similar to one of the ornamented sides of the great red marble font which is now to be seen at Tekoa.

Doric Capital.—This was found in a shaft south of the Haram Area, at Ophel, about 14ft. below the surface. It is the only specimen of the order we have found under ground. The other Doric capital, of which you have a profile, was picked up by Professor Donaldson on the surface of the ground near Siloam.

Ionic Capital.—This capital was found in the Birket Israil, about 20ft. below the surface of the rubbish. It is roughly cut, but has an elegant appearance from a distance, and is only the second specimen of the order found in the excavations.

Shaft of Column.—The shaft was found standing upright in the gallery running up towards the Golden Gate. The marks cut in with the chisel are about one-eighth of an inch deep, and appear to be masons' marks. A sketch of this shaft is given in the *Illustrated London News* of April 24, 1869.

North-east Angle of Haram Area.—The excavations at this point are still in progress, but so much has been done, and so much important information obtained already, that I think it better to summarise what we know, however imperfect it may be, rather than let it run on for another three months.

Twelve shafts have been sunk to east of St. Stephen's Gate, and north-east of the Haram Area. Three of these are yet in progress, and if only we can successfully drive galleries from them, I am sanguine of very important results; results not only great of themselves, but which are likely to increase in a great measure the value of what we know at the south-east and south-west angles.

Though it would not be right at present to form a permanent theory on any of the disputed points, yet it is impossible not, and in fact most necessary, to look ahead and conjecture what we are likely to come across, for without so doing the excavating must degenerate into a wild probing of the ground, instead of a systematic investigation. And though in the following brief account I find it necessary to couple conjecture with fact, in order to give any idea of what our results are, and to what they tend, yet I do so with the knowledge that each day my views must be modified by the accumulation of fresh results, and they must go on changing until by constant probing we can speak with certainty of the ruins of ancient Jerusalem. I may quote in illustration of this, my letters of 1st and 2nd February, 1869, in which I came to the conclusion that there is rock only on the western side of the Birket Israil (so-called pool of Bethesda). I was fully impressed with the idea that on the eastern side, the valley running south from the Harat Bab Hytta, ran out into the Kedron, after having been joined by the valley, which I conjecture to run east from Bab en-Nazir, north of the platform of the Dome of the Porch. Also in my letter of 28th December, I put the question, "Are we to suppose this gate (Bab Sitti Miriam) elevated 100ft. above the bottom of the wall, or does the rock break down suddenly from the gate towards the south, so as to form a deep gorge in which the pool is built?"

In order to settle this question, I sunk shafts on either side of the Gate of St. Stephen (Bab Sitti Miriam), and also in the road leading down to the Church of the Tomb of the Virgin, and find that the roadway at the gate is about 20ft. above the rock, and that going down the hill the accumulation of *débris* decreases from 25ft. in height to 2ft. or 3ft. This threw considerable light upon the subject, showing that there has been no great destruction of extensive building so far north as this gate, and that the spur of the hill running from the Burj Laklah to the Birket Sitti Miriam still continues to the south. Shafts were then sunk to east of the Birket Israil, and rock was found at a depth of 50ft. from the surface, being higher than the bottom of the Birket Israil by 40ft. As we find the natural rock in the Birket to the west at a little below this level, we are forced to the conclusion that the valley running south does not turn sharp round to the east in this

pool, but runs on through the Haram Area, and issues into the Kedron somewhat north of the Golden Gate.

I have placed on the accompanying tracing, the conjectural lie of this valley. That it is an important matter there can be no doubt, for on the proving of it may hang the destinies of most of the theories concerning the site of the ancient temple.

It is very mortifying just at this juncture to hear that the sum for excavations is to be curtailed still further. When I left England last June, I was told that my limit would be £300 per month; it has since then been reduced to £200, and now I hear you are compelled still further to reduce it, and even propose closing the works during the three summer months, just when the fellahs do most work, and Jerusalem is most quiet.

It is very desirable just now that we should proceed with the work with unabated vigour, and bring the question of the Haram Enclosure to a proper conclusion. A few more months' work here, and we may go forward confidently, and find the old walls of the city, having fixed the site of the temple.

We expend a great deal of wood in the shafts and galleries on the east side of the Haram Area. The shingle we pass through is often of such a nature that the frames cannot be taken out again. If it is possible to get up to the north-east angle, I propose examining it very minutely. We find the wall joining it to St. Stephen's Gate to rest several feet above the rock, the intervening space being partially filled up with concrete, and in one place at least the wall rests on the red earth. It is apparent that this wall is of no very ancient date.

Of the city wall to the east, this north-east angle of the Haram Area is the first sign from the northern end of anything ancient in appearance, and it will now be very necessary to ascertain whether the whole wall of the Haram Area to the east is built from the rock with bevelled stones; if it is, we can hardly doubt that the theory of De Vogüé is correct, and that the Haram Area is one vast platform of ancient date: if, on the other hand, we find the bevelled stones in the north-east angle only extend under ground as far south as they do on the surface, then we have the interesting problem whether this has been a tower, whether of Hananeel, as Dr. Barclay supposes, or of Meah, or the House of the Mighty (Nehem. iii. 1, 16; xii. 39). For if it should be decided that the Haram Wall at the south-east angle is of the time of the Jewish kings, we can scarcely give a more recent date to this wall at the north-east angle, provided we find it to be built up of bevelled stones from the rock.

PALESTINE EXPLORATION FUND.

PATRON.

HER MAJESTY THE QUEEN.

OFFICE-9, PALL MALL EAST, S.W., LONDON.

*Reports on Progress of Works at Jerusalem and elsewhere in the
Holy Land, by Lieutenant Warren, R.E.*

XLIII.

11th June, 1869.

Interesting Discovery at the N.E. angle, Haram area.—We have, during the last few days, succeeded in driving a gallery up to the great block of masonry forming the north-east angle, and have found the wall to be built of great bevelled stones to a depth of at least 60ft. below the surface, and we have not yet come on the rock.

In my last letter I expressed some diffidence about our being able to get across, on account of the treacherous nature of the soil, although we were then only 50ft. off. By employing a different shape of gallery frame, and keeping a non-commissioned officer continually at the head of the gallery fixing them, we have been able to surmount these difficulties, and are now likely to make a great addition to our knowledge of the ancient topography. Already we have made a happy commencement.

We struck the Haram Wall about 18ft. south of the north-east angle, and at a depth of about 32ft. below the surface. We then turned north, and ran along the Haram Wall for 26ft. without finding any angle similar to that above. At this point a slit about 18in. wide and 4in. high was observed in the Haram Wall, formed by cutting out parts of the upper and lower beds of two courses. A stone, dropped down this slit, rolled rattling away for several feet.

It was some time before I could believe that we had really passed to the north of the north-east angle; but there can now be no doubt of it, and that the ancient wall below the surface runs several feet to the north of the north-east angle without break of any kind.

If the portions above ground are *in situ*, it would appear that this angle is a portion of an ancient tower reaching above the old city wall,

probably somewhat similar to the view De Vogüé gives of it (Plate xvi., "Le Temple de Jerusalem").

We have this morning examined the slit mentioned above. At first it was impossible to squeeze through, but after a few hours it became easier, though it is now only 7in. in height.

The passage in from this slit is difficult to describe: the roof falls by steps, but the floor is a very steep smooth incline, falling 12ft. in 11½ft., like the slit and shoot for letters at a post-office. The shoot ends abruptly, passing through the roof of a passage. This passage runs east and west; it is 3ft. 9in. high, and about 2ft. wide; it runs nearly horizontally, and at its eastern end opens out through the Haram Wall. At the western end it goes (by measurement) to the east end of the Birket Israil, but is closed up by a perforated stone. This passage is 46ft. (?) in length. On the south side of it, a little to the west of the shaft, is a staircase cut in the masonry, and running apparently to the surface, but it is jammed up with stones. The roof of the passage is about 48ft. below the surface. The stones forming it are of great size, but do not show large in comparison with those of the sides, which are from 14ft. to 18ft. in length, and vary from 3ft. 10in. to 4ft. 6in. in height. To the west of the staircase the bottom of the passage slopes down rapidly, so that in one place it is 12ft. in height. The roof also is stepped down 4ft., about 11ft. from the western end.

Altogether this passage bears a great resemblance to that which we found under the Single Gate, October, 1867.

At the eastern end, where the passage opens out through the Haram Wall, a rough masonry shaft has been built round, so that we can see a few feet up the wall, and about 7ft. down it below the sole of the gallery. It is evident that here there has been some tinkering at a comparatively modern date.

In the course forming the sole of the passage there is a water duct leading through the Haram Wall, about 5in. square, very nicely cut; but in the next course, lower, a great irregular hole has been knocked out of the wall, so as to allow the water to pass through at a slightly lower level, and so run into an aqueduct 9in. wide and 2ft. high, which commences at this point, and runs nearly due east from the Haram Wall. All this botching and tinkering looks as if it had been done quite recently, and the workmen have left their mark on the wall in the shape of a Christian cross, of the type used by the early Christians, or during the Byzantine period.

At the further end of the passage, to west, the same large massive stones are seen until the eye rests upon a large perforated stone closing it up. This is the first approach we have yet found to any architectural remains about these old walls (which I believe now are admitted to be of the time of the Kings of Judah), and though it merely shows us the kind of labour bestowed upon a concealed overflow aqueduct, still it has a bold and pleasing effect, and until something else is found, will hold its own as some indication of the style of building at an early period.

It consists simply of a stone closing up the end of the passage, with a recess or alcove cut in it 4in. deep. Within this recess are three cylindrical holes, 5½in. in diameter, the lines joining their centres forming the sides of an equilateral triangle (see sketch, plan, and section). Below this appears once to have been a basin to collect the water; but whatever has been there, it has been violently removed. It appears to me probable that the troops defending this portion of the wall came down the staircase into this passage to obtain water.

At first sight this passage appears to be cut in the rock, as stalactites have formed all over it, and hang gracefully from every joint, giving the place a very picturesque appearance. It seems probable that we are here some 20ft. above the rock.

There can be little doubt that this is an ancient overflow from the Birket Israil, which could not at that time have risen above this height, about 235°, or 25ft. above the present bottom of the pool, and 60ft. below the present top of the pool.

It is also apparent that the Birket Israil has been half full and overflowing during the Christian period, and that for some purpose or other the water was carried away by an aqueduct to the Kedron Valley. At the present day, when there is such a dearth of running water in Jerusalem, it is rather mystifying to find that within our era the Birket Israil has probably been constantly full up to a certain point, and flowing over.

It will be a great mistake now if we have to stop this work for want of funds. We have got over to this N.E. angle with considerable trouble and at great risk, and it is highly probable that difficulties would be put in the way of a second excavation at this point.

If the excavations are to continue, I am convinced it is essential that we should strain every nerve to get sufficient funds to complete this work.

XLIV.

18th August, 1869.

N.E. Angle of Haram area (continued).—We have now made further progress at this angle, and have settled several points of considerable interest.

1. We find that the tower (so-called tower of Antonia) at the N.E. angle of the Haram area, forms part of the main east wall, and, at near its base, the wall and tower are flush, or in one line.

2. The wall is built up of bevelled stones from the rock, but up to a certain height (nearly the same as at Robinson's Arch) the stones have rough faces.

3. The rock, which is only twenty feet below the surface at the St. Stephen's Gate, falls rapidly past the tower, so that at the southern angle the wall is covered up with *débris* to a depth of no less than one

hundred and ten feet, and the total height of the wall is over one hundred and fifty feet.

4. There is now no doubt that the valley at the Bab az Zahiré passes down through the Birket Israil into the Haram area, and thence out to the east between the N.E. tower and the Golden Gate: and that the platform of the Dome of the Rock is at least *one hundred and sixty-five feet* above one part of the valley in the northern part of the Haram area; and also that the contour trace showing the conjectural lie of the ground in the northern part of the Haram area, forwarded in June, appears to be nearly generally correct.

5. Some characters in red paint have been found on the bottom stones of the Haram wall under the southern end of this tower: a trace is enclosed.

6. It appears probable that the four courses of bevelled stones of this tower, which appear above ground, are *in situ*, and also in the wall south of the tower, but of this latter it does not seem so certain.

7. The faces of the stones below a certain line are described as rough (in paragraph 2), but they are quite unlike the roughly-faced stones at the S.W. angle. The faces project from two to *twenty* inches or more, presenting a very curious appearance.

8. The stone used does not seem to be so compact and hard as that used at the S.E. angle, and the chisel working is not so carefully done.

The manner in which the tower becomes flush with the wall is very interesting: for the first forty-eight feet above the rock it is one wall, the stones being carefully drafted, the faces projecting irregularly, on an average ten inches. The upper and lower parts of the faces are horizontal, and the sides are vertical, so that they in some instances present the appearance of one cube stuck on to a larger one.

The wall throughout this distance has a batter formed by each course receding $4\frac{1}{2}$ inches from that below it, up to course Q, where the projecting faces end; here the tower begins, and it is formed by the portion forming the wall continuing to recede from 4 to 7 inches, while that forming the tower only recedes about $1\frac{1}{2}$ inches, so that at 70 feet from the bottom (level of the gallery), and 22 feet from whence the tower begins, the projection is nearly 2 feet. If this were continued at the same rate up to the surface, another 40 feet, it would give to the tower a projection very similar to what it has, viz., about 7 feet; from this it would appear as though the upper were *in situ*; but it is to be remarked that the stones in the wall at the surface, and also in the gallery, have projecting faces, and as the southernmost shaft was sunk at the junction of the tower and wall, it yet remains to be seen whether the wall throughout is composed of stones with projecting faces, while the stones in the tower are like those at the Wailing Place.

It is also to be remarked that the level of the point where the tower commences is only a short distance below the surface at the S.E. angle, where there is a check in the wall as if just such another tower were commencing.

De Vogüé's view of the temple of Jerusalem restored, appears to give

an approximate view of what the east wall of the Haram is *at present*, except that the centre tower is not known.

There is no straight joint between the tower and wall at the N.E. angle; it is one wall for the 22 feet we have examined, and probably continues the same up to the surface. Where the projection increases to 2 feet, the stones are cut out to that depth, but a few feet higher some other method must have been adopted.

I propose after the summer to drive the gallery 100 feet further to the south along the wall, and then to sink again in search of the bottom of the valley, which is likely to be some thirty or forty feet lower down: as it is, this shaft at the angle of the tower is the deepest yet sunk, the bottom being 110 feet below the surface.

I have left this shaft open, so that M. de Saulcy may have an opportunity of examining the wall if he arrives in time.

(The detail of this work will be sent next mail, with plans.)

XLV.

18th August, 1869.

Conclusion of the Excavations at the South-West Angle, Haram area.—Three shafts, during the spring, were sunk alongside the south wall of the Haram area, west of the Double or Huldah Gate; it was also considered desirable to sink two other shafts alongside the west wall, near Robinson's Arch, but the family of Effendis, who own this portion of the ground, and who gave Captain Wilson trouble in 1866, again displayed so much greed, that while they were holding out in expectation of securing an exorbitant *bakshish*, it was found more convenient to examine the wall from a lower level without troubling them.

We have now as much information with regard to this portion of the Haram Wall as we are likely to be able to obtain, and the results are important, very important, for they establish the fact that the south wall east of the Double Gate (about 600ft.) is of a different construction to that portion west of the same gate (about 300ft.), the eastern portion appearing to be the most ancient.

That we can arrive at any immediate definite conclusion as to the position of the Temple from the establishment of this point, does not appear to be probable. It certainly is curious that we should find the portion of the south wall to east of Double Gate to coincide nearly in length with the width of the outer court of the Temple as given by Josephus; that it should be built up *from the rock* with bevelled stones, whose faces are finely dressed, and in this differing from the Haram Wall examined at the south-west and north-east angles, where the faces of the stones for some distance above the rock are left rough; that we should find the south-west angle and east wall to north to be apparently of less ancient construction, and so far agreeing with the description of the

extension of the Temple of Herod to the north and west (Josephus, "Wars of the Jews," v. v. i., and i. xxi. i.); that we should have found signs and characters on the stones at the south-east angle which were evidently written and cut before the stones were laid, and which are pronounced to be Phœnician; that we should have found under the Single Gate (of Ordnance Survey plan) a passage for carrying into the Kedron some liquid, and which is wholly distinct from the water channels under the Triple Gate. We have these, then, and many other indications of the Temple having been at this south-east angle, and yet we have against it arguments which appear to be so strong, that at the present moment there appear to be almost equal reasons for placing the site of the Temple on the three points indicated in a previous letter, viz., 1. Coinciding nearly with the present Dome of the Rock platform. 2. To the east of No. 1, and reaching up to the east wall. 3. At the south-east angle.

The finding of this wall to be of different constructions east and west of the Double Gate, makes it appear improbable that the Temple could have been at the south-west angle.

Between the south-west angle and the Double Gate, four shafts in all have been sunk, viz., the first at 90ft. from south-west angle (described in Letter XII., 22nd October, 1869); the second at 64ft. 6in. from south-west angle; the third at 213ft. from same angle; and the fourth at the south-west angle itself.

Before describing the three latter, some remarks on the south wall may be required.

The south wall of the Haram area, 922ft. in length, is broken into nearly three equal portions by the Triple Gate to east, and the Double or HulDAH Gate to west. At the present time the surface of the ground runs nearly level from the south-west angle to the sill of the Triple Gate, and then shelves down about 22ft. to south-east angle; but in earlier times the wall must have presented a very different appearance, for the rock of Mount Moriah, which is found within a foot of the sill of the Triple Gate, shelves down rapidly to the south-east angle, falling over 100ft. in 300. Towards the west from the Triple Gate the rock falls more gently; at the Double Gate, whose sill is on a level with that of the Triple Gate, the rock is probably at a depth of 30ft.; it then falls more rapidly to about 90ft. from the south-west angle, where appears to be the bed of the Tyropœon Valley—this point is 90ft. below the sill of the Triple Gate; the rock now rises again rapidly to west, having risen about 30ft. at the south-west angle.

From the examination of this south wall, in nine separate places, there appears to be no doubt that the whole of the stones below the present surface are bevelled or marginal-drafted, though the faces are not all finely dressed, and that they are *in situ*, although, as previously observed, the portion of the wall to the west of the Double Gate appears less ancient than the remainder.

As the rock is found at the sill of the Triple Gate, it follows that we can have no course of stone running through from end to end below

that level. The first through course has its bed on a level with the sole of the Triple Gate : it is nearly double the height of the courses below, being from 5ft. 10in. to 6ft. in height (see Letter XXVIII, 2nd September, 1868), while other courses vary from 3ft. 4in. to 3ft. 10in. It extends in a broken line from the S.E. angle to the Double Gate, the S.E. corner-stone being the heaviest, but not the longest, yet found in the Haram Wall. Were the south wall of one construction, we ought to find this large course running through west of the Double Gate, but we have searched for it in vain. At the first and third shafts it is difficult to determine whether the stones on a level with this great course are bevelled or not, and therefore they give no information ; but at the second and fourth we find bevelled stones apparently still *in situ*, at a higher level than the great course, and yet we find no signs of the great course itself. We have certainly a large stone at the S.W. angle, the longest (38ft. 9in.) at present known, but it is only 3ft. 3in. to 3ft. 6in. in height, and its bed is about four feet above that of the great course ; it is, then, apparent that this great course did not reach so far as the S.W. angle, or in other words, that this western portion of the south wall is of a different construction to the eastern. We find this again to be the case when we examine the walls to their foundations, for at the S.E. angle and at the Single Gate we find the wall springing from the rock, with the faces nicely worked, while at the S.W. angle, and for at least 213ft. to east of it, we find the stones up to a certain level, with beautiful marginal drafts, but with rough picked faces ; and the line where these rough stones end, and the smooth-faced stones commence, is on a level nearly with the pavement on which the *débris* of Robinson's Arch rests. We have said that the rough stones are found along the west wall under Robinson's Arch, up to the level of the pavement, and it appears probable that they continue with the pavement up to Barclay's Gate. If so, it gives the impression that the portion of the wall west of the Double Gate, and round by the S.W. angle to Barclay's Gate, was constructed after the Tyropæon had commenced to fill up, and that the lower portion, the rough stones below the pavement, were never exposed to view. In Josephus, "Wars," v. v. 1, we find : "The lowest part of this was erected to the height of three hundred cubits, and in some places more, yet did not the entire depth of the foundations appear, for they brought earth and filled up the valleys, as being desirous to make them on a level with the narrow streets of the city." This passage can only apply to two sides of the Temple, the west and the north, for on the south there is no valley near, and on the east is the Kedron, the apparent bottom of which is still considerably lower than the actual bottom of the walls. Now it is just on the south-western side (and north-eastern) that we find these roughly-faced stones reaching up to a certain level ; and finding a hard, well-squared, marble (*mezzeh*) pavement also running along at the level, we may fairly conclude that this was the line of surface at some time after the construction of the S.W. angle, and we may also infer that it was the *first* surface used after the S.W. angle was completed,

and that the roughly-faced bevelled stones below were never intended to be exposed to view.

At the S.E. angle, and along the south walls up to Triple Gate, we find the smooth-faced stones are continued down to the rock, and it appears that when this portion of the wall was built there was a *débris* at this point of only twelve feet in depth.

At the S.W. angle, and for at least ninety feet along the south wall, we have found a second and less ancient pavement. It is about twenty feet above the first pavement, and about twenty-three feet below the present surface; it is nearly on a level with the sill of Barclay's Gateway, and with what appears to have been an old surface under Wilson's Arch. This pavement appears to have been used after the destruction of Robinson's Arch, and before the building of the present Wilson's Arch.

It was under this pavement that the signet "of Haggai, the son of Shebaniah" was found in 1867; and in another shaft at the S.W. angle, we have found several fragments of pottery at a depth of about five feet below the pavement. Among the fragments are several Greek lamps, one of which has an inscription of Christian origin, similar to those on lamps which have been considered to be of the third or fourth centuries. These fragments may, to a certain extent, help us in ascertaining the age of this pavement. No arrangement in the laying of these pieces of pottery was noticed: they had the appearance of having been lying in the position in which they were found when this upper pavement was laid, and if so, we must suppose it to have been made after the third or fourth century. It appears possible that this may have been the level of roadway leading under Wilson's Arch, and through the present Dung Gate, spoken of in the Norman Chronicle (see Williams's *Holy City*); also there is to be seen a line of road under Wilson's Arch along the west wall of the Haram area on the plan of Jerusalem in the twelfth century given in Fergusson's article on Jerusalem (*Smith's Dictionary*). It has been observed in a previous letter that the west walls of the Haram area at Robinson's Arch cut through an ancient system of water ducts and tanks running along the western side of the Tyropœon Valley. The long aqueduct which is described in Letter X. (11th October, 1867,) and which commences abruptly at the South Haram wall, was found to follow the bed of the Tyropœon for several hundred feet, and was probably also cut through at the construction of this wall.

If we are to suppose that the roughly-faced stones at the south-west angle were never exposed to view, we must presume also that the two apparent voussiors lying on the aqueduct under Robinson's Arch belonged to a bridge which crossed the Tyropœon Valley previous to the building of the Haram Wall at the south-west angle (see Letter XXXVI., 12th January, 1869). It is to be remarked with reference to the roughly-faced stones that their joints and marginal drafts are quite as perfectly wrought as those to be found on the stones whose faces are finely worked.

The present surface of the ground between the south-west angle and the sole of the Triple Gate is now nearly on a level (2,380ft.), from thence it shelves down to a level of 2,356 at the south-east angle. As previously observed, a great course of stones runs between the south-east angle and Double Gate, partly broken away in a few places: above this great course no bevelled stones are to be seen except a few, apparently *in situ*, just at the south-east angle. As the bed of this great course is on a level with the floor of the great vaulted substructures inside the Haram area at south-east angle, it can readily be seen that the original substructures are not likely to have remained after the retaining walls to east and south had been destroyed, and that, therefore, the present substructures are likely to be less ancient than the great course and lower portions of the old wall, which still remain *in situ*.

Between the Double Gate and the south-west angle, bevelled stones are only to be seen above the present surface for 90ft. from the south-west angle; for this distance four bevelled stones are to be seen above the level of the spring of Robinson's Arch; they then suddenly break away, and are succeeded between this and the Double Gate by several courses of large squared stones, which are jointed on to the bevelled stones in a very irregular manner. (See Captain Wilson's Plates, O. S.) The top of these squared stones ends in a line with the top of the upper bevelled stones, and above them there are courses of stone of a smaller size. These squared stones vary in height, some courses being more than 4ft.; they are not laid very skilfully, the lines of the horizontal joints having a wavy appearance, and in one case a course commencing at one end with a height of 4ft., gradually runs out in 200ft. to a height of 3ft. 4in. This, however, is not a feature confined to the newer or squared work, it frequently occurs in the bevelled stones; for example, the stone at the south-west angle, 38ft. 9in. in length, is 3ft. 3in. high at northern end, 3ft. 4in. at centre, and 3ft. 6in. at south-west angle.

There appears to have been a considerable want of attention in the reconstruction of the wall at the south-west angle, for the joints between the squared stones are found to act as weepers. The wall is very much disfigured by the deposit left by the running water.

A diagram showing all the shafts sunk round the walls of the Haram area is forwarded; from this it will be seen that the courses from Wilson's Arch appear to run through as far as the Double Gate, though there are slight discrepancies in height of the stones in each course at the several points where they were measured.

It is curious to find that from Barclay's Gate to Wilson's Arch, the bevelled stones have their faces finely worked, while so near to the south of Barclay's Gate there are stones at a higher level which have their faces quite rough; perhaps some reason for this may be suggested, it is difficult to see why this change should exist.

Descriptions of Shafts sunk alongside South Wall near S.W. Angle.—The second shaft commenced at a point 64ft. 6in. from S.W. angle; the surface of the ground is here about the middle of course E. The first

No. III. (I. and II. in "Quarterly Statement" No. II.)—Return showing the height of courses of stone in the Haram Wall, as exposed in the several shafts. A thick line in each column marks the present surface of ground.

No. or letter given to each course.	Wilson's Arch.	Barclay's Gateway.	South-west Angle.	84ft. 6in. east of S.W. Angle.	90 ft. east of S.W. Angle.	213 ft. east of S.W. Angle.	West of Triple Gate.	Triple Gate.	Single Gate.	South-west Angle.	South end of Tower, N.E. Angle.	N.E. Angle, 19ft. to south	Remarks.
	1 Ft. in.	2 Ft. in.	3 Ft. in.	4 Ft. in.	5 Ft. in.	6 Ft. in.	7 Ft. in.	8 Ft. in.	9 Ft. in.	10 Ft. in.	11 Ft. in.	12 Ft. in.	
8	...	3 5									...	...
7	...	3 5									3 7½	3 7½	
6	...	3 10									3 10	3 10	
5	...	3 6									3 10	3 10	
4	3 4½	3 4									3 1½	3 1½	
3	...	3 6									3 9	3 9	
2	3 6	3 10											
I	3 3	Lintel	3 2½	3 2½	3 2	3 2							{ Level of bottom of lintel, Barclay's Gate, 2398ft. 5i.
A	2 6	3 5	3 4	3 3	3 3	3 3							{ Bed of B springing of Wilson's Arch 2391ft. 5i.
B	3 6	3 8	3 4½	3 6½	3 6½	3 5½							{ Bed of C springing of Robinson's Arch 2388ft.
C	3 6	3 7	3 7	3 6	4 0	3 4							
D	3 4	3 3	3 6	3 4	3 9½	3 10½							
E	3 9½	3 8	3 8	3 6½	3 2½	3 2	5 10	5 9½	5 11	6 1			{ Bottom of great course, Triple Gate, 2380 ft.
F	3 8½	3 8½	3 7½	3 7½	3 0	2 10½							
G	3 8	3 8	3 6½	3 5½	3 9	3 9	3 6	Rock	3 5½	3 5½			
H	3 9	3 9½	3 8½	3 6½	3 9	3 9	3 9						{ Bed of I, sole of Barclay's Gateway, 2366ft. 4½in.
I	3 3	3 4½	3 6½	3 4	3 9	3 8	3 9			3 9			
J	4 1	Not seen	4 0	3 11	3 8	3 8				3 8½		3 4	{ Bottom of course J in columns 11 and 12, 2363ft. 3in.
K	3 11	7 8½	3 10½	3 11	3 9	3 3½				3 8½	3 5	3 5½	

J.	3 11 $\frac{1}{2}$	3 10 $\frac{1}{2}$	3 10	3 10	3 9	3 6	...	Opening	3 9	3 4 $\frac{1}{2}$	3 6	Bottom of course L at S.E. angle, 2357 ft.
M	3 10	3 9 $\frac{1}{2}$	3 9	3 9 $\frac{1}{2}$	3 6	3 8 $\frac{1}{2}$	...	3 8	3 8	3 5	3 5	
N	3 9	3 11 $\frac{1}{2}$	3 8 $\frac{1}{2}$		3 11	3 10	...	Opening to	3 9	3 5	3 9	
O	3 9	3 6 $\frac{1}{2}$	3 4		3 8	3 4 $\frac{1}{2}$	...	channel	3 9	3 5	3 9 $\frac{1}{2}$	
P	3 6	3 6 $\frac{1}{2}$	3 5		3 9	3 7 $\frac{1}{2}$	...	3 9	3 9	4 0	4 0	
Q	2 10 $\frac{1}{2}$	3 5 $\frac{1}{2}$			3 9	3 6 $\frac{1}{2}$	...	3 9	3 9	4 0	3 11 $\frac{1}{2}$	
R	Rock	3 6 $\frac{1}{2}$			3 9	3 8 $\frac{1}{2}$	...	3 9	3 9	4 0	3 4 $\frac{1}{2}$	
S	...	3 6			3 8	3 8 $\frac{1}{2}$	...	Rock	3 9	3 2 $\frac{1}{2}$	2 10	
T	...	3 5 $\frac{1}{2}$			4 0	8 $\frac{1}{2}$	...	...	3 8	3 0 $\frac{1}{2}$	3 5 $\frac{1}{2}$	N.B.—This return and the accompanying diagram cannot show the perpendicular mea- surements taken in each shaft, from sur- face to rock, etc. For this reference must be made to the detail plans of each excavation
U	...	3 7 $\frac{1}{2}$			4 0	8 $\frac{1}{2}$	...	...	3 9	3 4 $\frac{1}{2}$	In rock	
V	...	2 5 $\frac{1}{2}$					...	...	3 9	3 4 $\frac{1}{2}$	Rock	
W	...	Rock at 2320 1	Not continued to rock.				...	...	...	4 0	...	
X	...	...	Not continued to rock.				...	...	{ Not seen }	3 6 $\frac{1}{2}$...	
Y	...	...	Not continued to rock.				...	...	4 6	3 11	...	
Z	...	...	Not continued to rock.				...	...	4 0	3 1 $\frac{1}{2}$...	
a	...	...	Not continued to rock.				...	...	4 0	2 11	...	
b	...	...	Not continued to rock.				...	...	3 6	2 10 $\frac{1}{2}$...	
c	...	...	Not continued to rock.				...	...	4 2 $\frac{1}{2}$	3 1 $\frac{1}{2}$...	
d	...	...	Not continued to rock.				...	...	3 7 $\frac{1}{2}$	2 10 $\frac{1}{2}$...	
e	...	...	Not continued to rock.				...	...	4 2 $\frac{1}{2}$	2 7 $\frac{1}{2}$...	
f	...	...	Not continued to rock.				...	...	4 3 $\frac{1}{2}$	Rock	...	
g	...	...	Not continued to rock.				...	...	3 8	...	...
									Rock 2272 2 $\frac{1}{2}$			

NOTE.—A wavy line in columns 3, 4, 5, 6, 11 and 12, show where the rough-faced stones join the smooth-faced. The four upper stones in column 3, and the stones above the surface in columns 5 and 6, are not bevelled; all other dimensions in this return refer to bevelled (marginal-drafted) stones.

To understand thoroughly the relative positions of the courses, &c., in the Haram Wall, this return must be examined in connection with the accompanying Diagram* drawn to scale ($\frac{1}{100}$), because the height of courses does not correspond all round the Haram area. The courses in columns 1, 2, 3, 4, 5 and 6 appear to be of one construction, in columns 7, 8, 9 and 10 of another, and in 11 and 12 of another.

The levels are given in feet above mean-sea level of the Mediterranean, as obtained from the B.M. placed by Captain Wilson in the streets of Jerusalem.

19th August, 1869.

* This arrived too late for lithographing.

CHARLES WARREN, Lieut. R.E.

three courses below the surface are bevelled but much worn; at a depth of 15ft. 6in. a rough pavement was met with, stones about 12in. cube; below this pavement the stones are well preserved until at 29ft. 6in., at bottom of course M, the bevelled stones with rough faces commence; this shaft only exposed course N.

The third, 213 feet from S.W. angle.—Level of surface of ground nearly at bed of course F; found a rough wall butting on to the Haram Wall, very difficult to get through; bevelled stones in bad preservation; at depth of 25ft. arrived at the upper course (N) of roughly-faced stones, continued down to the rock, which was reached at a total depth of 54ft. 10in.; rock cut smooth for the foundation-stone.

The fourth, at S.W. angle, on S. side.—Level of soil at bed of course D, bevelled stones very well preserved; at 23ft. met with a stone pavement; at 25ft. came upon some Christian lamps, one with a Greek inscription—stones of wall very well preserved below pavement; at 38ft. came upon a second pavement, the same as that under Robinson's Arch; at 42ft. came upon the roughly-faced stones at course Q; drove a gallery for 6ft. round the angle to examine the roughly-faced courses.

Gallery under Pavement at Robinson's Arch.—This was driven in from the shaft at Robinson's Arch for the purpose of examining the west Haram Wall; the result of the examination is that the line of smooth-faced stones ends at the pavement under Robinson's Arch, and that below this pavement the stones are roughly-faced.

It is to be remarked that the smooth-faced stones above the second or upper pavement are found in much better preservation than those below it, which appear to be quite unworn; this would rather imply that this upper pavement was laid only a comparatively short time after the building of the Haram Wall at this angle. ,

PALESTINE EXPLORATION FUND.

PATRON.

HER MAJESTY THE QUEEN.

OFFICE-9, PALL MALL EAST, S.W., LONDON.

*Reports on Progress of Works at Jerusalem and elsewhere in the
Holy Land, by Lieutenant Warren, R.E.*

XLVI.

Excavations at the North-East Angle of the Haram Area.—The general results of these shafts have already been noticed in Letters XLII., XLIII., and XLIV., and now the details of the working are given.

In commencing work here we were completely in the dark as to the nature of the rock below the surface; we certainly were aware of the valley running down from the Bab-as-Zahiré, but it was generally supposed to run out through the Birket Israil, turning sharp to the east, as shown in the Ordnance Survey Plan 1:10,000: instead of continuing in a south-easterly direction through the north-east corner of Haram Area, as our excavations have shown it to do: we therefore found it necessary to sink several shafts so as to completely mark out the present lie of the rock; and it is to be remembered that the present lie of the rock gives very nearly the features of the ground as they appeared in early times, for it can hardly be doubted but that in those times the rock about here was nearly bare; covered at the most with 2ft. or 3ft. of red earth.

Wherever we have excavated we have found the rock at bottom of our shafts to be cut away in steps, or levelled, or otherwise showing that the hand of man had been applied to it; and on this rock we generally find 2ft. or 3ft. of red earth (the natural colour of the soil of this part), and all above it is stone-chippings and shingle mixed up with pieces of red pottery, a black earth formed of rubbish from the city.

The following remarks are made on the supposition that the contour trace of supposed lie of rock 1:2500, the elevation of the east wall of Haram 1:120, and the sections through the east Haram Wall at north-east angle are before the reader.

It is also to be observed that in giving these details no account of the actual working is given, as this, though interesting in itself, would prevent the results being readily accessible; in this account one shaft is said to be tamped up and then another commenced, while in fact, whenever convenient the earth taken out of one was used for filling up another, so that at No. 10 shaft, no soil had to be taken up to the surface after we had once reached the wall, though we have been working them for many weeks.

In giving the details, also, the shafts have not been taken consecutively or by the date of commencing, but with regard to their positions one to another.

One important point these excavations have established, viz.:—that outside the city wall on east to north of St. Stephen's Gate there are only a few feet of *débris*, and often none at all, while immediately south of it, and indeed all along to the south-east angle, the *débris* varies in depth from 50 to over 100ft; this rather implies that to the north of this gate there has been very little destruction of old walls.

Another important point with regard to the city wall at this gate is, that the present wall only goes down for 10ft. below the surface, and there rests upon 10ft. of concrete, which again is on the rock, and that there is no appearance of an older wall.

From this it would appear that the St. Stephen's Gate may not stand upon the site of the old wall; and the line of bevelled stones found in drain at shaft No. 10 may mark the place where the old wall turned in to the west. This idea is rather confirmed by our finding the Haram Wall running north from the north-east angle for at least 64ft., so that if it continued far enough in the same straight line, it would lie under the St. Stephen's Gate nearly.

We come now to a question of very great interest in the East Haram Wall north of the north-east angle. We found an overflow aqueduct at a level of 2,341ft., while the present level of the Haram Area at same angle is 2,410ft. This aqueduct forms part of the old Haram Wall as seen at this angle, and every detail about it points to its having been used as a fountain or overflow aqueduct, and not as a floodgate; and if we admit this, we must suppose the water in the Birket Israil to have stood at the highest at 2,415ft. at the time the present north-east angle and north-east portion of Haram Wall was built. If this be so, and if we might suppose the present northern end of the Haram Area to have been built up to same height as it does at present, when this north-eastern wall was built, then, we ought to find southern side of the Birket Israil built up of the same kind of blocks as this wall.

Now we find the inside of the Birket Israil faced with stone and plaster, so as to act as a tank up nearly to the level of the Haram Area, and what may be the true face of the north Haram Wall may thus be covered up. The removal of a few stones here might settle this question. This question may thus be described.

Some authorities make the limits of Herod's Temple to have extended up to Birket Israil on north; now we have found the northern part of east wall to be apparently *in situ*, whether it be the wall of Solomon, Herod, or Herod Agrippa. If of Herod then the south side of Birket Israil should also be of like stones.

In shaft No. 11 we have found a massive wall of bevelled stones, apparently not *in situ*. This may have been at a later period the line of the city wall; certainly it appears to be later than the aqueduct which it cuts in two, and which appears to run up to St. Stephen's Gate, shaft No. 10, for this aqueduct is on a level and does not appear to have been made until the Birket Israil was made into the tank it appears at present.

Shaft 1.* Commenced 2nd April, 1869, at a point at the foot of the mound of rubbish outside St. Stephen's Gate, where some Christians say tradition places the site of an ancient church.

Surface 2,343ft. above sea-level. Rock was found at depth of 6ft., it sounded hollow, and on striking with a jumper, caved in, and a grotto was exposed to view, nearly circular on plan, about 9ft. in diameter and 4ft. high; it had been used as a tomb, and is divided into five loculi by plaster partitions about 3in. thick and 12in. high; two of these lay about north-east to south-west, and three north-west to south-east.

At the southern side a shaft leads down into a chamber (No. 2) 26ft. long, 6ft. broad, and divided latitudinally into ten loculi, separated as in the chamber above; one of the middle loculi serves as a passage, opening at either end into two chambers (Nos. 3 and 4) parallel and similar to No. 2; these are also divided into loculi.

Other chambers open out from these; the largest being at the south-east angle of No. 3, where there is a shaft (about 6ft. deep) leading down into a lower range of chambers, in direct length about 40ft. All these chambers, nine in number, are divided off into loculi, except one which appears to have been an ante-room, and in which some pieces of cut stone were found.

The partitions separating the loculi in some cases are cut out of the rock. The chambers were found half full of earth, fallen in from above, and it is evident that they had been opened, and perhaps used, at a period subsequent to the time when they had been used as tombs. The earth was moved from one chamber into another, but we found no indications of passages into a larger grotto, the only places not explored were some shafts leading up, apparently, to the surface.

The work was continued for twenty-four days. Six pottery lamps, apparently early Christian, and some glass vases were found, these were sent home in a box under charge of Corporal Ellis.

The chambers are cut in the "Malaki" of a very rotten description, nearly approaching to the Cakooli, and no chisel marks were found on

* The numbers are not Captain Warren's.

the rock. The system of chambers with shafts leading up to surface is somewhat on the plan of the Greek or Phœnician tombs at Saida.

A plan of some of the chambers, and a section, are enclosed; the whole system is not given, as they lie over each other, and are cut so irregularly as almost to suggest the idea that they may have been natural caverns enlarged by man.

Shafts 2, 3, were two shafts sunk at the bottom of the road, due east of St. Stephen's Gate; rock was found in each at 5ft. 6in. and 2ft. respectively; at the first (H. 4) the last 3ft. 6in. was of the red virgin soil. Shafts were now commenced higher up the road leading to St. Stephen's Gate.

Shaft 4. Commenced 9th April, 1869, was sunk near the road 256ft. east of the gate; at 14ft. a small aqueduct or cistern was broken into, about 4ft. 6in. square of masonry. Rock was found at 20ft. 9in., the walls of the cistern resting on it, the rock levelled. Soil for first 13ft. nearly black, in layers sloping from north to south for the first 11ft., and then from west to east to a depth of 14ft., slope two in three; below this the colour was red, and continued so for 6ft. to the rock; level of surface 2,390ft. A shaft, H 8, was next sunk higher up near the road, at a distance of 162ft. from the gate; level of surface 2,409ft.

Shaft 5. Rock was found at a depth of 30ft. The top of a scarp facing to east; this was followed down 20ft. the rock receding under to west, apparently the side of a tank, as it was plastered and ended abruptly to north; large stones were found, as though they had been part of the vaulting of the tank; after getting to a depth of 50ft. below the surface this shaft was filled up. For the first 20ft. the soil was black and rotten, apparently rubbish from the city; from thence to the rock loam mixed with stones.

Shaft 6. Commenced 12th May, 1869, near road at 109ft. east of St. Stephen's Gate; level of surface 2,411ft. Rock found at 22ft. 9in. below surface, falling out one by one to south-east. At 16ft. colour of soil changed from black to a reddish brown. At 8ft. some pottery found. In consequence of the finding of the wall at No. 11, it was considered desirable to drive a gallery to west from No. 6 in search of continuation of the same.

Rock very soft and rises to west slightly; first 10ft. level, then 3ft. with rise of 3in. and then 2ft. level again; in all, 15ft. The rock is then scooped to west to depth of 8ft. 4in., is level for 10ft., and then rises again in a small scarp of 2½ft., and then goes on level again. Space of ditch filled in with small stones and earth. Total length of gallery to west 25ft. 8in. No signs of any wall as found at H. 9; but probably we were not near enough to west.

Shaft 7. Commenced 24th April, 1869; at the first angle in city wall, 43ft. north of St. Stephen's Gate; surface level 2,419ft.; wall below surface same as that seen above; at 18½ft. came on rock and concrete on which the wall rests; no signs whatever of anything more ancient than the present city wall, as seen above ground; soil passed through, a loose rubbish.

Shaft 8. Commenced 8th April, 1869, at a point 200ft. due east of the south corner of tower of north-east angle Haram Area. Rock, cut down level, found at 29½ft. Level of surface 2,347ft. Some broken pieces of fresco were found near the rock. Soil passed through was black for first 8ft., and then of a brown colour, with the appearance of water having passed constantly through it with lime in suspension. A gallery was now driven to south-west to determine the lie of the rock. Rock found to slope to south-east; after progressing 11ft., the gallery had to be tamped up on account of our striking a layer of loose stones with no earth among them, and which ran down in streams on being touched.

Shaft 9. Commenced 30th April, 1869, higher up the hill, and at a distance of 40ft. to west of No. 8. Level of surface 2,364ft. Sunk 23ft. through black earth and then came upon shingle from one to two inches cube, without any earth; shaft continued 20ft. deeper, when at a depth of 43ft. the shingle changed to a layer of stones from three to four inches cube, and in getting through these the shingle commenced to run and filled in the shaft for about a foot and a half; the shaft was then filled up till the bottom was 22ft. below the surface, and a gallery was driven in to west for 25ft.; a shaft was then sunk through stones 12in. cube, and mud. Rock found at 25ft., being 47ft. below the surface; rock falls one in four to south.

Shaft 10. Commenced 5th May, 1869, along city wall at first angle to south of St. Stephen's Gate, at a distance of 34ft. from the Gate. Level of surface 2,410ft. Bottom course of ashlar of city wall at depth of 11ft., resting on concrete formed of stones about 6in. cube, and hard lime; at depth of 20ft. found rock, the concrete foundation of wall resting on it: rock sloping to south about one in four. Shaft was then filled up to top of concrete and a sloping gallery driven to the south along city wall.

In gallery, at 19ft., came upon a stony rough masonry wall, lying east and west, about 3ft. thick, which did not reach up to city wall by 6ft.; within this wall to south was a pavement of rough tesserae at a level of about 2,391ft. Sergeant Birtles suggests that this was perhaps the remains of a house, the space between the rough wall and the city wall having been the doorway. Just before reaching the rough wall, a masonry drain 7in. by 6in. in the clear was crossed below level of pavement.

At 38ft. the top of a barrel drain was crossed, and at 40ft. another rough wall, also large cut stones were found on east side, and bottom of gallery.

At 44ft. 6in. a shaft was sunk and rock found at 4½ft. below sole of gallery, being 33½ft. below surface of ground at mouth of shaft; the surface of rock therefore at this point is 2,377ft.

The top of the barrel drain was now examined; after going in 2ft. 6in. it ended, and another roof formed of flat stones at a rather higher level was seen, and after 8ft. the sides of an aqueduct running

west were visible, formed of large stones; for the first 10ft. this passage is only 10in. wide, and it then becomes larger (2ft. wide), the southern side being formed of large stones 3ft. 6in. high, and 4ft. 6in. long, well squared and exhibiting slight traces of a bevel; the aqueduct was traced for 39ft. in all, and was blocked up by a stone having fallen down from the roof. In the top, about 15ft. from entrance, a cylindrical earthenware pipe, 9in. in diameter, was built in, apparently to conduct water from a higher level; also two other pipes, about 4in. in diameter, were found laid horizontally *above* the stones forming the roof. The aqueduct was in a very decayed condition and not safe for the men to work in; it apparently leads from the Birket Israil at a level of 2,390ft., the bottom of the pool being 2,325ft. It is probable that it was constructed before the present city wall, but it has not the appearance of very great age, and the fact of the south side being composed of large bevelled stones rather goes to show that it was formed after the destruction of one of the old walls.

Shaft 11, Commenced 16th March, 1869, at a point about 100ft. to east of Haram Wall, a little north of the North-East Angle. Level of surface 2,405ft. At a depth of 42ft. an aqueduct was broken through, very rough, no plaster, roof formed by rough stones in form of an arch, runs in a north-westerly direction, directly for the aqueduct found in shaft No. 10. To the north-west 27ft. were open, and to south-east 20ft.

Shaft was now continued, and at 60ft. the earth changed colour and rock found at 64ft. from surface; cut in steps apparently for resting a foundation on. Falls to west about one in four.

The shaft was now filled up to level of aqueduct, and the clearing out of the portion towards the city wall was commenced. Passage 3ft. 6in. high, and 1ft. 9in. wide; stones forming sides and roof, 3in. thick and 6in. long, very rough.

At 32ft. found the passage broken in at sides; after securing this, it was found to continue and to be filled with hard silt. At 57ft. a very massive wall of bevelled stones running north and south, and 65ft. from city wall, was reached—stones well squared and somewhat similar to those found at the Jews' Wailing Place: course 3ft. 7in. in height. Commenced a gallery along the wall to the north; the second stone found was not bevelled, though well squared and dressed. At 18ft. from aqueduct, the gallery being driven horizontally, the rock was struck, and the lowest course of the wall took a turn about 30° to north-east, while the second course continued straight on to north; the wall now was composed of small stones, and after continuing it for 8ft. further, the gallery was tamped up by earth taken from a new gallery driven along wall to south.

Gallery continued to south along bevelled stones of wall; at 19ft. reached the corner stone, the wall now running to west. The stones here are very well dressed, but have a curious cracked appearance as if they had been subjected to great heat, and they broke off in large

chips when struck accidentally. Followed up the wall to west, and at 13ft. 6in. came upon what appeared to be part of a rough wall running to south, stones about 1ft. 6in. high, and 2ft. long. The main wall still went on to west, but was now composed of very rough irregular stones of large size; the gallery was now continued for 46ft. from the angle, when the wall suddenly ended, and after being continued for 7ft. farther, the gallery was stopped, and another gallery driven to south-west from the point (47ft. from angle) where the main wall had ended.

Continued gallery to south-west; progress impeded by meeting with a concrete floor composed of black cement and small stones; point where this floor was met with 29ft. from where the gallery branched. At 38ft. came close on point below north-east angle of Haram Wall, and broke into a gallery from No. 10. This was done for the purpose of tamping up No. 9 with the soil from No. 20, and so avoid taking it along the rough aqueduct, which had been an awkward business.

It does not appear that the stones of the massive wall in No. 11 are *in situ*, the stones differ in height, and sometimes a squared stone is interpolated; it is probable that this wall was built after the aqueduct had ceased to be of use, as we find it cut in two by the wall, that is to say, if we are to suppose it to be one and the same as found in Shafts Nos. 10 and 11.

Shaft 12. Commenced 24th April, 1869, at a point ninety-seven feet due east of north-east angle of Haram Area: level of surface 2,396ft. The soil at first was very good for working (black soil) to a depth of forty-two feet, where a rough wall was met with, running east and west. Below this, rough stones were met with, and the shaft proceeded with some difficulty to a depth of fifty-nine feet, when rock was met with: falls one in three to east. The shaft was then filled up to thirty-three feet from surface, and a gallery driven in towards north-east angle through very good soil for thirty-five feet. At this point the earth gave way suddenly in front of the frames for about nine inches, and down came a torrent of shingle, filling up the gallery for six feet.

It appears that the surface of the good earth falls *towards* the Haram Area, the shingle lying on top of it, there being again after a few feet of good earth another bed of shingle.

We now had to try back, and at twenty-nine feet from shaft turned the gallery sharp round to south, stepping it down each frame one in one, so as to get a few feet of good earth over our heads. After ten feet the gallery was turned round again towards the city wall, and gradually stepped up again: we were now again in most excellent soil, the best we had come across in Jerusalem; but there was still the chance of our meeting a break of shingle and being prevented reaching the Haram. Every effort was made to obviate any such accident; and Sergeant Birtles and Corporal McKenzie, putting in thirty frames in two days, arrived safely at the Haram Wall without encountering the dreaded shingle. What prevents progress in these galleries is not so much the

work at the head of the shaft, as the difficulty in making the men carry off the soil quick enough. A gallery was now driven along the Haram Wall to north; and at twenty-six feet the curious shaft leading to aqueduct was met with, described in Letter XLVIII.

The gallery along Haram Wall was continued to north beyond the *light-shaft* of this aqueduct; and the stones were found to continue bevelled and well cut for sixty-five feet, when they changed in character from being similar to those at the Jews' Wailing Place to those found near bottom of tower at north-east angle; the centres of the stones projecting from six to ten inches. These were examined for ten feet, and then the gallery was tamped up. It is to be observed that this wall was traced considerably beyond the point where the massive wall of H 9 should have come in, and therefore they appear not to be connected.

In the gallery to north a concrete floor was encountered, apparently ascending to north, at a distance of sixty-four feet. It was just here that the Haram Wall stones changed their character; and probably it may have been that the projecting faced stones were hidden beneath the concrete floor.

A shaft was sunk alongside the Haram Wall at the point where the gallery from No. 12 met the Haram Wall, 18ft. south of the north-east angle of Haram Area (as seen on surface). Level of bottom of gallery 2,363ft. 3in. Passed through black earth and stone about 12in. cube; at 17ft. came on stone chippings. Hitherto, in this shaft, the Haram Wall stones had the ordinary marginal draft; but at 21½ft. the first course of projecting faced stones was met with, the projection being 25in.

At 36ft. the rock was met with, having a very steep fall to south, and being cut in steps for the reception of the stones of the Haram Wall. Shaft tamped.

The gallery to south was continued until it reached the southern corner of the tower, which here only projects 2ft. (see Letter XLIV).; and here another shaft was sunk: level of bottom of gallery 2,363ft. Commenced 7th July, 1869. At first the soil was good, then some very large stones had to be broken through: at a depth 46ft. the soil became better to work in. The face of stone 14th course X (see section) was very faulty, and its irregularities were filled up with small stones and mortar, rendered on outside so as to look like stone (specimen of mortar kept). Along the top of Z course, which sets out 7½in., a small drain was built about 6in. by 5in. in the clear: it runs into a small cistern, about 3ft. square and 6ft. high, the sides plastered, and top covered with a rough flat stone: depth of drain from bottom of gallery 52ft. 6in. The cistern lay to north of shaft, its western side about 1ft. 6in. from Haram Wall; the drain, 1ft. 4in. wide, enters at north-east angle of tank, and the outlet, which is only about 6in. square, is at the south-west angle; there was about a foot of deposit at bottom.

At 58ft. we got among dry shingle, and at 62ft. 6in. came to the course,

on one stone of which red painted characters were found: the face of the stone was not dressed, but, in the working of it, a large piece had split off, leaving a smooth face, and on this the characters were painted. In one case the letter appeared to have been put on before the stone was laid, as the trickling from the paint was on the upper side.

Rock was found at 70ft. 9in. below bottom of gallery: it had a steep slope of two in one to south.

This shaft was now tamped up and the gallery driven on to south along the side of the Haram Wall for 75ft. past the corner of the tower, the soil being very good; all at once our old enemy, the shingle, again appeared and filled up the end of our gallery, so that it had to be tamped up for 12ft., as it is impossible to drive through this shingle with our means. Shaft now sunk (commenced 2nd December, 1869) at 63ft. south of corner of tower, passed this loose earth and large stones, some of them 4ft. long and very nicely dressed. 13th December got down to a depth of 28ft.

Wherever the wall of the Haram, south of the corner of the tower, has been seen as yet, the stones have been found with projecting faces, and it seems most probable that this description of wall extends in an unbroken line as far as the Golden Gate.

The Count de Vogüé visited the excavations at H. 10, and was shown the aqueduct; while he was down there a piece of magnesium wire was lighted at the top of the *light-shaft* so as to imitate daylight pouring in; the light after passing down the shaft strikes the aqueduct just where the passage opens in, so that any person coming down it would have been able to have seen where he was going to.

The passage has since been cleared out for 28ft.; it was filled with earth and large stones which rolled down with great force into the aqueduct; the passage is found to be a staircase leading up towards surface to north, at an angle of one in one; it appears to have been cut out of the solid after the wall was built. The roof is hollowed a little in centre and ascends by great steps of about 4ft. each.

13th December, 1869.

The Substruction at the South-East Angle.—I gave you an account of a visit to this on 11th Feb., 1869. A few days ago I went down again in company with Count de Vogüé to ascertain for certain whether the engaged columns, shown blue in my plan of same date, 1869, rest upon bases or not.

The result is important, neither the engaged column C or A have bases; C rests immediately upon the rock, which then forms the ramp leading up from the Triple Gate. A is let into the rock about 6 or 8in., the rock then being about 2ft. 6in. below the present surface.

Jerusalem, 13th December, 1869.

Himyaritic Stone from Arabia.—A Jew professes to have brought this stone from a place he calls Sheba, on the other side of Jeddah.

He said he had obtained it from a ruined rectangular building, and that it was let into the wall about 4ft. from the ground—the building he appeared to think had been a place of worship.

Dr. Chaplin was allowed to take a squeeze, and he kindly places it at the disposal of the Palestine Exploration Fund; a pencil trace from the squeeze was forwarded last mail.

The stone appears to be alabaster; the sculpture in bas-relief, very rudely done, appears to have reference to the ancient worship of nature. The stone is split in two.

The Jew says he was offered four hundred rupees for it by a gentleman at Aden; he has been offered five pounds for it and has refused it.

18th December, 1869.

The Great Rock-cut Aqueduct in the Kedron Valley.—A description of this was given at the public meeting held at Willis's Rooms, June 11, 1868: an extract from it is given below:—

"Rock-cut Aqueduct.—Down the valley of the Kedron, and south of Siloam, there is the Well of Job, or Joab, about which there are many curious traditions which connect it in many ways with the ancient Temple. It has been examined, but to my mind there is yet a mystery concealed there. It is a well 100ft. deep, without appearance of connection with any surface drains, and yet after heavy rains it fills up and overflows in a voluminous stream.

"South of this well, about five hundred yards, there is a place called by the Arabs, 'The Well of the Steps,' about which they had a tradition that there were steps leading up to the Well of Joab. I had the ground opened, and at 12ft. below the surface came upon a large stone which suddenly rolled away, revealing a staircase cut in the solid rock leading to a rock-cut chamber and aqueduct, running north and south. It was filled up with silt or fine clay. We cleared it out to the north for about 100ft., and found it to be a great aqueduct 6ft. high and from 3ft. 6in. to 4ft. broad. When the winter rains came on, a stream burst through the silt, and, completely filling the passage, found its way up the steps and rolled down the valley in an abundant stream, joining that from the Well of Joab. In April the stream abated, and in May we were able to commence again; and, working day and night, we may expect to reach the city in six months. We are working with English barrows in this aqueduct, much to the delight of the Arab workmen, who take a childish pleasure in using these new toys. We clean out at present about 15 cubic yards in 24 hours. Looking at this aqueduct from a sanitary point of view, we might suppose it built for carrying off the sewage

of the city, and, from a military point of view, for carrying secretly off any superabundant water to the nearest crevice in the rocks; possibly it may have been used for both purposes. Looking into the Bible history, we find in the Second Book of Chronicles that Hezekiah stopped the brook that ran through the midst of the land, saying, 'Why should the King of Assyria come and find much water?' Again, we find from the other account that the refuse from the burnt-offerings was carried down to the Kedron by a subterranean channel; and, as water would be wanted to run it down, it may be supposed that the aqueduct in question might have been used for some such purpose. At any rate, it is highly important that we should discover for what purpose; and we have the chance of its being a clue to the Altar of the Temple, and—which is of more practical value to the inhabitants of Jerusalem—to the hidden springs of Hezekiah, which, if found, might again supply the city with living water."

A further account is given in Letter XXV., 1st January, 1869. Since that time the work has not been resumed until within the last few days, when I recommenced in order to obtain a correct idea of the probable expenditure that would be incurred in continuing the work.

It took a few days to get quit of the mud which lay in the passage; for, all through the summer there has been a little water trickling into the tunnel: on going on to north we had not cleared away 3ft. before a large grotto was discovered, out of which the aqueduct opened.

Apparently this grotto was originally natural, but afterwards cut out so as to form a receiving tank. It is 35ft. from east to west, and 20ft. from north to south, nearly oval on plan; it is about 45ft. in height, the roof being formed by the sides gradually approaching each other. At the highest point there appears to be a shaft upwards, about 2ft. square, covered by a white stone. The bottom of the passage by which we entered is about 9 (or more) ft. above the bottom of the cistern, so that there would always be a depth of 9ft. of water retained in it. At the northern end are two aqueducts running into the cistern: the upper and eastern one has its bottom 12ft. above the bottom of the outlet aqueduct; below it (the upper), by 9ft. and 6ft. to the west, is the lower aqueduct which, after a few feet, runs in under the upper one; they both come from the same point (about 80ft. north-north-east of the cistern), where they are in one, forming a passage 15ft. high, and nearly 6ft. wide. This point is 90ft. due west of Elyub.

The way in which these two aqueducts run together is very curious: at the point where it is one passage, there is a little staircase cut in the rock going up about 9ft. on to a landing where the upper aqueduct begins; this is 3ft. 10in. wide, and 5ft. 9in. high, it is very well cut, the roof is curved a little, and it runs nearly straight to the cistern, falling about 2 (P) ft. in its length; about midway it is blocked up by a masonry wall, 3ft. thick, and composed of cut stones set in a hard black mortar, apparently mixed with oil. The lower aqueduct starts from the same level as the bottom of the high passage. It is only about 3½ft.

high (apparent), and the top is about 6ft. below the bottom of upper aqueduct; for some distance it runs immediately under the upper one, and then, with some winding, comes out to its west by 6ft.: just before it enters the cistern, it opens into a natural cleft in the rock, which appears to be part of the original cavern. This cleft is nearly perpendicular, and is about 4ft. wide, and over 15ft. high. Corporal M'Kenzie went up it 48ft. to north-west, it then gets too narrow to be followed up.

The rock throughout is a hard mezzeh, and the passages appear to have been cut out with the chisel. The surface of the rock appears to be not less than 70ft. above the aqueduct.

This tunnel, as we have now examined it, extends from near Bir Eyub, to a point 1800ft. down the Kedron Valley: it has been judiciously cut under one side (the west side) of the valley, so that though it is from 70 to 90ft. under the surface of the rock, yet the staircases being commenced to the east (nearer the bottom of the valley), have not to descend by more than 40 to 50ft.: in the 1,800ft. we have cleared out, 7 staircases have been exposed: they are about 3ft. wide, and descend at about an angle of 35°. The steps are about 1ft. in height, and the tread is about 15in.: in some cases the steps are much worn and broken. At the bottom of some of the staircases, the aqueduct is deepened a little so as to form a shallow pool.

In one place, between the third and fourth staircase, there is a branch tunnel leading across towards the east side of the valley in a south-east direction: this was only followed for 30ft.

It is apparent that this aqueduct was of considerable importance, for the labour in cutting it so far below the surface must have been enormous. That it was for water I think there can be no doubt, and probably for pure water.

The cistern we have just found is similar in its construction to those found under Robinson's Arch, and the aqueduct altogether has the same appearance as the rock-cut aqueduct found there; the staircases, too, may have originally been used for bringing up the chippings, but they appeared to be very much worn, as if they had been in constant use.

We have not as yet found there is any connection with Bir Eyub, and if we do find any, it will probably be a communication by which the water from the aqueduct flows into it, and cut at a later period; neither is there any appearance of its being connected with the Virgin's Fount Aqueduct, for they differ in height and width, the tunnel we have found being nearly twice as wide and very much higher; also the Virgin's Fount Aqueduct winds very much more than this one, and there are shafts instead of staircases.

It would be a most important point to establish the direction from whence this great aqueduct comes; at present we do not know whether it comes down the Kedron Valley, the Tyropeon, or by the valley from the Jaffa Gate.

It is currently reported in the city that a Jewish blacksmith descended

Bir Eyub a few years ago, when it was dry, and found a passage at bottom from whence a strong wind was blowing. However this may be, it is evident that the man has some curious tradition about the place, as he has been trying to buy the land over where we have lately found the grotto, and the fellahin of Siloam say they refused twelve napoleons for it. This man sent a messenger a short time ago to ask if we were going on with the clearing out of the great aqueduct, and to say that if so he intended to raise the money to continue our work.

21st December, 1869.

In continuing our work a staircase at angle of about 45° , and 90ft. up it, has been found. The top is walled up with masonry: near the top another staircase leads off towards Bir Eyub, branching into two. The rains have suddenly set in, and if Bir Eyub overflows, this work will have to be stopped for the present.

N.B. It has been stated that the bottom of the cistern or grotto is 9ft. below bottom of outflow aqueduct, but 9ft. is the depth to which we have sunk. The water in the cistern prevents our sinking deeper, and the jumper cannot be driven on account of the large stones met with.

21st December, 1869.

Weights.—A stone weight, which was found during the past few months at Robinson's Arch, has characters on it supposed to be Hebrew.

Mr. Ganneau thinks that on one side they refer to the weight, viz., five shekels.

The exact weight is $1,234\frac{1}{2}$ grains troy, which would give 247 grains to the shekel. I send a squeeze of the stone and also a sketch of the characters. It would be interesting to get these deciphered.*

You have now a great number of stone-weights from the excavations, and I have to suggest that they should be accurately weighed, their original weights estimated, and some notes made upon them.

The stone in question is of the kind classed A in the list sent home in January.

21st December, 1869.

The Gennath Gate (so-called).—An account of this is given in Letter XXXVII., 1st February, 1869.

The jambs of the gate do not rest on the rock, but on made earth mixed with pottery similar to what we found at lowest point south-east angle of Haram Area. The rock we found at a level of 2,449ft., the old

* Nabathean Inscription.—This squeeze was brought me by an Adwan. He says he took it from a stone at Um-el Russas, to the east of the Dead Sea.

roadway going under the gate being 2,474½ft., and the surface of ground at mouth of shaft 2,486ft.

No walls of any kind were found near the rock, and no signs of any wall older than the Gennath Gate within 13ft. to the east and 20ft. to the south; if the first wall of the city was built up from the rock and was not totally destroyed, it was not within the above-mentioned distance of this gate.

20th December, 1869.

B 6. Commenced this shaft 19th May, 1869, at the side of the street El Wad, close to the "Bath of the Sultan" (see Ordnance Survey Plan $\frac{1}{25000}$, 27): level at surface 2,418ft.

Passed through black soil mixed with large rough stones: came on rock at 17½ft.: it shelves down rapidly to west-south-west at about 45° by steps 2ft. 6in. high. Drove a gallery in to west for the purpose of discovering the lowest parts of the valley: found the soil very hard and mixed with large stones. At 5ft. 6in. broke into a passage or old sewer running north and south, apparently down the street El Wad, which runs from the Damascus Gate to the Mahkama. This passage is of rough stones: it is 4ft. 9in. high and 2ft. wide, and has a slope to south of about one in six; the bottom is the natural rock; the roof is formed of stones, about 14in. in breadth, laid across from wall to wall.

Continued gallery to west; rock still falling. At 17ft. broke into a masonry shaft (plastered), about 4ft. square, leading down towards the rock. On climbing up this shaft 7ft. drain was found opening into it from north to south; cleared the shaft out and descended: found the rock scarped to south and east of shaft, and found rock bottom at 15ft. below our gallery: the rock bottom is cut level: level of rock 2,378ft.

It is probable that this place was an old cistern, the scarps facing to the north and west being the sides. The soil passed through here was wet mud mixed with stones. Shaft now tamped up; and the first passage found was examined to south.

This passage runs down under the street El Wad. At first the soil was like silt or clay; but, after 50ft. or 60ft., it became like sand left by a running stream: it was quite filled up. After continuing the passage for 130ft. to south under the street El Wad, it was tamped up.

Three shafts leading down into this passage were passed; the first at 16ft. south of one shaft: it is circular, 2ft. in diameter, and is closed by a flat stone at 8ft. 3in. from top of passage: the second at 62ft. from entrance, is 1ft. 5in. square, and covered by flat stone at 5ft. 3in. from roof of passage: the third at 76ft., and connected a drain from the east with the main drain. It does not seem certain whether this passage had originally been for water or for a sewer. It does not appear to have been used for many years.

Although we did not find the natural course of this valley, yet I am

inclined to think that the passage we first found runs nearly along it, and the street El Wad defines it. The scarped rock we found may have been for other purposes, but I think it probably is inside of a cistern cut in the rock. It was a peculiar arrangement to have had a sewer running in from both north and south if this had not been a tank. The gallery to west was not continued on account of our having reached nearly to the west side of the street.

South-east Angle Haram Area.—The frames had become quite rotten in the galleries at this shaft. Many of them had to be left in; and, in tamping up the upper gallery, so many had given way, that it was necessary to fix a smaller set of frames inside the larger ones before the tamping up could be effected with safety. These galleries have already been described.

In tamping them up, a gallery was driven down to east, along the surface of the rock, so as to complete the section of the rock down to the Kedron Valley.

The rock is found to be nearly level in front of the east wall for 10ft.: it then rapidly slopes down the 24ft. in 30ft. As the section of rock thus found is nearly at the same angle, and in the line of the section coming up from the Kedron, it was not considered necessary to continue this gallery.

Jerusalem, 13th Dec., 1869.

Roofs of Houses at Jerusalem.—In the rock-cut aqueduct under Robinson's Arch, a stone roller was found, the object of which was not at first apparent.

On seeing the rollers for the flat roofs in the Lebanon, Corporal McKenzie suggested that our roller had been used for the same purpose, and on examination I found it to be similar in its shape and proportions, and have little doubt that it was formerly used in Jerusalem for rolling the flat roof of a house.

The houses of Jerusalem now, as is well known, have vaulted or ground roofs of masonry, and it would be a matter of considerable interest to ascertain when they first came into use.

In the Old Testament we find the roofs to have been generally flat, both in Jerusalem and elsewhere. Deut. xxii. 8; Josh ii. 6; Judg. xvi. 27; 1 Sam. ix. 25; 2 Sam. xi. 2; xvi. 22; xviii. 24; Jer. xix. 13; Zeph. i. 5.

In the New Testament the roofs are often spoken of as being flat, although we do not hear much about those at Jerusalem.

It is, however, to be observed that many of the vaulted roofs of the present day at Jerusalem are nearly flat, so that the mere fact of a roof having been flat, and used for walking on, is no proof that it was not vaulted and of masonry; but it is difficult to conceive why people

should go to the expense of building dismal dungeons with vaulted roofs, so long as there was still timber in the land: rather we should suppose that the present masonry roofs came in from necessity, when there was no wood obtainable. At what period that happened it is difficult to say; we know after the destruction of Jerusalem by Titus that the woods immediately surrounding the city had ceased to exist, but there might still have been plenty of timber at a greater distance, and that there were at one time great forests in Palestine cannot be doubted, for at the present day we obtain our fire-wood in this city from the roots of trees long since disappeared, dug up by the fellahin in the neighbourhood.

The stone roller we have found shows that at least one house in Jerusalem was roofed in the same style as houses at the present day are in the Lebanon and in those parts of Palestine where wood is obtainable, and this is more particularly interesting as the roof of Herod's Temple is said by Dr. Lightfoot (on the strength of the Talmud) to have been nearly flat and to have been composed of plaster formed of reeds, chalk, stones, &c., made so compact as to be like stone; if this be so, either the art of making concrete roofs permanently water tight has been lost to this country, or else the roof of the temple must have been rolled, or pointed and repaired periodically, and so the sharp points with which Josephus adorns the roof, for the purpose of pricking the feet of the passing birds, would have necessarily been of a movable nature, possibly like "crows' feet" (iron spikes used in warfare for throwing into fords, &c., in order to retard the approach of an enemy).

Another point of interest relating to vaulted roofs is the amount of *débris* that would result from their destruction.

The house I am at present sitting in (of two storeys) if destroyed and the ruins smoothed over the site would give a general height of *débris* of 14ft., while if it had been a house with a wooden roof covered with concrete, the height of *débris* would not have been more than 6ft.

In repeated destructions this difference would be very great. There is, however, one advantage that these vaulted houses have; they cannot be burned down, and would have to be regularly battered down before they could be destroyed, so that cities like Jerusalem might last through a siege of former days with little damage, while one like Beyrout would be burnt down, and this might possibly have been a reason in unsettled times for building the houses entirely of stone. Against this one advantage of the vaulted roofs stand a host of disadvantages, aggravated by the vile method of construction practised by the native architects of this city.

Instead of adopting the Spanish *patio* (which is a courtyard inside a house, and can be made of such a size as to be covered with a cloth in summer and with glass in winter, and so keep the house at even temperature), they construct a series of isolated rooms round a large courtyard, with narrow and steep stairs leading to the exposed gallery open-

ing into the rooms on the upper floor; the result is that in going from one room to another an umbrella is generally useful against the sun in summer, the rain and snow in winter, or a great-coat is wanted to keep off the wind. The vaults are damp, and require a fire—light a stove in one room and it becomes in a few minutes like an oven, while the others by the contrast are rendered to the senses still more damp and disagreeable.

The vaults appear to be permanently damp, and many of them acquire a nasty unhealthy smell after they have been shut up a short time; perhaps this may result from a common habit of ascertaining the faulty parts of the roof by letting the first rains fall on it, and then looking to see where it shows the damp inside.

December 22, 1869.

K. 1. Commenced 3rd July, 1869. A trench was dug in front of the core of an old wall appearing above the surface of ground just outside the city wall, north of Kalât al Jalud. Rock was found at 4ft., and between it and the core of the wall is a space of about 2ft., probably where the cut stone rested. The rock was examined for a distance of 20ft., but no appearance of any old foundations.

K. 2 commenced same day, in Greek garden outside city wall to north-west, a little north of Latin Patriarch's Palace, where a core of a wall crops up on surface; rock was found at 4ft., the core resting on it with a space in front where the cut stone had been; rock scarped in front; followed it down and found it bevelled at bottom at 12ft. below surface; no signs of any old foundations.

At the Sisters of Zion, in excavating to the east a prolongation of the scarped rock to the north-east has been found for about 30ft.

M. Gauman has discovered two Roman inscriptions in the city, one on the wall south side of church of the Holy Sepulchre, the other on the north city wall near the Bab es Zahire; we have assisted him in getting squeezes and casts of them, and he will probably publish them when they are ready.

I send you thirty-one traces of inscriptions found near Saida, which M. Draghello, the French vice-consul, asked me to copy and forward to the Society.

Certainty of a Valley running from near Jaffa Gate to Bab es Silsile.—During the past year many tanks have been examined in the city, and the level of surface of rock ascertained from them, so that we have now an approximate contour plan showing the surface of rock in the city.

In this work much time has been unavoidably expended, for at each tank there are petty difficulties, and in many cases even the silver key fails to unlock them if it is not used carefully.

When they are seen the greater part of them either lie on the rock or are else so plastered that the rock cannot be seen.

One result, however, is the certainty of a valley running down from the Jaffa Gate to the Bab es Silsile, apparently just as is shown on the Ordnance Survey plan, 1868.

Shaft at Golden Gate.—The galleries in this shaft have now been tamped up; the tank referred to in Letter XL. was examined; it is 5ft. 4in. long and 2ft. 2in. broad, plastered on inside, and has a flat stone for roof. It is about 5ft. high; apparently it was for holding water; a cylindrical tile was lying near it. Within a few feet of this we found the ring cut in the scarp rock, apparently for tying up cattle; similar rings are found in the substructions of the Haram Area, and in the cavern described Letter XXXVII., also in the substructions at Baalbec.

The Copper Candlestick found south of the Haram Area in Cavern (Letter XXXVII., 1st Feb., 1869).—I have seen three lamp-holders at the house of a gentleman at Beyrout, which appear to be almost exactly similar to the one we have found; on each of these a copper lamp fits on to the spike at top. Two of them are supposed to be early Christian, and one Greek, or Greco-Phœnician.

22nd November, 1869.

North-east Angle continued.—The gallery has been driven 40ft. to south of southern angle of the north-east tower, and a shaft sunk facing five courses of the wall.

In each course the faces of the stones are found to project from 6in. to 12in., so that it may be said that it is highly probable that the Haram Wall at this end is, from the present surface to the rock (over 110ft.), composed of stones with well-dressed marginal drafts, and with faces projecting considerably; while the tower forming part of the wall is composed of stones with projecting faces up to a certain height, and after that with the well-known type of bevelled stones.

The Valley of Hinnom.—In my remarks on the topography of Jerusalem, June 6, 1869, I suggested that the Valley of the Kedron and that of Hinnom, or "the child of Hinnom," are identical.

In support of this there is the present name to this valley to the east of the Haram Area, which existed at the time of Niz-ed-Deir, viz., Wady Gehinnom. And there is a verse in the book of the prophet Jeremiah xix. 11, "Go forth into the valley of the son of Hinnom, which is by the entry of the East Gate."

I can find nothing in support of its having been on the west side of Jerusalem, or identical with the Wady Rebebi.

TEMPERATURE (FAHRENHEIT) OF SPRINGS ON EAST SIDE OF JORDAN.

Date.	Name.	Temperature.	Remarks.	Height in feet above N.S.L. Mediterranean.
	Ain Suweimeh	{ 80° 0'	Summer of 1867 }	1080
		{ 82 0	Winter of 1868 }	
July 19, 1867 ...	{ South of Kaferein, near Wady Mashâideh : hot spring	95 5	nearly stagnant...	580
July 22, 1867 ...	'Ain Hesbân	68 4		2300
July 22, 1867 ...	'Ain Buwarideh	73 0		1720
July 23, 1867 ...	'Ayûn Mûsa	{ upper 73 0 lower 74 0		1690 1590
July 24, 1867 ...	'Ain Nâûr	64 5		2430
July 28, 1867 ...	'Ain Amman	64 0		2550
August 3, 1867 ...	'Ain Saîr	64 7		2230
August 5, 1867 ...	'Ain Safût	68 0		2700
August 5, 1867 ...	'Ain Hemar	63 0		3000
August 5, 1867 ...	Water in Wady az Zarka	73 5		770
August 7, 1867 ...	'Ain Jarash	67 0		1900
August 9, 1867 ...	'Ain Kelteh	67 5		2265
August 10, 1867...	'Ain Alan	67 5		1900
August 13, 1867...	'Ain Jadûr	67 5		2380
August 14, 1867...	'Ain Jaryah	81 0		400
February, 1868	Callirhoea	scalding.		300
ON WEST OF JORDAN AND DEAD SEA.				
July 18, 1867.....	'Ain as Sultân	71 5		780
August 14, 1867...	'Ain Hajlâ	75 0		1200
February 29, 1868	'Ain Sakut (Succoth) ...	{ 79 9 78 0	} two of them ...	
July 7, 1867	'Ain Jidy	82 5		640

It will be observed that to a certain extent the heat of these springs diminishes with the altitude; the temperature of air is not given because it could not have affected the water at the head of the spring, and such is the velocity with which the water issues that the temperature of the ground on surface is not likely materially to affect them; these figures probably give an approximate idea of the temperature of the rocks beneath the surface at the different altitudes.

PALESTINE EXPLORATION FUND.

PATRON.

HER MAJESTY THE QUEEN.

OFFICE-9, PALL MALL EAST, S.W., LONDON.

*Reports on Progress of Works at Jerusalem and elsewhere in the
Holy Land, by Lieutenant Warren, R.E.*

XLVII.

25th February, 1870.

Conclusion of the Excavations at the N.E. Angle of Haram Area.—Account of this work has been sent up to 13th December, 1869; we had then failed in driving a gallery to south along Haram Wall more than 75ft. beyond the tower, and had commenced a shaft from the gallery along the Haram Wall at 63ft. south of south-east angle of tower, and had sunk to a depth of 28ft.

The level of gallery at shaft mouth was 2,363ft. 3in. (see plan). For the first 17ft. 6in. passed through good black earth to 2,345ft. 6in., then passed through a heap of broken cut stone, the faces well cut with marginal drafts. It was difficult work getting through these, as they had to be broken up with the hammer, and the concussion brought stones down upon the workmen.

At 31ft. (2,332ft.) these large stones terminated, and to 36ft. (2,327ft.) alternate layers of earth and gravel or small stones were met with, each layer of earth about 6in. thick, and gravel about 9in.

We now came on loose shingle and stone clippings to a depth of 49ft. (2,313ft.). The shingle kept giving way, and running into the shaft till it was feared the large broken stones would be dislodged; the frames were battened together and earth thrown behind them. On stone U, at level 2,326ft., a mark was found, it is difficult to say whether it is natural or not; a squeeze of it did not show at all. A sketch has been made.

Passed through a hard black soil, sloping to east, till 56ft. (2,307ft.),

when a layer of red clay, mixed with small stones, three inches thick, was reached. At 53ft. (2,310ft.) a small drain was found running along the Haram Wall on top of stone Z, evidently the same drain as was met with in the shaft at south-east angle of tower: it was made of small stones and mortar; very hard, apparently had been mixed with oil. Just below this drain several pieces of tessera were found: they are similar to those found about Jerusalem, supposed to be Roman. Several specimens have been kept, they have a high polish.

We now continued below the layer of red clay (which dips to east), and finding the soil black and hard to 60ft. 6in. (2,302ft. 9in.), commenced gallery B to south at that level on 22nd December, 1869.

At 9ft. 6in. to south, that is at 72ft. 6in. to south of south-east angle of tower, commenced a shaft through black earth and small stones and broken pieces of pottery. At 65ft. came on small shingle to 67ft. (2,296ft.), and then stones and wet earth to 80ft. (2,283ft.), when rock was found sloping to north, which showed us that we had gone too far to south. The rock is cut away in steps for the stones of the wall.

A gallery was now commenced to north along the rock, to find the bottom of the valley; but, after six feet, a large stone crushed through the frames, and the gallery had to be tamped up. The rock was found to continue falling to north.

Gallery B was now driven to north for 18ft., when at 45ft. from south-east angle of tower a shaft was sunk through hard black soil, for 11ft. 6in. (2,292ft.), when shingle was met with. The rock was found at 2,289 sloping rapidly to south, and stepped down for the reception of the stones of the wall.

Commenced a gallery to south along rock, and at 16ft., 24th January; found the lowest point 85ft. below the gallery, or at a level of 2,278ft. 3in., or a little over 125ft. below the present surface. This is the greatest depth of *débris* we have yet found.

The ground here was very wet, and it was to all appearances the bottom of the valley; but to make sure, the gallery B was again driven to south, until at 104ft. 6in. from south-east angle of tower, shingle, sloping to south 1 in 5, was met with, and the gallery had to be stopped. At this point a shaft was sunk: the first 18in. through black soil, then a layer of blue clay without stone or grit in it, from 9in. to 12in. thick, and falling to east at one in twelve; under this was gravel, hard and difficult to get through, till at 16ft. rock was found (7th February, 1870) at a level of 2,289, sloping to north.

There was thus a rise from the apparent bottom of the valley of 11ft. in 46ft. horizontal.

There is still, however, the possibility of the bottom of the valley being farther to south, as the rock here appears to lie in benches, with every here and there a drop. As it is, the bottom of the valley, as found by us, is over 165ft. below the Sakhra.

In this gallery at H 10 we have excavated more than 600ft. run of shaft and gallery.

Elevation and sections of the point where the wall has been exposed are given, from which it will be seen that the faces of the stones project in most cases upwards of a foot beyond the marginal drafts, and this is to be noted particularly in comparing this wall with that lately exposed on east side near south-east angle.

On the stone *a* (below Z) was a surface of plaster.

January 20th, 1870.

A sarcophagus* was presented to the Palestine Exploration Fund on January 19th, 1870, by Mr. Hay, acting consul for the United States, and Captain Walker: they found it near the Convent of the Cross, in a rock-cut tomb.

This tomb is situated on the east side of the valley running up from the convent to the third tower on the Jaffa road; it is cut out of a soft rock like the Malaki.

The entrance is 1ft. 9in. wide, and opens into a chamber 8ft. 4in. square, and 3ft. 10in. high; on the south side are three loculi 7ft. 6in. long, 1ft. 4in. wide, and 2ft. 10in. high; on the east side are two loculi (see plan) of about the same dimensions. The roof is flat; the sarcophagus is only 2ft. 6·9in. long, 1ft. 0·4in. broad, and 1ft. 3·5in. high, and appears to be less ancient than the tomb.

Nothing else was found inside but a lamp of earthenware.

The ground belongs to the Lifta men, and the tomb appears to have been opened for some years; but the sarcophagus was not removed, as they thought it to be Moslem. It was amusing to find that the fellâh Sergeant Birtles took with him to remove it was the owner of it and the soil, and had often wished to make a little money out of his property. The sarcophagus is of soft stone, similar in general appearance to those found in great numbers about Jerusalem, but more skilfully cut than any I have seen. A squeeze has been taken of it.

It is noticeable that these sarcophagi are seldom found close to Jerusalem, but generally at a distance of about a mile. We have found them on the east side of Olivet, north of Russian Building, near Mar Elias, and now at the Convent of the Cross. They have generally been ascribed to the third or fourth century of our era. M. de Saulcy found one very similar to east of Dead Sea, at Kerak, I think.

The great Rock-cut Aqueduct south of Bir Eyub.—Account of this was given up to 21st December, 1869, when some rock-cut staircases were found 86ft. north of the cistern or grotto.

A shaft was now sunk at 75ft. north of the pool at Bir Eyub, and at a depth of 22ft. came on head of staircase. The soil sunk through was black earth and stones, mixed with a great quantity of red potsherds. The staircase was found to be closed at top by a masonry

* This sarcophagus has been received, and is now in the office of the Fund.

wall, and on breaking through this, the steps, after going 6ft. to west, branch off north and south. That to the north has again a branch staircase to east.

The northern staircase has sixty-seven steps. It descends 39ft. vertical, in 56ft. horizontal, and ends abruptly, having never been finished. At 16ft. 9in. down this staircase the branch to east commences, and falls (with twenty-two steps) 19ft. vertical in 27ft. horizontal; it then turns to north, and falls 5ft. 10in. in 10ft. 6in., and ends abruptly.

The staircase to south (with fifty-four steps) falls 41ft. 5in. in 72ft., and ends in the aqueduct, where the upper and lower join together, at about 86ft. north of the grotto. These staircases were only partially filled up with mud and broken jars and pottery.

There only now remained the continuation of lower aqueduct to north to examine. This was continued for 148ft., where it was also found to end abruptly, rock on all sides. It is generally about 3ft. 7in. wide and 6ft. high. It appears, then, that this great work has never been completed. It is to be presumed that the great volume of water which now issues from the aqueduct in the spring, enters through the rifts in the rocky sides of the grotto. The reasons for the wall stopping up the upper aqueduct having been built are not apparent. This aqueduct, leading into the grotto, is 86ft. long; that is 44ft. from grotto to first wall, 4ft. thickness of wall, 32ft. to second wall, 3ft. thickness of wall, and 3ft. to small steps.

In the first wall at bottom a hole or duct was left 6 $\frac{1}{2}$ in. by 4in., and on the northern side a stone plug to fit and 12in. long was found in it.

THE
PALESTINE EXPLORATION FUND.

PATRON.

HER MAJESTY THE QUEEN.

OFFICE—9, PALL MALL EAST, S.W., LONDON.

The following notes of a journey up the Jordan made by Lieut. Warren in February, 1868, in company with Dr. Chaplin, are printed by the Committee, as they contain matter likely to interest many of the Subscribers to the Fund.

The intention of the party to proceed to Kerak was frustrated by the illness and subsequent death of one of the number at Callirrhoe.

By Lieut. CHARLES WARREN, R.E., in charge of the
Explorations of the Fund.

WHILST making preparations for the excavations at the mounds of 'Ain es-Sultan, it was arranged that an excursion should be made to the mound at Jisr Damieh, and from thence an attempt to reach Kerak.

Sheikh Goblan was called to our assistance: he commenced taking a high-handed view of affairs; but he was soon told that his palmy days were over, and that only out of friendship we would go with him, provided that he would undertake to bring us to Kerak; that we would make no agreement with him, but should give him what we thought fit at the end of the tour. This he was obliged to accede to, knowing that if he refused we could have obtained an escort of soldiers, as the Adwans, owing to the energy of the Muchir of Damascus, now acknowledge the authority of the Porte to a greater extent than they have hitherto done. My plan in travelling through the country was to take one mounted soldier (which Nuzzif Pacha obligingly offered) and then to go from tribe to tribe getting escorts as we thought fit. Goblan could not quite see the advantage of our taking the soldier, and wished to bring a troop of Bedouins, but we settled that he alone was to take us to Kerak, and that

if he chose to bring followers, we would neither feed nor pay them : and he was given to understand that fifteen pounds was the utmost we should give for his escort to Kerak.

The weather at Jerusalem and throughout the country had been very severe, and we heard that the communication (by boat) across the Jordan had been broken, but Goblan assured us that such was not the case, and insisted that he had crossed by the boat on the previous day. We accordingly made our preparations, and moved down to 'Ain es-Sultan on 24th February, 1868. This place is supposed to be the site of the ancient Jericho and of Elisha's Fountain (2 Kings 11. 19); it is about six hundred feet below the Mediterranean, and seven hundred feet above the Dead Sea. Here we remained two days starting the excavations. The weather was very cold at this time, the wind from the north seemed fresh from the snows of Lebanon, and at night the thermometer fell to the freezing point; at mid-day, however, when the wind dropped, the heat was felt.

On 26th February, we started for the ford at Damieh 23 miles distant, on the direct road from Nablûs to es-Salt. The weather was chilly and we wore our overcoats ; but the country was green everywhere, and flowers of every hue lay in our path. As we came near to Kurn Surtabeh we found the plain covered with herds of sheep and goats, brought down from the hills about Nablus, the shepherds being picketed round them on the look-out for Bedouins. Passing Kurn Surtabeh and over Wady Ferrah, we arrived at dusk at the ford of Damieh, and camped half-way up the bank separating the upper and lower plains of the Jordan, where we found a small space which was not quite covered with shrubs. We had a fine view of the Jordan from this spot : the country one mass of green, and down below us the lower Jordan plain—a great flat, covered with an early crop of corn, with here and there branches of the overflowing Jordan meandering through it. We thought little of these floods, and discussed our crossing in the morning.

At daybreak, 27th, we hurried down to the water, and to our dismay found that the rope had been broken by the wood brought down by the floods, and the ferry boat itself lay stuck in the mud some yards from its proper place. This ferry had been established about six months. The boat is in shape like a decked launch ; it is about twenty feet long, and eight feet wide, and is eminently unfitted for the work required of it ; a thick rope is fastened across the river, and to this are attached the bows of the boat, and it is hauled across by lugging in the rope. This boat was made on the Jordan, but it has a keel instead of a flat bottom, and drawing nearly as many feet of water as it has beam, it is most unsafe for passing over animals ; also there is a bulwark of about two feet in height round the deck, and no means of letting it down, and as there are no steps up or down to the boat, horses have generally to be hauled in by the legs if they will not jump ; when the Jordan is at its full, the bulwarks of the boat are four feet above the bank, and when the Jordan is low there is a drop of six feet or more into the boat.

This boat, however, bad as it was, was our only means of crossing the Jordan, for during the floods it was quite unsafe to attempt to swim. The water was running like a mill race, quite sixty yards in width.

Goblan commenced his blarney with us, and we spent the whole day in making plans for getting the rope stretched across. Each hour they said the flood would go down, and each hour it appeared to rise. We were told that men were coming down from Nablûs to put things to rights, but we could hear nothing for certain ; and as it was impossible to cross without the boat, we had the alternative either to go back or to try and go along the western bank of the Jordan to the north. This latter was an unknown route : we could not hear that it had ever been traversed by Europeans. We sent for the Sheikh of the Mesa'ad Arabs, who camp on Wady Ferrah, and entered into an agreement with him to escort us round by Jisr Mejamia for five pounds sterling. He arranged to meet us next morning and take us on. Unfortunately Goblan got leave to go and sup with the sheikh that evening, and a little plot against us was the result. During the night we had a storm of wind and rain, so violent that for a portion of the night we were outside our tents keeping them up ; in the middle of it all our horses were driven past us, but we thought it was only to get shelter under the hill side.

In the morning (28th) we got all ready to start at sunrise, but something was evidently wrong, and soon the muleteer came up to say that four horses and a mule were absent. After searching for them for an hour we came to the conclusion that Goblan had stolen them in order to prevent our leaving the ford. We told him so, upon which he struck his breast and talked about his honour being wounded. Goblan is not a pleasant-looking gentleman : he has a great sabre wound down one cheek and on one wrist, but these he keeps concealed: he never shows more than his nose and two eyes ; one of the latter is a revolving light ; he is very dark, and his eyes are bloodshot. He is quiet and gentle so long as he is not roused.

On the east banks of the Jordan were the tents of Mustafa Aga, the Government nominee over the lower Ghor, but we had no means of telling him of our mishap. We therefore wrote a letter to the Governor of Nablus, telling him that Goblan had stolen our horses and asking for assistance. We had great difficulty in sending this letter, as the people insisted that the ford was not under the Governor of Nablûs, and would not see that Mustafa Aga, being cut off from us, was as far as if he had been sixty miles away. Eventually we got the letter off, and then insisted that all our luggage should be mounted on the remaining animals. The head muleteer was in a frenzy about it, but nothing could induce us to believe that he was not aware of his beasts having been driven away ; and our only consolation was that he had to give up his mule for the baggage and walk himself. We were so overloaded that the muleteers could not find room to stow everything away, and one of them had an iron fire-place mounted on his back for the first hour. We started off to meet our escort, the Sheikh of the Mesa'ad ; he looked rather sheepish on coming up to us, and said he supposed we understood that he wanted five pounds a day. Of course we did not understand anything of the sort, and told him we would go without him. Dr. Chaplin told Goblan he had acted infamously towards us, but he only struck his breast in reply, and affected to be more aggrieved than any of us. We then started off north by

ourselves, trusting to fortune. Goblan rode after us and tried to dissuade us from it, but to no purpose; and for a long time after, we saw him motionless, gazing after us and meditating over his next move, for we told him we should hold him responsible for any mishap that might befall us.

We left Makrûd at 11 a.m., all our baggage being packed on six mules and three donkeys, which before had required nine mules, but the animals were very much over-weighted and delayed us a good deal. We had to keep round them in skirmishing order for fear of an attack from the Mesa'ad Arabs. At noon the Jordan valley gradually began to close in, the west upper plain being about a mile and a quarter wide; the plain began to be much cut up with wadies and we were very anxious to keep our baggage together. We soon came upon a Bedouin encampment, and the dragoman was sent in with the soldier to say that the sheikh must come and escort us during the day, as we were in haste. He came out in a flurry and travelled with us the whole day. Great was his astonishment, on leaving, to receive a present; the idea of travellers coming by such a road never entered his head, and he thought we were a Government party travelling by a short cut to Tiberias.

On our right we saw Jebel Ajlûn covered with snow. After passing several wadies, of which the names are shown on the sketch, we found at 3 p.m. that the whole Jordan valley just here was less than two miles wide. Our path now led over the hills, but we could see that farther north the hills come close down to the Jordan banks, the river passing through a gorge; we were ascending for some hours and quite losing sight of the Jordan, the country being much broken up with ravines.

At 5 p.m. we found ourselves overlooking the Jordan again, and about a mile and a half from it; to our north, a great plain extending for several miles—the plain of Beisan; we could see Beisan in the distance; and scattered over the plain (the upper Jordan plain) were innumerable mounds and ruins. We descended, crossing Wady Malih after its junction with W. Shûk, the water flowing in a copious stream.

After traversing the plain to the N.W. we arrived at Tel Humah at 6.30 p.m., where was a Bedouin camp clustered round a spring of delicious water. Just before we arrived at the Tel we heard firing behind us, and on going back to see what was the matter, we found our missing beasts coming up. Goblan having failed to keep us, evidently thought it better to send them on, and the muleteers were firing away for joy at not having another day's walking before them.

The Bedouins at this camp received us kindly, and wanted us to feed with them. We declined, although it was some hours before our dinner could be got ready; in the meantime we made what examination of Tel Humah we were able to do in the dark, and concluded that it was an artificial ruin. Late in the evening the sheikh of the camp came to pay us a visit; he seemed to fear that if the rains continued, the corn crop would be damaged by a worm eating at the roots.

At sunrise, on 29th Feb., we were off to east to visit 'Ain Sukût; a beautiful morning, the clouds hanging over the Jordan, thermometer at 5 a.m., 36° Fah. We visited the hot spring at 'Ain Sukût, air, 52°; water, 79° 9'; left at 8.30 a.m., passed 'Ain Helweh to west of Sukût;

and at 9.25 a.m. another hot spring a mile and a half from Tel Humah, water 78°.

9.35 a.m. Passed the site of an old city, near Tel Sheikh Saleh ; here we bade farewell to our yesterday's escort, giving him four dollars for his aid ; he left us delighted. We kept on towards Beisan, now and then going out of the way a short distance to examine Tels and springs. This plain is wonderfully well supplied with water ; the Tels we passed are shown on the sketch. Arrived at Beisan at noon ; much disappointed in the ruins, but the abundance of water made the country delightful ; we examined the bevelled stones in the khan on the northern side of the stream, and declined visiting some tombs on account of our being separated from our baggage. Leaving Beisan at 1.45 p.m., we passed over the hills into the plain, which again is narrow. At 3.5. p.m. passed Wady Shûhabeh, a rivulet with water ; and cantering on arrived at our camp to west of Jisr Mejamia at 4 p.m. Here was another Bedouin encampment, the people of which appeared very curious about us. We started off at once to visit Kaukab, but our guide would not follow us, and at sunset we found ourselves alone close to the ruined castle ; the view is magnificent, reaching for miles in every direction ; Kaukab will be an important point when the trigonometrical survey of Palestine is commenced. No observations were taken on this journey, except with the prismatic compass ; my object being to select points for a survey at some future period.

The following day (Sunday), 1st March, we remained in camp and read the morning service.

We paid the sheikh for Saturday's work four dollars. On Monday, 3rd March, we started off for the bridge Mejamia ; something was wrong again, and our mules were delayed, but at 8 a.m. we were all assembled at the bridge ; our new sheikh, however, refused to cross, saying he had a quarrel with the tribe on the other side, and left us under the protection of a man with a stick ; the bridge Mejamia has one large pointed arch and three small ones ; it is in good preservation. After passing the bridge our guide seemed to lose all confidence in his stick, and eventually disappeared, and we were again alone.

After passing some ruins we came upon a very large Bedouin camp ; we sent in the dragoman and the soldier to ask for a guide, and soon there issued out five strapping big Bedouins, armed with spears, commanded by a noble looking sheikh, armed with a handsome sabre, silver mounted. This sheikh said he was an emir, and called himself a very great man. The Bedouins of these parts are all mounted. This sheikh is the finest specimen of a Bedouin I have yet seen ; poor fellow, he had a gunshot wound in his leg, which had been open for years, and he was very anxious to get advice about it, but quite refused to come up to Jerusalem to have it looked at. We explained to him that we did not wish him to attend us, that we only wanted one man with a spear, but he insisted on coming. The country we passed through was delightful, but the wind had changed to the south, and we felt it very hot. We lunched at Fahil, the ancient Pella, where there is much water and cultivated lands.

About 4 p.m. our party began to get uneasy, and soon we saw rushing

down upon us a troop of Bedouins, armed all with spears. We had nothing to do but try and look as if we thought it great fun. They came dashing up, with their spears lifted on high until a few yards from us, and then one rode out and gave us a salam; it proved to be Sheikh Arabeih, the government nominee of Jerash, who had come down with fifteen men to look after us, sent by Mustafa Aga. After looking askance at each other for some minutes our two parties coalesced and became friendly. This Sheikh Arabeih is uncle or cousin to Sheikh Dieb, the former independent head of the Adwans. Arabeih turned against his family and tribe, and led the Turkish army during the summer of 1867 into all their strongholds, and pointed out the granaries. For his treachery he was rewarded with the government command of the hill country about es-Salt; but the Bedouins would have nothing to say to him, and still call Dieb's son and Goblan their heads.

At sunset we had got so far down as Tel Salahat, where we camped; here are trees and cultivation, and it would have been very pleasant but for the quantities of scorpions under every stone. We gave our parties a couple of sheep for their food, and they seemed well satisfied. In the morning I gave the great sheikh five dollars, all in silver. He said nothing, but complained to Dr. Chaplin that he was a very great man, and had been insulted, that he expected several pieces of gold; that he had only been half a day with De Saulcy, who had given him two rifles and thirty napoleons, and so on. We believed a little of what he said; but it was suggested that such a great man could not think of taking anything, and that the silver was for his followers; this silenced him if it did not convince. We took great precautions at this time to cover the rear of our baggage train, it would have been so very easy for one mule to have been *lost*. We found now that we were in the narrowest part of the Jordan valley, the hills reaching down to the river, and the plains together not being more than half a mile in width. Down towards Tel es-Sa'idiyeh we saw the ground cultivated to the water's edge. At 10 a.m. we passed over the bridge and ruin of Ferjaris. The bridge was apparently an aqueduct. There are four pointed arches. At 10.15 a.m. the Jordau valley opened out into the Zerka plain, and we saw before us the wely of Abu Obeideh and the many Tels surrounding it.

We now saw the great sheikh and his men dodging about in the under-wood, and we expected an attempt to secure some of our baggage. We left the soldier always in the rear to look after it. Sheikh Arabeih now tried to persuade us to go up to Jerash with him; failing in that, he said we must go and stop with Mustafa Aga, who was making ready for us; finding us unwilling to do that, he insisted that we could not reach Damieh that night. And soon our mules began to wander about wildly, evidently getting sly kicks from the Bedouins. We pushed on through the cultivated and irrigated land between the Rajib and Zerka; at noon we reached the point where the Zerka emerges from the hills. We had to pass through a hole in the rock, and then crossed the Zerka, which was here a foaming torrent. As we pushed on, Arabeih still insisted we could not get to Damieh that night, and then we saw that he had some object in getting us to wait. About 1 a.m. we arrived at the open plain, south

of the Zerka, and were now told that Mustafa Aga was coming to meet us. Looking out we saw in the distance two troops of Bedouins coming towards us from different quarters full speed; they seemed to consist of about twenty men each. Full gallop they came; one had a little the advantage of the other and reached us first. Suddenly reining in their horses, as they reached us, the chief rode out, a dark-looking cunning little man with a beautiful blue abba embroidered with silver lace, his horse's appointments being covered with small silver coins. It was Mustafa Aga. We had hardly time to salute him when the other party came charging up; our old friend Goblan and company. It was a curious sight to see the two meet, the government head and the outlaw chief. Goblan for once looked quite dignified and haughty when he distantly returned Aga's salutation; the parties were equal, and it would not have been etiquette to have quarrelled before us. So the respective suites kept together, while the chiefs came out and tried each in his way to get our ear.

Then arose a difficulty: each of these chiefs wanted to take us down the Ghor. We soon disposed of Arabeh, and it remained between the Aga and Goblan. No doubt it was the Aga's duty to take us, and yet he did not know the road and dared not venture beyond his post; in fact, we suspected that he would have been glad to escort us as an excuse for visiting the country; on the other hand, Goblan was only a nominal sheikh, and his only hold on his tribe was their ancient fear. After weighing the matter over, we concluded that the Aga would be more expensive than Goblan, that we should be sure to lose our road and our baggage with him, and that Goblan would be preferable. Accordingly we thanked Mustafa Aga for his courtesy, and told him that we had our own government soldiers, and did not require more, and that Goblan would probably go with us, and then we parted. We thought that the lesson Goblan had learnt about stealing the beasts would keep him from such deeds next time he was tempted. And after all Goblan, in spite of his stealing our mules, and other faults, is as good a specimen of an old rascal as can be met with in these degenerate days of Bedouins.

We arrived at Damieh at dusk, and camped close to the ferry boat, which was now plying across whenever wanted, the rope having been repaired. We now raised the question whether we should return to Jerusalem or not, and it was decided that we should go on.

The ford at Damieh is just below the junction of the Zerka and Jordan. The Zerka, soon after it emerges from the hills, flows through the lower plain of the Jordan, which is sometimes on either side of it half a mile wide.

Next day (4th March) up early and rode along the east bank of the Jordan until we reached Nimrin. Stopped here three hours and then crossing the old Roman road from Amman to Jerusalem, arrived at 'Ain Suwaimah (a distance of thirty miles) at sunset; here we encamped; on our way we had met with several impediments; Goblan wishing us to stop at his camp near Nimrin. We however paid his camp a visit, and made the acquaintance of his wife and family. 'Ain Suwaimah is close to the Dead Sea. We found it very hot here and were glad to start early next morning for Zerka-Main.

5th March.—Our path first led along the north-east end of the Dead Sea over blocks of sandstone and trap. We left at 8.5 a.m.; 9 a.m. passed Wady Ghuweir (stream of water); and at 9.25 arrived at Wady Men-shallah, which is the name for a mass of wadies. Here we commenced our ascent. The path lay in the eyes of the Bedouins, and the steepness was very great. In one hour we had arrived at 1,450 feet above the level of the Dead Sea, and at 11 a.m. got into the large Wady Men-shallah. We now ascended more gently, and eventually arrived at a broken plain, with hills rising in front of us to the east, on the top of which is the ruin of Mineyeh. On our right was a cleft in the rock two hundred feet deep, and the bottom crowded with palm trees. The scenery was wild in the extreme. At noon we arrived at Wady Hamara, where there is a little water springing from the rocks. Here we encamped. We were now again in an unknown country which had not been visited for ages.

In the afternoon we started for the Wady Zerka Main, which we understood had not been visited since Irby and Mangles were there in 1817. Our path lay over ravines and rocks for an hour, when we suddenly came upon the Zerka Main. The view was startling. A steep ravine, more than a thousand feet deep, the sides of the most varied hues—black, blue, scarlet, and yellow, every coloured sandstones; and at the bottom a stream winding among the palms and green shrubs; outside the ravine everything blue, and cold, and desolate. It took us only a short time to descend. At about one hundred feet from the bottom of the wady we came upon the hot spring, scalding water issuing from a cleft in the rock, and then disappearing again to come out at the bottom of the wady, and mingle with a cold spring which issues from a point a few yards more to the east. Going down the wady about two hundred yards from the junction of the hot and cold springs, the water was still too hot for the body to bear—167° Fahrenheit at the point where it issues from the ground; it must be near boiling—but our thermometers would not read so high. We looked about for the wonderful plant with pods spoken of by Josephus, but we could only find the young plants, the pods being about six inches to one foot long. The plant was, however, in flower, and the colour would fully justify his description of their looking like flames.*

We found a good deal of yellow stuff about the water, looking like sulphur, but none has been traced in it. The water tasted pure enough.

These are the hot springs of Callirrhoë where Herod is supposed to have taken baths.

It took us one hour and twenty minutes to ascend. The Bedouins in great wonder at our going down to such a place merely to come up again.

On Friday it was very wet—rain day and night. Here a lady, who formed one of our party, became seriously ill.

* * * * *

On 16th March all was over, and we commenced our melancholy journey home. Fate seemed to put every impediment in our way. The

* (This summer the Rev. Mr. Klein has been down to this wady, and has brought back some of the seeds.)

Jordan had fallen several feet, and we had to cut a passage down to the boat and fill up the gap between the bank and the boat with our tents and baggage before the mules would cross. After several other mishaps, we arrived in Jerusalem at sunrise on 18th March, and, proceeding to the cemetery, found the Protestants of Jerusalem had turned out to pay their last respects to her who had departed.

The Prussian sister, who had ridden 180 miles in four days, came in the day after.

NAMES MET WITH ON A TOUR FROM JISR DAMIEH TO JISR MEJAMIA AND BACK.

(Obtained independently by Dr. Chaplin and Lieut. Warren.)

El Makrûd.	Kaukab.
Shukh, a cave.	Jisr Mejamia.
Wady Abu Sedra.	Bûghamo (ruins).
„ Ghor.	er Hîm (do.)
„ Abu Hashish.	Wady Xandeh.
„ Belgôd.	Wady Taiyebah.
„ Abu Jerad.	Tel Arbain.
„ Sa'idiyeh.	Arak (ruins).
„ Swaida.	Merkâa (do.)
„ Shîyeb.	Wady Hummeh.
„ El em Dâhîdâ.	Fahîl.
„ Um Kharuby.	Wady Sherabîn.
„ Malîh.	„ Yabîs.
„ Shukh.	„ Kalîm.
Ain Sukût.	Tel es Salahat.
„ Helweh.	Wady Kherbet.
Tel Hummeh.	Tel Hândakût.
„ Sheikh Mahmût.	Wady Garah. (?)
„ Sheikh Saleh.	Wady and bridge Ferjaria.
„ Awad.	Amâta (village).
„ Merkâa.	Wady Rajib.
„ Zahara.	Tel Fokar.
„ Esmad.	Tel Abu Obeideh.
„ Dhudera.	Unkaronka (pass in rock).
„ es Sarîm.	Tel Deir Ula. (? Allah)
Beisan.	Roséfé.
Wady Shahabeh.	

N.B.—It is remarkable that the names of many of the Tels differ totally from those given to Dr. Robinson.

19th October, 1868.

NOTES ON JORDAN VALLEY.

The valley of the Jordan has been described completely in many works, but in order that it may be understood what is meant in the following notes by the "upper and lower plains," it may be desirable to offer a few remarks on the subject. From the Sea of Tiberias to the Dead Sea there is one deep depression, the hills from east and west nearly meeting in many places, but never joining. This depression is filled up to a certain level with an alluvial deposit, forming a vast plain called the Jordan valley or Ghôr (pronounced Rôr). This is the "upper plain." It varies in width, from one mile to twelve, and has a slope from Tiberias to the Dead Sea of about 600 feet in the 60 miles.

This plain, however, has not alone this southerly slope; it has also a slope from its lateral extremities to the line of its centre of about 5 degs., forming a very open V in section, at the lowest part of which runs the Jordan. The Jordan has cut out for itself a still lower plain—lower than the preceding by some 50 to 100 feet, and from a quarter to one mile wide. This is the "lower plain." Being itself only sixty yards wide, the river does not occupy the whole of this lower plain, but twists about in it, winding from side to side, and each day increasing the plain in width, by undermining the banks on either side.

The lower plain is inundated whenever there is a more than ordinary fall of rain in the hill country in the spring time.

The banks between the upper and lower plain are not regular; they are fretted away by the fervid sun, the strong winds and heavy rains, and are very ragged; in parts they are, during the rainy season, covered with the most beautiful verdure; in the lower portion of the Jordan valley the banks where the streams join the Jordan (Wadies Enwaimeh, Fasail, Kelt and others) are broken up for miles, presenting a most curious appearance, forming, not a system of hills, but a system of valleys, the original plain being left standing every here and there, isolated and forlorn. At first sight it would appear impossible that such small streams could perform such a work; but it is the sun, wind, and rain completing what these small streams have begun; and now there are to be seen these little streams, at best not 3 ft. deep and 6 feet wide, winding through lofty banks, nearly 100 ft. high, whose irregularities exist perhaps a mile from the stream itself.

We have thus two plains; the "upper" extending from the foot of the hills on the east to the foot of the hills on the west, and in it the "lower" plain, through which the Jordan and its tributary streams wind.

The upper plain is quite out of reach of any overflow of the Jordan, but it is in many places richly cultivated by irrigation from the many streams flowing through the land, the water being turned on to the land as soon as it reaches the foot of the hills. Some notes on the cultivation are appended.

The Jordan valley may be divided in its length into six districts.

1. From Tiberias to Jisr Mejamia, where the plain is open.
2. From thence to Beisan, where the plain is about three miles wide for about eight miles in length.
3. Thence for eight miles the plain is a broad

valley, eight or nine miles wide. 4. Thence for six miles the plain is nearly lost, the Jordan passing through a gorge hardly a mile wide. 5. Again it opens out for ten miles down to opposite Kurn Surtabeh, where it is about seven miles wide, and from thence to the Dead Sea it is about twelve miles wide.

In the Jordan valley are many mounds or Tels; hitherto little attention has been drawn to them, and, indeed, Dr. Robinson appears to regard them as natural mounds; excavation has since proved them to be artificial, and they now offer interesting food for speculation. They are generally oval on plan, about 100 ft. to 150 ft. in length, and 50 to 100 ft. in breadth, and about 50 ft. high. They are usually isolated, and are for the most part at the foot of mountain passes or wadies, as if to guard them. We have no proof of any guard towers having been erected on them, but they rather appear to be themselves the remains of towers of some kind. When we consider how this valley was once the high road of armies, we see the necessity for the hill tribes having had some such keys to secure their passes.

The Tels, such as are known, are enumerated in the following list. It is curious that they correspond in shape and situation to Arak Menhijeh, and several others met with on the border land between Philistia and the southern deserts between Hebron and Gaza.

JORDAN VALLEY—TELS.

- | | |
|--|---------------------|
| 2 near Mouth of Wady Kelt. | |
| 7 near 'Ain es-Sultan. | |
| 1 Wady Aujeh. | |
| 1 Wady Fasail. | |
| 1 Daniieh Ford. | |
| 1 Tel Hummeh. | } Valley of Beisan. |
| 1 Tel Sukut. | |
| 1 Sheikh Saleh. | |
| 7 others. | |
| 1 W. Maklub. | |
| 1 W. Kalin. | |
| (Tel es Salahat.) | |
| 1 W. Garceh (?) | |
| (Tel Handakuk.) | |
| 1 Wady Farjaris. | |
| (Tel es Sa'idiyeh.) | |
| 4 at mouths of Wadies Rajib and Zerka. | |
| 1 W. Nimrin. | |
| 1 W. Kefrein. | |
| 1 W. Hesban. | |
| 1 N. E. end of Dead Sea. | |

—
34 in all.

Most of these tels guard their respective wadies and passes; and this is a subject to which particular attention should be drawn.

21st October, 1868.

CULTIVATION OF THE GHOR.

The plains of the Jordan are only sterile at the southern end for a few miles north of the Dead Sea, and that only on the western side. North of the Aujeh, that is, about ten miles north of the Dead Sea, the soil is not salt and will bear plentifully, provided there is water; so much so, that during the rainy season the Jordan plains for miles are vast meadows abounding in grasses and flowers. Those who see the country after the sun has burnt up all this pasturage, may very well be led into the idea that nothing will grow there, for when the hot winds spring up in May the grasses, like tinder, are broken up and blown away, and nothing remains but a barren waste.

During January, February, and part of March, flocks are brought down from the mountains to feed on the rich pasturage of the plains; they come down within a mile of the Jordan.

The cultivation of the Jordan plains takes place during the first months of the year and is over by April. Wherever there is water, there may be seen the black Bedouins toiling away at the ground.

The following parts of the Ghor are under cultivation:—

West Side from er-Rilha to 'Ain es-Sultan (corn); 'Ain Duk (cucumbers); W. Aujeh (corn, for many acres); W. Enwaimeh (corn); Ain Fasail (corn); Ain Ferrah (corn, for many acres). The Plain of Beisan in many parts; the southern end of Lake Tiberias, eastern side about Fahil; many acres about the mouths of Wadies Rajib and Zerka and large portions of ground about Wadies Nimrin, Kefrein and Hesban; these cultivated parts are all on the upper plain.

On the lower plain to the Jordan's edge the land is cultivated near Tel es Sa'idtyeh and the ford at Damieh.

The ground is principally cultivated by the Ghawarineh, a tribe of black people inhabiting the lower Ghor, differing in many respects from the mounted Bedouins. They are helped in sowing and reaping by the fellahin of the neighbouring hill villages, with whom they are in partnership, and who take back a certain portion of the produce as the price of their assistance, but the Ghawarineh take all the labour of irrigating upon themselves. During the time the corn is ripening at each water-course may be seen a naked black standing patiently in the sun for hours, watching the course of irrigation, now closing up a passage with his mattock, again opening out another with his foot. It may be said that the Ghor is not well cultivated, but it appears that the poor Ghawarineh make use of the water as much as lies in their power.

The lower plain of the Jordan near Damieh is certainly kept under cultivation by the overflow of the Jordan alone.

Rainfall.—The opinion is prevalent that there is a small rainfall in the Jordan valley. In the spring of 1867 it rained continuously at 'Ain es Sultan for a week; and during the spring of 1868 the rainfall appeared to average at least fifteen inches. The great falls appear to be in January, February, and March, during which time the plains, except near the Dead

Sea, are verdant meadows covered with flowers, and scarlet with anemone, poppy, and ranunculus. The Jordan during this time is very full, no doubt from the melting of the snow in the Lebanon; but the immediate cause of its overflowing is the rainfall in the hills to east and west of the river. When this occurs the Jordan will rise four or five feet in twelve hours and will fall again as quickly.

The difference of temperature on the Jordan plains in the spring is very remarkable: with a north wind blowing from Mount Hermon the cold is piercing, probably more so than in the highlands; while should the wind fall or blow from the south the heat of the sun's rays becomes insufferable.

During February, 1868, we found the temperature cooler in the day and warmer at night in the hills at the level of the Mediterranean than on the Jordan banks; and we noticed on several occasions that while we were warm under the clouds in the hills at night, it was very cold under the cloudless sky at the Jordan; the refraction being so great at the lower level.

MOUNDS AT 'AIN ES-SULTAN.

It was very necessary to ascertain something of the mounds in the Ghor—whether they were artificial, and if so, what was their composition; and in February, 1868, the weather preventing work at Jerusalem, an expedition was made to 'Ain es-Sultan for the purpose of cutting through the several mounds scattered about. Of this the following is a short account.

The mounds about 'Ain es-Sultan were considered the less satisfactory in the Ghor for trying on, as the country about has probably been occupied by the Romans, Christians, and Saracens; but it was the only part where we could collect a good number of workmen and get a fair amount of work out of them; higher up in the Ghor we should have found great difficulties with the Bedouins; as it was, at 'Ain es-Sultan, we could do just as we liked, as our workmen were friendly with the Bedouins of that part.

Nine mounds were cut through, two at Wady Kelt, three at 'Ain es-Sultan, and from within a short distance of the spring. Leaving Jerusalem at 6 a.m. on 24th February we arrived at 'Ain es-Sultan at 8.50 a.m. (a journey of five hours and a half by Mimerz), when we met our party of 174 workmen, and by 10 a.m. they were all distributed on the several mounds. The men were from the villages of Lifta, Siloam, and Abu Dis, and were put to work by villages, and allowed to quarrel as much as they liked so long as they did not fight.

The trenches were cut across the mounds from east to west, so as to get shelter from the sun as soon as possible. During the day time, when not exposed to the north wind, the rays of the sun were scorching. At night it was bitterly cold. After the trenches were cut 8 ft. deep, the work was continued by shafts 8 ft. square at intervals of from 4 ft. to 6 ft., as the clay would not bear the cutting of one deep trench. These shafts were in most cases sunk below the level of the surrounding country. Very little was found except pottery jars and stone mortars for grinding corn.

The general impression given by the result of the excavations is that these mounds are formed by the gradual crumbling away of great towers or castles of sunburnt brick.

Details.—No. 1 Mound. South bank of Wady Kelt about half a mile below its entrance into the plain.

On the top of the mound at the surface were found the ruins of buildings, stone (Cakooli) obtained from a cave-quarry about three miles to north-east. A good deal of glass was found about these ruins, the flakes on the surface being brilliant with the prismatic colours. After about 6 ft. we got through the rough foundations of the buildings and came upon the clay of the mound; at about 8 ft. was found the remains of a large Amphora, the neck, handles, and base were entire, and it appeared to have stood about 5 ft. high. A Roman inscription was on the neck. These remains are now in England.

Marly rock was found in this mound about 8 ft. below the surface of

the surrounding country, and on the rock a large jar 2 ft. in diameter, which crumbled on being touched.

No. 2. A heap of stones and walls (see photograph). This mound is evidently formed from the remains of a masonry tower of no great pretensions : the foundations are below the general surface, but not on the rock. The stones are partly mezzeh, partly hard flint.

No 3. A large mound south of 'Ain es-Sultan (see section); trench cut from east to west, graves found 6 ft. below the surface ; all except one of sun-dried bricks ; those of bricks measured 5 ft. 9 in. by 1 ft. 10 in. in the clear; wall 7 in. thick and 1 ft. 4 in. in height ; that of stone was 4 ft. 5 in. by 12 in. in the clear; walls 9 in. thick and 1 ft. 3 in. in height. Bones appeared to have been thrown in after the decomposition of the bodies. Shafts sunk to 40 ft. in depth with no results.

Mounds 4, 5, 6, are grouped together west of 'Ain es-Sultan, they are about 60 ft. above the surrounding country.

The spring of 'Ain es-Sultan issues from the foot of No. 6. These mounds are formed for the most part of a light clay (yellow) which, on being touched, crumbles into an impalpable powder.

In some cases no strata or layers could be discerned in the clay ; in other cases, layers of brick, stone, and mortar were clearly visible.

The photographs and sections together will give a pretty clear idea of what has been done.

No. 4 Mound (see section and photograph). Two shafts were sunk to south about 20 ft. deep, in which were found gravel, clay, pottery fragments, and a black bituminous stuff, also at about 10 ft. some remains of charred wood.

A cutting was made through the centre of the mound from east to west forty feet deep ; on east side of cutting several large sun-dried bricks were found, and a portion of the mound itself is formed of sun-dried bricks in fragments ; black flinty stones are mixed up with the soil, and here and there layers of pebbles.

In some cases the strata could be seen, but it is very irregular. Pottery fragments were found at all depths, also two large stone mortars (for grinding corn ?), one foot in diameter, at about 6 ft. below the surface.

To the west the clay is grey, and a layer of limestone and mortar (?) was distinguishable, also an irregular layer of stones (16 in. cube).

In the shafts at the foot of No. 4, to the west, rock (mezzeh) was found at 17 ft., and a wall, *in situ*, running north and south, built of rough rubble (stones 12 in. cube).

No. 5. Two isolated shafts 20 ft. deep, and a cutting east and west 40 to 45 feet deep.

Out of shafts were brought up limestones, pottery, and clay, one block of rubble of sandstone, and a small mortar.

Out of cutting were brought up pottery, clay, flintstones, and limestones, part of a stone dish, and other fragments ; no layers were visible ; a quantity of black bituminous fragments were found at 13 ft., and a round pot of earthenware which crumbled on being touched.

No. 6. Two isolated shafts were sunk, and a cutting 30 ft. deep from centre to west ; pottery, stone, and clay brought up ; a good deal of dark

blue limestone ; two horizontal layers of bituminous stuff half to 2 inches thick, 8 ft. below the surface ; at 15 ft. below the surface was found a mortar about 18 in. in diameter.

These mounds from top to bottom abound in fragments of pottery ; many of the jars were perfect until exposed to the air, when they were resolved into the same kind of clay as the rest of the mounds.

A few small solid-looking jars were preserved and they are now in England. A section of each mound is enclosed, and the photographs of these mounds are already in England.

No. 7 and 9. Small mounds to east of 'Ain es-Sultan, in the meadow land ; they were cut through, but nothing of importance was found in them.

No. 8. This mound is north-west of No. 1, and on north bank of Wady Kelt; it is about 20 ft. in height.

The brick walls in this mound are still *in situ*, and some plaster was found with colour on it ; the bricks are 14 in. long, and 5½ in. thick ; they are sun dried (see photograph).

The walls of the building are probably intact ; the cutting, however, only laid bare a section of them ; there are no signs of marble or of any kind of veneering to these walls.

On the northern bank of Wady Enwaimeh, about a mile from 'Ain es-Sultan, north-east, are the remains of a village which some Bedouins in 1867 called Jeljul, but in 1868 the tribe about knew no other name than Es Sumrah. Excavations were made about, and the sites of several houses were exposed, and eventually a chapel (see photograph) 27 ft. long, 16 ft. broad, with an apse end towards the south, semicircle of 6ft. in diameter ; also a square chamber (see photograph), about 40 ft. from the chapel, 18 ft. by 16 ft. 6 in. This chamber had its walls adorned with frescoes ; the designs were hardly visible, as the plaster was much broken ; one stone, however, was well preserved, with the picture of what resembled a Swiss cottage, curving overhanging roof, and with projecting balcony ; the whole very well executed, but it soon faded away on being exposed. The roof of this chamber appears to have been formed of wood, richly carved, and studded with mosaics, fragments of which have been forwarded home ; also there appears to have been a window closed with a white marble lattice, parts of which have been preserved.

The building stone throughout is of the kind called "cakooli," obtained from a cave quarry about two miles to the north-east.

This village appears to have been Christian.

These excavations are still open, and can be seen by visitors to Jericho and the Jordan.

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THE

PALESTINE EXPLORATION FUND.

A SOCIETY FOR THE ACCURATE AND SYSTEMATIC INVESTIGATION OF THE ARCHÆOLOGY, TOPOGRAPHY, GEOLOGY AND PHYSICAL GEOGRAPHY, NATURAL HISTORY, MANNERS AND CUSTOMS OF THE HOLY LAND, FOR BIBLICAL ILLUSTRATION.

PATRON.

HER MAJESTY THE QUEEN.

OFFICE—9, PALL MALL EAST, S.W., LONDON.

STATEMENT OF PROGRESS.

THE results of the first expedition, conducted by Captain Wilson and Lieutenant Anderson, of the Royal Engineers, in 1865-66, led the Committee on the return of these officers to recommend that a serious exploration of Jerusalem by means of excavations, wherever they might be desirable or possible, should be commenced as soon as the necessary funds could be raised. They then said—(see *Statement of Progress, July 23, 1866*), that “although at Jerusalem it would be difficult to obtain permission to disturb the surface of the Haram Area, researches might, under the authority of a vizierial letter, be made in the vaults, cisterns, and passages, below the surface; excavations might easily be made outside its limits to determine the character of its western wall, north of the Mahkameh; others might be made to ascertain the natural features of the ground between the Ecce Homo Arch and St. Stephen’s Gate, and between the Jaffa Gate and the Bab es-Silsileh of the Haram; in the Muristan, or Hospital of St. John, south of the Church of the Holy Sepulchre, for traces of the second wall; and in front of the Damascus Gate, where there is an old gateway. In the vaults of the Haram enclosure the western wall of the ‘triple passage’ might be uncovered, the two ancient doorways in the passage under El Aksa opened, the course of the curious passages discovered by Mons. de Sauley, in front of the ‘triple gateway’ traced out, and several cisterns, which appear to have been originally constructed for other purposes, examined. Such excavations, however, would be of little use unless made on a large scale, and for this it would be necessary, in most cases, to purchase or rent houses covering interesting sites, and to incur considerable additional expense for compensation and *bakhshish* to the landowners and others, and for the timber necessary to protect the houses in the neighbourhood of the excavations. In fact, no serious explorations in the Holy City itself should be commenced without a large sum

in hand; but the Committee have determined to undertake them as soon as the money can be raised, and they trust that when the intimate connection of the investigation with scenes and events so dear to every student of the Bible is considered, and the good prospect there is of success, if judiciously planned, and carried out with system and liberality, there will be no want of funds."

The Committee, in the spring of 1867, felt themselves justified in beginning this most important work, and having secured the services of Lieutenant Charles Warren, R.E., they sent him out with instructions as definite as, from the nature of the work, could be given, but as general as the delicacy and the importance of the enterprise required.

It appears to the Committee that the time has now arrived when their subscribers and friends might fairly ask for an account of the funds that have been placed at their disposal, and of the results which have been gained to the cause of archæology and biblical illustration. Pending the preparation of a full and complete account, the Committee beg to offer the subscribers of the Fund the following brief statement.

And first, they feel that, in presence of the great diversity of opinion on the sacred sites, they must once again assure the subscribers that their object has been completely to avoid and discourage any attempt to confirm or attack theories of their own or of others. The work with which they are entrusted by the society is, simply, so far as Jerusalem is concerned, an attempt to read the history of the past buildings in the ruins which lie under the modern city. The simple facts which Lieutenant Warren sends home are by the Committee published for the information of the members of the society and the public at large.

A vizierial letter was procured through Ayooby Howadjee, giving permission to excavate anywhere except within the actual precincts of the Haram Area. Here, where excavations would be of such immense importance, Lieutenant Warren was forbidden to dig at all. But round the Haram Area, at the foot of the external walls, and in all other parts of Jerusalem, free permission was accorded him to sink shafts.

Lieutenant Warren arrived in Jerusalem, February 17th, 1867. Without loss of time he commenced by exploring the passages found by M. de Sauley in the south wall of the Haram Area.

He has continued at Jerusalem, with the exception of a brief visit to England in the spring of last year, ever since. His party consisted originally of Sergeant Birtles, R.E., Corporals Duncan and Hanson, and a band of fellahin engaged for the excavations.

Sergeant Birtles, who has proved a most efficient and zealous assistant, was sent home early in 1868 on sick leave, but has since returned to his work. Corporal Duncan unfortunately died in August last, and it was found necessary by Lieutenant Warren to send Corporal Hanson home. The party was reinforced in September, by four more men from the Royal Engineers—one of whom having returned invalided, there now remains a staff of four sappers to assist Lieutenant Warren.

Guided mainly by his own judgment, Lieutenant Warren has sunk shafts in most of the spots which offered any promise of discovery. Some of these have been fruitful in results; a few have been abandoned as useless. For a com-

plete description of these shafts and their results, the Committee refer their subscribers to the published letters of Lieutenant Warren. A few particulars of the most important excavations are here appended.

In the Muristan, four shafts were sunk, in order to find, if possible, traces of the second wall. None were found. A system of tanks, two vaulted chambers, and traces of a colonnade were discovered there, with "nothing but confusion in the shape of old walls running at each other." Rock was found at the north-east, at a depth of 70 ft.

At the Damascus Gate, also one of the places proposed to him by the Committee, a very ancient wall was found, 10 ft. 6 in. in thickness, built with bevelled stones, similar to those of the Wailing Place. The wall, however, was probably built out of old materials, for stones of more recent date were found among them, and at the foot of the wall lay a stone with a Templar's cross on it. Lieutenant Warren conjectures the wall to have been built by the Knights of St. John, who lived near this place; the Church of St. Stephen, and the "Asnerie," or "Donkey House," used for the reception of the pilgrims, and conducted between Jerusalem and Jaffa by the knights.

The south wall of the Haram Area, and the rock on which it stands, are practically traced through the whole length of 1,000 ft. Plan No. 14 gives the result of Lieutenant Warren's work. It will be seen that at one point, the lowest point in the wall, which marks the course of the Tyropoeon Valley, the rock was reached at a depth of 85 ft. below the surface of the ground. At this point a passage was found running south, which Lieutenant Warren explored for a considerable distance.

The most noticeable things about this subterranean wall are the enormous height and extent which it must have presented when fully exposed, and the regularity with which it is built. Lieutenant Warren remarks, "The character of that portion of the masonry concealed below the ground, is, on the whole, similar to that of the well-known stones at the Wailing Place and other spots above ground." On a level with the sill of the Triple Gate, and the highest point of the rock, a course of masonry 600 ft. in length, which is of larger stones than the rest, ending in a corner-stone at the south-east angle heavier than any other stone yet found. (See Letter 28 and Plan 16.) The Single Gate is on a lower level than the Triple Gate, and is believed by Lieutenant Warren to be of modern construction. At the lowest point of the south-east angle the wall is of *mezze*, and is very soft and decayed. The corner-stone is apparently let into the rock about two ft. This stone is well dressed and has an ordinary marginal draft at top of about four inches; it appears above the rock for about two ft. in height. On the fifth course from the bottom three letters were found, each about four inches high, put in with red paint, apparently with a brush. (See Letter 34.) Different marks were found on another stone. Lieutenant Warren suggests that these were quarry marks. They are now in the hands of gentlemen competent to pronounce upon them.

It is remarkable that the *débris* resting against the wall at this angle is composed of stone chippings, mixed with "some black stuff looking like charred or decomposed wood," and that the layers of the *débris* slope at the spot examined in *towards* the Haram Wall, instead of *away* from it.

Continuing to the east of the wall and following its line, the plan will be

observed to show that the Kedron no longer runs in its ancient bed. Lieutenant Warren has found that the river has been lifted 40 ft. high and 20 ft. to east by the accumulation of *débris*—this not being of vegetable matter, the action of time on the rock, or the deposits of successive rainy seasons, but stone chippings, forming a sloping bank with an inclination of about 30° and a height of 60 to 100 ft.

That this mass of *débris* is of comparatively recent date is proved, independently of its material, by the finding of a masonry wall at the lowest point. It is an obvious inference that people would not build so far down in the valley, except at a time when Jerusalem was thickly inhabited, that is, not before some time in the succession of Jewish kings. No date can, however, be assigned to the wall.

On the west side of the Haram Arch, near what is known as "Wilson's Arch," the large arch first discovered by Dr. Barclay, Lieutenant Warren has made a discovery of the greatest importance, of a vast system of vaults and subterranean chambers (Plan 17). To use his own words—

"At some early period—I will leave those learned in history to determine the date—there appears to have existed, near the present causeway, some important buildings by the Haram Wall, but no communication with the Haram at its present level: when it was arranged to connect Mount Zion with Mount Moriah, these buildings appear to have been arched over from wall to wall, and then again arch upon arch was built until a sufficient height was obtained to give a sloping road from Zion to Moriah, at a height of 120 feet over the lowest part of the valley. At first this causeway was apparently only 20 ft. wide, and fresh houses seem to have been built on either side. At some later period it was found necessary to widen the causeway, by adding another on the nether side, of a similar width, and again the old houses appear to have been built over, which may account for the different spaces of the arches running side by side. The causeway was thus about 40 ft. wide, and reached to within 42 ft. of the Haram Wall; the intervening space being bridged over by one handsome arch, which still exists, and is generally called after Captain Wilson.

"As time rolled on, it seems that this upper causeway was insufficient, and a secret passage was made south of the causeway, and alongside of it; this passage is about 12 ft. wide and 14 ft. high. It has a fine arch turned over it, and appears to have been used for bringing troops from the west of the city to the Temple: the lower part of it may also have been used for conveying water to the Temple. To the south of this passage other vaults appear to exist, which we have not yet been able to examine. The street from the Jaffa Gate now passes over this passage, and the houses are built over the vaults on either side. Some suppose that this passage led from Herod's Palace to the Temple: however—whatever it may have been—it is very necessary that we should find out whence it comes, as it appears to be in connection with the first wall of Jerusalem, though whether it comes from the Jaffa Gate, or the north-west angle of the city, is yet to be discovered."*

Excavations and examinations have been made at the Well of Gihon, the cave between St. Stephen's and Damascus Gates, the Church of England Cemetery, the Vineyard of the Palace and the Cenaculum, without any important results.

* See Report of Meeting held at Willis's Rooms, June 11, 1868.

A great deal of interesting work has been carried on in connection with the water supply of the city. The following extract from Lieutenant Warren's letters will show the nature of the work (see Letter 29):

"The hill which is generally called Ophel, extends in a southerly direction from Mount Moriah, gradually sloping down through a horizontal distance of 2,000 ft., until it becomes lost at the Pool of Siloam. Its highest point, near the 'Triple Gate,' is 300 ft. above its foot at the Siloam Pool; it is bounded on the east by the Kedron, and on the west and south by the Tyropæon Valley, these two valleys meeting at the pool. The descent into the valley of the Kedron is very steep (about 30 deg.), and the natural surface of the rock is covered up by *débris* from 10 to 50 ft. in height.

"About the centre of the Ophel hill, to the east, in the Kedron, is the Fountain of the Virgin, an intermittent spring whose waters communicate with the Siloam Pool by means of a rock-cut canal running in a serpentine course through the hill. About three-quarters of the way up the hill, due west from the Virgin's Fount, is a vault running north and south, the crown of which is 22 ft. below the present surface of the slope. This vault spans a chasm or cutting in the rock, and the springing is from the rock; the chasm, when discovered, was over 40 ft. deep, and beyond that depth was filled up with *débris*; it, and the vault also, is 8 ft. wide; the arch was originally semicircular, but is now very much distorted. The length of the arch is about 11 ft., but 4 ft. farther to the south the vault is open, the roof being self-supporting, earth and stones, and is in a very dangerous condition. It appears that the southern wall, on which the voussoirs overlapped, has given way and fallen into the chasm, taking with it a quantity of rubbish from several feet above the crown of the arch at the south end; the voussoirs here project irregularly, and a slight fall of rubbish from above them would probably displace one of them, and thus cause a further fall, and so the arch would collapse.

"Some time in June, or July, or August, a fall of stones took place, when the work was not going on. It is not apparent at present in what manner the vault was reached from the outside, but it is likely that there was an entrance through the southern wall which has been described as having fallen.

"About 17 ft. 9 in. below the crown of the arch at the north side is the commencement of a sloping rock-cut passage leading N.E. by E. The earth has been cleared out, and we find the passage to be 8 ft. wide and from 10 to 12 ft. high. There are several rock-cut steps for the first part of the descent, then a landing and a drop of 10 ft. (See Plan 18.) The horizontal length of this passage is 39 ft., the fall is 37 ft. At the bottom is a passage whose roof slopes about 5 ft. in its length of 68 ft. This passage is on plan nearly semicircular, bending round from N.E. by E. to S.S.W. Then there is a sloping passage for about 18 ft., the fall being at an angle of 45 deg., and we arrive at the top of the shaft 44 ft. deep, at the bottom of which is water led from the Virgin's Fount by a branch aqueduct of 17 ft., commencing about 50 ft. from the fountain. All these passages, canals, shafts, &c., are cut in the solid rock, the nature of which is a hard silicious chalk called *mezzeh*, except near the top of the shaft, where the rock is soft and decayed.

"As yet the rubbish has only been cleared out of the staircase passage, so

that we know nothing about the bottom of the passage leading to the shaft, but probably it is 10 ft. high.

"It was very desirable to know how far the chasm under the vault extends, and for what purpose it was cut out, and also what there is to the south of the vault. The vault, however, was in too dangerous a condition to work under, so I arranged to fill up the chasm with the *débris* from the staircase passage. This we have already partially done. On the soil reaching the top of the staircase landing, gallery frames were fixed up through the length of the vault, and battened together, and soil filled in at the side and top, so that the men can now work to south or sink a shaft without danger from the arch giving way. I hope the arch will be filled up to the top and quite secure in a week." (See Plan 18.)

At the south-west angle, a line of shafts, perpendicular to the west wall, and in a line with the springing-stones well known as Robinson's Arch, has led to the discovery of the fallen stones of the arch, and the opposite pier still *in situ*. (See Plan 12.) The arch, as found by Lieutenant Warren, had a span of 41 ft. 6 in., and a height of 86 ft. from the rock to the key-stone. The stones of this arch were lying on a pavement, beneath which, on further investigation, were found voussoirs which Lieutenant Warren conjectures to have been those of an older arch still. There was apparently, therefore, an arch here which was destroyed in one of the many sieges of which Jerusalem was the scene. To hide the *débris* and ruins of this arch, the ground was levelled, and a pavement thrown over. Another arch was then built in the same place, which was itself subsequently destroyed, possibly at the taking of the city by Titus. Continuing his researches, Lieutenant Warren could find no traces of other arches. It seems, therefore, probable that this lofty arch was built across the lowest part of the gulley *outside* the wall, and a ramp or a great staircase led down to the ground, which sloped up towards the west.

The shafts by which the foregoing discoveries were made, and which were closed in August last, were reopened on the 12th of November. The rock-cut canal running under the arch has been found to lead to a circular chamber, also cut in the rock, diameter 16 ft., and with a flat roof apparently from 2 to 3 ft. thick. This chamber was filled 8 ft. 6 in. with silt, and has an outlet also cut in the rock consisting of an arched passage, 11 ft. high and 3 ft. 9 in. wide, the roof consisting of an arch of six voussoirs, and slightly pointed in shape. The passage extends as far as the south-west angle of the Haram, when it turns to south-east, and is succeeded by a smaller passage of masonry, arched with five voussoirs. This passage extends to the south-west angle of the Haram Wall, when it turns to east, and is succeeded by a smaller passage of masonry, also arched with five voussoirs. After running about 40 ft. along the south wall, it suddenly turns to south, and becomes a mere drain, about 2 ft. wide, roofed over with flat stones.

The discovery and tracing of the supposed "Wall of Ophel" must be considered as one of the most gratifying results of Lieut. Warren's labours. Whether it prove to be the ancient wall round the Hill of Ophel or not, its complete exploration cannot fail to add very much to the existing knowledge of ancient Jerusalem.

The wall (see Letter 29 and Plan No. 21) abuts on the south-east corner of the Haram Wall. It runs for 60 ft. due south, then, with a

tower at the angle, turns in a south-west direction, in which it has been traced for 700 ft. It is from 12 ft. to 14 ft. thick. For an average of twenty feet above the rock it is of rough rubble, then a plinth of well-cut stones, then from one to four courses of masonry, each course being from 1 ft. 9 in. to 2 ft. 6 in. in height, and in length varying from 2 ft. to 4 ft. Many of the stones are described as "polished," especially at the corners of the towers, and the structure bears a general resemblance to the present south wall of the Haram. It should be said, however, that the stones appear to Lieutenant Warren to have been used in the building of a previous wall.

About the middle of the wall, an outer wall with a tower occurs. This has been examined to a depth of nearly 40 ft.

This work will be continued as opportunity offers.

At the convent of the "Sisters of Zion," north of the Haram Area, a continuation of the souterrain found by Captain Wilson has been discovered. This, it may be remembered, was 165 ft. long and 20 ft. broad, running in a N.W. direction. Its eastern side was of masonry. This has now been broken through, and it is found that Captain Wilson's fosse was only half of the original fosse, the breadth of which is 55 ft. Scarped rock forms the north and south sides; on the east and west about one-half appears to be rock, and one-half masonry.

Letter 33 and Plan 26 give as complete an account of this as has yet been obtained. For the present no theory can be formed with precision as to its purpose or extent, and it is important to ascertain how far it really extends on the east and west sides.

Within the Haram Area, Lieutenant Warren has, by accident, hit upon a discovery which may prove of the highest importance. The following is his own account (see Letter 33):—

December 8th, 1868.

"On Saturday I went over the Haram Area to see if I could trace any resemblance between the plan in Dr. Lightfoot's 'Prospect of the Temple' and the present form of the ground. On passing by the northern edge of the Mosque of Omar Platform, I saw that the earth had been lately disturbed at the foot of the eastern steps, and on asking the Sheikh of the Mosque about it, he said that after the heavy rains, three days before, the ground had given way, and that they had found an entrance to substructions as large as those at the south-east angle. I suggested to him that the hole had been badly filled in, and that it would probably give way again. This morning we went early to the Haram Area, and happened to come upon this place just a few minutes after the hole had opened a second time. We went down into it and made an examination.

"It is a souterrain running east and west in the line of the northern edge of the Mosque Platform (see Plan 27). It consists of an arched passage of 18 ft. span, with bays to the south of 12 ft. by 17 ft., arched over; the piers between being 3 ft. 6 in. thick. The southern side of these bays is scarped rock, and on it the wall supporting the northern edge of the Mosque Platform is built. Portions of the piers are also scarped from the rock, which appears to shelve down rapidly to the north; so that, if the earth and these vaults were removed,

the northern end of the Mosque Platform would present the appearance of a perpendicularly scarped rock, with excrescences on its face, 3 ft. 6 in. thick, 12 ft. apart, and projecting about 6 ft.

"The vault was examined for about 70 ft. east and west, and four bays were surveyed. The crown of the arch of the vault and also of the bays is about 2 ft. below the surface of the ground, which is there about 8 ft. below the level of the Mosque Platform; the distance from crown to springing of the arches is 9 ft. 6 in., those (arches) of the bays being perpendicular to, and forming groins with, that of the vault. The arch over the vault has a span of 18 ft., but it is not semicircular: it appears to have a parabolic curve; while the arches over the bays are decidedly pointed (spans from 12 ft. to 13 ft.).

"The voussoirs of the arches are small, presenting about 15 in. by 4 in. on the soffit.

"On the northern side of the vault I could see no appearance of rock, except in one place for about 5 ft., where there is either rock or a large stone, the top of which is about 10 ft. below the springing; the northern portions of the piers are also of masonry, but from their centres to their southern ends they are cleanly scarped from the rock, just as is the southern end of the bays.

"The masonry in the walls is of very miscellaneous character, in some cases large and small squared stones, and in some places coarse rubble. On the northern side of the vault are two passages, about 2 ft. wide and 6 ft. high, which are blocked up after about 8 ft.; they have the appearance of being in connection with other vaults to the north; they are roofed over with stone slabs.

"To east and west the souterrain is blocked up with rubbish, fallen in from above; but it appears to extend in both directions, though towards the west there is an indication of a portion of the arch having given way. To the south the rock rises to about the springing of the arches, that is to say, to about 12 ft. from the surface of the ground, or to about 18 ft. below the Mosque Platform. Above the rock, the ends of the bays are filled in with coarse rubble, and it is doubtful whether they extend beneath the Mosque Platform. In the eastern bay there is an arched doorway, or communication, which is filled up with coarse rubble.

"The souterrain has no appearance of having been constructed for a tank, there is not a sign of plaster about, and the rock appears to have been scarped for view; it differs in most respects from the tanks in the Haram Area, and was apparently built for the purpose of raising up the Haram Area to a general level. The arches appear to be Saracenic. For several months I have been seeking an opportunity to examine the ground on the northern side of the Mosque Platform, near the western steps, as I am convinced there are vaults there (from the hollow sound of the ground), and my impression now is, that the souterrain just discovered extends all along the northern edge of the Platform.

"I do not see that the souterrain supports the position of the Temple, obtained by the application of Dr. Lightfoot's plan to the existing plan, as sent home by the mail. It may with reason be claimed by one party as the ditch on the northern wall of the Temple, and by the other as the northern ditch of Antonia. It, however, limits the space on which the Temple could have stood,

and as other knowledge is gained it may become a strong point in settling the matter.

"N.B.—The scarp rock was only visible to a depth of 12 ft., but there was no indication of any termination."

The survey of Palestine is progressing. The work of Captain Wilson and Lieutenant Anderson in 1866 mapped accurately the water-shed of the country from Baniās to Jerusalem, the district round the Lake of Tiberias, the district of Nablûs, and determined the courses of many subsidiary wadies. Lieutenant Warren's contributions hitherto have been a sketch of the Jordan, a survey of 700 square miles west, and about 1,200 east of Jordan.

Considerable delay has been experienced in this part of the work, owing to the time of Lieutenant Warren being fully occupied with his excavations. It is hoped, however, that it will soon be continued and the results given to the world. A considerable further expenditure * will be required to complete this work thoroughly. The geological survey and the expedition to complete the natural history of the country are not forgotten. And, with a view to establish a Palestine Museum, as soon as materials can be got together for the purpose, all the objects found and sent home by Lieutenant Warren are preserved in the office of the Society.

Annexed is a financial statement for the years ending June 30, 1866, June 30, 1867, and June 30, 1868, and for the half year ending December 31, 1868. It will be seen that for the last two years and a-half money has been found for the expensive works in which the Society has been engaged. And, although the year opens with a balance of very small amount, the fact that on no occasion has an appeal been unproductive makes the Committee confident that England will not allow this great work to drop.

Meantime they take this opportunity of calling the attention of every subscriber to the state of their funds, and earnestly entreat them to come to the assistance of the Society, either by continuing their subscriptions, or, when that is not practicable, by personal influence.

The sum required to go on with these works as the Committee desire is about £5,000 per annum. This has been raised hitherto by occasional appeals. It would be far more satisfactory could it be raised by annual subscriptions and by local and auxiliary societies. Several of these exist and have rendered valuable assistance to the Fund. Edinburgh, Oxford, Cambridge, Glasgow, Dundee, Perth, Plymouth, and Falmouth, are active centres where, thanks to the gentlemen who undertook the work, interest is roused and maintained in the society. It is hoped shortly to establish societies in Birmingham, Liverpool, Leamington, Manchester, Newcastle, Bath, Clifton, Northampton, and other towns, and the Committee beg the assistance of their friends in promoting and furthering the foundation of these societies. Promises of help have also been received from America, and the work of the society is watched with great interest in Germany.

The Committee desire especially to call attention to the small proportion of expenditure taken up by management. The amount received, as shown by the balance-sheets, since the establishment of the Society, from donations and

* This has been estimated at about £5,000.

subscriptions, is £9,007 19s. 4d. The expenditure which falls under the head of management, and which includes salaries, rent for office, advertisements, lithographing, printing, is £1,116 7s. 2d., while that part of it which includes salaries and rent is only about £250. The rest of the expenditure under this head is accounted for chiefly by the heavy expenses of printing and lithographing reports and plans for subscribers. The whole of the rest of the money subscribed has been spent in exploration expenses. The expenditure for management will be somewhat heavier this year, as the Committee have found it necessary to engage an acting secretary, and to take offices in town, where all communications might be received and attended to.

It is proposed to hold, during the spring and early part of the year, a series of lectures in aid of the funds of the Society. Should these, which are at first experimental, prove successful, a system of lectures will be more extensively and systematically organized.

But the best way of raising the necessary funds is by means of the subscribers themselves, and in sending them this statement of progress, with this appeal for help, the Committee earnestly beg for their personal influence in making the Society known in their own circle of friends. To the clergy especially, of all denominations, they look for aid—not in money, so much as in influence; and they commend the cause of scriptural illustration and proof with the greatest confidence to those whose *locus standi* is the truth of the Bible.

The Committee have only to record their special thanks to Dr. Chaplin, of Jerusalem, for kindly taking charge of the works in the absence of Lieutenant Warren; to the Rev. Dr. Porter, of Belfast; the Rev. Dr. W. Lindsay Alexander, of Edinburgh; Dr. Alexander Keith Johnstone; Mr. A. B. M'Grigor, of Glasgow; Mr. Johnstone and Mr. Scott, of Dundee; Mr. Mackenzie, of Perth; Mr. A. Lloyd Fox, of Falmouth; The Rev. Dr. P. Holmes, of Plymouth; Rev. T. G. Bonney, of St. John's, Cambridge; Prof. Rawlinson, of Oxford; Dr. Atkinson, of Leeds; and the other gentlemen who have volunteered assistance in the cause of this exploration of Palestine.

Jan. 1, 1869.

LIST OF SUBSCRIPTIONS

TO DECEMBER 31, 1868.

	£	s.	d.
HER MAJESTY THE QUEEN	150	0	0
British Association	150	0	0
Society of Antiquaries	50	0	0
Society of Arts	10	10	0
Royal Society of Literature	25	0	0
University of Oxford	500	0	0
University of Cambridge	250	0	0
Grand Lodge of Freemasons	105	0	0
Local Societies.—Cambridge	100	0	0
Edinburgh	200	0	0
Oxford	87	3	0
Perth	20	0	0
Dundee	42	9	8
Glasgow	140	0	0
Merchant Taylors' Company	21	0	0
Mercers' Company	52	10	0
Syria Improvement Committee*	250	0	0

NAME.	£	s.	d.	NAME.	£	s.	d.
Acworth, G. B., Esq.	7	7	0	Autridge, Joseph, Esq.	5	5	0
Adams, Mrs. M. W.	1	1	0	Avery, W. H., Esq.	5	0	0
Adams, Mrs. Dering	1	1	0	Ayre, Rev. J. W.	2	10	0
Adamson, E., Esq.	4	4	0				
Akroyd, E., Esq., M.P.	5	0	0	Backhouse, E., Esq.	15	0	0
Alexander, Sir W.	5	0	0	Backhouse, J. H., Esq.	5	0	0
Allcroft, J. D., Esq.	30	0	0	Bacon, J. P., Esq.	10	0	0
Atkinson, E., Esq., per	3	14	0	Badcock, E. Baynes, Esq.	2	0	0
Allon, Rev. Henry	5	0	0	Bagge, Rev. J.	3	0	0
Allen, Edward, Esq.	1	1	0	Bailey, Rev. H. R.	3	0	0
Amhurst, W. Amhurst, Esq.	50	0	0	Baily, Miss A. L.	5	0	0
Amhurst, Miss	5	5	0	Baily, Miss Emily	5	0	0
Ames, H. St. V., Esq.	10	0	0	Baily, Rev. W. P.	5	0	0
Anderson, Arthur, Esq.	20	0	0	Baily, T. Farmer, Esq.	5	0	0
Anderson, D., Esq., and per	19	16	0	Baker, Sir George	5	0	0
Anson, Hon. and Rev. A. A.	2	2	0	Baker, W. F., Esq.	0	2	6
Anson, Rev. Frederick	2	0	0	Baker, R. S., Esq.	1	1	0
Argyll, Duke of	30	0	0	Ball, John, Esq.	6	6	0
Argles, Rev. Canon	3	0	0	Balliol, The Master of	7	2	0
Arnold, Rev. C. T.	4	2	0	Bangor, Lord	5	0	0
Ashworth, George, Esq.	1	0	0	Banks, R. R., Esq.	2	2	0
Autridge, Rev. F. C.	1	0	0	Barker, Rev. Edward	1	1	0
Autridge, D., Esq., and per	22	0	0	Barlow, James, Esq.	3	3	0

* A second £250 has been voted by this Committee.

NAME.	£	s.	d.	NAME.	£	s.	d.
Barlow, Thomas, Esq.	0	10	0	Bracebridge, C. H., Esq.	5	0	0
Barratt, Mrs.	1	0	0	Breveton, Rev. H. B.	1	1	0
Barnard, Rev. J. M.	0	10	6	Bradley, Rev. C.	6	6	0
Barrow, Sir George	5	0	0	Bradley, Rev. G. G.	6	6	0
Barry, Arthur, Esq.	1	1	0	Bradley, Rev. W. W.	5	0	0
Barton, Miss Louisa	1	0	0	Brailsford, Rev. E.	0	2	6
Bastow, Rev. J. A.	1	1	0	Bramston, Rev. W. M.	1	1	0
Bateman, H. F., Esq.	1	1	0	Brace, Thomas, Esq.	100	0	0
Bateman, James, Esq., and per...	45	16	6	Brock, E. P. Loftus, Esq.	1	1	0
Baxter, Sir David	25	0	0	Briggs, S., Esq.	10	0	0
Baxter, The Misses	25	0	0	Brooke, Rev. J. Ingram	15	0	0
Bayly, Rev. F. T., F.S.A.	1	1	0	Brooke, James, Esq.	0	2	6
Bayly, Rev. W. R.	4	0	0	Brooke, Miss	2	0	0
Bayley, John, Esq.	10	10	0	Brooke, Miss E.	10	0	0
Beach, Sir M. E. Hicks	10	0	0	Brown, James, Esq.	0	2	0
Beauchamp, The Earl	20	0	0	Brown, Miss Lucas	2	0	0
Beck, Rev. E. J.	1	0	0	Brown, John, Esq.	0	2	6
Beckford, Rev. Charles D.	2	2	0	Browne, O., Esq.	2	0	0
Beecher, Lady	2	2	0	Browning, Oscar, Esq.	5	0	0
Bell, Lady	0	5	0	Brunel, J., Esq.	3	8	0
Bell, Rev. G. C.	2	2	0	Brunlees, James, Esq.	10	0	0
Bellamy, Mrs.	1	1	0	Buckley, Rev. W. E.	2	2	0
Bellingham, C., Esq.	0	10	0	Budgett, G. S., Esq.	10	10	0
Ben-Oliel, Rev. M. M.	1	1	0	Bull, —, Esq.	1	1	0
Benham, John, Esq.	1	1	0	Burbidge, W. H., Esq.	5	0	0
Benson, Rev. Dr., and per	7	7	0	Burnaby, Rev. F. G.	2	0	0
Besley, F. T., Esq.	2	2	0	Burnaby, F. G., Esq.	1	0	0
Betts, E. L., Esq.	100	0	0	Burney, Rev. H. B.	1	0	0
Bicknell, Sidney, Esq.	5	0	0	Burney, —, Esq.	1	0	0
Bicknell, Henry S., Esq.	15	15	0	Burney, Rev. E. K.	2	0	0
Bilton, Rev. W.	5	0	0	Burnes, Robert, Esq.	5	0	0
Biddell, Sidney, Esq.	5	0	0	Burt, K. K., Esq.	3	2	0
Benyon, Rev. F.	0	10	0	Burt, T. S., Esq.	1	0	0
Birch, Rev. H. M.	2	2	0	Burt, Miss	3	0	0
Birkbeck, Mrs. J.	2	2	0	Burton, Miss	5	0	0
Birley, Rev. E. H.	2	2	0	Butler, W., Esq.	0	10	0
Birley, F. H., Esq.	1	1	0	Butler, Rev. H. Montague, D.D.	10	10	0
Blackburne, Rev. Thomas	2	2	0	Buxton, E. N., Esq.	5	0	0
Blackburn, Rev. John	2	2	0	Buxton, Travers, Esq.	15	0	0
Blackie and Sons, Messrs.	5	0	0	Byam, Rev. R. B.	1	1	0
Blackiston, Rev. J. R., and per	7	13	0				
Blair, Captain Richard	1	1	0	Cadman, Rev. W.	1	1	0
Blackley, Rev. J.	2	0	0	Caldecott, Ch. M., Esq.	2	2	0
Bligh, G., Esq.	0	5	0	Calcott, W. H., Esq.	2	2	0
Boileau, Sir John	50	0	0	Calcott, A., Esq.	1	1	0
Bonar, Rev. J. J.	1	0	0	Salisbury, Mrs.	1	0	0
Bond, E., Esq.	1	1	0	Cameron, Rev. A. A.	1	0	0
Booth, Mrs. Francis	1	1	0	Campbell, Dr. A.	1	1	0
Booth, W. J., Esq.	1	1	0	Canterbury, Archbishop of	15	0	0
Borland, R. S., Esq.	1	0	0	Canterbury, Dean of	10	0	0
Borland, Rev. J. W.	1	0	0	Cape, Rev. Jonathan	4	4	0
Borthwick, Miss	10	0	0	Cardall, J. B., Esq.	2	2	0
Bosanquet, J. W., Esq.	20	0	0	Carnarvon, The Earl of	10	0	0
Bousfield, C. H., Esq.	5	0	0	Carew, John, Esq.	5	0	0
Bosworth, Professor	5	0	0	Cardwell, E., Esq.	10	10	0
Bowen, Rev. E.	1	1	0	Carey, Rev. T., and per	7	0	0
Bouverie, P. P., Esq. to Mr.	25	0	0	Carmichael, Peter, Esq.	5	0	0
Bowley, R. K., Esq.	5	5	0	Carpus, Miss	5	0	0
Bowman, W., Esq.	6	0	0	Carruthers, C., Esq.	1	1	0
Box, M. Henry, Esq.	1	1	0	Carter, Rev. H. J.	1	1	0
Boyd, Rev. Canon	1	1	0	Carver, Rev. Dr.	10	10	0
Boyd, Rev. H.	1	0	0	Castello, Manuel, Esq.	1	0	0

NAME.	£	s.	d.	NAME.	£	s.	d.
Casson, Rev. G.	5	0	0	Copley, Miss.	2	0	0
Cattley, Mrs. F.	20	0	0	Cooper, E. J., Esq.	1	0	0
Candwell, Job, Esq.	1	1	0	Coote, Captain E. C.	10	0	0
Cautley, G. S., Esq.	1	0	0	Cornish, Browne C. N., Esq.	4	4	0
Cautley, Miss, and per	3	15	0	Cornthwaite, Rev. Tullie	1	0	0
Cazenove, P., Esq.	5	5	0	Cotton, S., Esq.	1	1	0
Chalke Deanery, per Rev. C. T. } Cany	7	0	0	Coulson, Rev. J. E.	1	0	0
Chaloner, Captain, R.N.	1	1	0	Courtenay, Rev. Dr.	2	2	0
Chambers, Miss	3	0	0	Cowley, J. E., Esq.	2	2	0
Chambers, W. E., Esq.	1	1	0	Cowburn, G., Esq.	1	1	0
Chambers, R., Esq.	5	0	0	Cozens, F. W., Esq.	21	0	0
Chapman, T., Esq.	1	1	1	Credwson, G. B., Esq.	2	2	0
Charlewood, Henry, Esq.	5	0	0	Croft, Lieutenant	0	10	0
Chamier, Mrs.	0	5	0	Crokat, C. F., Esq.	5	0	0
Chester, Bishop of	10	0	0	Crompton Roberts, C. H., Esq.	55	5	0
Chester, Dean of	5	0	0	Cronin, Daniel, Esq.	10	10	0
Chester, Rev. Greville F.	0	10	6	Crosfield, —, Esq.	2	2	0
Chester, Harry, Esq.	5	0	0	Crossman, J. H., Esq.	2	2	0
Childers, R. C., Esq.	3	3	0	Cruikshank, Mrs.	5	0	0
Chittenden, Rev. C. G.	1	1	0	Cubitt, George, Esq., M.P.	50	0	0
Christian, Rev. G.	3	10	0	Cummings, H., Esq.	1	1	0
Christy, H., Esq.	50	0	0	Cunliffe, Mrs.	10	0	0
Church, Rev. O. M.	1	0	0	Cunnington, E., Esq.	0	10	0
Clayton-Browne, Mr. and Mrs.	2	0	0	Cuolahan, H., Esq.	1	1	0
Clayton-Browne, Mrs. W.	1	0	0	Cuolahan, Mrs.	0	10	6
Clayton-Brown, W., Esq.	1	0	0	Curtis, Spencer, Esq.	1	1	0
Clayton-Brown, R., Esq.	5	0	0				
Clark, G. T., Esq.	5	0	0	Dalling, Mrs.	5	0	0
Clark, Charles, Esq.	1	0	0	Dalton, Rev. G. W.	1	1	0
Clark, William, Esq.	2	2	0	Dalton, Rev. T. D.	2	2	0
Clarke, General	1	1	0	Dalton, Herbert, Esq.	10	10	0
Clarke, —, Esq.	2	2	0	Daniell, Rev. R. S.	1	1	0
Clarke, G., Esq.	0	5	0	Dann, Charles, Esq.	0	2	6
Clements, Rev. H. G.	1	1	0	Darbishire, R. D., Esq.	10	0	0
Clerke, Ven. Archdeacon	2	2	0	Darby, Rev. M. B.	1	0	0
Clermont, Lord	75	0	0	Darby, C. E., Esq.	5	0	0
Clifford, Charles C., Esq.	1	0	0	Darwin, C., Esq.	9	9	0
Clode, Mrs.	5	0	0	Davidson, Charles, Esq.	1	1	0
Clode, Miss	0	10	0	Davis, A., Esq.	36	15	0
Clode, Miss M.	1	0	0	Davis, Richard, Esq.	10	10	0
Clowes, W., and Sons.	25	0	0	Davies, Rev. W.	1	1	0
Cobbold, J. C., Esq., M.P.	2	2	0	Davey, Rev. W. H.	2	2	0
Cochrane, John, Esq.	5	0	0	Deane, Sir Thomas	1	0	0
Cocker, J. R., Esq.	1	0	0	Dearden, John, Esq., per	2	10	2
Codrington, Mrs. Oliver	5	0	0	Debary, Rev. J.	2	2	0
Codrington, Rev. H. R.	1	1	0	Denniston, J. M., Esq.	1	0	0
Cole, R., Esq.	1	1	0	Denison, W. B., Esq.	10	0	0
Colby, Rev. F. T.	1	1	0	Denison, Right Hon. J. E.	25	0	0
Cohen, Rev. J.	1	1	0	Dent, Mrs.	10	0	0
Collison, Mrs.	2	0	0	Derry and Raphoe, Bishop of	10	0	0
Combe, Thomas, Esq.	5	0	0	Devas, T., Esq.	5	0	0
Conder, Rev. Eustace R.	1	1	0	Devitt, Henry, Esq.	1	1	0
Conington, Professor	10	0	0	Devonshire, The Duke of	100	0	0
Connor, Rev. F.	1	0	0	Dewick, E. S., Esq.	2	2	0
Conyngham, Miss Lennox	1	0	0	Digby, Hon. and Rev. K. H.	1	0	0
Cook, Rev. Canon	1	1	0	Dighton, T. D., Esq.	1	1	0
Cooke, Rev. W.	2	0	0	Dimmock, James, Esq.	20	0	0
Cooke, R., Esq.	10	10	0	Divetts, H., Esq.	1	1	0
Coope, O. E., Esq.	10	10	0	Distin, Rev. H. L.	0	10	0
Coombe, Rev. J. A.	0	2	6	Divett, E., Esq.	1	1	0
Conway, Miss	0	10	0	Dixon, Miss	2	0	0
				Dixon, W. Hepworth, Esq.	10	0	0

NAME.	£	s.	d.	NAME.	£	s.	d.
Dockray, R. B., Esq.	0	5	0	Field, J. P., Esq.	2	0	0
Donaldson, G. H., Esq.	1	0	0	Finch, Rev. T. R.	2	0	0
Doungton, J. E., Esq.	5	0	0	Fisher, E. R., Esq.	2	2	0
Donner, Mrs.	0	10	0	Fisher, Rev. E. H.	2	2	0
Dowding, Rev. T. W.	1	1	0	Fisher, Mrs.	0	5	0
Dowling, E. S., Esq.	2	0	0	Fisher, Thos., Esq.	5	5	0
Downing, Miss A. M.	1	0	0	Footner, R., Esq.	0	2	6
Doughty, A. B., Esq.	10	0	0	Fortescue, Dudley, Esq., M.P. ...	5	0	0
Driver, Rokes, Esq.	1	0	0	Foster, J. L., Esq.	2	0	0
Droope, H. R., Esq.	10	10	0	Foster, Mrs.	1	0	0
Drummond, A. W., Esq.	2	0	0	Foster, Sampson, Esq.	5	0	0
Drummond, E. F., Esq.	5	0	0	Foster, O. W., Esq.	5	0	0
Ducie, The Earl of	30	0	0	Foulkes, Abel, Esq.	0	5	0
Duckworth, H., Esq.	3	2	0	Foulkes, Miss	0	5	0
Dudlow, Mrs.	0	10	0	Fowler, Mrs. Robinson	1	1	0
Duncan, J., Esq.	1	0	0	Fowler, Rev. W. S.	1	1	0
Dundas, Colonel	5	0	0	Fox, Charles Henry, Esq.	2	2	0
Dunraven, Earl of	10	0	0	Fox, Dr. F. K.	7	7	0
Dunraven, Dowager Countess of	2	0	0	Foyster, Rev. G. A.	1	1	0
Durell, Rev. T. V.	5	0	0	Foyster, Rev. H. B.	5	0	0
Eaton, F. A., Esq.	1	1	0	Francis, Felix, Esq.	1	0	0
Edgeworth, M. P., Esq.	1	1	0	Francis, Rev. J., per	3	3	0
Edmund Hall, Principal of	2	0	0	Franklin, Lady	5	0	0
Edwards, G., Esq.	1	1	0	Franks, Aug. W., Esq.	15	0	0
Edwards, Jeffrey, Esq.	1	1	0	Frederickton, Bishop of	2	0	0
Egerton, Capt. Hon. Seymour, per	15	10	0	Freeman, Francis, Esq.	1	1	0
Elkington, Alfred, Esq.	5	5	0	Freeman, John, Esq.	1	0	0
Elkington, Hyla, Esq.	2	0	0	Freeman, Miss	0	5	0
Ellacombe, Rev. H. F.	4	4	0	Freshfield, Edwin, Esq.	10	0	0
Ellis, E., Esq.	0	10	0	Frodsham, Charles, Esq.	2	2	0
Ellis, Mrs. Heaton	1	0	0	Fry, Edward, Esq.	1	1	0
Elmsall, Major	1	1	0	Fry, Lewis, Esq.	5	0	0
Elvy, Rev. I. M.	1	0	0	Fuller, Rev. J. M.	5	0	0
Emery, Ven. Archdeacon	5	5	0	Fuller, Rev. Thomas	5	0	0
Emmett, Miss	1	0	0	Gassiot, J. P., Esq.	5	5	0
Enderby, Miss	1	1	0	Garnack, Miss C. A.	1	0	0
Errington, Rev. J. R.	2	2	0	Garnlen, W. H., Esq.	10	0	0
Erskine, Miss	15	0	0	Garnlen, Miss	1	0	0
Estridge, Lorraine, Esq.	0	5	0	Gaston, J. G., Esq.	5	5	0
Evans, E. B., Esq.	10	0	0	Gawler, Colonel	1	0	0
Evans, J., Esq.	10	0	0	George, Alfred, Esq.	1	0	0
Evans, Rev. D. P. J.	1	0	0	George, Alfred, jun., Esq.	0	10	0
Everard, Miss, per	0	8	0	George, Rev. P. E.	2	2	0
Everett, James, Esq.	1	1	0	George, Mrs.	0	10	0
Eyre, G. E., Esq.	10	5	0	George, Rev. H. B., per	5	10	0
Fagan, Rev. G. H.	1	0	0	Gepp, Rev. H. F.	0	10	0
Fairbairn, Rev. A. H.	2	2	0	Gibson, G. S., Esq.	20	0	0
Fairlie, Lady Cunningham	5	5	0	Gibson, Mrs. W. G.	10	0	0
Farrer, Rev. M. T.	3	2	0	Gibson, Rev. Canon	2	2	0
Farrer, Edward, Esq.	2	2	0	Gibbs, F. W., Esq.	20	0	0
Fearon, Ven. Archdeacon	1	0	0	Gifford, Hon. Miss Jane	1	1	0
Fenning, G. D., Esq.	1	0	0	Gilbertson, W., Esq.	1	1	0
Fenwick, Mrs.	2	2	0	Giles, W., Esq.	2	0	0
Fernie, Rev. J., per	2	0	0	Gisborne, J. M., Esq.	1	0	0
Fernley, John, Esq.	10	0	0	Gladstone, Dr. J. H.	21	0	0
Fergusson, James, Esq.	10	10	0	Glazier, W. R. N., Esq.	1	1	0
Ferguson, Thomas M., Esq.	5	0	0	Godwin, G., Esq.	3	3	0
Festing, Rev. E. A.	1	1	0	Goldsmid, Albert E. W., Esq. ...	1	0	0
Few, Robert, Esq.	10	0	0	Goldsmid, Sir F., M.P.	100	0	0
Ffoulkes, Rev. H. P., per	1	10	0	Gomm, F. M. Sir William, G.C.B.	5	0	0
				Gould, J., Esq.	5	0	0

NAME.	£	s.	d.	NAME.	£	s.	d.
Gooch, T. L., Esq.	20	0	0	Haydon, Mrs. Thomas	0	10	0
Govett, A. F., Esq.	5	0	0	Haydon, W., Esq., and per	1	0	0
Gowan, Miss.	1	0	0	Hanbury, R. Culling, Esq.	100	0	0
Goodban, Charles, Esq.	1	0	0	Hartley, Rev. J. A.	0	12	6
Gore, Hon. Charles	1	0	0	Hebden, —, Esq.	0	10	0
Gosling, W. S. M., Esq.	1	1	0	Helmere, Rev. Thomas	0	10	0
Gosford, Earl of	20	0	0	Henderson, John, Esq., F.S.A.	6	6	0
Gosse, P. H., Esq.	8	8	0	Herbert, George, Esq.	1	1	0
Goldschmidt, Otto, Esq.	5	5	0	Hesketh, R., Esq.	2	2	0
Griffith, Rev. H. T.	0	10	6	Hessey, Rev. Dr.	5	5	0
Grove, T. B., Esq.	2	2	0	Hewetson, Rev. John	1	0	0
Grove, Edmund, Esq.	2	2	0	Heygate, —, Esq.	1	10	0
Graham, Cyril, Esq.	10	0	0	Heywood, A. H., Esq.	15	10	0
Gray, J. E., Esq.	2	0	0	Heywood, Mrs. Pemberton	5	0	0
Gray, Rev. Charles	1	0	0	Hewdson, John, Esq.	10	10	0
Greathed, Miss E.	3	0	0	Hebbert, Lieutenant-Col.	2	0	0
Green, Rev. G. R.	3	3	0	Heurtley, Professor	5	0	0
Green, Rev. W.	2	1	0	Hickes, Miss F. M.	2	0	0
Greenhalgh, Thomas, Esq.	2	2	0	Hill, Rev. H. T.	2	0	0
Greenwood, Rev. George	10	10	0	Hill, Rev. Melsup	3	0	0
M'Gregor, A. B., Esq.	10	0	0	Hodgson, Rev. J.	2	2	0
M'Gregor, Rev. W.	1	0	0	Hole, Rev. C. H.	0	10	0
Griffith, Miss	1	1	0	Holland, E., Esq.	2	2	0
Griffith, Thomas, Esq.	5	5	0	Holland, Rev. F. W.	1	1	0
Grove, Miss E. J.	1	0	0	Holland, Rev. F. W., per	24	3	0
Gruneisen, C. L., Esq.	1	1	0	Holland, Rev. J. Murray	5	0	0
Gruneisen, Mrs.	1	1	0	Holland, Sir H.	5	5	0
Griffiths, Rev. W.	1	0	0	Holland, R., Esq.	10	0	0
Graham, Reginald	1	0	0	Holloway, R., Esq.	1	1	0
Greene, Thomas, Esq.	10	10	0	Hogg, John, Esq.	3	0	0
Gurney, Samuel, Esq., M.P.	10	10	0	Home, Earl of	10	0	0
Gurney, Rev. W. H., and per	1	4	0	Hoole, John W., Esq.	1	0	0
Gwynne, Rev. T.	0	5	0	Hoole, Rev. C. H.	5	5	0
Hall, E., Esq.	1	1	0	Hope, A. J. Beresford, Esq., M.P.	10	0	0
Hamblly, C. B., Esq.	1	1	0	Hopgood, James, Esq.	5	5	0
Hampson, R., Esq.	5	0	0	Hopkinson, Jonathan, Esq.	5	0	0
Hampton, Mrs.	0	10	0	Hopkyns, D. D., Esq.	5	5	0
Hancock, Mrs.	6	4	0	Horniman, J., Esq.	2	2	0
Hankey, Stephen, Esq.	10	0	0	Hort, Rev. F. J. A.	3	3	0
Hanson, R. Allix, Esq.	2	2	0	Hough, Rev. T. P. G.	1	1	0
Harbord, Rev. J. B.	1	0	0	Howard, Frederic, Esq.	4	4	0
Harcourt, Egerton Vernon, Esq.	5	0	0	Howorth, John, Esq.	1	1	0
Harcourt, Lady Frances	5	0	0	Howorth, Miss	1	1	0
Hardcastle, Edward, Esq.	10	0	0	Holmes, Rev. P., D.D.	4	4	0
Hardwicke, P. C., Esq.	10	0	0	Hooker, Dr. J. D.	9	9	6
Hardy, J. Stewart, Esq.	10	0	0	Hodgkin, Thomas, Esq.	2	2	0
Hardy, Rev. Clement Le	1	0	0	Howlett, Rev. F.	1	1	0
Harkness, Rev. J.	0	12	6	Hooper, Rev. R. P.	1	1	0
Harris, George, Esq.	3	3	0	Hudson, T., Esq.	1	1	0
Harris, Lord	5	0	0	Hughes, Rev. H. H.	5	0	0
Harrison, Rev. J. H.	5	0	0	Hunter, Mark, Esq.	5	5	0
Harrison, Charles, Esq.	5	5	0	Hunter, Mrs.	2	2	0
Harrison, Rev. J. B.	1	0	0	Hunter, Miss	2	0	0
Harrison, Rev. J. B., jun.	1	0	0	Hunter, R., Esq.	18	10	0
Harrison, Rev. J. C.	1	1	0	Hunter, R. C., Esq.	5	0	0
Harrison, Rev. W. T.	1	1	0	Hutton, Rev. H.	1	0	0
Harter, W. T., Esq.	0	10	0	Hullah, John, Esq.	1	1	0
Hatchard, Rev. T. G.	1	0	0	Hut, Rev. F. T. H.	2	2	0
Hawkins, Rev. E. C., per	28	14	3	Hunter, Miss	1	0	0
Hawtrej, Rev. S.	5	0	0	Hutchinson, Rev. W.	0	10	6
Hay, Rev. F. Drummond	0	2	6	Inge, Rev. W.	2	2	0

NAME.	£	s.	d.	NAME.	£	s.	d.
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Irby, Rev. G. P.	1	1	0	Leighlin, Hon. & Ven. Archdeacon	2	2	0
Irwin, Rev. J.	1	1	0	Lennox, Col. Wilbraham	5	5	0
Ingram, Rev. H. M.	1	1	0	Lewes, Henry, Esq.	5	0	0
Jacques, Thomas	1	0	0	Lewis, Dr. Waller	1	1	0
James, Rev. Dr.	0	10	0	Lewis, Henry, Esq.	5	0	0
Janorin, W., Esq.	5	0	0	Leycester, Miss	2	0	0
Janson, T. W., Esq.	1	0	0	Lethbridge, A. G., Esq.	5	0	0
Jennings, W., Esq.	5	0	0	Lichfield, Dean of	5	0	0
Jeffreys, George, Esq.	1	1	0	Lindon, Rev. T. A.	0	5	0
Jervoise, J. Clarke, Esq.	5	0	0	Lightfoot, Rev. Professor	10	0	0
Jewer, H. Jewer, Esq.	2	2	0	Linley, W., Esq.	3	0	0
Johnstone, Mrs. A. S.	0	5	0	Lisle, Ambrose L.M.P. De, Esq.	3	3	0
Johnstone, Mrs. S.	1	1	0	Lloyd, Samuel, Esq.	20	0	0
Johnson, Henry, Esq.	10	10	0	Lloyd, James, Esq.	5	0	0
Jones, Herbert, Esq.	1	1	0	Lloyd, Thomas, Esq.	1	0	0
Jones, W. D., Esq.	5	0	0	Llewelyn, J. J., Esq.	15	0	0
Jones, W. H., Esq.	5	0	0	Lockwood, Miss	1	0	0
Jones, Rev. Hugh, D.D.	2	2	0	Lockwood, Rev. J. P.	3	2	0
Katisch, Rev. Dr.	2	2	0	Locock, Miss	5	5	0
Kelsall, R., Esq.	2	0	0	Lohr, C. W., Esq.	0	2	6
Kemball, Miss Rose	7	10	0	Louttit, J. H., Esq.	1	1	0
Kemp, G. T., Esq.	5	0	0	Lowe, Rev. H. E.	6	6	0
Kempe, Rev. J. E.	2	2	0	Longlands, Rev. W.	0	2	6
Kennard, Adam, Esq.	10	0	0	Longman and Co., Messrs.	10	10	0
Kennard, J. P., Esq.	10	0	0	Long, Jeremiah, Esq.	2	0	0
Kennard, H. H., Esq.	10	0	0	London, Bishop of	10	0	0
Kennard, S. P., Esq.	1	0	0	Lucas, Mrs. Lionel	10	10	0
Kennion, Rev. R. W.	1	1	0	Lucas, Stanley, Esq.	1	1	0
Kent, J. J., Esq.	2	2	0	Lucas, Messrs.	10	0	0
Kerr, Rev. D., per	12	1	2	Ludlam, Henry, Esq.	1	1	0
Kewley, Rev. R. R.	1	0	0	Lutley, J. H. Burnaby, Esq.	10	0	0
Kilburn, Mrs.	3	2	0	Lyon, Rev. Joseph	5	0	0
King, Captain	1	0	0	Macandrew, J., Esq.	2	10	0
Kingsbury, Rev. T. L.	5	0	0	Macfie, R. A., Esq.	1	1	0
Kingsford, J., Esq.	1	1	0	McClellan, Rev. Donald S.	0	10	0
Kitchener, F. E., Esq.	2	2	0	Macgregor, John, Esq.	10	0	0
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Knox, Mrs. Thomas	1	0	0	MacGrath, Rev. J. K.	5	0	0
Ladds, Rev. T.	1	0	0	MacKenzie, Mrs. Murray	15	0	0
Lance, Rev. W.	4	4	0	Macdonald, Captain	5	0	0
Lane, Rev. Charlton	2	2	0	Macnaughten, Stuart, Esq.	10	10	0
Lane, Miss S.	0	10	6	MacGaunt, Mrs.	0	10	6
Lang, Robert, Esq.	1	1	0	Macmillan, A., Esq.	2	2	0
Langley, Rev. J. P.	1	0	0	Mackinnon, P., Esq.	5	0	0
Lavie, Mrs.	2	2	0	Mackinnon, W., Esq.	10	0	0
Lawley, Hon. and Rev. Stephen	10	10	0	Macnamara, W. H., Esq.	0	7	8
Lawrence, Major-General	5	0	0	Macnaught, Rev. J., per	4	17	0
Lawrence, William, Esq.	1	1	0	Mainwaring, Townsend, Esq.	5	0	0
Laurie, John, Esq.	10	0	0	Maitland, Rev. Pelham	1	0	0
Lawrie, P. Northall, Esq.	10	10	0	Maitland, Miss Ellinor	0	16	0
Layard, Right Hon. A. H.	10	0	0	Mallett, Rev. H. F.	5	0	0
Leaf, Charles, Esq.	50	0	0	Manchester, Bishop of	15	0	0
Lee, Misses	1	0	0	Mansel, Miss	5	0	0
Lee, Rev. F. G.	1	1	0	Marsden, Rev. Canon	1	1	0
Lees, A. H., Esq.	2	2	0	Marshall, Mr. and Mrs.	5	0	0
Lees, James, Esq.	2	0	0	Marshall, Rev. James	1	1	0
Lee, Henry, Esq.	10	0	0	Marten, Charles, H., Esq.	1	1	0
Lefroy, Brigadier-General	10	0	0	Martin, F. P., Esq.	1	0	0
Leigh, Hon. and Rev. J. W.	2	2	0	Martin, Miss E. T.	0	10	0
				Martin, Rev. H. A.	3	12	0

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Mason, Miss	1	1	0	Newman, Arthur, Esq., per }	1	1	0
Matheson, D., Esq.	2	2	0	"Herries and Co." }	1	1	0
Mathews, Rev. J. E.	1	1	0	Nicholas, —, Esq.	1	1	0
Matthews, James, Esq.	5	5	0	Nicholl, Rev. Dtyd.	2	2	0
Mayers, Rev. H.	1	1	0	Nichols, James, Esq.	2	0	0
Mayow, Miss	2	0	0	Nichols, R. P., Esq.	1	1	0
Mayow, Miss Wynell	1	1	0	Nichols, Rev. W. J.	2	2	0
May, Rev. W.	3	3	0	Nicholson, Sir Charles, Bart.	5	5	0
M'Connell, J., Esq.	5	0	0	Noble, John, Esq.	30	0	0
Melville, Miss	1	1	0	Noel, Ernest, Esq.	4	4	0
Mercers' Company	52	10	0	Noel, Hon. Roden	1	0	0
Merchant Taylors' Company	21	0	0	Norman, Comm. T. M.	1	0	0
Mathen, Rev. H. R.	1	0	0	Norman, G. W., Esq.	10	0	0
Methuen, Rev. J. P.	1	0	0	Norman, J. M., Esq.	2	0	0
Middleton, H. N., Esq.	5	0	0	Norris, Mrs.	2	0	0
Midland, John, Esq.	1	0	0	Northey, Rev. A. E.	2	2	0
Milais, J. E., Esq., R.A.	1	0	0	Nugent, R., Esq.	2	0	0
Millar, C. H., Esq.	6	6	0	Nuth, Edward, Esq.	1	1	0
Millar, E., Esq.	3	3	0	Nuthall, Major-General	1	1	0
Millar, W., Esq.	5	0	0	Nuttall, W., Esq.	0	10	0
Mills, Mrs. Barrington	2	2	0	Nutter, William, Esq.	2	2	0
Milman, Rev. W. H.	1	1	0	Oakley, J. A. J., Esq.	2	2	0
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Mitford, Admiral	20	0	0	Ogle, Rev. E. E.	2	0	0
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M'Kinnell, J., Esq.	1	0	0	Oldfield, Edmund, Esq.	3	3	0
Moberly, Rev. F. S.	1	0	0	Ommanney, G. D. W., Esq.	1	0	0
Momo, Cecil, Esq.	5	5	0	O'Reilly, F. G., Esq.	1	1	0
Moore, Joseph, Esq.	2	2	0	Oriel, Provost of	5	5	0
Moore, Rev. J. N.	1	0	0	Osborne, Lord Francis	1	0	0
Moore, Ven. Archdeacon.	25	0	0	Ottley, Captain E. C.	5	0	0
Morgan, Octavius, Esq., M.P.	5	0	0	Onvry, Frederick, Esq.	5	0	0
Morier, D. R., Esq.	5	0	0	Overbury, T. W., Esq.	1	1	0
Morrell, W. Wilberforce, Esq.	0	10	6	Owen, Professor	5	0	0
Morris, J., Esq.	2	2	0	Oxford, Bishop of	5	0	0
Mocatta, T. D., Esq.	10	10	0	Pack, Rev. W. J.	1	1	0
Morrison, G., Esq.	50	0	0	Pack, Miss A. E.	2	0	0
Morrison, Charles, Esq.	20	0	0	Paget, James, Esq.	5	5	0
Morrison, Walter, Esq., M.P.	100	0	0	Paget, Joseph, Esq.	5	0	0
Morrison —, Esq.	5	0	0	Paget, C., Esq.	2	0	0
Morley, Samuel, Esq.	100	0	0	Palmer, The Misses	1	0	0
Mosely, A., Esq.	1	1	0	Parry, Rev. Edward	1	0	0
Mosely, Wm., Esq.	1	1	0	Parry, Miss Jones	1	0	0
Mosman, Hugh, Esq.	1	0	0	Pascoe, Rev. T.	1	1	0
Moule, Rev. H.	3	3	0	Pastor (St.), The Dean of	10	0	0
Moule, Rev. V. H., and per	2	5	0	Parker, Miss	1	1	0
Murray, T. Graham, Esq.	5	0	0	Parker, Rev. W.	1	1	0
Murray, William, Esq.	10	10	0	Parker, Alfred T., Esq.	1	0	0
Murray, John, Esq.	25	0	0	Parker, J. Sandbach, Esq.	1	0	0
Murchison, Sir Roderick	21	0	0	Pease, H. F., Esq.	5	0	0
Musgrave, Rev. Vernon	2	0	0	Pease, H., Esq., M.P.	5	0	0
Mudie, C. E., Esq.	3	3	0	Pease, A., Esq.	10	0	0
Munday, Admiral Sir R. C. C. N.	5	5	0	Pease, Charles, Esq.	10	0	0
Nash, Rev. Z.	5	0	0	Pease, John, Esq.	5	0	0
Naylor, John, Esq.	25	0	0	Pease, Joseph, Esq.	20	0	0
Nesbit, Alex., Esq.	5	0	0	Pearse, Miss	5	0	0
Nevill, Rev. J. T.	1	1	0	Pearson, Rev. H.	1	0	0
Nevill, Rev. H. R.	2	2	0				

NAME.	£	s.	d.	NAME.	£	s.	d.
Pearson, Rev. H. D.	1	1	0	Reichardt, Rev. J. C.	2	2	0
Peckover, W., Esq.	5	0	0	Richardson, Mrs.	1	1	0
Peebles, W. J., Esq.	1	1	0	Reid, G. L., Esq.	5	0	0
Peck, H. W., Esq.	50	0	0	Reid, R., Esq.	6	6	0
Peel, Chas., Esq.	5	0	0	Reiss, Fritz, Esq.	10	10	0
Pelham, Lady Henrietta	5	0	0	Reiss, F. A., Esq.	1	1	0
Pemberton, Rev. C. L.	4	0	0	Relton, L. C., Esq.	0	5	0
Pearhyn, Rev. Oswald	5	0	0	Rennie, G. B., Esq.	5	0	0
Pepper, J. H., Esq.	1	1	0	Rhodes, Rev. H. J.	7	2	0
Peppin, Rev. S. F. B.	1	0	0	Richards, George, Esq.	3	3	0
Pepys, Edmund, Esq.	10	0	0	Richards, —, Esq.	5	0	0
Perry, Mrs. Isabella	2	0	0	Richardson, H., Esq.	1	0	0
Petit, Rev. J. L.	27	12	0	Richardson, F., Esq.	15	0	0
Peto, Sir Morton	200	0	0	Rivington, W., Esq.	5	5	0
Perowne, Rev. J. J. S.	1	1	0	Ridding, Rev. G.	25	0	0
Perowne, Rev. E. H.	2	2	0	Ridley, Rev. O. M.	1	0	0
Phillips, Rev. H.	1	1	0	Ripon, Dean of	1	1	0
Phillips, Mrs.	2	0	0	Rivaz, Charles, Esq.	1	0	0
Phillips, Major	2	0	0	Rowland, David, Esq.	1	1	0
Phillips, Rev. H. F.	1	0	0	Rogers, Rev. M.	0	6	0
Phillips, Rev. E.	2	2	0	Roberts, Miss	5	0	0
Philpot, Rev. B.	1	10	0	Robinson, W., Esq.	2	2	0
Philpot, Rev. W. B.	1	0	0	Robson, Miss	2	2	0
Pigon, Rev. Francis	1	1	0	Rodd, Captain	2	2	0
Plank, G., Esq.	1	1	0	Rodd, Mrs. Rashleigh	2	2	0
Plumptre, Rev. E. H.	4	4	0	Roden, Earl of	10	0	0
Plummer, Rev. W. H.	20	0	0	Rolleston, Professor G. H., F.R.S.	5	0	0
Pope, Rev. A. F.	2	2	0	Rose, Rev. E. T., and per	22	10	0
Pollexfen, Rev. J. H.	1	1	0	Rowell, —, Esq.	1	0	0
Pocock, C. Innes, Esq.	1	1	0	Rothschild, Sir A. De	50	0	0
Ponsonby, Hon. F.	5	0	0	Robinson, Rev. John	1	1	0
Porter, Rev. Dr., per	102	0	0	Rouse, Rev. E.	0	5	0
Porter, Miss Anne	5	0	0	Rudersdorf, Madame	1	1	0
Powys, Miss E.	2	0	0	Ruskin, John, Esq.	20	0	0
Poulden, Lieut. Edward, R.N.	0	10	0	Russell, Mrs.	0	10	0
Powell, F. S., Esq., M.P.	10	10	0				
Powell, Rev. Richmond	0	11	0	Salmon, Rev. Prof.	6	0	0
Prance, Reginald H., Esq.	5	0	0	Salt, Titus, Esq.	100	0	0
Prance, Robert, Esq.	10	10	0	Salt, Mrs. W.	1	1	0
Pratt, Rev. Joseph	2	2	0	Salting, W. S., Esq.	2	2	0
Pratten, B. P., Esq.	0	10	0	Salisbury, Dean of	5	0	0
Prebble, H., Esq.	1	1	0	Sandford, Rev. C. W.	1	0	0
Prendergast, F., Esq.	1	1	0	Scott, G. G.	50	0	0
Price, D., Esq.	7	6	10	Scott, Rev. G. H.	0	5	0
Prior, Rev. John	10	10	0	Scott, Lady Henry	1	0	0
Pritchard, Rev. Charles	5	5	0	Scott, Rev. Thomas	1	1	0
Price, Dr. D. S.	2	2	0	Scholefield, Dr. Edward	1	1	0
Price, David, Esq., M.D.	2	2	0	Scholefield, Mrs. E.	1	1	0
Pusey, Rev. Dr.	30	0	0	Scholefield, Miss Anne	1	1	0
Pyne, J. J., Esq.	1	1	0	Scholefield, R. S., Esq.	1	1	0
				Scholefield, W., Esq.	1	1	0
McQueen, Major-General	2	2	0	Sellon, J. S., Esq.	2	2	0
				Serjeant, Rev. E. W.	1	0	0
Ramsden, Miss	1	0	0	Shaftesbury, Earl of	5	0	0
Ramsden, R., Esq.	3	3	0	Sharp, Major Jelf	1	1	0
Rawlinson, Sir H., K.C.B.	10	10	0	Sharpe, Rev. H. J.	0	5	0
Rawlinson, Rev. Professor	2	2	0	Shaw, Benjamin, Esq.	1	1	0
Rawnsley, Rev. E.	1	0	0	Shaw, Benjamin, Esq.	8	6	0
Reade, A., Esq.	1	9	4	Sheffield, E., Esq.	5	5	0
Redhead, R. M., Esq.	1	1	0	Sheppard, Edward H., Esq.	2	2	0
Redpath, H. S., Esq.	4	4	0	Shuckbutgh, Mrs.	0	10	0
Reichardt, Mrs.	1	1	0	Sidgwick, Arthur, Esq.	10	0	0

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Silver, S. W., Esq.	5	5	0	Stowe, Mrs.	1	0	0
Simpson, R., Esq.	5	0	0	Strachey, Sir E.	2	2	0
Sims, —, Esq.	1	1	0	Strangford, Viscountess	5	0	0
Sim, Dr. Robert	2	0	0	Straton, Rev. G. W.	1	1	0
Simson, Thos., Esq.	1	1	0	Struve, Miss M., per	15	12	3
Skelton, G. H., Esq.	5	0	0	Stuart, Major-General Chas.	1	1	0
Skelton, G. W., Esq.	5	0	0	Stuart, W., Esq.	2	2	0
Skirving, Miss	2	0	0	Sunday School Union	5	0	0
Slade, F., Esq.	10	0	0	Swann, Rev. E.	1	1	0
Sladen, Rev. E. H. M.	8	8	0	Swainston, John Todd, Esq.	0	10	0
Sligo, Marquis of	5	0	0	Sweet, L. W., Esq.	1	0	0
Smith, Basil Wood, Esq.	20	0	0	Symmond, Dr.	1	1	0
Smith, Fred., Esq.	1	0	0	Syria Improvement Committee	250	0	0
Smith, Mrs.	5	0	0				
Smith, Rev. Adam Clarke	0	10	6	Taylor, Edward B., Esq.			
Smith, Rev. Harry	1	1	0	Taylor, T. T., Esq.	1	0	0
Smith, Rev. Joseph	5	0	0	Taylor, Rev. Isaac	1	1	0
Smith, —, Esq.	2	0	0	Taylor, R. W., Esq.	2	2	0
Smith, —, Esq.	1	0	0	Taylor, Robert, Esq.	5	0	0
Smith, Rev. Albert	5	0	0	Taylor, J., Esq.	0	5	0
Smith, Oswald Augustus, Esq.	5	0	0	Temple, Rev. Dr.	22	0	0
Smith, Dr. William	20	0	0	Tetley, F. W., Esq.	10	5	0
Smith, Mrs. Newman	6	0	0	Thorp, Archdeacon T.	5	0	0
Smith, H., Esq.	2	1	0	Thomas, Mrs.	1	1	0
Smith, Rev. S.	1	0	0	Thomson, D., Esq.	1	1	0
Smith, W. H., Esq.	5	0	0	Thorold, Rev. A. W.	10	10	0
Smith John Abel, Esq., M.P.	100	0	0	Thrupp, Rev. J. F.	2	2	0
Smyth, Rev. J. G.	2	0	0	Thrupp, Miss	5	0	0
Snod, W. R., Esq.	1	1	0	Tilleard, J. A., Esq.	0	10	0
Somes, Mrs. J.	5	5	0	Tilleard, Miss L.	0	13	0
South, Rev. R. M.	1	1	0	Tinney, W. H., Esq.	7	2	0
Spalding, Thomas, Esq.	15	15	0	Tinney, Mrs.	1	1	0
Spalding and Hodge, Messrs.	21	0	0	Tipping, W., Esq.	60	0	0
Spel, Major	6	0	0	Tite, W., Esq., M.P.	100	0	0
Spelling, —, Esq.	1	1	0	Tindal, Miss L.	0	7	0
Spottiswoode, W., Esq.	10	10	0	Tod, Alexander, Esq.	2	0	0
Spottiswoode, G. A., Esq.	5	0	0	Toone, T. Hastings, Esq.	25	0	0
Spottiswoode, Misses	2	0	0	Topping, S., Esq.	0	10	0
Sprague, T. B., Esq.	5	0	0	Tozer, Rev. H. F.	3	3	0
Squire, Mrs.	20	0	0	French, Lady Helena	1	0	0
Squire, Miss	5	5	0	Tribe, W. F., Esq.	2	2	0
Standing, B., Esq.	4	4	0	Trueby, N. C., Esq.	1	0	0
Stanhope, Earl	10	0	0	Trinity, Oxford, President of	1	1	0
Stanford, E., Esq.	21	0	0	Tucker, Rev. Marwood	2	0	0
Stanhope, —, Esq.	2	2	0	Tuckett, F. F., Esq.	19	0	0
Standing, B., Esq.	2	2	0	Tuckett, F. F., Esq.	2	2	0
Stansfield, W. B. Compton, Esq.	5	0	0	Tuffinell, Rev. E.	0	5	0
Stanford, Rev. E. D.	1	0	0	Tugwell, Rev. L.	0	10	0
Steinmetz, J. H., Esq.	5	0	0	Turner, Thomas, Esq.	5	0	0
Stephen, Miss	1	0	0	Twistleton, Hon. Edward	50	0	0
Stephens, Charles, Esq.	3	0	0	Tylor, E. B., Esq.	1	1	0
Stephens, Rev. W. R. W.	1	0	0	Tyrwhitt, Rev. R. St. John	1	1	0
Stennings, P., Esq.	0	2	6				
Sterry, Rev. Francis	5	0	0	Vale, Miss	3	3	0
Sterry, W., Esq.	5	0	0	Vance, Alexander, Esq.	1	1	0
Stevenson, Rev. J. F., per	6	0	0	Vaughan, Henry, Esq.	21	0	0
Stewart, Philip, Esq.	1	0	0	Vaughan, Rev. Dr.	3	3	0
Stillwell, Jas., Esq.	6	1	0	Vaux, W. S. W., Esq.	2	2	0
Stock, Eugene, Esq.	0	10	6	Vesey, Rev. T. Gerald	1	1	0
Stone, E. D., Esq.	2	2	0	Vignolles, Rev. O. J.	0	10	6
Stoughton, Rev. J., and per	13	1	0	Voss, R., Esq.	1	1	0

NAME.	£	s.	d.	NAME.	£	s.	d.
Vician, R. G. Glynn, Esq.	5	0	0	Wills, W. H., Esq.	5	0	0
Wade, E. C., Esq.	2	0	0	Wilson, Joshua, Esq.	5	0	0
Wagner, Henry, Esq.	2	0	0	Wilson, Rev. R. F.	1	0	0
Waley, S. W., Esq.	2	2	0	Wilson, Rev. Dr.	1	1	0
Walford, Mrs.	0	2	6	Winch, W. R., Esq.	10	0	0
Walford, Miss	0	2	8	Winwood, Rev. H. H.	2	2	0
Walford, Rev. H. T.	0	10	0	Witherby, A., Esq.	2	2	0
Walker, Thomas, Esq.	20	0	0	Wolff, Mrs.	2	2	0
Walker, Mrs.	1	1	0	Wollaston, Rev. Thos.	1	1	0
Walker, T. F., Esq.	1	0	0	Wollaston, J. R., Esq.	20	0	0
Wall, Rev. M. S.	10	0	0	Wood, M., Esq.	1	1	0
Wallace, Rev. J.	2	2	0	Wood, John, Esq.	3	3	0
Wallace, Rev. C. H.	2	6	0	Wood, George, Esq.	5	0	0
Walsh, Rev. H.	20	0	0	Woodruff, Rev. T.	1	0	0
Walter, J., Esq.	25	0	0	Worsley, Rev. J. H.	3	0	0
Walters, G. S., Esq.	10	0	0	Wray, G. O., Esq.	1	1	0
Ward, Thomas, Esq.	1	1	0	Wright, Rev. C. H.	0	10	6
Warner, Rev. J. Lee	1	0	0	Wright, Rev. D.	1	0	0
Warren, Lieutenant W.	5	0	0	Wright, J. Robinson, Esq.	5	5	0
Warren, Rev. S. L.	1	1	0	Wyatt, C. W., Esq.	1	1	0
Wassey, Mrs.	0	2	6	Wyatt, James, Esq.	1	1	0
Waterhouse, J., Esq.	2	0	0	Wyatt, C. H., Esq.	1	0	0
Watson, C. Knight, Esq.	5	0	0	Yarrow, T. A., Esq.	5	0	0
Watson, Horace, Esq.	5	0	0	Yates, Miss	2	0	0
Watson, A. G., Esq.	2	0	0	Young, E. M., Esq.	5	0	0
Watson, D. M., Esq.	5	0	0	Young, —, Esq.	1	1	0
Watts, Thos., Esq.	5	5	0	Youle, F., Esq.	10	0	0
Way, Albert, Esq.	5	0	0	York, Archbishop of	30	0	0
Way, Arthur, Esq.	10	10	0				
West, James, Esq.	0	10	6	Zetland, Earl of	50	0	0
Westmore, Rev. H. H.	4	2	0	Zorlin, Miss	3	1	0
Westminster, Dean of	50	0	0				
Wethered, Rev. F. T.	4	4	0	ANONYMOUS.			
Wharnciffe, Dowager Lady	5	0	0	Miss W., per E. Anderson, Esq.	1	0	0
Wharton, Rev. J. C.	1	1	0	A. B., Birmingham.	0	2	6
Whateley, Rev. C.	4	4	0	C. T.	10	0	0
Whateley, Rev. H. T.	2	2	0	Mrs. K.	1	1	0
Whelpton, Rev. H. R.	7	7	0	W. H. G.	10	0	0
White, Rev. H. Master, per	8	8	0	C. W.	0	5	0
White, W., Esq.	2	2	0	Miss E. B.	0	5	0
White, Chas., Esq.	2	2	0	W. M.	0	10	0
White, Major-General.	5	0	0	A Lady	0	2	6
Whitting, F., Esq.	5	0	0	"Lily"	1	10	0
Whymper, Edwards, Esq.	10	0	0	A Reader of "Good Words"	1	1	0
Wickers, Rev. H.	5	0	0	E. and J.	3	3	0
Wickenden, Miss.	2	0	0	A Friend, per R. C. Childers, Esq.	0	10	0
Wickenden, Rev. J. F.	5	0	0	W. P. D.	0	5	0
Wight, Rev. W.	1	1	0	W. M.	75	0	0
Wilbraham, Frank, Esq.	1	1	0	E. H. S. B.	2	0	0
Wilbraham, Miss.	1	1	0	A. B.	2	0	0
Williams, Rev. F.	1	0	0	Red Box.	0	10	0
Williams, Rev. G.	10	0	0	E. P. H.	4	0	0
Williams, Montague, Esq.	1	1	0	A. H.	0	5	0
Williams, Miss.	1	1	0	Members of a Clerical Society, } per Rev. A. Highton }	0	16	4
Williams, W., Esq.	1	1	0	M. T.	0	10	0
Williams, Sydney, Esq.	8	0	0	R. F. T.	0	5	0
Williamson, Lady	2	0	0	S. T.	0	2	0
Williamson, V. A., Esq.	5	0	0	Anon.	0	2	0
Williamson, W., Esq.	3	0	0	C. F. G. H.	1	1	0
Williamson, Rev. W.	5	0	0				
Willich, C. M., Esq.	1	1	0				

NAME.	£ s. d.	NAME.	£ s. d.
Anonymous	0 5 0	Mrs. K.	3 0 0
E. M.	0 5 0	Philopjeus	3 3 0
A Friend, per Rev. E. Rawnsley	0 5 0	A Friend, per Rev. W. Catman	1 1 0
E. H. V.	0 5 0	A. C.	3 3 0
"Blanchie"	0 1 0	An Engineer	2 2 0
L. M. L.	1 0 0	"Well-wisher," per J. Finn, Esq.	2 3 9
Menapiensis	10 0 0	H. S. B., per Archbishop of York	10 0 0
Friends, per Rev. D. Anderson... ..	1 0 0	Miss W.	1 0 0
G. F. L. G.	0 5 0	W. F. R., Rev., per Rev. W. F. }	0 10 0
A Lady, per Gilbert Scott, Esq.	5 0 0	Rowzell	0 10 0
Delta	3 0 0	Mrs. F.	0 10 0
Merton, S.	2 0 0	Two Friends	1 1 0
Two Sisters	0 10 0	E. P.	0 2 6
A. B. C.	5 0 0	Readers of "Good Words"	0 6 0

OFFERTORIES, LECTURES, &c.

1867.		
Nov. 26.	Offertory of St. James's Church, Gerard's Cross—Rev. W. Bramley-Moore	0 12 0
Dec. 4.	Offertory on Advent Sunday, at St. John's Church—Rev. H. Master White	3 3 0
Dec. 6.	Offertory at North Ormsby Church, per Rev. V. H. Moyle	1 4 0
Dec. 31.	Offertory at St. Lawrence—Sermon preached by Dean of Westminster	22 2 3
1868.		
Jan. 15.	Laura Episcopal Chapel, Bath—Rev. J. Macnaught	4 17 0
Feb. 8.	Trinity Chapel, Reading—Rev. J. F. Stevenson	6 0 0
Feb. 7.	Lecture at Newark—Rev. H. Mackenzie	1 1 0
Feb. 7.	Reading at St. Mark's, Reigate, per Rev. A. A. Ainger	10 14 0
Feb. 12.	Collection after Sermon at Weybridge, by the Dean of Westminster, per Rev. E. J. Rose	22 10 6
Feb. 22.	Proceeds of a Penny Reading at King's Lynn, by Rev. J. Fernie	2 0 0
March 26.	Proceeds of Lecture at Wellington College, per Rev. Dr. Benson	2 2 0
April 18.	Proceeds of a Concert in Valley of Cwm Avon, per Miss M. Struvé	13 12 3
May 1.	Proceeds of a Lecture at Belfast, per Rev. T. L. Porter, D.D.	50 0 0
May 8.	Lecture at Clapton, by Rev. C. Bontell, per Rev. E. C. Hawkins	18 14 3
May 21.	Collected at Institute of British Architects after Paper by G. Grove, Esq., per Professor Donaldson	50 3 0
May 30.	Per James Bateman, Esq.—Lecture at Cannes	24 5 0
	Lecture at Keswick	6 11 0
Dec. 15.	Per Daniel Kerr, Esq.—Proceeds of Lecture at Edron	0 15 0

It is hoped, in the course of the year 1869, to organize a complete system of lectures in the principal towns of England. An experimental series will be held in the spring, and if these be successful, arrangements will be made by which a lecture will be supplied, illustrated with diagrams, free of all expense. The Committee, however, in furnishing the friends of the Society with these lectures, do so at considerable cost, and it is earnestly hoped that supporters will be found in every place to promote the success of the meetings.

LOCAL SOCIETIES.

The following is a list of local Societies now in operation :—

Cambridge—Hon. Sec., Rev. T. G. Bonney, M.A., Tutor of St. John's College.

Chester—Hon. Sec., The Very Rev. the Dean of Chester.

Dalkeith—Hon. Sec., W. Bryce, Esq., M.D.

Dover—Hon. Sec., Rev. W. Light.

Dundee—Hon. Sec., R. Mackenzie, Esq.

Edinburgh—Hon. Secs., Rev. W. Lindsay Alexander, D.D., A. Keith Johnstone, Esq., LL.D.

Falmouth, for the county of Cornwall—Hon. Sec., A. Lloyd Fox, Esq.

Glasgow—Hon. Sec., A. B. McGrigor, Esq.

Hertford—Hon. Sec., Rev. T. Lingley.

Liverpool—Hon. Sec., H. Duckworth, Esq., pro tem.

Northampton—Hon. Sec., E. F. Law, Esq.

Newcastle—Hon. Sec., Thos. Hodgkin, Esq.

Oxford—Hon. Sec., Rev. Prof. Rawlinson.

Plymouth—Hon. Secs., J. B. Rowe, Esq., and J. Shelly, Esq.

Perth—Hon. Sec., R. Jameson, Esq.

The establishment of a local Society is only to be effected by local friends. For them, however, it is easy, particularly when the attention of the place has been roused by a lecture descriptive of the work; the Committee hope to see a large number of these auxiliary societies established in the course of the year. At the same time, they deprecate any idea of being considered as entering into rivalry with existing societies, which may appear to have stronger claims. Most of these require very much larger incomes. For the modest income required in their case, the Committee look with confidence to the two classes—those who are interested in the elucidation of the Bible, and those who are interested in the archæology of Palestine. Biblical and antiquarian students are found everywhere, and if they will remember what are the circumstances of this Society, and the objects it proposes to effect, no special appeal will have again to be made.

It is particularly requested that those gentlemen who kindly undertake the offices of Hon. Sec. and Hon. Treasurer to auxiliary societies will inform the Secretary how many copies of the Reports, Letters, &c., they wish to be sent to them regularly, and will forward the amount of their subscriptions at intervals of not longer than six months.

COLLECTING CARDS.

These are ready to be forwarded to any friend of the Society who has leisure or opportunity to assist in this way. The Secretary requests that holders of collecting cards will send in their amounts and renew their cards at the quarter days. Collectors are invited to inform subscribers that the Reports are published for all alike, whatever the amount of the subscription. Ladies and others with leisure and interest in the Society are specially invited to undertake these, and to collect shilling or half-crown subscriptions.

FREEMASONS.

SUBSCRIPTIONS ALREADY RECEIVED FROM MASONIC LODGES.

	£	s.	d.
Grand Lodge	105	0	0
United Industrious Lodge	1	1	0
Lodge No. 660	5	15	0
Gosport Lodge	1	0	0
Jerusalem Lodge	7	17	6
Lodge of Antiquity	10	10	0
St. James's Chapter	10	10	0
Royal Gloucester Lodge	2	2	0
Royal Alpha Lodge	21	0	0
St. Andrew's Lodge	1	1	0
Churchill Lodge	3	3	0
Westminster and Keystone Lodge	5	0	0
Grand Lodge of Surrey	5	5	0
Yarborough Lodge, No. 244	2	2	0
Eliot Lodge, No. 464	2	6	6
Ancient Lodge, No. 203	5	0	0
Royal Union Lodge, No. 246	3	3	0
North Walsham Lodge, No. 102	1	1	0
St. John's Lodge, No. 328	1	1	0
Lodge of Peace, No. 322	1	1	0
Neptune Lodge, No. 22	5	5	0
Gibraltar Lodge, No. 153	2	2	0
Semper Fidelis, No. 519	1	1	0
Provincial Grand Lodge, Warwickshire	5	5	0
Faithful Lodge, No. 83	1	1	0
Royal Brunswick Lodge, Sheffield	5	5	0
Worcester Lodge, No. 280	2	2	0
Liverpool Lodge, No. 32	5	5	0
Union Lodge, No. 247	5	5	0
Royal Arch Chapter, No. 345	2	2	0
St. Amand Encampment of Knights Templars, Worcester...	1	1	0
Knight Commander Smith, Worcester	1	1	0
Foundation Lodge, No. 82	2	2	0
Mount Zion Chapter, Royal Arch, No. 22	5	5	0
Provincial Grand Lodge, Leicestershire	1	1	0
St. John's Lodge, No. 279, Leicester	1	1	0
John of Gaunt Lodge, No. 523, Leicester	1	1	0
Chapter of Fortitude, No. 279	1	1	0
Ferrers and Ivanhoe Lodge, No. 779, Ashby	1	1	0
Rutland Lodge, No. 1130, Melton Mowbray	1	1	0
Blaydon Lodge, No. 659	1	1	0
All Saints' Encampment of Knights Templars	2	2	0
St. Martin's Lodge, Liskeard	3	0	0

Subscriptions from Lodges and Chapters are also acknowledged in the "Freemason's Magazine." Lodges and Freemasons are requested to apply to the Secretary for full information

PHOTOGRAPHS.

These are now 340 in number, many of them being of places never before taken. They include, among others, views of the ruins of Teh Hum (Caper-naum), Kerazeh (Chorazin), Jerash (Gerasa), Kedes (Kedesh), and Sebastiyeh (Samaria); many spots in and round Jerusalem, Hebron, Damascus, &c.; and the district of Nablus, Gennesareth, &c.

They are sold, mounted, at 1s. 6d. each to non-subscribers, and to annual subscribers of one guinea or donor of £10, at 1s. each.

It is hoped that from the sale of these photographs a steady profit may accrue to the Society. Owing to the large sum required to lay in a stock of these photographs, which is at present about £250 in excess of the amount paid the Society for their sale, no profit has yet been made. Agents have, however, been appointed, and the Committee will be glad to appoint agents in every town in Great Britain.

The following is a list of the Society's Agents:—

London—Mr. Edward Stanford, 6, Charing-cross; Mr. Jeremiah Smith, 42, Rathbone-place, Oxford-street.

Birmingham—Mr. Henry Wright, Bennett's-bill.

Bolton—Mr. Winstanley.

Brighton—Mr. Attwood; Mr. George Wakeling.

Cambridge—Mr. Metcalfe.

Durham—Messrs. Andrews and Co.

Edinburgh—Ordnance Survey Office, 4, St. Andrew's-square.

Glasgow—Mr. David Robertson, St. Vincent-street.

Hastings, St. Leonards—Mr. Dorman.

Lancaster—Mr. Longman.

Leamington—Mr. Knibb.

Liverpool—Mr. Adam Holden, Church-street.

Manchester—Mr. Edwin Slater.

Newcastle-on-Tyne—Mr. H. D. Wilson.

Norwich—Messrs. Jarrold and Sons.

Oxford—Messrs. Parker.

Settle—Mr. Wildman.

Truro—Mr. Heard.

Worcester—Messrs. Deighton and Sons.

Yarmouth—Mr. Nall.

The Committee will be glad to appoint more agents, and take this opportunity of drawing the attention of their subscribers to the photographs as a means of helping the Society. The photographs are the cheapest series published, of the Holy Land. Very many are of places never before taken, and are of great interest. The terms of agency are so arranged that the agent runs no risk whatever beyond the safe custody of the views. It is particularly requested that agents will send in a statement of accounts to the Secretary before December 31 and June 30, for views supplied and sold during the preceding six months. It is also requested that if agents find a delay of more than a fortnight between the despatch of an order and its execution, they will state the facts to the Secretary.

Lists of photographs may be had on application.

PUBLICATIONS OF THE SOCIETY.

1. Report of the Preliminary Meeting.
 2. Statement of Progress, with Captain Wilson's Letters, for 1866.
 3. Meeting at Cambridge, 1867.
 4. Meeting at Willis's Rooms, with Report of Lieut. Warren, June 11, 1868.
 5. Statement of Progress, Jan. 1, 1869.
 6. Lieut. Warren's continued Reports of Progress and Work, with Plans of Work.
 7. Lieut. Warren's Notes of a Journey up the Jordan.
 8. Dean Stanley's Sermon on the Exploration of Palestine, price 6d., or 7d. by post.
 9. Lists of Photographs.
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LECTURES.

The Secretary will be glad to receive proposals for lectures, whether at institutions or independently, in aid of the Society. He is empowered by the Committee to make arrangements which will not entail expense on institutions or private persons who may promote the holding of a meeting or the delivery of a lecture. Clergymen of all denominations are specially invited to avail themselves of this means to spread the knowledge of the work of the Society. It is earnestly requested that lectures on the *special* work of this Society may not be given in aid of other institutions.

PALESTINE EXPLORATION FUND.

Statement of Receipts and Expenditure, June 30th, 1866.

SUBSCRIPTIONS PROMISED		£3,045 11 0	
RECEIPTS.		EXPENDITURE.	
	£ s. d.		£ s. d.
To Subscriptions and Donations	1,742 13 0	By Exploration Expenses, viz.:	
Interest	7 11 0	Excavation	169 5 5
		Travelling	796 9 9
		Tents, Instruments, &c.	132 3 4
		Salaries	444 4 0
		Management, Advertising, Hire of	
		Rooms, &c.	85 7 1
		Petty Cash	10 10 6
			1,638 0 1
		Balance	112 3 11
	£1,750 4 0		£1,750 4 0

ROBERT CULLING HANBURY, } *Treasurers.*
JOHN ABEL SMITH, }
GEORGE GROVE, *Hon. Secretary.*

PALESTINE EXPLORATION FUND.

Statement of Receipts and Expenditure, 30th June, 1867.

RECEIPTS.		EXPENDITURE.		PALESTINE EXPLORATION FUND.
	£ s. d.		£ s. d.	
To Balance from last year	112 3 11	By Balance of Expenses of first Expedition, viz. :—		
Subscriptions and Donations	989 15 6	Salaries	74 8 0	
Interest...	7 5 8	Repairs to Instruments	2 15 6	
				77 3 6
		Exploration Expenses, second Expedition, viz. :—		
		For Excavations, Travelling,		
		Salaries, Implements, &c. ...		594 17 5
		Management, Printing, Advertising,		
		Rent, &c. ...		212 0 8
		Postages, Petty Cash, &c. ...		20 5 1
		Photographs ...		15 3 1
				£919 9 9
		Balance ...		189 15 4
				£1,109 5 1
	£1,109 5 1			

G. GROVE, *Hon. Secretary.*

Examined and found correct,

W. MORRISON,
CYRIL C. GRAHAM, } *Auditors.*

July 8th, 1867

NOTE.—In the first thousand of the "Statement of Progress, January 1, 1868," a "Statement of Receipts and Expenditure" for this date was published, which was incorrect in the item of "Unpaid Accounts." This, the Statement then issued, is now substituted.

PALESTINE EXPLORATION FUND.

Balance Sheet, June 30th, 1868.

<i>Dr.</i>		<i>£ s. d.</i>	<i>£ s. d.</i>
July 7th, 1867.			
To Balance from last year	... ..	334 15 11	
Less Sundry Unpaid Accounts	... ..	145 0 7	
		<hr/>	189 15 4
Photographs, Balance of Cost of Stock in hand 1st July, 1867	... ..		15 3 1
June 30th, 1868.			
To Donations and Subscriptions from July 1st, 1867, to June 30th, 1868			5,179 18 2
Donations to Geological Fund	... ..		80 0 0
Interest on Deposits	... ..		3 19 8
Sundry Unpaid Accounts	... ..		245 5 6
			<hr/>
			£5,714 1 1

			<i>Cr.</i>			
	<i>£</i>	<i>s.</i>	<i>d.</i>	<i>£</i>	<i>s.</i>	<i>d.</i>
June 30th, 1868.						
By Exploration Expenses, &c.	3,100	0	0
Outfit, including Implements, &c.	134	9	1
Passage of Sappers	40	0	0
Presents	26	10	0
Management, viz:—						
Salaries	30	0	0
Printing Reports	115	11	2
Lithographing	48	16	3
Advertising	148	10	3
Hire of Rooms for Meeting	10	10	0
				353	7	8
Petty Cash, Postage, &c.	43	4	0
Photographs, Balance of Cost of Stock						
in hand	242	7	1
Cash Stolen	10	13	6
				3,950	11	4
Balance ...				1,763	10	5
				£5,714	1	9

PALESTINE EXPLOIATION FUND

W. MORRISON, *Hon. Treasurer.*

PALESTINE EXPLORATION FUND.

Statement of Receipts and Expenditure, December 31st, 1868.

[illegible]

W. MORRISON, *Hon. Treasurer.*



PALESTINE EXPLORATION.

A SERMON

PREACHED AT THE CHURCH OF ST. LAWRENCE,
JEWRY, LONDON, DECEMBER 28TH, 1867,

BY

ARTHUR PENRHYN STANLEY, D.D., F.R.S.,

Dean of Westminster,

IN AID OF THE PALESTINE EXPLORATION FUND.



LONDON :

OFFICE OF THE PALESTINE EXPLORATION FUND,
9, Pall Mall East, S.W.

1868.

*This Sermon is reprinted by the kind permission of the
Publishers of "Good Words."*



PALESTINE EXPLORATION.

"Look unto the rock whence ye are hewn, and to the hole of the pit whence ye are digged."—ISAIAH li. i.

THESE words involve, although remotely, the general principle of the pleasure and the duty of going back to the first beginnings of sacred history—of examining below the surface, of reaching down to the solid rock on which the chosen nation was built, the deep well (such is the meaning of the word) out of which they were drawn. The Prophet was speaking of the venerable names of the old patriarchal times, of the solid, massive faith of Abraham, of the lively, sparkling, innocent joy of Sarah. But the spirit in which he urges this is the same as that which, at the period when these prophecies appeared, led to the collection of the sacred books, and the gathering together of the ancient

traditions, and the determination of Ezra and Nehemiah to recover all that could be recovered of the city of their fathers. It is like a fulfilment of the very letter of the Prophet's injunction when we read of that famous exploration of the ruins of Jerusalem by Nehemiah; when, in spite of all discouragements and all difficulties, he got together his few companions for the work so near his heart. "I arose," he says, "I and some few men with me; neither told I any man what God had put in my heart to do at Jerusalem; neither was there any beast with me, save the beast I rode upon. And I went out by night by the gate of the valley, even before the dragon 'spring,' and to the dung gate, and viewed the walls of Jerusalem, which were broken down, and the gates thereof were consumed with fire. Then I went on to the gate of the 'spring,' and to the king's pool: but there was no place for the beast to pass. Then I went up in the night by the brook, and viewed the wall, and passed in by the gate of the valley, and so returned."

We see the toilsome scramble over heaps of rubbish and ruin; we see the disfigurement of all the internal features of the Holy City; we see the eager anxiety to surmount them—to know what there was to be done, to find the best and the worst

that could be made of the desolated sanctuary. A noble example of the energy, faith, and perseverance by which alone any noble enterprise can be accomplished.

What took place there has been again and again in various forms repeated. Once, twice, thrice, five times since then has the Holy City been overthrown, and again and again have those who "took pleasure in her stones and pitied her dust" dug into the rock from whence she was hewn, and the pit from whence she was digged. Such were the first fathers of Christian learning—Origen and Jerome, in their learned treatises on the topography of Palestine, written on the spots which they described—such were the first Christian sovereigns, Constantine and his mother Helena, who first induced the native inhabitants to disencumber the sacred places from their ruins—such were the crowd of mediæval pilgrims who delighted to visit localities of which they had heard so much—such were the first scientific travellers from Protestant England, Germany, and America. But it may truly be said that it is the present age which has most keenly and deeply entered into the feeling inculcated by the Prophet and exemplified by Nehemiah. As in other branches of knowledge, so in matters connected with sacred history, there

never has been a time in which the duty and advantage of investigating things to the bottom—of going down till we reach the rock, and searching till we reach the native spring in the well—has been so fully grasped as in this century. It is so in regard to the letter of the Sacred Books. Never before has there been such a keen and conscientious wish to learn exactly what was the original text handed down to us from the first ages—to compare manuscript with manuscript, not content with the loose superficial knowledge in which our fathers acquiesced for one thousand years implicitly, for three hundred years almost implicitly. It is so in regard to the authorship and composition of the Sacred Books. Instead of the dull uniform level on which earlier centuries of the Church placed every sacred writer, without inquiring as to the time, or order, or style of any of them, we have been gradually, and in our own time more actively than in any time before, learning to trace out, so to speak, the natural inequalities of the soil—to track the different hands engaged in the texture of the different books—to detect when the sacred writer speaks in verse, when in prose, when in figure, when in plain speech—to whom and for whom he wrote—by what atmosphere and influence each word is coloured; in short, to make out, as the Epistle to

the Hebrews teaches us, what were "the sundry times and divers manners" by which God in time past spoke to our fathers by the Prophets. And so it is in regard to the Sacred Land, the Holy Places. A great divine in the earlier half of this century expressed his hope that the same research and investigation which had been applied to the classical literature of Greece and Rome would be applied to the sacred literature of Judea. That has now been done—sometimes with startling, more often with most fruitful and beneficent results. But we also may long that the same research which has been applied to the soil of Greece and Rome should be applied to the soil of Judea. Three hundred years ago all that Christians really cared to know were the few spots to which pilgrimages could be made, without inquiring whether the traditions which supported them were true or false. Then came the eager desire to know something of the general aspect of the Land of Promise. A new instinct, a new craving seemed to be awakened. Men began to ask what was the appearance of those blessed shores by the lake of Genesareth, and of those scenes of the divine parables, which no pilgrim ever visited, no theologian ever described—to learn some of the features which should explain the connection of the stirring

deeds of the warriors of Israel with the mountains and valleys where they took place—something which should tell us why this land was above all others fitted to be the Home of the Chosen People—the Cradle of the Child of Bethlehem. This, our age has to some extent endeavoured to supply by its travellers, beginning with that devoted explorer from the churches of North America (Dr. Robinson), who, first of all the thousands who had visited those sacred scenes, had his ears and eyes open to hear and to see what really was to be heard and seen in connection with sacred topography. And now has come the moment, when it has been perceived that we cannot rest satisfied unless we apply the same principle to the actual soil of Palestine that we have already applied to its sacred books, to its sacred writers, to its general aspect—that we have also already applied to the soil of Pompeii and Herculaneum, the forum of Rome, the mounds of Nineveh, the tombs of Egypt. We have been called upon, with an energy worthy of the cause, to go down literally to the rock out of which the Holy Land and the Holy City are formed, and to the springs deep within their sacred wells and pits, that have fed the life of the chosen people. We are called upon with Nehemiah to go, in spite of all difficulty, in and out of the broken

walls—down into the depths of the Kedron Valley—deep into the recesses of the dragon-well—high into the gate of the King's Pool. Our companions may be few—the beast that is under us may hardly find room to pass—but we are not fulfilling the mission of our age so long as we allow any hole or corner of that land or city to remain unexplored, any stone unturned, that can throw light on the history of that Book which the Coronation service truly calls “the most valuable thing that this world affords.”

I have thus gone over the grounds of this appeal, because, to a certain extent, it explains why it is that, after so much has been said about Palestine, so much remains to be done, and because it shows us how the desire of going more deeply into the subject is part of that general instinct which God's providence has called forth in the heart of mankind through the gradual growth of ages, and how ungrateful we should be if we did not give it full vent in the study of a land to which we owe more, and which is more bound up with our best and holiest affections, than any other land on earth.

And now, as one is sometimes asked what special results may be expected, I will mention three definite points. They shall be taken from Jerusalem, because it is there that the most interesting

results may be expected ; because it is there that those who are engaged under the distinguished officer who directs the work are now employed ; because there, whatever may be done elsewhere by private means, it is only by such contributions as this fund may supply that we can hope to see anything accomplished.

1. There is one monument belonging to the Old Testament, which, if it was found, could be at once identified beyond the possibility of mistake : which does unquestionably exist, and which, if it were found, would clear up many other questions of the old topography. I mean the Royal Sepulchre of David and of the kings of Judah. Just for a moment reflect on what this was. By a singular privilege granted to David, and to his race alone, he and his descendants were buried, not like all other Jews, outside the city walls, but within them. They were laid, doubtless, like the rest of their countrymen, in caves or cells hewn out of the rocky hill on which the city of David stood. David would be laid in the central, or innermost cell, and round about him, on each side, would be ranged the successive kings of Judah, who, with very few exceptions, were buried in the same cavern. " They slept with their fathers," as the Scriptures express it, " each king lying in glory, every one in his own house." Within the

walls, therefore, of the city of David,* wherever that be, that catacomb, that royal vault, doubtless still exists. Hewn, as it must have been, out of the living limestone rock, it is one of the few monuments of the Jewish monarchy that is indestructible. Its size, and the number of sepulchral cells, would enable us to identify it at once, and, if found, it would enable us to fix with certainty the position of all that hangs on the exact arrangement of the precincts of the city of David. No spot that has yet been called by that name answers to the description—neither the so-called Tombs of the Kings, outside the town, which a lively French traveller has laboured to claim as the sacred place, nor the Mussulman shrine of David, which has no extended catacomb to show, such as must have existed in the case of the real sepulchre. The last time it was seen by mortal eyes was when Herod the Great broke into it for its treasures. Is it not worth hoping that it may be reserved for our age to see it once more—that original of all royal consecrated burial-places, the first model of St. Denys, and the Escorial, and Westminster Abbey? We may conceive the interest

* It is just possible that by "the city of David" in the context, may be meant Bethlehem. (See De Saulcy, "*Voyage dans la Terre Sainte.*") But if this be so, it is a point which can only be ascertained by excavation at Jerusalem.

with which, if so be, in those far distant ages when the traveller shall survey the ruins of our own great city from the broken arches of London Bridge, he shall then, in exploring the accumulated encumberments of centuries, dig below the surface, and find, far beneath his feet, the remains of the Plantagenet kings gathered round the shrine of the Confessor, and the vaults of the Tudors and Stuarts under the fallen chapel of Henry VII. Such, but surely of far deeper interest, would be the moment when the tools of our explorers shall strike on the rocky cavern, and there behold the dark corners where once lay the bones of David and his wise son—of Asa and Jehoshaphat—and of the good high-priest Jehoiada, alone of humble origin buried amongst the kings: the branches, so to speak, the withered branches of that genealogical tree of the root of Jesse, which had adorned the opening pages of the New Testament, and figured in the glorious windows of so many a Christian cathedral.

2. It is well known that the point in Jerusalem which for centuries attracted the enthusiasm of Christendom, was the Holy Sepulchre—the supposed sepulchre in which our Lord was laid. Doubtless of late years this enthusiasm has abated. Even at Jerusalem it is felt by intelligent Christians that He is not there—He is risen; and it has been

the privilege of our own time to feel that the scenes of His life and teaching on the shores of the Lake of Genesareth ought to be as dear to us, or even dearer, than the rocky cave which for three short days was sanctified by His lifeless body. Yet still the amount of traditional interest which gathers around the Holy Sepulchre is considerable. There is the fact that for it Constantine built the earliest Christian church, and Richard Cœur de Lion spent his reign in arms in a vain crusade, and St. Louis died in fruitless exile and captivity. There is the fact that for questions arising out of its repair the blood of Frenchmen and Englishmen and Russians was spilt in our day on the shores of Balaclava and within the walls of Sebastopol. These considerations always compel us to ask the question whether the spot which is shown as such is indeed the actual sepulchre which it claims to be, or whether here, as elsewhere, some of the fiercest struggles of the Christian world have been fought for an innocent, but unreal fiction. This is a question which, it may be, can never be fully solved. Of the sepulchre of the Lord, as of the sepulchre of Moses it may be true—"that no man knoweth unto this day." But if we are ever to approach to its solution it will be by such excavations as this Exploration Fund alone can carry on. There is one thing, and

one only, that we know about the real site of the Holy Sepulchre—that it was *near* and just *outside* the city walls. If, therefore, we can ascertain by digging deep enough (and we can ascertain by that only) whether the place now called the Holy Sepulchre is inside or outside the walls, we shall have done all that can be done towards the settlement of the question. If it be *outside* the old walls, then it may be the place. Then there is nothing in the nature of things to prevent us from believing that Constantine was guided to the real spot, and that the Crusaders fought for a real tomb. If, on the other hand, it be *inside* the walls, then the question is at an end. The place will always be interesting as the scene of the thousand pilgrimages which have been made to it, but it will have no connection with Christ's death or resurrection. For it, as far as this is concerned, no crusade need ever again be fought, no Crimean war roused, no eager controversies rage between theologians and geographers, who have hitherto spent so many futile words in discussing a problem of which the key lies beneath their feet, if they will but dig deep enough to find it. For the sake of Peace, therefore, and for the sake of Truth, which is the mother of Peace, let us do what in us lies to fix this one only certainty that can be fixed where all else is uncertain.

3. There is one more point that I will mention. It has been hitherto one great interest of Palestine that whilst the sacred localities of buildings are lost or concealed, the natural features both of the cities and of the country are preserved. But in Jerusalem the natural features themselves are lost under the immense accumulation of ruins. The hills, the valleys, the springs of the old Jerusalem lie thirty or forty feet below the surface. The very rock from which it was hewn, the very pit from which it was digged, the very fountains from which it was fed, have vanished from our view. These, the still living witnesses of those great events, we can still recover; we can still, if we go deep enough, arrive at the streets which David trod, along which Athaliah fled, the actual cliff which Joab climbed, the spring within the Temple vault from which Ezekiel, and a greater than Ezekiel, drew their vivid imagery, the true likeness, if not the reality, of the *Via Dolorosa*, which now is nowhere, and of which no semblance of the form or fashion can be even imagined.

Three such discoveries have been made within the last year, which at once give us new glimpses into the outward appearance of the ancient city that may lodge henceforth in our minds as part of the picture that forms a background to the

sacred history. Close to the temple there was found, some thirty years ago, by the famous American traveller (Dr. Robinson) whom I mentioned before, the spring of a gigantic arch. This was full of interest, but it was still disputed what it might be—whether belonging to a vast bridge, or to a buttress, or to some unknown adjunct to the Temple walls. Now the mystery is solved. All along the valley beneath it, can be found lying below the accumulated soil the stones of the succession of arches, which show that it was part of a stupendous viaduct across the valley between the two hills, which henceforth we must figure to ourselves as one of the features that must have crossed the view of the Apostles and their Master at every turn of their passage to and from the Temple. Another point is the discovery of a stream of water, that “which flowed through the midst of the land,” through the great central thoroughfare of Jerusalem—buried, like the Ty-burn or the Fleet of our own capital, deep under the masses of stone and earth, and which we now know must have been one of the natural boundaries of the interior of the city. A third reveals to us, for the first time, the impressive grandeur of the heights on which the city and the Temple stood. We now know, as never before, the strange and stupendous height

of those Temple walls, half stone, half rock, 120 feet high, down which Josephus looked with dizzy head, and which he has described in language, hitherto deemed to be exaggerated, but now seen to be literally exact—which illustrates, with a new and startling force, the scene in which the Tempter points to the depths below the Temple towers, as only to be contemplated when sustained by angelic hands.

There is much beside on which we might dwell. But I have confined myself to what immediately presses. Do not let it be said that an enterprise set on foot by the energy of a single Englishman has failed through the indifference of England. Never before was such an opportunity in our hands ; never again is it likely to be offered to us. The men are on the spot. The work is understood. The Imperial Government of the East is favourable. If we had but one-tenth of the zeal of our forefathers in this matter, we might possess Palestine, in a sense far more true than that in which they ever could have possessed it. If we miss this opportunity, depend upon it that we shall lament it afterwards, and seek to repair it by spending far more upon it than is now asked of us. Let each reflect on what he can devote to this excellent cause.

Look at what has been done for Palestine in France by the generosity and zeal of one French nobleman. As devout as he was generous, and as eager for scientific discovery as he was devout, the Duke de Luynes, who died last year, to the great regret of his countrymen, has left an example behind which Englishmen might well follow—the proof that religious men ought not to fear truth, wheresoever and by whomsoever discovered; the proof that in this age men can still be found, who can spend their noble fortunes more nobly than on themselves, in the promotion of public objects, on sacred art and sacred fact, on the rock and on the pit, whence they and we alike were hewn and digged.



Proof.]

No country should be of so much interest to us as that in which the documents of our Faith were written, and the momentous events they describe enacted. At the same time no country more urgently requires illustration. The face of the landscape, the climate, the productions, the manners, dress, and modes of life of its inhabitants, differ in so many material respects from those of the western world, that without an accurate knowledge of them it is not too much to say the outward form and complexion of the events and much of the significance of the records must remain more or less obscure. Even to a casual traveller in the Holy Land the Bible becomes, in its form and therefore to some extent in its substance, a new book. Many an allusion which hitherto had no meaning, or had lain unnoticed, starts into prominence and throws a light over a whole passage. How much more would this be the case if by careful systematic investigation the modes of life and manners of the ancient Israelites were to be revealed at all in the same fulness that those of the Egyptians and Assyrians have been. Even supposing so complete a result unattainable, information of the highest value could not fail to be obtained in the process. Much would be gained by obtaining an accurate map of the country; by settling disputed points of topography; by identifying the ancient towns of Holy Writ with the modern villages which are their successors; by bringing to light the remains of so many races and generations which must lie concealed under the accumulation of rubbish and ruins on which those villages stand; by ascertaining the course of the ancient roads; by the discovery of coins, inscriptions, and other relics—in short, by doing at leisure and systematically that which has hitherto been entirely neglected, or done only in a fragmentary manner by the occasional unassisted efforts of hurried and inexperienced travellers. Who can doubt that if the same intelligence, zeal, knowledge, and outlay were applied to the exploration of Palestine, that have recently been brought to bear on Halicarnassus, Carthage, Cyrene, places without a single sacred association and with little bearing on the Bible, the result would be an enormous accession to our knowledge of the successive inhabitants of Syria—Canaanite, Israelite, Roman, and in consequence a flood of light over both Old and New Testaments?

Hitherto the opportunity for such research has been wanting. It appears now to have arrived. The visit of H.R.H. the Prince of Wales to the Mosque at Hebron has broken down the bar which for centuries obstructed the entrance of Christians to that most venerable of the sanctuaries of Palestine; and may be said to have thrown open the whole of Syria to Christian research.

The survey of Jerusalem at present in progress under the direction of Captain Wilson, R.E.—a survey supported by the private liberality of a single person—has shown how much may be done with tact, temper, and opportunity, without arousing the opposition of the authorities or inhabitants. Recent letters of Sir H. James and others in the ‘Times’ have borne testimony to the remarkable fitness of Captain Wilson for such undertakings, and have pointed out other places where explorations might be advantageously carried on. It is therefore proposed to raise a fund to be applied to the purposes of investigating the Holy Land by employing competent persons to examine the following points:—

1. *The Archaeology*.—Jerusalem alone would furnish an ample field in this department. What is above ground will be accurately known when the present survey is completed; but below the surface hardly anything has yet been discovered. The Tombs of the Kings on Mount Zion—the course of the Tyropœon Valley—the real extent of the Temple enclosure—the site of the Tower of Antonia—of the Palace of Herod—of Ophel—of the Pool of Bethesda—the position of the towers of Hippicus and Psephinus—the spring and conduit of Hezekiah—are all awaiting excavation; and it is not too much to anticipate that every foot in depth of the “sixty feet of rubbish” on which the city stands, will yield most interesting and important matter for the Archæologist and the Numismatist.

Beyond the Holy City the country is full of sites which cannot fail amply to repay examination. Of these a few only may be enumerated:—Mount Gerizim, possibly the Moriah of Abraham’s sacrifice, certainly the Holy Place of the Samaritans, containing the stones which the Samaritans allege to have been brought up by Israel from the bed of the Jordan—the Valley of Shechem, the earliest settlement of Jacob in the Holy Land, with his Well and the Tomb of Joseph—Samaria, with the traditional tombs of John the Baptist and others, and with the extensive remains of Herod’s edifices—the splendid Roman cities along the coast, Cæsarea of Herod and St. Paul—Antipatris—the once-renowned

harbours of Jamnia and Gaza—the mounds and other remains of Jiljilieh, probably the Gilgal which contained the Great College of Prophets in the days of Elijah and Elisha—the Fortress and Palace of Herod at Jebel Fureidis—the Tombs (probably those of Joshua) at Tibneh—the mounds at Jericho—the numerous remains in the Valley of the Jordan—Bethshean, one of the most ancient cities of Palestine, with remarkable remains of Roman, and probably still earlier, date—Jezreel, with the Palace of Ahab and Jezebel—the Assyrian mound called Tell es Salhiyeh, near Damascus, &c. &c.

2. *Topography*.—Of the coast-line of Palestine we now possess an accurate map in the recent Admiralty Charts; but advance a few miles inland and all is uncertain. What is wanted is a survey which should give the position of the principal points throughout the country with absolute accuracy. If these were fixed, the intermediate spots and the smaller places could be filled in with comparative ease and certainty. In connexion with the topography is the accurate ascertainment of the levels of the various points. The elevation of Jerusalem and the depression of the Dead Sea are already provided for by the liberality of the Royal Society and the Royal Geographical Society;* but the level of the Sea of Galilee (on which depends our knowledge of the true fall of the Jordan) is still uncertain within no less than 300 feet—as are other spots of almost equal moment.

The course of the ancient roads, and their coincidence with the modern tracks, has never been examined with the attention it deserves, considering its importance in the investigation of the history.

The principle on which the modern territorial boundaries are drawn, and the towns and villages allotted between one district and another, would probably throw light on the course of the boundaries between the tribes and the distribution of the villages, which form the most puzzling point in the otherwise clear specifications of the Book of Joshua.

3. *Geology*.—Of this we are in ignorance of almost every detail. The valley of the Jordan and basin of the Dead Sea is geologically one of the most remarkable spots on the earth's surface. To use the words of Sir Roderick Murchison, "it is the key to the whole of the geology of the district." Its Biblical interest is equally great. To name but one point. The decision

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of the question whether any volcanic changes have occurred round the margin of the lake within the historical period, may throw a new aspect over the whole narrative of the destruction of Sodom and Gomorrah, which has hitherto been interpreted almost wholly without reference to the geological evidence of the ground.

4. *Natural Sciences—Botany, Zoology, Meteorology.*—These are at present but very imperfectly known, while the recent investigations of Mr. Tristram, limited as they necessarily were, show that researches are likely to furnish results of no common scientific interest. Naturalist after naturalist will devote himself for years to the forests of South America, or the rivers of Africa. Why should we not have some of the same energy and ability applied to the correct description of the lilies and cedars, the lions, eagles, foxes, and ravens of the Holy Land?

It will perhaps be said that many of the points above enumerated have been already examined—that Robinson, Stanley, Rosen, and others have done much in the department of topography—that Hooker, and more recently Tristram, have reported on the Botany—that Roth and Tristram have brought home shells, birds, and eggs—that the researches of M. Lartet on the geology of the Dead Sea, and those of De Vogüé and De Saulcy on archæology, are on the eve of publication. This is true; but without intending to detract from the usefulness or the credit of the labours of these eminent men, it is sufficient to observe that their researches have been partial and isolated, and their results in too many cases discrepant with each other. What is now proposed is an expedition composed of thoroughly competent persons in each branch of research, with perfect command of funds and time, and with all possible appliances and facilities, who should produce a report on Palestine which might be accepted by all parties as a trustworthy and thoroughly satisfactory document.

It is hoped that an arrangement may be made by which Captain Wilson will be able to remain for a few months in the country after he has completed the survey of Jerusalem and the levelling between the Mediterranean and the Dead Sea; and it will not be difficult to find competent persons to undertake the other departments named above. The annual cost of each investigator may be taken roughly at 800*l.* (including both remuneration and expenses). It will be therefore necessary to raise in the first place about 4000*l.*

PALESTINE EXPLORATION FUND.

SOCIETY FOR EXPLORING THE HOLY LAND FOR BIBLICAL ILLUSTRATION.

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2. *Manners and Customs.*—A work is urgently required which shall do for the Holy Land what Mr. Lane’s ‘Modern Egyptians’ has done for Egypt—describe in a systematic and exhaustive order with clear and exact minuteness the manners, habits, rites, and language of the people, with engravings intended like his “not to embellish the pages, but to explain the text.” Many of the ancient and peculiar customs of the East are fast vanishing before the increasing tide of Western manners, and in a short time the exact meaning of many things which find their correspondences in the Bible will have perished. There are frequent references to these things in the books of travellers, and they have recently formed the subject of more than one entire work; but nothing sufficiently accurate or systematic has been done. It can only be accomplished by the lengthened residence of a thoroughly competent person.

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ILLUSTRATION.

PATRON.

COMMITTEE.

THE ARCHBISHOP OF YORK.	SIR S. MORTON PETO, BART., M.P.
THE BISHOP OF LONDON.	THE DEAN OF WESTMINSTER.
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THE DUKE OF ARGYLE.	WILLIAM TITE, ESQ., M.P.
THE EARL OF SHAFTESBURY.	REV. A. W. THOROLD.
DR. WILLIAM SMITH.	

The following Donations have been received:—

	£
James Fergusson, Esq.	20
The Bishop of London	10
G. Morrison, Esq.	50
Walter Morrison, Esq., M.P.	100
Mrs. Morrison	10
The Bishop of Oxford	5
Dr. William Smith	
William Tipping, Esq.	10
William Tite, Esq., M.P.	100
The Dean of Westminster	10
The Archbishop of York	20 in two years.

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THE SPEAKER.	DR. H. W. ACLAND, F.R.S.
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PROSPECTUS.

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2. *Manners and Customs.*—A work is urgently required which shall do for the Holy Land what Mr. Lane’s ‘Modern Egyptians’ has done for Egypt—describe in a systematic and exhaustive order with clear and exact minuteness the manners, habits, rites, and language of the present inhabitants, with engravings intended like his “not to embellish the pages, but to explain the text.” Many of the ancient and peculiar customs of Palestine are fast vanishing before the increasing tide of Western manners, and in a short time the exact meaning of many things which find their correspondences in the Bible will have perished. There are frequent references to these things in the books of travellers, and they have recently formed the subject of more than one entire work; but nothing sufficiently accurate or systematic has been done. It can only be accomplished by the lengthened residence of a thoroughly competent person.

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The course of the ancient roads, and their coincidence with the modern tracks, has never been examined with the attention it deserves, considering its importance in the investigation of the history.

The principle on which the modern territorial boundaries are drawn, and the towns and villages allotted between one district and another, would probably

* See Sir Henry James’s letter to the ‘Times,’ Jan. 28, 1865.

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It is hoped that an arrangement may be made by which Captain Wilson will be able to remain for a few months in the country after he has completed the survey of Jerusalem and the levelling between the Mediterranean and the Dead Sea; and it will not be difficult to find competent persons to undertake the other departments named above. The annual cost of each investigator may be taken roughly at 800*l*. (including both remuneration and expenses).

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THE BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, at its recent Meeting at Birmingham, signified its approval of the undertaking, and its sense of the importance and feasibility of the investigation, by voting 100*l*. in its aid.

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By order of the Committee,

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Sydenham, Oct. 1, 1865.

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A SOCIETY FOR THE ACCURATE AND SYSTEMATIC INVESTIGATION OF THE ARCHÆOLOGY, TOPOGRAPHY, GEOLOGY AND PHYSICAL GEOGRAPHY, NATURAL HISTORY, MANNERS AND CUSTOMS OF THE HOLY LAND, FOR BIBLICAL ILLUSTRATION.

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PROSPECTUS.

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Sydenham, June 22, 1866.

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Dean of Westminster	50 0	in 5 yrs.	George Wood, Esq.	5 0	
Bishop of London	10 0		James Bateman, Esq. F.R.S.	25 0	
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Thomas Brassey, Esq.	100 0		Miss Burdett Coutts	500 0	
Rev. C. Pritchard	5 5		(With the intention of ascertaining the best means of providing Jerusalem with water)		
P. Northall Laurie, Esq.	10 10		C. T.	10 0	
F. W. Cosens, Esq.	5 5		S. Lloyd Foster, Esq.	5 0	
Sir Chas. Nicholson, Bart.	5 5		Henry Lee, Esq.	10 0	
Dr. David S. Price	2 2		Rev. E. H. Perowne	2 2	
Sir John P. Boileau, Bart.	50 0	in 5 yrs.	Thomas Spalding, Esq.	26 5 in 5 yrs.	
Edward L. Betts, Esq.	100 0		Rev. Professor Rawlinson	2 2	
J. G. Wood, Esq., <i>Edinbro'</i>	3 3		F. G. O'Reilly, Esq.	5 5 in 5 yrs.	
Francis Richardson, Esq.	5 0		Messrs. Longman & Co.	10 10	
Arthur Anderson, Esq.	20 0		Robert Chambers, Esq.	5 0	
A. Macmillan, Esq.	2 2		Oswald Aug. Smith, Esq.	5 0	
Saml. Gurney, Esq., M.P.	10 10		Mrs. Hancock	1 1 annually	
Sydney Williams, Esq.	10 0	in 5 yrs.	G. Gilbert Scott, Esq. R.A.	25 0	
Rev. J. Y. Nevill	1 1		C. Darwin, Esq. F.R.S.	9 9 in 3 yrs.	
Gwyn Jeffreys, Esq.	1 1		A. Campbell, Esq. M.D.	3 3 in 3 yrs.	
Rev. R. St. John Tyrwhitt	1 1		Rev. J. E. Kempe	2 2	
Rev. A. W. Thorold	10 10		Charles White, Esq.	2 2	
R. R. Banks, Esq.	1 1		Edward Hardcastle, Esq.	5 0	
David Rowland, Esq.	1 1		Rev. G. G. Bradley	2 2	
Robert F. Cooke, Esq.	10 10		Thomas Lloyd, Esq.	1 0	
Rev. W. Rogers	1 1		G. H. Donaldson, Esq.	1 0	
John Hullah, Esq.	1 1		William Atchison, Esq.	5 0	
Charles Harrison, Esq.	5 5		Henry Fell Pease, Esq.	5 0	
A. Strahan, Esq.	50 0	in 5 yrs.	Earl Zetland	50 0	
C. Davidson, Esq.	1 1		Rev. Dr. Pusey	15 0 annually	
Rev. Professor Lightfoot	10 0		Messrs. Lucas Brothers	10 0	
Rev. J. E. Coulson	1 0		John Ruskin, Esq.	10 0 annually	
Wm. Robinson, Esq.	5 0	in 5 yrs.	C. E. Mudie, Esq.	3 3	
A. H. Layard, Esq., M.P.	10 0		Herbert Duckworth, Esq.	2 0	
Earl Ducie	20 0		Cyril C. Graham, Esq.	5 0	
Geo. E. Eyre, Esq. F.G.S.	15 15	in 3 yrs.	Dr. Kalisch	2 2	
W. Spottiswoode, Esq.	15 15	in 3 yrs.	Robert Sim, Esq., M.D.	2 0	
Rev. E. H. Plumptre	10 0	in 5 yrs.			
Henry S. Bicknell, Esq.	10 10				
John Abel Smith, Esq. M.P.	100 0				
John Noble, Esq.	10 10				

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REPORT OF THE PROCEEDINGS

AT A

PUBLIC MEETING

Held in Willis's Rooms, St. James's, on Friday, June 22nd, 1865.

HIS GRACE THE ARCHBISHOP OF YORK IN THE CHAIR.

THE BISHOP OF LONDON opened the proceedings with prayer.

THE CHAIRMAN.—My Lords, Ladies, and Gentlemen,—To me belongs the humble task of explaining the objects of the present meeting. It has been thought by many persons interested in science and history, and especially in sacred history, that the state of our knowledge of Palestine, in spite of all that has been done, is very far from what it ought to be; that in almost every branch of inquiry much remains to be done; that, for example, explorations by means of excavations have scarcely taken place there at all, although there can be little doubt that under the sacred city monuments of the greatest value and importance would be found in every foot deep of the ground. That applies to Jerusalem; but the same is true of many interesting sites throughout the Holy Land. This country boasts, and with justice, that it takes the greatest interest in the Bible, and the illustration of the Bible; but it cannot boast that in this particular branch of inquiry it has done everything it could do to make the Bible better known and understood, and there can be no doubt that an accurate examination and a better knowledge of the Holy Land would throw a light on many important parts of the sacred text. (Hear, hear.) I am obliged only to allude to these things, because, in fact, I am scarcely competent to deal with them in the presence of persons of great ability seated round me, who will by-and-by develop them; and I should show a very inadequate sense of my position, if I were to endeavour to anticipate those speakers who can do justice to each part of the subject more fully than I can. But a want is felt for a much greater and more active inquiry into the state of Palestine and into its antiquities. (Hear.) Now, that being conceded me, the second point I have to speak of is this: we are about to-day to embody ourselves into a society, to be called the Palestine Exploration Fund, having this object in view,—the exploration of the Holy Land; but in order to bind together persons differing in important points of opinion, and in order to work together for this one common object, we mean to lay down and vigorously adhere to this principle—that our object is strictly an inductive inquiry. We are not to be a religious society; we are not about to launch into any controversy; we are about to apply the rules of science, which are so well understood by us in other branches, to an investigation into the facts concerning the Holy Land. I am very careful to state that, because amongst the list of names that will presently be read out to you, it will be seen at once that there are many who have consented to forego important differences for the purpose of acting together upon this common ground, and I am quite sure that every effort will be made in the course of our proceedings to

secure that this good feeling shall not be interrupted, and that we shall endeavour to work together in that in which we agree, and to put aside that in which we differ. (Hear, hear.) The list of names will presently be read, and I am glad to say that though this is the first public appearance of this society or public announcement of its objects, we have already, by private canvass, secured the support of many eminent persons as the committee, and I have the pleasure to say that the highest Personage in this country, the Queen, has consented to become the patron of the Palestine Exploration Fund. (Loud cheers.) That intimation has only reached me this morning, and I augur from it a bright future for our undertaking. (Cheers.) I feel ashamed for having trespassed upon you even for these few minutes upon the general subject; and I will only further say this: This country of Palestine belongs to *you* and to *me*, it is essentially ours. It was given to the Father of Israel in the words: 'Walk through the land in the length of it, and in the breadth of it, for I will give it unto thee.' We mean to walk through Palestine in the length and in the breadth of it, because that land has been given unto us. It is the land from which comes the news of our Redemption. It is the land towards which we turn as the fountain of all our hopes; it is the land to which we may look with as true a patriotism as we do to this dear old England, which we love so much. (Cheers.) I think we are giving ourselves a great pleasure in being banded together for this purpose; but I also think it is a sacred duty which we now undertake, to endeavour, by a new crusade, to rescue from darkness and oblivion much of the history of that country, in which we all take so dear an interest. (Cheers.) When I see that on this platform is gathered together a most universal assemblage of persons who thoroughly know the subject, on all its different sides, I have the greatest pleasure in making my remarks short, in order that they may have more space to fill up the details which I have left untouched. (Cheers.)

The BISHOP of LONDON.—The resolution I have to propose to you is, 'That a Fund be formed for the purpose of promoting the Exploration of the Holy Land; and that the following* Noblemen and Gentlemen do constitute the Committee and Officers, with power to add to their number.' (Cheers.)

I will merely, for my own part, express the very great interest which, in common, I believe, with the clergy in general, I take in this measure. We feel, speaking for ourselves, that we belong to a church which is always anxious to promote education in every department, and we should be strangely deficient in our duty if we did not support this undertaking, intended to reflect light on a department of education which is connected with the Old and the New Testament; we belong also to a church which professes great reverence for the sacred books, and we should be certainly greatly deficient in our duty if we did not promote an undertaking which is likely to give material aid to the interpretation of those books. We feel that of all departments of sacred learning there is none in which the present age is more interested than the interpretation of the Bible; that exegetical theology seems to be the

* See the list on the title-page.

theology of this age, and that this enterprise must greatly assist and strengthen the hands of students of exegetical theology. Moreover we are desirous to strengthen the faith of our people, and nothing is so likely to strengthen a man's faith as an intimate acquaintance with the scenes in which the great events occurred on which our teaching depends. Having learned by our own experience that the light which has of late been thrown upon these scenes has strengthened our own faith, we feel confident that such an effort must strengthen the faith of our people. (Hear, hear.) Each man will urge you to join this association for his own reasons. These are the reasons which present themselves to my mind, and I shall not longer stand in the way of those who can give you information from a practical acquaintance with those countries which, unfortunately I have never visited. (Cheers.)

VISCOUNT STRANGFORD.—My Lord Archbishop, I am wholly unable to do justice to this resolution. I have come here as a member of the committee, only joining it this very day, and I am unprepared to utter a single word upon the subject—especially to fill the place or stop a gap so great as that caused by the absence of one so thoroughly competent as His Grace the Duke of Argyll. From my own slight knowledge of the East, which is only metropolitan, namely, that of Constantinople, I have been able to see and appreciate what has been hitherto done, in a sporadic way, and by uncombined work, for exploration in Palestine; and I do hail most cordially and with the greatest satisfaction the present opportunity of uniting and combining into one focus the whole of the various branches of science, for the purpose of a united and systematic exploration. I therefore have the greatest pleasure in seconding the resolution. (Cheers.)

The resolution was then put and carried unanimously.

A. H. LAYARD, Esq., M.P.—I have been requested to move the second resolution, which is in these terms :—

‘That the exploration of Jerusalem and many other places in the Holy Land, will probably throw much light on the archæology of the Jewish people.’

It is a singular thing that there are few countries less known, as regards its natural history and its archæology, and, in many parts, its physical geography, than the country most intimately connected with the Holy Scriptures,—I mean the Holy Land, and the region to the east of Jordan. Until very recently we were but very slightly acquainted with its fauna. Something has been done of late by Mr. Tristram and others to throw light upon it, but previously we had only the incomplete information furnished by such elementary works as Dr. Kitto's History of the Bible. The resolution I have the honour to move is, however, confined to the archæological part of the question. Few persons will be disposed to disagree with me when I say that the archæology of Palestine is a subject of the very highest interest. In the first place, as illustrating the history and civilisation of the Jewish people themselves, their manners, their customs, and their arts; in the second, as throwing light upon the connecting link which, according to recent discoveries, would appear to have distinctly existed between Egypt and Assyria. (Hear.)

First, then, I may point out the recent discoveries in Assyria, to show what might be expected from explorations in Syria. A few years ago we were almost entirely ignorant of the true history of Assyria, even the site of its capital—a city which, in its day, held the foremost place amongst the cities of the world. Vague traditions pointed to some mounds as representing Nineveh; but until the excavations, which took place about fifteen years ago, we had no positive evidence of its position. Those excavations have enabled us almost to reconstruct the history of a lost people, which, in its time, exercised the greatest influence upon the known world. Not only have we been able, through the discoveries of Sir Henry Rawlinson, Dr. Hincks, and others, to read their written history and trace their connection with other nations and races, but by the aid of the sculptures we can almost learn the details of the private and domestic life of the Assyrian people—their dress, their arms, and their religious ceremonies. If similar discoveries could be made in Palestine, the greatest light would be thrown upon the political and domestic history of the Jews, and most important illustrations of the Holy Scriptures would be obtained. I will not go so far as to say that excavations in Palestine, or in the country east of the Jordan, would lead to discoveries such as those made in Assyria. We know that the Jews never represented the human form in sculpture or painting; we should, consequently, find no Jewish bas-reliefs or paintings similar to those found in Assyria; but we may find small objects of various kinds and of great interest—inscriptions, remains of architecture, metal work, pottery, coins, and other things tending to throw light upon the history, manners, and civilisation of the Jews. Indeed, we know scarcely anything of the Jews from existing monuments and remains. A few large stones and foundations, discovered at Jerusalem in casual excavations, are all we can point to with certainty. Some sarcophagi in the Louvre have been supposed to be coffins of the Jewish kings. They were announced as such with a loud flourish of trumpets, but no person acquainted with the antiquities of Syria will venture to refer them to a period much earlier than the time of the Herods; perhaps they belong to a still later period. They are of debased Greek or Roman art, which had no connection with Jewish art. In the so-called ‘tombs of the kings,’ from whence they came, a large collection of urns containing the bones and ornaments of Roman soldiers has recently been found, showing that the spot was used as a Roman burial-place. Now, one of the objects of this society is, if possible, to obtain some knowledge of what the arts of the Jews really were, and thereby to throw some light upon the history of that most remarkable people, with whom our own faith and the history of all civilised nations is so intimately connected.

The second point to which I would direct your attention is the possibility of finding in Palestine or Syria remains to illustrate the connecting link between the arts of Egypt and Assyria. I may mention that the French Government, which is always more ready than our own Government to undertake researches of this character, has recently carried on in the neighbourhood of Sidon and Tyre some exceedingly interesting excavations, and the result has been the discovery of remarkable remains, most important in illustrating this

connecting link. They consist chiefly of large sarcophagi of a very peculiar character—not Assyrian or Egyptian, but partaking of the art of both—with inscriptions in the Phœnician language, giving us an insight into the history of that interesting people which was brought so much into contact with the Jews, and the names of some of their kings. We have in the British Museum one of these sarcophagi, but without any inscription, and inferior in workmanship to some of those in the Louvre. It would be very important to discover some remains of Jewish architectural decoration. The only information we have upon these subjects is contained in the descriptions in the Books of Kings and Chronicles, and in Josephus, of the great houses, palaces, and temples, built by Solomon. They show that the art of the Jews was nearly akin to that of Assyria, with, probably, some trace of Egyptian influence. Indeed, the description given by Josephus of Solomon's palaces, and of the Temple, corresponds most remarkably with the recently-discovered Assyrian palaces. It may be asked where excavations are to be undertaken. Already, in Jerusalem, a captain of the Royal Engineers, with several sappers and miners, sent out under the auspices of the War Department and with the sanction of the Government, is to a certain extent promoting the work we contemplate. This party have, it is understood, made some very interesting discoveries, but only just sufficient to whet our appetites. The lower they have gone the more important are the discoveries they have made, and the greater are the indications of what may lie buried at an even greater depth beneath the soil. There will of course be considerable difficulties in the way of obtaining permission to excavate in Jerusalem, but I must bear my testimony, from personal experience, to the extreme liberality and kindness of the Sultan and his Government in assisting Englishmen in carrying on their researches and excavations; as I am sure will the noble lord who has just entered the room,—Lord Stratford de Redcliffe,—(cheers)—with whose name will always be connected the wonderful discoveries in Assyria, and who obtained from the Sultan the firman which secured to the British nation the collection of Assyrian monuments now in the British Museum. We have, therefore, every hope that the Sultan and his Government will be favourable to the undertaking in which this society is about to embark. But the remains of which we are in search are not confined to Jerusalem alone. There is scarcely a plain in Syria, whether to the east or west of Jordan, in which ancient mounds are not seen; what may be buried beneath them no one can tell. When I first saw the mounds of Nineveh, they were mere shapeless masses of earth and brick, without any traces upon the surface of the contents within. In like manner these Syrian mounds may possibly contain important monuments. Even if they should not contain monuments as important as those in Assyria, you will probably agree with me in thinking that we ought to endeavour to ascertain what they really do contain. I have had very great pleasure in adding my name to the Committee of this association. At present our funds are not sufficient to enable us to undertake any work on a large scale; but I hope the announcement which your Grace has made to-day, that Her Majesty has been graciously pleased to become the patron of the

society, will induce people to help us, and by showing the public the importance of carrying on the researches we contemplate, will enable us to raise the necessary funds. Before sitting down, I wish to add one more remark. A great deal has been said of late of the working man. Let me say this, that if there is any subject in which the working man takes an interest, it is one connected with the illustration of the Holy Scriptures. I speak this after some experience. I am in the habit of giving lectures and discourses to working men—my constituents in Southwark, amongst others—and I have generally chosen some such subject,—for instance, my own journeys in the East, with incidents illustrating Eastern life, manners, and art, as bearing upon the Bible,—and I have always found that such subjects command the largest audiences of working men, and excite the greatest attention; and I know that nothing in the British Museum ever created greater interest amongst the working classes than the remains of Nineveh. Therefore, though the Government may not be inclined to help us,—leaving such things, as usual, to private enterprise,—I think upon the score of public utility, and the interest which the people at large take in researches of this kind, we might almost fairly appeal to it for its sympathy, aid, and support.

The COUNT DE VOGÜÉ.—I will add a few words to those which have been just spoken by Mr. Layard, upon the second resolution. I was asked to do so a few minutes ago, and therefore I require the greatest indulgence, having been in London only some three hours, and not having a great practice of the English language. (Cheers.) I will be very happy in seconding such an eminent researcher as Mr. Layard on the subject of excavation, in which he is certainly one of the masters. (Cheers.) He has made just now, a parallel between what has been done in France and in England. Though I have no connection with the French Government, I thank Mr. Layard for what he has said. However, I cannot help adding that, if in this country by private researches and private efforts you can do what can only be done in France by the support of the government, in the parallel you have the best share, and we must envy you. Mr. Layard has told you that no discovery could be made in Palestine except by excavation, and in that he is perfectly right. The most part of what is above ground has been now, I dare say, seen and described over and over again. Without speaking of what I have done myself, nor of the important works of some of my countrymen, descriptions of these things have been written by eminent gentlemen whom I see upon this platform, by persons I see in this meeting, and even in the fairest part of this meeting. (Cheers.) Therefore, what is to be done now? It is to excavate. It is only under the mounds and in those large heaps of rubbish which time has accumulated upon the surface of Palestine that we can expect to find some new monuments and new details of the Jewish art.

In what has been said just now of the Jewish art I perfectly agree with Mr. Layard. Although the name of *Jewish art* in its application to some monuments is of French origin, I may say I am not myself agreed in those theories, though I entertain a very great desire to do justice to the benefit afforded to science by the works of my excel-

lent friend M. de Saulcy. Jewish art, I do believe, is a branch of Phœnician art, that is, an art which never had in itself any great originality. The inhabitants of the Syrian coast, always conquered on both sides, either by the great Assyrian empire or by the Egyptian, always submitted to the influence of those two countries, and it is in their art that we find the trace of that influence. When the Egyptian kingdom was the greatest, and when its power prevailed, then we find in the monuments of the Syrian peoples considerable traces of Egyptian influence. When the Assyrian power became the greater, and prevailed over the Egyptian, then we see Assyrian art had also an influence on the monuments; and all we find of that period, namely, gems, plate, sculptures, or other works of art, all have a double or mixed character of Assyrian and Egyptian style. Then came the Greeks, who borrowed some of these Asiatic elements, and with their unequalled genius worked them up into a new style, which, in its turn, prevailed over all the ancient world. I was happy enough myself to ascertain those facts while excavating in the island of Cyprus, where I found a series of monuments illustrating those transformations of art, and showing their progress by stages from the Egyptian and Assyrian into the Greek period. I hope that the excavations contemplated in the Holy Land will be made, and will give us monuments of the true Jewish period which will carry that same character of the mixed influence. (Cheers.) I will not add anything more to those few words. I only wish to thank you and this Society for the kindness with which you have indulged me. I will also say one last word on the direction to give to the works of the Society. It has been justly repeated that the best way of conducting this business is to put aside all exaggerated, or national, or ecclesiastical feeling—to collect facts and leave others to come to a conclusion. That is what this Society has to do; in that liberal and independent line she must act, and she will obtain a result worthy of the free country of which I am happy to breathe, for the first time, the vivifying atmosphere. (Cheers.)

The resolution was then put and carried unanimously.

SIR RODERICK MURCHISON, K.C.B.—I feel that the motion confided to me will not meet with that amount of applause which has been justly given to the proposition so eloquently put before you by my friend Mr. Layard. The subject he treated is one in which you all take an interest, but mine is one which specially interests only those groups of scientific men with whom I am associated. The motion I offer for your adoption is—

‘That in addition to the praiseworthy researches which have recently been made by Frenchmen, Englishmen, and others, in the Holy Land, it is highly desirable to carry out such a systematic survey as will completely establish the true geological and geographical characters of that remarkable region.’

It is not in my power to give you a lecture upon the geological structure and geographical characters of the Holy Land; but this I may say, that notwithstanding all that has been recently done by that distinguished Frenchman, the Duc de Luynes, and by his countryman, that eminent paleontologist and geologist, M. Lartet—notwithstanding what has

been done by our countryman, the Rev. H. B. Tristram, who is about to communicate his views fully to the public, so much remains to be done, that I am quite sure those authorities must be as anxious as I am that a more systematic and extended exploration of this very remarkable region should be carried out. The great depression in the surface of the Holy Land occupied by the Dead Sea is the most striking phenomenon of that class upon the face of the globe. The last measurement of this depression gave us a depth of 1,312 feet beneath the level of the Mediterranean, and the accuracy of this report is now being tested by ordnance surveyors. When and how this grand depression was produced are points for the inquiry of geologists. How have the waters been reduced from former and higher levels, which are marked by certain deposits of marl and gravel, that form terraces at different heights upon the hill-sides above the Dead Sea? These are problems which geologists alone can solve. On one essential point, indeed, the French authorities agree with the Rev. Mr. Tristram, namely, that in those geologic times which immediately followed the secondary cretaceous period, this depression already existed. We also know that the level of the waters has been successively changed, as shown by the remains of the different younger tertiary beds seen at different levels on the sides of this depressed sea. The geologist has next to inquire whether the convulsions that took place in early periods have been followed by other changes of outline which lead us on to the historic period, and whether some of these have not been coincident with certain volcanic eruptions which took place upon the north-eastern side of this great cavity. He has next to determine whether this great line of depression is or is not a line of fissure or sudden subsidence. If not, whether there have not been subsequently very powerful earthquakes and consequent changes which may, to some extent, have affected the surface even in the historical era. In illustration of this point I would refer you to the recent work of my friend Capt. Spratt—his description of the Island of Crete. That island, so celebrated in Grecian history, has been visited by numerous scholars, and had been admirably described by Pashley and others, as to its ancient remains. But what knowledge does Captain Spratt bring to us? He shows us that the very bottom of the port of the ancient city of Phalasarna, described by Strabo and Scylax, is now above the level of the sea, owing to the great subsequent upheaval of the island and the adjacent sea bottom. Similar changes in the relation of land and water may have taken place on the shores of the Dead Sea since the days when the Holy Scriptures were written. The changes in physical geography which this portion of the Holy Land may have undergone within the historic era is truly a question of great interest for physical geologists and comparative geographers to determine. Then again, in connection with geography, how are we to become sufficiently acquainted with the meteorology of the region, without we send thither some one who will carefully examine into and ascertain the amount of water that falls throughout the year. That it must be considerable at some seasons seems certain; for we are told by travellers that masses of rock-salt which occur upon the sides of the sea assume

very different forms from year to year; so that successive travellers give very different accounts of the form and appearance of these objects, showing that considerable modifications of outline are going on. I will not now attempt to enter into the theories which Captain Maury and others have offered to explain the present waterless and sterile condition of eastern countries in reference to scriptural periods when they were densely peopled. Is it true that a much less amount of rain falls now than formerly? Already we know the saline character of the Dead Sea is not the result of a former depression from the ocean. That idea is abandoned. The French and the English geologists who have visited the country have come to the conclusion that the saline character of that sea is due to the influx of fresh water from the surrounding highlands, and the decomposition thereby of the great body of rock-salt that constitutes its sides and bottom. But I have detained the meeting too long on these points, though, with my strong feelings as an old geologist and geographer, I should be unworthy of the position I hold if I did not endeavour to sustain this undertaking. I trust that many geologists and geographers will unite with me in supporting that which I consider to be one of the noblest projects which could have been laid before the British public. (Cheers.)

W. GIFFORD PALGRAVE, Esq.—What has been already said by those much better acquainted with the subject, and more qualified than myself to speak on such topics, leaves me little to say. The investigations which will shortly, I trust, be carried out by means of the present undertaking, below the surface of the Holy Land, are of extreme importance, and will tend in many ways to elucidate the great object of the Association, namely, a fuller investigation and better understanding of the history and character of that race with the annals of which our own, as a Christian nation, are intimately connected; a subject interesting to us all alike, not only to the classes of society represented here, but also to the industrial and operative, indeed to all Englishmen, not to say Europeans in general. There is no doubt that what has hitherto been done is by no means perfect; much has been accomplished, but far more remains. I can, myself, after a residence of many years in those countries, bear witness to the amount of archaeological treasures yet unexplored, hidden in great measure under the soil of Palestine, perhaps more especially on the east of the Jordan, and which will, no doubt, fully repay whatever pains may be bestowed in bringing them to light. Again, the geological question which you have just heard so ably touched upon, is one of the greatest importance to a fuller understanding of the land, not only in a scientific point of view, but in order to better appreciate the circumstances that determine the data of those great catastrophes recorded or implied in Holy Writ. But, in addition to these subjects, I will mention one very intimately connected with those already touched upon, and on which I intend saying a few words, principally because I think that it may possibly escape the direct observation of some here present, To apply a common Eastern proverb, 'The Land;—that means the inhabitants of the land.' The past of a land may often, in no small measure, be understood by its present, and its former conditions illustrated by its present inhabitants. Now it is a fact, which I must, after

long years of residence in the East, be permitted to assert with some positiveness, that of all parts of the East there is none where we are less accurately acquainted with the real character of the existing races, their origin, and their exact historical connection with the past annals of the land, than Palestine itself. This is in a great degree the consequence of the great changes, physical, political, and social, which have passed over that land, and which have confused and, so to speak, jumbled together, countless races in a comparatively small spot, till the investigation, though highly interesting, has been rendered peculiarly difficult.

And to consider, in the first place, the Jewish race itself, there is a main question yet to be solved, namely, how far we might discover in Palestine (taking 'Palestine' in the broadest acceptation of the term, as including the entire territory which the Jewish nation, at any rate under the reign of Solomon, occupied, or at least held in authentic subjection) any ethnological links between those days and our own in the existing races of the country; any living relics of that vigorous Jewish race which may have in some degree escaped the great catastrophes of time and the strange reverses which befell that fated people. There are reasons for believing that much of this nature remains yet to be discovered, and that among the inhabitants of Palestine, and its immediate neighbourhood, there may be found not only those who immigrated at a later period into the country, but some traces of those also who were the original inhabitants of the land.

Secondly (and this is also intimately connected with the Jewish history, and therefore contributes to the more thorough elucidation of our main object) comes the question, how far the history of those various tribes of people may be illustrated, which, either by original command, or in later times by the Jews themselves, were more or less displaced, subdued, partly exterminated, or partly permitted to remain even to a late period; what may yet survive of the original Phœnician stock, of the ancient Canaanites, or inhabitants of the plain, of the Amorites, and of the various races that dwelt, whether on this or the other side of Jordan. Now here again it is my full conviction that a suitable investigation would discover much of the highest interest. I have, myself, been able while in those countries to mark certain differences, minute indeed, but not the less real; differences in language, in dialect, in manners and customs; physiological differences in bodily and mental qualification and formation, between the inhabitants, which one may be sure, if properly investigated and explained, would lead to a better comprehension of many difficult points yet remaining to be elucidated in the sacred history, and would lead us better to understand the nations among whom the Israelites lived, or to whom they succeeded, or who at times in their turn overcame and supplanted the Israelites themselves. Their history may indeed partly be understood through such remains as may be discovered by excavation and otherwise—inscriptions, sculptures, and the like. But even more may be determined by the attentive and critical study of those who are still more or less their living descendants and representatives. Nor should the idea of long-maintained identity in distinction appear to us chimerical in Palestine as it might in Europe; nor should we deem fruitless such researches in a

little corner of the earth where distinct races might be supposed to have been amalgamated into one people by 3,000 or 4,000 years of close living together. The East, and I may add more especially that part of the East with which the present undertaking is concerned, is less a land of organic life than of fossil existence; it is a land, so to speak, of petrifications—where remains, which might elsewhere, under more active influences, have perished or become utterly decomposed, still remain intact and preserve their distinctive lineaments. In our own more busy regions fusion takes place. Centralization does its work; differences disappear, and nation after nation, perhaps ultimately the whole of Europe, will become more and more fused into one nation and one people. In the East a very different process goes on; people, tribes, families, I might even almost say individuals, have remained for centuries side by side without changing, without amalgamating, almost without cohering. Now it is evident that among the highly qualified individuals who will doubtless be selected for the accomplishment of the great undertaking to which this present assembly bears testimony, some will be found capable of accurately investigating these points, and of thus supplying us with important data tending to increase our knowledge of what the ancient Israelites really were, and what the nations with whom they warred, and among whom they lived. These are points to be partly determined by actual observation of the inhabitants themselves, and partly illustrated by the other investigations of which you have already heard, and which we may trust will, under the guidance of Providence, furnish us with, if not an absolutely complete, at least a more complete idea of the Holy Land, whether in its past or its present, than any which we have hitherto obtained. This it is that will be carried out under auspices and guidance of so high a guarantee as that afforded by those who have undertaken the guidance of this enterprise, or honoured it by their patronage; nor can we doubt what will be the result of such an undertaking. (Cheers.)

The resolution was then put and carried unanimously.

Professor OWEN.—I am grateful to your Grace for the part you have assigned to me in the promotion of this most instructive and interesting object, namely, to move, and commend to the acceptance of this Meeting, the Resolution:—

‘That it is desirable that the animals, plants, and minerals of the Holy Land be collected; and that facts requisite for their systematic history be noted by competent observers on the spot.’

The acquisition of the means of advancement of the different sciences has proceeded of late in a rapidly increasing ratio, keeping pace with the growing desire for pure truth. This is strongly exemplified by the collections of materials which have accrued from almost all parts of the world, for the advancement of natural history. But there are localities which give an especial interest to such collections; those, for example, associated with the intellectual work of gifted minds, *e. g.* the great names immortalized as founders of the sciences of Zoology and Botany. This association enhances the interest of every specimen of animal and plant that may be a descendant of the species described or

indicated by Aristotle and Theophrastus; and consequently the fauna and flora of Greece, Italy, and the Mediterranean, have been eagerly studied with a view to a determination of the species referred to in their classical works, and in the writings of their successors to the time of Pliny. Still greater interest thus attaches itself to the objects of Natural History, named or alluded to in that Book, justly held to teach supremest truths by all of our species who are capable of appreciating and taking interest in the progress of science. And here, at the outset, I have to note the singular deficiency, which it is the aim of the present movement, and more especially of the Resolution placed in my hands, to endeavour to remedy. It might have been expected that the raw materials for a trustworthy Zoology, Botany, and Mineralogy of the Holy Land would have been among the earliest acquisitions after the revival of letters and the new dawn of science. The very numbers of individuals attracted to Palestine would surely, one would suppose, have helped to this result; but the annual concourse of pilgrims to Jerusalem, and the larger waves of Crusaders overspreading Palestine, brought no such return. It remains for us to institute a new crusade for the peaceful conquests at which science aims. To exemplify the extreme need for our special exertions, through your help, I may refer to my 'Annual Report' or 'Statement' to Parliament on the Natural History collections in the British Museum for 1862, wherein the attention of travellers was requested to the want of specimens from Palestine,—a want which began to be supplied by a small collection of fishes from the lake or sea of Galilee, presented by the Rev. Mr. Beddome in 1863, and by a larger collection of different classes of animals obtained from different localities of the Holy Land, and presented by the Rev. Mr. Tristram. But, in acknowledging these valuable and most acceptable contributions to our National Collections, in my 'Report for 1864,' and more especially the interest attached to the objects of the labours of those old fishermen of Galilee who became, by the grace of God, 'fishers of men,'—I have, nevertheless, to note that much remains to be done, by collections of the Natural History of Syria and Palestine, in order to supply the requirements of the students of Biblical Zoology, Botany, and Mineralogy. These requirements, however, will not be fully met by even the completest collections of the best preserved specimens of animals, plants, and minerals. Such materials are doubtless essential to the determination of the precise species noted in Holy Writ—essential, but not all-sufficient. For as, in the writings of the ancient Greek and Roman naturalists, so also in the Canonical Scriptures, animals and plants are referred to as often by some vital act of theirs as by a physical character. Whether the foot of a beast terminates in claws or hoofs, whether the hoof be divided or not, are facts that may be observed in the prepared specimens; but whether a species 'chew the cud,' must be determined by observation of the living animal. Now the majority of the Biblical animals and plants are referred to through some habit, property, mode or rate of growth, and the like manifestations of the living state. We therefore require, for the fulfilment of the aim of the present resolution, not only travellers competent to 'collect,' but also to 'observe' and 'note' such vital

phenomena—travellers with adequate Zoological and Botanical attainments, practised in taxidermy and the formation of herbaria, amply supplied with all the requisite means of trapping, snaring, netting, and in all proper ways collecting, the various organised species, under conditions best suited for their scientific study and comparisons. We must be able to furnish them with the means of sojourn at the suitable localities in Palestine, for noting and recording the living habits, powers, and properties of the plants and animals in their native place.

These are the aims of the Committee, and these we trust the Association and an enlightened Public will enable the Committee to carry out, in regard to a sound, inductive Natural History of the Holy Land, agreeably with the terms of the Resolution I have had the honour to submit to you.

THE REV. H. B. TRISTRAM.—In seconding the resolution, I do so with an honest goodwill, because, though I have spent some little time in working at the natural history in the Holy Land, I still feel that there is much left to be done.

And, first, I submit, in an exclusively natural history point of view, there is much of interest in the Holy Land. Its importance is not to be measured by its size, or extent, or position, nor only by its hills and valleys, which illustrate the parables, the prophecies, and the history of Holy Writ. It has, apart from every scriptural interest, this further interest for the mere naturalist, that its local position, though a part of the Mediterranean region, impinges on the fauna and flora of India on the east, and of Africa on the south. It is one of those outlying regions in the temperate zone which throw much light on the question of the distribution of species, but have been hitherto little investigated. There is a peculiar interest attaching to the Dead Sea, and to its phenomenon as the lowest depression upon the earth's surface; and which, though in the temperate zone, supplies from the hot seething oases which stud its shores, species of animals, plants, and birds closely allied to those of India and Abyssinia.

Again, as to the fishes of the Sea of Galilee. It was extraordinary that in 1862 no museum contained any specimen of any fish from that lake. Consequently, when writing for Dr. Smith's 'Dictionary of the Bible,' we found ourselves utterly unable to ascertain or obtain any exact account of the ichthyology of that hallowed lake. One hundred years ago, one species was mentioned by Hasselquist, and that was all. Several new species were discovered by ourselves, which are closely allied to and almost identical with those discovered by Dr. Kirk, Dr. Livingstone's companion, in the lakes of South-East Africa. We were the first European fishermen in the Lake of Galilee, and we found in these species of Galilean fishes a key to its geologic history; pointing to the time when the Lake of Galilee, the Dead Sea, and the Red Sea were part of the great African lake system.

I believe there is much still to be done in the way of scriptural illustration in the Holy Land. My friend, Dr. Thomson, has done much for the subject of the inhabitants and the people. But in physical science our researches have not been so complete. In a country not exceeding in extent the three northern counties of England, there are brought together the plants, animals, and birds, belonging to the

tropical, temperate, and arctic zones. In the basin of the valley of the Jordan we have the productions of the tropics; the productions of the temperate regions in Central Palestine; and a semi-arctic flora and fauna on Lebanon and Hermon. Thus providentially was it arranged that the Book should have its illustrations as well as its language understood by all men. Many of these illustrations come home to the working men of whom Mr. Layard has spoken; and I too from the manufacturing part of the north can bear testimony to the same interest being felt among the masses there, in anything that bears upon the Holy Land, no matter how slightly.

I am anxious to impress upon the committee the importance of selecting particular points for investigation. I believe even upon the western watershed of the Mediterranean there are many interesting monuments almost unknown—for instance, the region between Tyre and Tibnîn; and again, at Kedesh-Naphtali there are traces of Jewish buildings, which have been described only by the charming pen of Lady Strangford. Again, on the eastern side of Jordan, our maps are really only creations of the fancy. In that region researches are costly on account of the *baksheesh* which is demanded, amounting to something like 10*l.* a-day. Such charges can rarely be defrayed by private enterprise, though they have been nobly borne by the Count de Vogüé. As an instance of the need for excavations, I may mention that on one occasion in the forests of Gilead, we came upon one of the grass-grown mounds which stud the land, and were told by our guides we were at Mahneh. Doubtless it was the ancient Mahanaim; but we had no time to explore in hostile territory, and were obliged to ride hastily over the mounds, and content ourselves with picking up a little fragment of pottery from the capital of Ishbosheth, and the residence of David.

Much remains to be done in the way of topographical illustration east of Jordan. I can only say that those who go out will find that no more valuable time can be spent than in the exploration of that district; and I say to them, as M. de Saulcy said to me at starting—‘I have reaped a rich harvest, but I have left you abundant gleanings.’

The resolution was then put and carried unanimously.

THE DEAN OF WESTMINSTER—The resolution which has been put into my hands, if, as compared with those that have already been proposed, it may seem superficial, and if also it relates to a subject which by older travellers was more completely explained than any other connected with the Holy Land, yet still possesses considerable interest. It is as follows:—

‘That the Biblical Scholar may yet receive assistance in illustrating the Sacred Text from careful observers of the manners and habits of the people of the Holy Land.’

There are two general points of view in which the manners, customs, and habits of the people of the Holy Land illustrate, and may still be expected to illustrate, the sacred text. The one is positive and the other is negative, if I may so express myself. The positive advantages of such observations are twofold. First, and most important, are the explanations of those things which could not otherwise be understood. Of these, as regards manners and customs, most have

been discovered, yet, even here, some yet remain. Two, three, or four occur to me at the moment; I will not trouble you by mentioning them. Two centuries ago there were hundreds of such passages needing exactly this kind of explanation, which, owing to the observations of travellers, have since become intelligible, and, if there be any that remain, what has been done shows us clearly how much the want ought to be felt. Another more general advantage is that observation of manners and customs, which is needed not to explain but to illustrate the events in the sacred Scriptures—to bring them nearer to us, to render them more familiar, more life-like. These may still be turning up everywhere. There is no way in which the observations of former travellers have done so much to complete our view of the sacred personages and the sacred events, and have had so much effect on theology generally, as by familiarising us with those sacred persons and events through the comparison of persons and events of former times with their living descendants, or, at any rate, with the living usages which have descended from their age to ours. Mr. Palgrave has admirably set before you how we may still actually find existing remnants of the ancient races in secluded nooks and corners of Palestine. But even without supposing that the actual races may be found, we may be sure that there must be remnants of manners and customs remaining in such nooks and corners, which may bring us into a close connection with the events that occurred in the sacred periods.

These are the positive advantages. Then there are what I may call the negative advantages. When I am travelling, and go to see a great historical place, what I most desire is to find something in the place which actually explains something in the events which we could not have known otherwise. That is the most delightful result of such exploration. Then, the next is to find general illustration, such as I have noticed. But the third possible advantage is to go to such a place, or to seek for such a custom, and to find that there is nothing to throw any light on those past events, to have at least the satisfaction of having done all that you can, and gone to the very bottom of the thing, and know that there is no more to be discovered. Now, this negative result, which is important everywhere, is particularly interesting in regard to sacred history, because it there becomes a proof of the universal and divine character of the religion which is expounded in the sacred books. To know that the sacred events are altogether independent of any local features or outward customs, is really even more edifying than to know that they sometimes are connected with this external framework of earth and earthly things. I confess it was a great satisfaction when I went three or four years ago to Thessalonica, to find that there was nothing to throw the slightest light on the lessons conveyed to us in the Epistles of St. Paul to the Thessalonians. His journey in the Acts may be here and there illustrated by the actual monuments; but the words of his Epistles, which concern us far more, can be understood as well in England as in Greece. To a certain degree the same may be said of the Sermon on the Mount. There are a few points in that great discourse which receive explanations and illustrations from the customs, the places, the natural history of Palestine. But the greater part of it, we may be

thankful to know, can be as well appreciated by peasants and children who have never left their English homes, as by those who have travelled thousands of miles, and explored every inch of the Holy Land. And this knowledge of the immense elevation and superiority of the essential teaching of our Lord and the Apostles, above any local circumstances, can only be known fully, or, at least, only appreciated fully, by such thorough investigation as is here proposed. What we have to do is simply to know and to get at the facts. It is more agreeable if we arrive at those positive illustrations of which I have spoken before, but it is equally important and falls equally within the range of this association to learn that there is nothing to be found. I mention this because travellers are sometimes taunted by the public with overlaying the sacred text with too large a margin of illustration, and it is therefore necessary to premise that, besides adding illustrations that are needed, we also are able to point out that sometimes no illustrations are needed. And, at any rate, do not let us be disappointed, when we send out explorers, if they come back and say, that they have traversed the Holy Land from Dan to Beersheba and found it barren; that they have gone to the bottom of the thing and found nothing to till. Even then we have gained a great point, because what we want to know is the exact truth. And besides, as I have said, in this particular region, even that negative result would of itself be extremely valuable, because it becomes a direct proof of the spiritual and catholic character of the Bible and of its fundamental doctrines.

These are the general advantages for which we have to look. But let me call attention to the particular and special results that we may expect to find as regards the manners and customs of Palestine. Of course it must be remembered that to a certain extent from the identity of the manners and customs throughout the whole East, anything that throws light on Oriental manners generally throws light on the manners and customs of Palestine. Whatever minute differences part them from the manners and customs of the whole East, constitute less of a separation than the much greater differences which part the whole East from the whole West. Therefore the illustrations which travellers bring from any part of the East bear inevitably on this particular subject in Palestine; such as we have in Burckhardt's travels, in that admirable work Lane's 'Modern Egyptians,' and in that equally interesting and instructive book that has just appeared on Arabian manners and customs—Mr. Palgrave's *Travels*. This same result has, to a certain extent, been obtained for Palestine itself; not only by the works of the older travellers, such as Maundrell and Richardson, who excelled in this kind of description, but also by the more modern works, such as Dr. Thomson's 'Land and the Book,' or Miss Rogers's 'Domestic Life in Palestine.' But still much remains to be done, and for this reason, that in the remote corners of Palestine and Syria, of which I before spoke, it is impossible not to believe that there must remain some peculiar habits, and feelings, and thoughts which have not been swept away by the tide of change. The sameness of the East is proverbial. It is a kind of living Pompeii which we could not find in any other part of the world; and though perhaps of the Israelites themselves it may be hard to discover any customs

still existing, yet of the Canaanite nations so closely connected with them I do not think it is beyond expectation that we may find something which will throw considerable light upon sacred history. Nothing is more remarkable in the Old Testament than to see the tenacity with which those ancient idolatrous customs clung to the very soil of the country. Even Jerusalem never quite shook itself clear of them, and in the remoter part of the Lebanon, amongst those strange tribes which most of us know only through Mr. Disraeli's novel of 'Tancred,' it is exceedingly probable that relics may yet be unearthed of the old Phœnician worship. Such relics as those can only be found, as Mr. Tristram has well said, by persons who make it their special business to go there. Common travellers are compelled, as a general rule, to visit only the most famous places in the most cursory manner; and therefore, if we are to find out these special thoughts and customs, we must have persons who go out from England with the deliberate intention of going after them even if they see nothing else whatever. This is particularly the case in Palestine, because some of these customs are to be seen only on some particular day. I mention as an instance, one of the most interesting scenes I ever witnessed myself, and which I believe has never been described at all till within the last twelve years, namely, the Samaritan Passover. This is the only ceremony that occurs in the world in which we see anything like what is described in the Paschal feast in the Book of Exodus. It takes place in the centre of Palestine at the very time when European travellers are passing through the country. Yet, from the mere difficulty of hitting off the particular day, it again and again escapes the observation of the ordinary traveller. In my first journey, with every desire to see it, I failed, from the single circumstance of not being able to be at Shechem on that especial day. I saw it on my second journey merely by an extraordinary coincidence. This kind of difficulty can only be overcome by persons determined to be there on the particular days, regardless of all other intervening obstacles. And here an observation may be made as to manners and customs, which to a certain degree applies to various other points, namely, that *now* is especially the time to make these observations. Every year even the unchanging East loses something of its immovable characteristics. A few years hence, perhaps—I trust not, but it is possible—railways may have invaded Palestine, and with that influx of western influences will be swept away those few remaining vestiges of ancient thoughts and practices which still survive. I mention this as a reason why this exploration should commence immediately—at the present moment.

These are some of the many reasons for which this particular branch of exploration is commended to you in this resolution. With regard to the general objects of the Fund, it is one in which no doubt much has been done, but in which much remains to be done. We owe—those who have been to Palestine and those who have not been there—a great debt of gratitude to those whose energy and perseverance set this movement on foot; and it will be a reward to them, whatever is collected, much or little, that they have done what they could to effect what so many have desired to achieve in vain. Our object must be to 'gather up' even the smallest fragments of those sacred times, so that

we may be assured that 'nothing has been lost.' And I hope that in the end, if I may so apply the proverb of Gideon, 'the gleanings' of this Association will be 'better than the vintage' of all previous travellers.

The DEAN of CANTERBURY.—It would ill become me to say much, especially at this late period of the meeting. I cannot share in the inestimable advantage which many before me have had of having travelled in Palestine; but I may say, closely as I am employed on the Sacred Text, that the difference between the Bible barely read, and the Bible understood by illustrations, can hardly be overrated. An instance occurs, which happened to me only a few days ago. I recommended to a lady of my acquaintance an interesting book of modern travel—Vámbéry's 'Central Asia'—and after a short time I asked her how she liked it, and she replied, 'I find it but dull reading.' The next time I saw her she said, 'That is a most interesting book.' I asked her how the change came about, when she said, 'I looked in a pocket in the cover, and there I found an excellent map, and with that map it was a totally different thing.' Illustration of the Bible is, in fact, a map, which may be carried out to any amount of detail. The Manners and Customs of the localities, the Fauna and Flora of the countries, and all such details, form a great Map, that illustrates the whole, and makes the Bible a very different thing to what it is without; the difference is immense. A former speaker observed, on Thessalonica, that we are not overburdened with illustrations with regard to that city; but I will mention one interesting particular. St. Luke, in his description of what occurred, in the 16th chapter of the Acts of the Apostles, uses a very unusual word, nowhere to be found in Greek writers—*Politarch*—to describe the title of a magistrate. 'Who ever heard of that title?' it was said. At last some one found in Thessalonica an inscription with that very title on it, showing that the magistrates really bore that appellation at the very time which St. Luke describes. He uses the word, and that proves that St. Luke had been in Thessalonica, and knew the manners and customs of the place. Curiously enough, too, the inscription contains two names of St. Paul's companions. In this way you may be able to estimate what light may yet be thrown on passages of difficulty, and of which the obscurities may yet be cleared up. One matter more. We have heard just now of Shechem. We had before us on Sunday a remarkable part of the history of Joshua, and still more remarkable is the closing chapter, the scene of which is laid in Shechem. Suppose two persons to read those accounts, one simply reading that which to him, ordinarily taken, would be as any other matter—the image fading and passing away; and the other, being aware that the place was that where first was made the revelation to Abraham, where Jacob put away the idols from his family, who knew it was almost the only place where there is a great and surprising fertility in the land, and where the parable of Jotham was spoken—what would be the difference in the impression received by these two persons?

It was stated by a previous speaker, that the three different aspects of vegetable and animal life seem to meet as it were in Palestine. That was a remarkable declaration, and the more remarkable, as compared with

another declaration which was made sometime since, that the Church, historically, was founded at the confluence of three civilisations, Hebrew, Grecian, and Roman; and that remarkable man who was raised up, I may almost say, as the second founder of the Church of Christ—St. Paul,—that remarkable man was throughout reared in all those three civilisations—by birth and training, a Hebrew; by education, a Greek; by privilege, a Roman. There are passages in his life in which we may trace the difference which is made by our relative amount of knowledge on these three. In reading the account of his address to the Athenians, what bosom does not glow with a feeling of enthusiasm? We know the language in which he speaks; we know how his auditors look; we know the whole tone of the controversy; but when we read of his still more remarkable speech on the steps of the Tower of Antonia, the same feeling is generally absent. We have but a vague kind of indefinite interest. There is nothing that comes home to the feeling; because educated men know so much of Athens, and so little of Jerusalem. But we hope that the existence of this society will cause it to come home some day; when we know it more thoroughly, by sketch with colour, and photography without colour, even than we can by description, when tinged by the graphic powers of the artist. We trust they will bring home to us the scene on the steps of Antonia, as well as those which occurred at Athens and at Rome. Therefore, I most heartily second this resolution, because illustrations of the Holy Writ will be most effectually got from the manners and customs of the people living in those countries, their productions, and all that concerned them.

G. GILBERT SCOTT, Esq., R.A.—I must apologise for the almost impertinence, I may say, of occupying your time, as I have no claim to do so, never having myself travelled in the East; but having been kindly called upon by His Grace, I will venture to offer a few observations, not, indeed, immediately connected with the resolution before you, but resulting rather from that on which Mr. Layard and the Count de Vogüé have addressed the meeting, and somewhat touching upon what they have said on the subject of archæology.

What I have to call attention to is the extreme importance of architecture to archæological investigation. Architecture is now thoroughly acknowledged to be one of the most important keys to archæology; nearly all that is known of archæological science has become more precisely understood through the medium of architecture, and nearly every blunder in archæology has resulted from an insufficiency of architectural knowledge. In our present case, we have first to investigate the indigenous architecture of a country of whose art we, as yet, know nothing. True, it is *supposed* that the arts of the Israelites (as has been said several times during the meeting) were something uniting the characteristics of those of Egypt and Assyria—that people having, as has been well said by an eminent writer on these subjects, throughout the whole period of their history oscillated between those two countries. But, after all, we do but guess this. No monument of this imagined style exists, nor does any museum contain a single illustration of Jewish art anterior to the Babylonian captivity. We cannot, however, suppose that every relic of their architecture has perished. We know too well

what has become of the timber and the metal of their buildings, but we can hardly suppose that those vast blocks of stone of which the walls of the Temple and the palaces of Jerusalem were constructed, and which Josephus tells us were so exquisitely carved that the foliage seemed to wave in the wind, have been utterly destroyed, and I cannot but hope that some remnants of them will reward our explorations.

Then, again, after the captivity, we may *suppose* their architecture to have merged into that variety of the Assyrians or Babylonians which resulted from the Persian influence. Of this we have no specimen remaining, though such, again, *may* be brought to light by our endeavours. From the time of Alexander we begin to know a little more; and here it becomes doubly important that we should acquire a perfect knowledge of all the gradations of Greek architecture as influenced by the indigenous art of the East or of the Holy Land itself. And the same as regards Roman architecture; our investigators should attain a perfect knowledge of all the shades of variety as they showed themselves under the influence of this eastern phase of the Greek art; how these became changed during their approach to the Byzantine, and how their change became modified by eastern influences. At present we have a very imperfect knowledge of these questions, and even this we should not possess but for the researches of the Count de Vogüé. Then, again, we want to know the exact gradations in these countries from Classic to Byzantine, and from Byzantine into Mahometan art.

Now, it has been very properly stated at this meeting that our movement has nothing to do with disputes and differences of opinion. I would, however, venture to say that it has *everything* to do with supplying those engaged in such controversies with the facts and materials by which to test their theories; and to enable us to do this we must use every means of arriving at a perfect and precise knowledge of those styles of art on the varieties of which so much depends; and especially must we obtain complete and accurate evidence as to how, and in what degree, those were influenced by the countries in which the examples in question were produced.

Our knowledge of such points should be so precise and absolute that there should be no room for differences of opinion, as to whether a particular piece of architecture belongs to the time of Herod, or of Hadrian; of Constantine, or of Justinian; or whether it is the work of the early Caliphs. The data on which our investigations are to be based should be such as to leave no opening for such questions.

I will only add one more remark. I have, throughout my professional life, had a great deal to do with the practical investigation of the architectural history of ancient buildings, and I feel certain, from what I meet with in every village church I have to investigate, that we have fair reason to anticipate important discoveries from excavations around and on the sites of ancient buildings. Those great valleys at Jerusalem, which have been half filled up with the debris of the vast edifices which surrounded them, must contain the key to the architectural history of the country, and I cannot but predict with full confidence that we shall, not only in Jerusalem, but in every mound and in every filled-up valley, find ample remnants of the lost architecture of the Holy Land.

I know, however, by my own experience, how difficult architectural

investigation is, and I would venture to add that our investigators *will only do harm* unless they are fully fitted for their work by knowledge such as I have alluded to, and by that peculiar aptitude of mind which is necessary to such investigation. We know what this aptitude (and the want of it) is by our experience, and I will only attempt to define it by mentioning one name, that of Professor Willis, who has exemplified these peculiar qualifications in a more extraordinary degree than any one I have met with. We must, then, get men for our investigations having a thorough knowledge of architecture in all its bearings, and we must get men who really know how practically to investigate, not only the architecture of an ancient building, but the *débris* by which it is surrounded, and knowing how to appreciate and how to classify the objects discovered; to judge of them by the relative positions in which they are found to lie, and in particular to weigh every kind of evidence which can be brought to bear upon them, so that while investigating an ancient building they may thoroughly appreciate every one of its details, and leave no doubt as to the facts which they elucidate.

The resolution was then put and carried unanimously.

The Right Rev. the BISHOP of MORAY AND ROSS moved, and Dr. WM. SMITH seconded, a vote of thanks to His Grace the Archbishop for his kindness in presiding on this occasion, which was carried with acclamation.

The ARCHBISHOP of YORK.—Ladies and Gentlemen, I thank you for the kind manner in which you have received this resolution, and I will only now say in conclusion this—we are not merely a society, but a *Fund*. (Hear, hear.) These explorations we can only assist in by subscribing towards them, or getting our friends to contribute, which comes to pretty much the same thing. Mr. Grove, who carefully watches the department of the exchequer, informs me that he himself, almost without solicitation, has received a sum of about 1,500*l.*; and a rough calculation has been made showing that the cost of every explorer in the country would be about 1,000*l.* Captain Wilson is already engaged in exploration, at the private expense of one most excellent and benevolent lady in England, and upon the facts he has furnished this calculation is made. The Palestine Exploration Fund must have money. (Hear, hear.) It is proved to you to-day that men will never be wanting. (Cheers.) It is perfectly evident that there are plenty of persons in every way competent to follow out these researches; but you cannot expect to find every day men like the Count de Vogüé. It is not to be hoped for; and therefore we have formed ourselves—not into a society, but into a Fund, and we ask you to give some assistance to it, and to make it known among your friends. (Loud cheers.)

The Meeting then separated.

Subscriptions already promised (*continued from page 2*).

£	s.		£	s.	
James H. Crossman, Esq.	2	2	C Bellingham, Esq.	0	10
Theodore Martin, Esq.	10	10	Lieut. - Col. Wilbraham		
Henry Johnson, Esq.	10	10	Lennox	5	0
Rev. C. J. Vaughan, D.D.	3	3	John Hewdson, Esq.	10	10
Rev. Albert Smith	5	0	W. O. Foster, Esq., M.P.	5	0
Hon. and Rev. Aug. Legge	5	5 in 5 yrs.	H. Christy, Esq. (the		
V. A. Williamson, Esq.	5	0 in 5 yrs.	late)	50	0
Rev. M. S. Wall	5	0	G. Brindley Ackworth,		
Thomas Combe, Esq.	5	0	Esq.	1	1
E. B. Tylor, Esq.	1	1	P. H. Gosse, Esq., F.R.S.	2	2
Robert Cole, Esq.	1	1	David Price, Esq., M.D.		
A. B.	0	2 6	Margate	2	2
Edmund Grove, Esq.	2	2	Vice-Admiral R. Mundy,		
Rev. W. H. Gurney	1	0	R.N.	5	5
Master M. Gurney	0	2	Rev. W. L. Nichols,		
Master G. Gurney	0	2	F.S.A.	2	2
R. N. M. Byass, Esq.	5	0	Rev. R. B. Byam	1	1
Rev. H. R. Nevill	5	0 in 5 yrs.	Henry Wagner, Esq.	2	0
Rev. H. J. Ellacombe	5	5 in 5 yrs.	Mrs. Newman Smith	5	0
Earl of Gosford	20	0	Major Speed	2	0
Stewart Macnaghten, Esq.	10	10	Mrs. Fisher	0	5
C. E. Darby, Esq.	10	0 in 2 yrs.	Rev. F. T. Wethered	2	2
Rev. H. Montagu Butler,			Walter R. Snood, Esq.	1	1
D.D.	10	10	C. H. Bracebridge, Esq.	5	0
Lord Clermont	50	0	F. Richardson, Esq.	10	0
Rev. Pelham Maitland	1	0	Rev. Edw. K. Burney	2	0
Miss Ellinor Maitland	0	16	William Murray, Esq.	10	10
Rev. J. Francis Thrupp	2	2	Rev. R. W. Kennion	1	1
Miss Mayow	1	0	T. Farmer Baily, Esq.	25	0 in 5 yrs.
J. P. Gassiot, Esq.	5	5	W. H. G.	5	0
Thos. B. Grove, Esq.	2	2	Rev. J. W. Borland	1	0
Geo. Godwin, Esq., F.S.A.	1	1	H. Dircks, Esq.	1	1
Alfred Davis, Esq.	26	5	Reginald J. Graham, Esq.	1	0
Rev. John P. Lockwood	1	1	Henry Lewis, Esq.	5	0
Rev. Jonathan Cape	2	2	Rev. Henry Wickera	5	0
Robert Prance, Esq.	10	10	Rev. E. H. M. Sladen	3	3
John J. Oakley, Esq.	2	2	Hon. Edwd. Twisleton	50	0
Rev. H. H. Westmore	5	0 in 5 yrs.	Miss Tornlin	5	0 in 5 yrs.
Otto Goldschmidt, Esq.	5	5	F. W. Tetley, Esq.	5	5
Brig. Gen. J. H. Lefroy,			Mrs. Kinnersley	1	1 annually
R.A.	5	0	G. S. Gibson, Esq.	10	0
Sampson Foster, Esq.	5	0	Miss Lockwood	1	0
Mrs. Lavie	1	1 annually	Venble. Archdn. Fearon	1	0
Miss Erskine	10	0	John Fernley, Esq.	5	0
John Cochrane, Esq.	5	0	Canon Marsden	1	1
Rev. C. Brodley, jun.	3	3	Rev. E. Phillips	2	2
G. B. Crewdson, Esq.	1	1	Henry Charlewood, Esq.	5	0
Rev. F. W. Holland	1	1	Mrs. Barratt	1	0
Sir A. de Rothschild	25	0	Chas. M. Willich, Esq.	1	1
Miss Sykes	1	0	Geo. Davis, Esq.	1	1 annually
George Richards, Esq.	1	1			

Sydenham, S.E., Feb. 22nd, 1866.

Persons interested in the objects of the Association and desirous of assisting it, are earnestly requested to send their names and amounts (either as Donations or Annual Subscriptions) to the Honorary Secretary, GEORGE GROVE, Esq. Sydenham, S.E. or to the Bankers of the Association, Messrs. Courts & Co., Strand, W.C., and UNION BANK OF LONDON, Princes Street, Mansion House, E.C.


THE PALESTINE EXPLORATION FUND.

A SOCIETY FOR THE ACCURATE AND SYSTEMATIC INVESTIGATION OF THE ARCHÆOLOGY, TOPOGRAPHY, GEOLOGY AND PHYSICAL GEOGRAPHY, NATURAL HISTORY, MANNERS AND CUSTOMS OF THE HOLY LAND, FOR BIBLICAL ILLUSTRATION.

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HER MAJESTY THE QUEEN.

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Hon. Secretary, GEORGE GROVE, Esq.

STATEMENT OF PROGRESS.

IN pursuance of the plan adopted by the Palestine Exploration Fund in 1865, Captain Wilson, of the Royal Engineers—who had so successfully conducted the Ordnance Survey of Jerusalem, at the cost of Miss Burdett Coutts—was sent out, in company with Lieut. Anderson, R.E., with the view of making such a general survey of the country as would enable the promoters of the Fund to fix on particular spots for further investigation, and also to collect such special information as was compatible with the larger purpose of the expedition, and as would throw light on any of the points mentioned in the first programme of the Exploration Fund.

The expedition was constantly employed in the country from December, 1865, to May, 1866, and its results may be briefly stated as follows:—

1. *Topography*.—By accurate observations for time and latitude, made at forty-nine separate points between Beyrout and Hebron, and by a line of azimuths carried through the country from Banias to Jerusalem, a series of detailed maps has been formed, on the scale of one mile to an inch (the scale of the English Ordnance Survey), of the whole backbone of the country, from north to south, including the Lake of Gennesareth and all the watercourses descending to its western shores.

Two debated questions have been definitely settled: the confluence of the Jabbok (Wady Zerka) with the Jordan, and the course of the Wady Surar. The nature of the country, especially in the south, is very unfavourable for rapid reconnaissance, as the numerous watercourses are so narrow, and have such tortuous courses, that it is unsafe to trust the eye, and lay anything down that has not actually been visited. Most of the errors in the existing maps seem to have arisen in this way. To remedy this defect has been the aim of the present map, and must be the aim of any completions to it hereafter.

2. *Archæology*.—Materials have been collected for making about fifty plans, with detailed drawings, of churches, synagogues, mosques, temples, tombs, &c., amongst which are the plans of the cities of Beisan, Sebastiyeh, and Cæsarea; of the Holy Place of the Samaritans, and the ruined Church of Justinian, on the summit of Mount Gerizim; of ancient churches at Baalbek, Yarun, Sebastiyeh, Beitin, Bireh, Cæsarea, Lydda, Beit Jibrin, Kuryet-el-Enab, and Jerusalem; of seven Jewish synagogues; of the Grand Mosque at Damascus, of a mosque at Nablus; of temples at Deir el-Kalah, Mejd-el-Anjar, and Kedes, and of numerous tombs in various parts of the country.

Inscriptions were found and copied at the Nahr el-Kelb, Deir el-Kalah, Masi, Damascus, Tel Salhiyeh, Harran el-Awamid, Banias, Kedes, Yarun, Nebartain, Kefr-Birim, Kasyun, and Nablus; several of these are new, two of them in the Hebrew character, and others in the Samaritan. Squeezes were taken of the most important, including the tablets of Sennacherib at Nahr el-Kelb. The Hebrew and Samaritan inscriptions have been referred to Mr. Deutsch, of the British Museum, who has kindly undertaken to report upon their contents, age, &c.

The most interesting remains are those of the ancient synagogues at Tel Hum, Irbid, Kefr Birim, &c. To these attention has been called by Dr.

Robinson in his "Later Biblical Researches." But the present expedition has furnished the first complete account of their arrangement and construction. They all lie north and south, have three gateways in the southern end, the interior divided into five aisles by four rows of columns, and the two northern corners formed by double engaged columns. The style of decoration does not always appear to have been the same. At Tel Hum (the strongest claimant for the site of Capernaum,) and Kerazeh (Chorazin), Corinthian capitals were found; at Irbid a mixture of Corinthian and Ionic; whilst Kefr Birim, Meirou, and Um el Amud have capitals of a peculiar character. The faces of the lintels over the gateways are usually ornamented with some device; at Nebartein there is an inscription and representation of the seven-branched candlestick; at Kefr Birim the ornament appears to have been intended for the Paschal lamb; and at Tel Hum there are the pot of manna and lamb. A scroll of vine leaves with bunches of grapes is one of the most frequent ornaments.

The position of Chorazin at Kerazeh, a couple of miles north of Tel Hum—which had been indicated by the Rev. G. Williams in 1842, now seems to be fixed with tolerable certainty, by the presence of extensive remains, including those of a synagogue.

The ancient system of irrigating the plain of Gennesareth can still be traced, and may help to throw light on the site of Capernaum. From the streams which descend the three wadys of Hammam, Rubadiyeh, and Amud, water was carried to the right and left by small aqueducts, and beyond these towards the north-east the plain was watered by the spring of Tabighah. The Round Fountain seems to have irrigated a comparatively small extent of ground between W. Rubadiyeh and W. Hammam, the aqueducts from both of which can be traced nearly up to their sources, the latter one being still in use. By carefully using the water derived from these sources the entire plain was perfectly irrigated, and from the richness of its soil must have been of great fertility. Neither Ain et-Tin nor the Round Fountain answer to the account given by Josephus of the Fountain of Kepharnome; they are too small, and hardly come into the scheme of irrigation—the former not at all; but, supposing it to be Ain Tabighah, his allusion is at once explained by the copiousness of the supply, and the excavated channel through the rock above Khan Minyeh, by which the water was carried into the plain; the fertilizing powers of the fountain are still attested by the rank vegetation around the mills, more noticeable there than at any other point on the lake.

Near the mouth of Wady Semakh, on the eastern shore of the lake, some ruins called Khersa were visited, possibly those of the ancient Gergasa, and between this and Wady Fik (opposite Tiberias), appears to have been the scene of the destruction of the herd of swine; indeed no other point on that side of the lake is so suitable. From the eastern plateau the ground slopes steeply, in a few places almost precipitously, down to the level of the lake, leaving a margin of fertile land from half a mile to a mile broad between the base of the hills and the water; but at this particular point, and only at this, a spur runs out to the shore; there is no "cliff," but a slope sufficiently steep to fulfil the requirements of the Bible narrative.

Excavations were made in three places in the mound of Tel Salhiyeh, apparently an Assyrian monument, near Damascus, during which the

sculptural slab mentioned in Porter's "Five Years in Damascus" was re-discovered. Owing to the badness of the weather it was not advisable to persevere with the exploration at that time: but it has been since resumed by Mr. Rogers, Her Majesty's Consul at Damascus, to whom a sum of £50 has been voted by the Committee for that special object.

Besides determining the general form of the authentic synagogues, the excavations made at Kedes confirm the conjecture that the supposed synagogue there was a Greek temple, of about the same age as those at Baalbek. At Jerusalem, the gate Gennath, so-called, was found to be of comparatively modern construction; and the continuation of the passage from the Bab el-Burak of the Haram, was discovered; the vault is of massive, well-built masonry, and there seems no reason to doubt that it is one of the original entrances to the Herodian Temple.

On Mount Gerizim numerous excavations were made, under the direction of Lieut. Anderson. Within the ruin known as the "Castle," the foundations of an octagonal church were laid bare, probably the one known to have been built there by Justinian. On the eastern side of the church is an apse, on the northern side the main entrance, and on each of the others, doors leading to small side chapels. In the interior are the piers of a smaller octagon, apparently intended to carry a dome. The church and castle were found to be built on a rough platform of large stones laid together without mortar, and of this—which may possibly be that on which the Samaritan Temple stood—the so-called "twelve stones" form a portion. No trace of large foundations could be found on the southern portion of the small plateau on which the castle stands. Close to the Holy Rock of the Samaritans a number of human remains were dug up, but no clue could be obtained to their age or nationality.

3. *Photographs*.—A series of photographs (9 x 6), 166 in number, have been taken, the majority for the first time. They comprise views of sites, details of architecture, inscriptions, &c., the Samaritan Pentateuch, and a few natural objects. They are sold to the public at 1s. 6d. each, but subscribers to the Fund have the privilege of purchasing them at the reduced price of 1s. each, with a further reduction on taking a number.

Both as a matter of satisfaction in the first expedition, and as an encouragement for future researches, it may be mentioned that the Arab population was in general well disposed, and that few precautions only were necessary in travelling. The Jordan Valley may be easily explored by approaching it through the proper channels; the Sukr Bedouin, who own the northern portion, having friendly relations with the people of Nazareth, and the Mesa'id Bedouin, who own the centre, with the people of Nablus; the districts occupied by these tribes might thus be visited separately, when it would be unwise to pass directly from one to the other.

The thanks of the Association are due to Colonel Sir Henry James, R.E., F.R.S., Director of the Ordnance Survey, General Sabine, P.R.S., James Glaisher, Esq., F.R.S., and John P. Gassiot, Esq., F.R.S., who kindly afforded material assistance by the loan of instruments and by valuable counsel. The Chronometers employed were from Messrs. Frodsham and Co.

The authorities at Constantinople, the Governor-General of Syria, and Izzet Pasha, Governor of Jerusalem, took much interest in the proceedings

of the exploring party, kindly giving every assistance in their power ; and the local Turkish authorities were equally ready to further the objects of the expedition.

But whatever successes have been achieved are mainly owing to the energy, intelligence, and accuracy of Captain Wilson, which more than fulfilled the anticipations raised by his former operations at Jerusalem and expressed in the original Prospectus of the Fund. Captain Wilson was admirably seconded in all his arrangements by his able associate, Lieut. Anderson, R.E.

It is needless to recapitulate the reasons for urging on what has been so well begun. What has been laid down in the present map, and in the present plans, is so much clear gain for any future explorations. What is needed is to complete this in the various spots which, as above indicated, from want of time or money, were left untouched. So long as a square mile in Palestine remains unsurveyed, so long as a mound of ruins in any part, especially in any part consecrated by the Biblical history, remains unexcavated, the call of scientific investigation, and we may add, the grand curiosity of Christendom, remains unsatisfied. By the recent expedition we have almost reached a certainty as to Capernaum ; we have obtained a complete account of the synagogues, if not of the Christian era, yet of the centuries that immediately followed it ; we have approached more nearly to the foundations of the main buildings of Jerusalem ; we have obtained a map from which all future explorers may start as from sure ground.

This is what has been done. What remains to be done is also evident. In Topography, the whole of the country between Jerusalem and the Jordan, —especially the very tangled system of valleys leading from Bethel to Jericho, by which the first approaches of the Israelite host were made,—the whole valley of the Jordan, and the basin of the Dead Sea,—still need the same elucidation as that which this map has furnished for the central topography of Western Palestine. The whole of the East of the Jordan still needs the same process of scientific observation before the knowledge of Palestine can be considered complete.

In Archæology, mounds of rubbish, as at Jezreel, Bethshan, and Samaria, await only sufficient time and sufficient money to be perfectly explored. The sites of Capernaum and Bethsaida ought to be finally determined. Nazareth and Cana, both places associated in the closest manner with the life of the Saviour, demand a more searching investigation than they have yet received, not without hope of substantial results. And, although at Jerusalem it would be difficult to obtain permission to disturb the surface of the Haram area, researches might, under the authority of a vizierial letter, be made in the vaults, cisterns, and passages, below the surface : excavations might easily be made outside its limits, to determine the character of its western wall, north of the Mahkameh ; others might be made to ascertain the natural features of the ground between the Ecce Homo Arch and St. Stephen's Gate, and between the Jaffa Gate and the Bab es-Silsileh of the Haram ; in the Muristan, or Hospital of St. John ; south of the Church of the Holy Sepulchre, for traces of the second wall ; and in front of the Damascus Gate, where there is an old gateway. In the vaults of the Haram enclosure the western wall of the " triple passage "

might be uncovered, the two ancient doorways in the passage under El Aksa opened, the course of the curious passages discovered by Moas. de Saulcy, in front of the "triple gateway" traced out, and several cisterns, which appear to have been originally constructed for other purposes, examined. Such excavations, however, would be of little use unless made on a large scale, and for this it would be necessary, in most cases, to purchase or rent houses covering interesting sites, and to incur considerable additional expense for compensation and *bakhshish* to the landowners and others, and for the timber necessary to protect the houses in the neighbourhood of the excavations. In fact, no serious explorations in the Holy City itself should be commenced without a large sum in hand; but the Committee have determined to undertake them as soon as the money can be raised, and they trust that when the intimate connexion of the investigation with scenes and events so dear to every student of the Bible is considered, and the good prospect there is of success, if judiciously planned, and carried out with system and liberality, there will be no want of funds.

In Geology and Natural History nothing has yet been accomplished by the Fund. Although the Topographical and Antiquarian researches have appeared to the Committee to claim the first place, it is not their intention to neglect the Scientific investigations which were put prominently forward in their first prospectus, and which present the advantage that their results are definite and free from conjecture, and that once obtained, they are obtained for ever. It is intended to send out competent observers to undertake the systematic examination and description of the Geology and Natural History of the country, well provided with instruments and appliances for the thorough investigation of each branch of the work, and empowered to make such prolonged stay as may be necessary to perfect their enquiries, and obtain a more final and exhaustive examination of the subject than is likely to be obtained by any unsupported individual, however able and energetic. The Committee propose to form in connection with the Department of Science and Art at South Kensington a "Palestine Museum," to consist partly of objects obtained on loan, partly of those collected by the agents of the Fund, and in this museum the fossils and other geological specimens, the quadrupeds, birds, fishes, eggs, and plants, brought home, will be deposited for the ready examination of Biblical students. It is hoped that the museum may be opened early in 1867.

The explorations of the preliminary expedition have cost £1,550. The cost of travelling during the past winter was much higher than usual, owing to temporary causes, such as locusts and cattle plague. But the sum named will give an idea of the large amount necessary to carry out the objects of the Fund in that complete manner which the Committee contemplate, and which alone is worthy of the importance of the subject, and the great interests at stake.

By Order of the Committee,

W. EBOR.
A. P. STANLEY.
RICHARD OWEN.

5, NEW BURLINGTON STREET,
July 23rd, 1866.

An Office has been opened at the house of the Royal Asiatic Society, 5, New Burlington Street, W., at which the photographs and other results of the first expedition can be seen, and where the papers published by the Fund may be obtained on application—personal, or by letter containing stamps for postage.

The following are the papers referred to:—

The original Prospectus.

Report of the Public Meeting held in Willis's Rooms, June 22nd, 1863.

Letters of Captain Wilson from Palestine, Nos. 1 to 7.

Preliminary Report of Captain Wilson.

Statement of Progress.

The following Subscriptions have already been promised:—

		HER MAJESTY THE QUEEN		2100 0			THE BAILEY ASSOCIATION		100 0
		£ s. d.					£ s. d.		
William Tipping, Esq. (in 5 yrs.)	100	0	0	A. Strahan, Esq. (in 5 years)	50	0	0		
Walter Morrison, Esq., M.P.	100	0	0	C. Davidson, Esq.	1	1	0		
Mrs. Morrison	10	0	0	Rev. Professor Lightfoot	10	0	0		
G. Morrison, Esq.	50	0	0	Rev. J. E. Coulson	1	0	0		
Dr. William Smith	10	0	0	Wm. Robinson, Esq. (in 5 years)	5	0	0		
James Ferrusson, Esq.	20	0	0	A. H. Layard, Esq., M.P.	10	0	0		
William Tite, Esq., M.P.	100	0	0	Earl Ducie	20	0	0		
Archbishop of York (in 5 years)	50	0	0	Geo. E. Eyre, Esq., F.G.S. (in 3 yrs.)	15	15	0		
Dean of Westminster (in 5 years)	50	0	0	W. Spottiswoode, Esq. (in 3 yrs.)	15	15	0		
Bishop of London	10	0	0	Rev. E. H. Plumptre (in 5 yrs.)	10	0	0		
Bishop of Oxford	5	0	0	Henry S. Bicknell, Esq.	10	10	0		
W. H. Dixon, Esq.	10	10	0	John Abel Smith, Esq., M.P.	100	0	0		
Samuel Morley, Esq.	100	0	0	John Noble, Esq.	10	10	0		
Rev. S. Smith, <i>Lois Weeden</i>	1	0	0	Rev. Joseph W. Ayre	1	1	0		
John Murray, Esq.	25	0	0	Rev. J. Stoughton (in 5 years)	5	5	0		
Robt. C. Hanbury, Esq., M.P.	100	0	0	J. W. Bosanquet, Esq.	20	0	0		
M. P. Edgeworth, Esq.	1	1	0	Thomas Greene, Esq.	10	10	0		
M. Milne Redhead, Esq.	2	2	0	Captain Macdonald, R.E. (in 6 yrs.)	5	0	0		
Ambrose L. P. de Lisle, Esq.	3	3	0	Rev. Dr. Temple	2	0	0		
Joseph Manning, Esq.	1	1	0	W. E. Calcott, Esq.	1	1	0		
Dr. F. K. Fox	2	2	0	Samuel Lloyd, Esq. (in 5 years)	50	0	0		
Sir S. Morton Peto, M.P.	100	0	0	George Wood, Esq.	5	0	0		
R. Stanford, Esq.	21	0	0	James Bateman, Esq., F.R.S.	25	0	0		
William Otways and Sons	25	0	0	Professor Owen, F.R.S.	5	0	0		
Dean of Canterbury	10	0	0	T. A. Yarrow, Esq.	5	0	0		
Edwin Freshfield, Esq. (in 5 yrs.)	10	10	0	Dr. J. D. Hooker, F.R.S. (in 3 yrs.)	9	9	0		
Sir Roderick Murchison	21	0	0	Rev. George Williams (in 5 years)	25	0	0		
Thomas Brassey, Esq.	100	0	0	Joseph Pease, Esq.	10	0	0		
Rev. C. Pritchard	5	5	0	Charles Pease, Esq.	5	0	0		
P. Northall Laurie, Esq.	10	10	0	James Lloyd, Esq.	5	0	0		
F. W. Cosens, Esq.	10	10	0	J. W. Janson, Esq.	5	0	0		
Sir Charles Nicholson, Bart.	5	5	0	James Morris, Esq.	1	1	0		
Dr. David B. Price	2	2	0	Rev. Canon Hawkins	10	0	0		
Sir John P. Boleau, Bart. (in 6 yrs.)	50	0	0	Earl Beauchamp	20	0	0		
Edward L. Bells, Esq.	100	0	0	F. W. Gibbs, Esq., C.B. (in 2 yrs.)	20	0	0		
J. G. Wood, Esq., Edinbro'	3	3	0	Henry Pease, Esq., M.P.	5	0	0		
Francis Richardson, Esq.	5	0	0	William Nutter, Esq.	2	2	0		
Arthur Anderson, Esq.	20	0	0	Rev. J. Bage	1	0	0		
A. Macmillan, Esq.	2	2	0	S. Briggs, Esq.	10	0	0		
Saml. Gurney, Esq., M.P.	10	10	0	Rev. C. J. B. Perowne	1	1	0		
Sydney Williams, Esq. (in 5 years)	10	0	0	Miss Burdett Coutts	500	0	0		
Rev. J. Y. Nevill	1	1	0	(With the intention of ascertaining the best means of providing Jerusalem with water)					
Gwyn Jeffreys, Esq.	1	1	0	C. T.	10	0	0		
Rev. R. St. John Tyrwhitt	1	1	0	S. Lloyd Foster, Esq.	5	0	0		
Rev. A. W. Thorold	10	10	0	Henry Lee, Esq.	10	0	0		
R. R. Banks, Esq.	1	1	0	Rev. E. H. Perowne	2	2	0		
David Rowland, Esq.	1	1	0	Thomas Spalding, Esq. (in 5 yrs.)	25	5	0		
Robert F. Cooke, Esq.	10	10	0	Rev. Professor Rawlinson	2	2	0		
Rev. W. Rogers	1	1	0	F. G. O'Reilly, Esq. (in 5 years)	5	5	0		
John Hallan, Esq.	1	1	0						
Charles Harrison, Esq.	5	5	0						

	£	s.	d.		£	s.	d.
Messrs. Longman & Co.	10	10	0	Sir A. de Rothschild	25	0	0
Robert Chambers, Esq.	5	0	0	Miss Sykes	1	0	0
Oswald Aug. Smith, Esq.	6	0	0	George Richards, Esq.	1	1	0
Mrs. Hancock (annually)	1	1	0	C. Bellingham, Esq.	0	10	0
G. Gilbert Scott, Esq., R.A.	25	0	0	Lieut-Colonel Wilbraham Lennox	5	0	0
C. Darwin, Esq., F.R.S. (in 3 yrs.)	9	9	0	John Hewison, Esq.	10	10	0
A. Campbell, Esq., M.D. (in 3 years)	3	3	0	W. O. Foster, Esq., M.P.	5	0	0
Rev. J. E. Kempe	2	2	0	H. Christy, Esq. (the late)	50	0	0
Charles White, Esq.	2	2	0	G. Brindley Acworth, Esq.	1	1	0
Edward Harlestone, Esq.	5	0	0	F. H. Gosse, Esq., F.R.S.	2	2	0
Rev. G. G. Bradley	2	2	0	David Price, Esq., M.D., Margate	2	2	0
Thomas Lloyd, Esq.	1	0	0	Vice-Admiral H. Mundy, R.N.	5	5	0
G. H. Donaldson, Esq.	1	1	0	Rev. W. L. Nichols, F.S.A.	2	2	0
William Atchison, Esq.	5	0	0	Rev. R. B. Byam	1	1	0
Henry Pell Pease, Esq.	5	0	0	Henry Wagner, Esq.	2	0	0
Earl Zetland	50	0	0	Mrs. Newman Smith	5	0	0
Rev. Dr. Pusey (annually)	15	0	0	Major Speed	2	0	0
Messrs. Lucas Brothers	10	0	0	Mrs. Fisher	0	5	0
John Ruskin, Esq. (annually)	10	0	0	Rev. F. T. Wethered	2	2	0
C. E. Mottis, Esq.	3	3	0	Walter B. Snod, Esq.	1	1	0
Herbert Duckworth, Esq.	2	0	0	C. H. Bracebridge, Esq.	5	0	0
Cyril C. Graham, Esq.	6	0	0	F. Richardson, Esq.	10	0	0
Dr. Kallach	2	2	0	Rev. Edw. K. Burney	2	0	0
Robert Sim, Esq., M.D.	2	0	0	William Murray, Esq.	10	10	0
James H. Crossman, Esq.	2	2	0	Rev. R. W. Kennion	1	1	0
Theodore Martin, Esq.	10	10	0	T. Farmer Bailly, Esq. (in 5 yrs.)	25	0	0
Henry Johnson, Esq.	10	10	0	W. H. G.	5	0	0
Rev. C. J. Vaughan, D.D.	3	3	0	Rev. J. W. Borland	1	0	0
Rev. Albert Smith	5	0	0	H. Dircks, Esq.	1	1	0
Hon. and Rev. Aug. Legge (in 5 yrs.)	5	5	0	Reginald J. Graham, Esq.	1	0	0
V. A. Williamson, Esq. (in 6 yrs.)	5	5	0	Henry Lewis, Esq.	5	0	0
Rev. M. S. Wall	5	0	0	Rev. Henry Wickers	5	0	0
Thomas Combe, Esq.	5	0	0	Rev. E. H. M. Sladen	3	3	0
E. B. Tylor, Esq.	1	1	0	Hon. Edwd. Twissleton	50	0	0
Robert Cole, Esq.	1	1	0	Miss Zornlin (in 5 years)	5	0	0
A. B.	0	2	6	F. W. Tetley, Esq.	5	5	0
Edmund Grove, Esq.	2	2	0	Mrs. Kinnerley (annually)	1	1	0
Rev. W. H. Gurney	1	0	0	G. S. Gibson, Esq.	10	0	0
Master M. Gurney	0	2	0	Miss Lockwood	1	0	0
Master G. Gurney	0	2	0	Venble. Archdeacon Fearon	1	0	0
R. N. M. Byass, Esq.	5	0	0	John Fernley, Esq.	5	0	0
Rev. H. R. Nevill (in 5 years)	5	0	0	Canon Marsden	1	1	0
Rev. H. J. Eliacombe (in 5 years)	6	6	0	Rev. E. Phillips	2	2	0
Earl of Gosford	20	0	0	Henry Charlewood, Esq.	5	0	0
Stewart Macnaghten, Esq.	10	10	0	Mrs. Barratt	1	0	0
C. E. Darby, Esq. (in 2 years)	10	0	0	Chas. M. Willich, Esq.	1	1	0
Rev. H. Montagu Butler, D.D.	10	10	0	Geo. Harris, Esq. (annually)	1	1	0
Lord Chermont	50	0	0	Herbert Jones, Esq.	1	1	0
Rev. Pelham Maitland	1	0	0	Wm. Livingston, Esq.	5	5	0
Miss Ellinor Maitland	0	16	0	Jeremiah Long, Esq.	2	2	0
Rev. J. Francis Thrupp	2	2	0	James Brantley, Esq., C.E.	10	0	0
Miss Mayow	1	0	0	Rev. J. Ingham Brooke	5	0	0
J. P. Cassiot, Esq.	5	5	0	Rev. Peter Holmes, D.D. (in 5 years)	10	10	0
Thomas B. Grove, Esq.	2	2	0	Rev. A. F. Pope	2	2	0
George Godwin, Esq., F.S.A.	1	1	0	H. Smith, Esq.	1	1	0
Alfred Davis, Esq.	26	5	0	A. Doughty, Esq.	5	5	0
Rev. John P. Lockwood	1	1	0	Rev. James Francis	2	2	0
Rev. Jonathan Cope	2	2	0	Friends, per do.	1	10	0
Robert France, Esq.	10	10	0	B. Standring, Esq.	2	2	0
John J. Oakley, Esq.	2	2	0	Rev. E. S. Oldham	1	1	0
Rev. H. E. Westmore (in 5 years)	6	0	0	Miss Parker	1	1	0
Otto Goldschmidt, Esq.	5	5	0	Rev. Henry Allen	5	0	0
Brigadier-Gen. J. H. Lefroy, R.A.	5	0	0	Dr. Edward Bonoldfield	1	1	0
Samson Foster, Esq.	5	0	0	Mrs. Edward Schofield	1	1	0
Mrs. Lawie (annual)	1	1	0	W. Wilhemus, Esq.	2	0	0
Miss Erskine	10	0	0	Rev. J. L. Peit	10	0	0
John Coolarane, Esq.	5	0	0	Rev. H. Nichols	2	2	0
Rev. C. Bradley, jun.	3	3	0	Rev. H. E. Lowe	2	2	0
G. E. Crewdson, Esq.	1	1	0	W. Smith, Esq., the Strand	5	0	0
Rev. F. W. Holland	1	1	0				

Persons interested in the objects of the Association and desirous of assisting it, are earnestly requested to send their names and amounts (either as Donations or Annual Subscriptions) to the Honorary Secretary, GEORGE GROVE, Esq., Sydenham, S.E., or to the Bankers of the Association, Messrs. COUTTS & Co., Strand, W.C. and UNION BANK OF LONDON, Princes Street, Mansion House, E.C.

THE
PALESTINE EXPLORATION FUND.

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INVESTIGATION OF THE ARCHÆOLOGY, TOPOGRA-
PHY, GEOLOGY AND PHYSICAL GEOGRAPHY, AND
MANNERS AND CUSTOMS, OF THE HOLY LAND, FOR
BIBLICAL ILLUSTRATION.

—♦—
PATRON.

HER MAJESTY THE QUEEN.

A REPORT has been received from Captain Wilson, chief of the first expedition of this Association, dated Damascus, Dec. 20, of which the following is the substance:—

The party arrived at Beyrout at the end of November, and left it for Damascus on the 10th December.

Surveying.—Astronomical observations have been obtained fixing the position of Beyrout, Mejd-el-Anjar, Baalbek, Surghaya, Suk Wady Barada, Damascus, Tell Salhiyeh, and Harran el-Awamid. The lakes east of Damascus are in course of exploration.

Archæology.—Plans with detailed drawings and photographs have been made of the old temple at Deir el-Kalah (near Beyrout), the Temple of Mejd-el-Anjar, the old city of Chalcis; a small Greek church at Masi, the Basilica of Theodosius at Baalbek (in the great quadrangle abutting on the western end of the great temple, the back of the apsis resting on the steps), the temple at Ain-Fijeh, and the Roman gate at Damascus—Bab Shurky. The exploration of the Assyrian mound, at Tell Salhiyeh, near Damascus, had been commenced. A plan of the great mosque at Damascus, with photographs of details, was also in course of execution.

Photographs.—In addition to those above mentioned, careful photographs, of a large size, had been taken of various objects of interest along the road between Beyrout and Damascus, some of these for the first time.

Inscriptions.—At Tell Salhiyeh, and Harran el-Awamid, inscriptions had been found, apparently not hitherto known.

A desire having been widely expressed for detailed information on the route and objects of the first expedition of this Association, the following statement is made:—

The expedition is under the charge of Captain C. W. Wilson, Royal Engineers, who conducted with so much ability and tact the Ordnance survey of Jerusalem in 1863 and 1864. Captain Wilson has under his

orders Lieutenant Anderson, R.E., an officer, like himself, of much experience in surveying and observing, and a corporal of Engineers, who is a first-rate photographer. They are well provided with chronometers, barometers, and other meteorological and surveying instruments, in regard to which the fund is indebted to the kind offices of General Sabine, President of the Royal Society; Mr. Glaisher, F.R.S.; Rev. Charles Pritchard, P.R.A.S.; Mr. Gassiot, F.R.S.; Mr. Charles Frodsham, and others. They are also furnished with every requisite for making and preserving collections in botany, natural history, geology, &c. Few private expeditions have probably gone out to any country better provided. At the request of Earl Russell (one of the committee of the fund) the Sultan has issued a firman to the authorities of Syria empowering Captain Wilson to make all necessary explorations and excavations.

The object of the expedition is in the main tentative, to ascertain what special lines of exploration may be followed out in a more detailed and leisurely manner by future parties. At the same time there are many things which this party will be able to effect with certainty. They will ascertain with precision the position of many places not yet ascertained, and the uncertainty of which keeps the maps of the Holy Land in constant incorrectness. They will endeavour to record correctly the main features of some districts which up to this time are in confusion on the maps. They will make direct explorations of many spots important in their bearing on the historical geography of the country, but which have not yet been explored by parties possessing the leisure or special knowledge possessed by Captain Wilson and his associates. This will become more evident as I enumerate the more prominent points of the route generally laid down for the party. At Beyrout they are instructed to examine the sculptures of Sennacherib, Rameses, &c., at the Dog River. Near Damascus is an artificial mound of considerable size, which is reported by Porter and others to be of Assyrian character. This will be excavated, and the cylinders, slabs, or other objects (should such be found) will be preserved. Harran el-Awamid, a village east of Damascus, has been lately brought into sudden prominence as a representative of the Haran of the Scriptures, in place of the Harran in Mesopotamia, hitherto believed to be that spot. This will be examined and excavated if necessary, and plans and photographs taken. At Baniās the sources of the Jordan will be investigated, and an attempt made to discover the Lake Phiala of Josephus, the present identification of which (Birket-er-Ram) is more than doubtful. Descending the Jordan, Kedes—the Kedesh of the story of Sisera—will be explored, and an attempt made to discover the site of Hazor, which played so important a part in the troubles at the time of the conquest.

The first serious halt of the party will be at the upper end of the Lake of Galilee, where an endeavour will be made, by careful examination of the ruins at Tell Hûm, and by exploration and excavation at Khan-Minyeh and at Ain-el-Madâwara (the round fountain) to elucidate the situation of Capernaum, Bethsaida, and the other towns of Gennesaret. It seems more than possible that among the extensive remains of architectural fragments which strew the ground at Tell Hûm, some inscriptions may be found to

throw a new light on this vexed and hitherto hopeless question, of such deep interest to all readers of the Gospel narrative. While here explorations will be made on the eastern side of the lake, with the view of reconciling the curious discrepancies pointed out by the Dean of Westminster (*Sinai and Palestine*, chap. X.), and thus throwing light on the spot where the healing of the demoniacs and the destruction of the swine took place.

The level of the lake above the Mediterranean will also be taken, the existing observations on which vary no less than 300ft. South of the lake Beisan will be visited. This is the ancient Bethshean, one of the oldest Canaanite towns in the country, and for long the seat of a peculiar idolatry. It contains also very extensive and interesting Roman remains. At Zerin, the ancient Jezreel, explorations will be made in the hope—faint, it must be allowed—of finding some traces of the city of Ahab and Jezebel.

Nablûs (the ancient Shechem) will be the second halting place. Here the ruins on Mount Gerizim, both those already known and those which are either little known or only as yet suspected, the reported existence of Luz or Luzah on the mountain, Mount Ebal, the Samaritan Pentateuch, &c., will give ample opportunity for exploration and record. Not far from Nablûs is Sebastiyeh (Sebaste, Samaria), which as the capital of the northern kingdom of Israel, the favourite residence of Herod, and the site of a remarkable Christian church, built over the presumed tomb of John the Baptist, is full of promise. From this point excursions will be made to Kefr Saba (Antipatris), an Herodian city, described by Josephus as abounding in fine buildings, with streams and trees, but which now exhibits not a vestige of either above the sand, and to Cæsarea, Athlit, Tantura (ancient Dor), and other places on the coast. While at Nablûs a reconnaissance will be made of the country lying between it and the Jordan, the structure of which is very complicated, and cannot be reconciled on the present maps; Salim, east of Nablûs, said to contain great springs of water, and Ain-Un near it, candidates for the Salem and Ænon of St. John the Baptist, will be visited, and an attempt made to fix the exact latitude of the embouchure of the Wady Zerka (Jabbok) and Wady Obeideh on the further side of Jordan, hitherto the despair of the map-makers.

Proceeding southward from Nablûs several places of promise will be explored.—Seilûn (Shiloh), so long a sanctuary and a seat of the Tabernacle; Tibneh, probably Timnath-Serah, the burial-place of Joshua, containing extensive and elaborate tombs, hitherto only cursorily examined by M. de Saulcy, but promising to be both interesting and important; Beitin (Bethel), abounding in ruins. In the neighbourhood of Jerusalem Wady Bittir (possibly the ancient Bether), and the Frank Mountain, the Herodium, or fortress of Herod, will be explored. At Jerusalem itself what can be done will depend much on circumstances, and must be left mainly to the judgment of Captain Wilson, even if it can be touched at all on the present occasion.

It is estimated that the route above described, if properly carried out, will occupy the party till April, when it will become too hot to work with safety, and when it is intended that they shall return.

I must not forget to say that regular meteorological observations will be taken throughout, and that specimens of natural history, botany, &c., will be collected, and photographs and sketches made with care, and in large numbers.

Whether the object of the next expedition will be something arising out of the present preliminary party, or be devoted to a thorough examination of the geology of the country, must depend on circumstances. Meantime, funds are urgently required. The subscriptions hitherto promised amount to over 3,000*l.*, of which 500*l.* has been already expended in the survey of Jerusalem; 2,000*l.* was voted for the present expedition, but, owing to the cattle plague still raging in Syria, and the recent visitation of locusts, the price of all requisites for travelling has so much increased that it is not impossible that that sum may have to be exceeded.

I shall be happy to forward a detailed statement of the objects of the Association, and a full report of the meeting at Willis's Rooms, with a list of subscriptions to the present time, to anyone interested in the object who will communicate with me.

I am, Sir, your obedient servant,

G. GROVE, *Hon. Secretary.*

SYDENHAM, S.E.,

January 30th, 1866.

SUBSCRIPTIONS PROMISED.

By former List (Nov. 15)		£3,031 16 0		
	£ s.			£ s.
Rev. N. H. Westmore	5 0 in 5 yrs.		David Price, Esq., M.D.	
Otto Goldschmidt, Esq.	5 5		(Margate)	2 2
Brig. Gen. J. H. Lefroy,			Vice-Admiral R. Mundy,	
R.A.	5 0		R.N.	5 5
Sampson Foster, Esq.	5 0		Rev. W. L. Nichols,	
Mrs. Lavie	1 1 annually		F.S.A.	2 2
Miss Erskine	10 0		Rev. R. B. Byam	1 1
John Cochrane, Esq.	5 0		Henry Wagner, Esq.	2 0
Rev. C. Bradley, jun.	3 3		Mrs. Newman Smith	5 0
G. B. Crewdson, Esq.	1 1		Major Speed	2 0
Rev. F. W. Holland	1 1		Mrs. Fisher	0 5
Sir A. de Rothschild	25 0		Rev. F. T. Wethered	2 2
Miss Sykes	1 0		Walter R. Snoad, Esq.	1 1
George Richards, Esq.	1 1		C. H. Bracebridge, Esq.	5 0
C. Bellingham, Esq.	0 10		F. Richardson, Esq.	10 0
Lieut.-Col. Wilbraham			Rev. Edw. K. Burney	2 0
Lennox	5 0		William Murray, Esq.	10 10
John Hewdson, Esq.	10 10		Rev. R. W. Kennion	1 1
W. O. Foster, Esq., M.P.	5 0		T. Farmer Bailly, Esq.	25 0 in 5 yrs.
H. Christy, Esq. (the late)	50 0		W. H. G.	5 0
G. Brindley Acworth, Esq.	1 1		Rev. J. W. Borland	1 0
P. H. Gosse, Esq., F.R.S.	2 2		H. Dircks, Esq.	1 1
			The Duke of Devonshire	100 0

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THE PALESTINE EXPLORATION FUND.

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PATRON.

HER MAJESTY THE QUEEN.

Substance of Second Report from Captain Wilson, dated Banias (Cæsarea Philippi), January 2.

The party left Damascus on the 28th December, and travelling by S'as'a and Jeba reached Banias on the 31st. They had very bad weather, with sleet and snow every day. The country between Jeba and Kuneiterah was half under water.

Topography.—The position of Damascus, Kankal, Jeba (not marked on the maps), Banias, and the junction of the Hasbany and Banias Rivers, have been fixed astronomically, and the calculations made both for latitude and longitude. A reconnoissance sketch of the route from Damascus to Banias had been made, showing great discrepancies in the best maps. A reconnoissance sketch was in progress of the district round Banias, to show the junction of the three streams of the Jordan, and the course of the Wadys near the town. The snow was, however, so thick and so low down as to prevent much being done in the Wadys themselves.

Archæology.—Plans have been made of the great Mosque at Damascus, of Bab Shurky (the Roman Eastern Gate), and of the Mound of Tell-Salhiyeh. Excavations had been made in three places in the mound, but with no decisive result except the discovery of one sculptured slab of quasi-Assyrian character. The mound was originally formed of a compact mass of sun-dried bricks, with terraces of which traces still remain. It is now much ruined, and the masonry has probably been used in the buildings at the foot of the mound. Mr. Consul Rogers has undertaken to transport the slab to Beyrout, and the further exploration of the Tell will probably be carried on by him.

Photographs have been taken as follows:—of the Mosque at Damascus (8), which, with those taken by Mr. Bedford at the Prince of Wales's visit, will afford a very good illustration of this remarkable basilica; of Bab Shurky: of the city wall opposite Tomb of St. George: of arch and pediment in book bazaar: of house in the city: of Banias from Wely Khudr:

of the niches and grotto: of the fountain head: of the castle from various points (5).

The *Geology* of the country passed through had been carefully observed and noted.

It was intended to leave Banias on the 6th of January for Deir Mimas, at the bend of the Litâny, and thence to follow the ridge to Kedes: proceeding from Kedes by Kefr-Birim, Meiron, and Safed, to Tell Hum and Khan Minyeh on the Lake of Galilee. This would give opportunity for surveying the ridge dividing the Hasbany and Litâny, and the district round Jebel Jurmuk and Safed, whilst excavations, plans, and photographs were being made among the ruins at Tell Hum.

*Substance of Third Report from Captain Wilson, dated Mejdel,
January 27, 1866.*

Topography.—Astronomical observations have been made at Tell-el-Kady, Hunin, Kedes, Safed, Tell Hum, and Khan Minyeh. A reconnoissance sketch has been made of the district around Banias down to the junction of the Banias and Hasbany Rivers, across the valley to Mtelleh, and thence following the dividing ridge between the waters of the Litany and Mediterranean and those of the Jordan down to Safed, embracing also a large portion of the country on either side. The bad state of the weather, cold and wet, drove the party from Kefr Birim, but they have to return to investigate the ruins there and at Meiron and Yarus, and other places not previously described, and will have an opportunity of getting in the topography of Jebel Jurmuk, and connecting it with the former work. A reconnoissance has been commenced of the country bordering on the Lake, and this Captain Wilson hopes to carry right round, and also to trace out the whole of the Wadys running into the western side of the Lake.

Archæology.—A sketch has been made of the Castle of Hunin, the northern portion of which is surrounded by a ditch cut in the solid rock to a depth of, in some places, twenty feet, a work apparently of great antiquity. At Kedes some excavations were made on the site of the ruins: the western building is a tomb containing eleven loculi, the eastern one is a temple of the sun of about the same date as Baalbek; the richly-worked lintel over the main entrance was dug up. Close to the temple, and evidently belonging to it, an altar with a Greek inscription was found, which has been squeezed and copied; a finely-worked buried sarcophagus was dug up, in better repair than those exposed to the air. Detailed plans have been made of the mouldings, &c., on both the buildings and the sarcophagi, sufficient to reconstruct the former with great accuracy. On the same hill some curious tombs were found, of one of which a plan was made. A little more than two miles south-east of Kedes, on an isolated hill called Tell Harah, were found the remains of a large city of very ancient date; the walls of the citadel and a portion of the city wall could be traced. This Captain Wilson regards as the long-sought-for Hazor, in preference to Tell Khureibeh. At Tell Hum, the White Synagogue had been so far excavated and its plan and ornaments carefully recorded, but nothing else

had been found. The ruins of Chorazin at Kerazeh turn out to be far more important than was previously suspected; they cover a much larger extent of ground than at Tell Hum, and many of the private houses are almost perfect, with the exception of the roofs, the openings for doors and windows remaining in some cases. All the buildings, including a synagogue or church, are of basalt, and it is not till one is right in amongst them, that one sees clearly what they are; 50 or 100 yards off they look nothing more than the rough heaps of basaltic stones so common in this country. Drawings have been made of the mouldings, &c., and a plan of the large building as far as it could be made out.

Photographs.—2 views of Niches and Fountain of Banias.

7 views of Castle of Banias.

3 views of Town and Citadel of Banias.

1 view of Hazor, Oak Grove.

3 views of Sarcophagi at Kedes.

1 view of large Tomb at Kedes.

7 views of Temple at Kedes.

4 views of Ruins at Kerazeh.

5 views of Ruins at Tell Hum.

The broad cutting in the rock above Ain et-Tin proves to be a portion of a large aqueduct which formerly conveyed the whole of the fountain at Tabighah into the plain of Gennesareth for irrigation; the water was raised in a tank and carried round the contour of the Tabighah valley to the plain. The aqueduct still stands in small portions at several points, and can be easily traced the whole way by the number of stones with cement adhering to them lying on the surface of the ploughed fields. Specimens of the waters of the fountains have been kept, and their temperatures taken.

At Irbid some progress had been made in excavating the synagogue. Two additional photographs had been taken, one of an aqueduct hewn in rock, and one of the plain from above Khan Minyeh. The reconnoissance had been advanced to Mejdal, and observations made at Khan Minyeh. The maps are all greatly in error in this district. The whole of the ancient system for irrigating the Ghuweir had been traced; though on a smaller scale, it was as perfect as that of the Damascus plain. The mounds at Khan Minyeh had been excavated for two days, but without much result. The pottery and masonry appear to be comparatively modern. The maps promise to be a valuable addition to the topography of Palestine.

GEORGE GROVE,

Hon. Secretary.

SYDENHAM,

Feb. 20th, 1866.

Private.]

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PATRON.

HER MAJESTY THE QUEEN.

Third Report from Captain C. W. Wilson, Royal Engineers, in charge of the first Expedition of the Association.

TELL HUM [N.W. end of Lake of Galilee],
January 20th, 1866.

MY DEAR GROVE,

As a few travellers have commenced to pass us, I will get some account of our work since leaving Banias ready to send on by the first opportunity, and will go on the same plan as my last.

Topography.—Astronomical observations have been made at Tel el-Kady, Hunin, Kedes, Safed, and Tel Hum, but the results have not yet been worked out. A reconnoissance sketch on a scale of one inch to a mile, has been made of the district around Banias down to the junction of the Banias and Hasbany Rivers, across the valley to Mtelleh, and thence following the dividing ridge between the waters of the Litany and Mediterranean, and those of the Jordan down to Safed, embracing also a large portion of the country on either side. On arriving at Kefr Birim the bad state of the weather, cold and wet, drove us down to this place, where we can do something in the evenings, but as we have to return there to investigate the ruins at Meiron, Yarun, Kefr Birim, and some other places not previously described, we shall have an opportunity of getting in the topography of Jebel Jurmuk, and connecting it with our other work; a reconnoissance on the one-inch scale has been commenced of the country bordering on the Lake, and this I hope to carry right round whilst the excavations are going on, and also to trace out the whole of the Wadys running into the western side of the Lake.

Archæology.—A sketch has been made of the Castle of Hunin, the northern portion of which is surrounded by a ditch cut in the solid rock to a depth of, in some places, twenty feet, a work apparently of great antiquity. At Kedes some excavations were made on the site of the ruins: the western building is a tomb containing eleven loculi, the eastern one is a temple of the sun of about the same date as Baalbek; the lintel over the main entrance was dug up: on its under side is a large figure of the sun (I think),

and over the architrave is a small cornice beautifully worked; it consists of a scroll of vine leaves, with bunches of grapes, in the centre is a bust, and facing it on either side is the figure of a stag. On either side of the main entrance is a small niche with a hole communicating to larger niches within the building, like a sort of confessional; on one of the niches is part of a figure clothed in a robe, with a spear in the left hand; over one of the side doorways is the figure of an eagle; close to the temple, and evidently belonging to it, an altar with a Greek inscription was found, which I cannot make out, but have copied and taken a squeeze of; in the group of sarcophagi one buried in the ground was dug up, and the decoration found in better repair than those exposed to the air: it consisted of a wreath held up at the sides in two folds by nude male figures, and at the corners by four female figures with wings and flowing drapery; the figures have been purposely defaced, but the arms and feet still remain, and the whole is finely sculptured; after seeing this better-preserved one, similar designs can be traced on the others, one of which has a sword and shield cut on it. Detailed plans have been made of the mouldings, &c., on both the buildings and the sarcophagi, sufficient to reconstruct the former with great accuracy. On the same hill some curious tombs were found, of one of which a plan was made; each *loculus* is constructed to receive two bodies. On Tel Kureibeh, Anderson found a sarcophagus with holes for three bodies. A little more than two miles south-east of Kedes, on an isolated hill called Tel Harah, we found the remains of a large city of very ancient date; on the top of the hill were the walls of the citadel, and below a portion of the city wall could be traced. All the buildings are of the same character—rough courses of undressed stones, with the interstices packed with small stones. On the eastern slope were found the remains of a building with mouldings of a plain simple character; the surface was covered with broken glass and pottery. I cannot regard this as any other less than the long-sought-for Hazor. Every argument which Robinson adduces in favour of Tel Kureibeh applies with much greater force to these ruins. The position is one of great strength and overhangs the Lake; there are numbers of large cisterns on the hill, and it seems to have escaped the ravages of the Crusading period; no favourable point could be seen for excavation, to determine the name of the place. Since we have been here we have been excavating in the White Synagogue, and have nearly done enough to disclose the plan and detailed structure, but have otherwise found nothing. Anderson, during his topographical rambles, has made a great discovery, no less than the ruins of Chorazin at Kerazeh. Though this is put down in V. de V.'s maps, and several travellers have said they visited the ruins, it is difficult to suppose they ever did; the remains cover a much larger extent of ground than Tel Hum, and many of the private houses are almost perfect with the exception of the roofs, the openings for doors and windows remaining in some cases. They are nearly all the same style—a wall of rubble masonry, with two or more pillars in the interior to take the rafters of the roof. The ruins are on the left bank of the Wady Tel Hum, about two miles from the mouth, on a small plain in which there is a spring; a curious tongue or projection runs out into the Wady, and on

this, which commands a beautiful view of the Lake, are the remains of a Synagogue or Church, perhaps both. Unfortunately, though some of the mouldings, &c., are in a good state, the building has suffered more than any of the others, and its plan cannot be distinctly made out. All the buildings, including synagogue, are of basalt, and it is not till one is right in amongst them, that one sees clearly what they are; 50 or 100 yards off they look nothing more than the rough heaps of basaltic stones so common in this country. Portions of the old streets with their pavements can be traced, and there is a great deal of broken pottery lying about. Drawings have been made of the mouldings, &c., and a plan of the large building as far as it could be made out.

Photographs.—2 views of Niches and Fountain of Banias.

7 views of Castle of Banias.

3 views of Town and Citadel of Banias.

1 view of Hazur, Oak Grove.

3 views of Sarcophagi at Kedes.

1 view of large Tomb at Kedes.

7 views of Temple at Kedes.

4 views of Ruins at Kerazeh.

5 views of Ruins at Tel Hum.

Our mercurial barometer having come to an untimely end we can make no more meteorological observations of value. I mourn daily over our loss in this respect; it only wanted a good series of barometrical observations to make our survey complete of its kind.

25th.—We are now at Khan Minyeh, and have to-day been digging in the mounds. I was very sorry to leave Tel Hum, there is much to be done there yet, but excavating is very expensive work, and we have a great number of places to visit; we can only call what we are doing, scratching, it would take 150*l.* or 200*l.* to do Tel Hum properly. We have found out the plan of the white building,—four rows of seven columns each, the favourite Jewish number, surrounded by a blank wall ornamented outside with pilasters, and apparently a heavy cornice of late date; the longest side is north and south, but what puzzles me is that the entrance was on the south side, which does not seem to be usual in synagogues. Plans and measured drawings of architectural details have been made. The synagogue was surrounded by another building of later date, also well built and ornamented; we opened one portion of this, the remainder would have cost too much to have done at present. The confusion caused by the mixture of the ruins of the two buildings, and the loss of a great portion of both from stones having been taken away to Tiberias, makes the whole very puzzling. If Tel Hum was Capernaum they certainly took the old synagogue for Peter's house, and built the church round it. Yesterday, when coming from Tel Hum, it struck me as contrary to the usual good engineering of the Romans to cut a road through the solid rock without any visible reason, and to-day I have discovered that the broad cutting in the rock above Ain et Tin is a portion of a large aqueduct which formerly conveyed the whole of the Tabighah fountain into the plain of Gennesareth for irrigation; the aqueduct still stands in small portions at several points, and can be easily

traced the whole way by the number of stones with cement adhering to them lying on the surface of the ploughed fields; it immediately struck me that this must be the fountain mentioned by Josephus; the greatness of the scheme, raising the water in a tank and thus carrying it round the contour of the Tabighah valley to the plain, would explain his allusion to it. Specimens of the waters of the fountains have been kept, and their temperatures taken.

27th.--We are now at Mejdal, and I have just been to Irbid, where I have set some men to work excavating at the synagogue. Since writing the above two photographs have been taken, one of an aqueduct hewn in rock, and one of the plain from above Khan Minyah. Our one-inch reconnaissance has been advanced to Mejdal, and observations made at Khan Minyah. The maps are all greatly in error in this district. The Wady Rubadiyeh, shewn in V. de V. as coming from a small spring, is the longest of all, rising in Jebel Jurnuk. I have been able to trace the whole of the ancient system for irrigating the Ghuweir; though on a smaller scale, it was as perfect as that of the Damascus plain. We had men digging for two days in the mounds at Khan Minyah, but found nothing. The pottery and masonry appear to be comparatively modern. There are a great many such remains along the border of the lake, but as far as can be seen there is no connection between them; they appear to have been separate villages. We intend going from this to Hattin, thence to Tiberias, and round the lake to Et Tel, then cross the Jordan by the bridge, and on to Kefr Birim, coming down again by Meiron and Nasareth to Zerim and Beisan. A traveller, Mr. Griffiths, has just brought me your letter of the 6th January, and I have written the latter part rather hastily that he may take it on with him. I am glad to hear the aneroids are on their way, we have missed them much during our work round the lake.

With kind regards from Anderson and myself, believe me,

Very sincerely yours,

C. W. WILSON.

GEORGE GROVE, Esq.,

Honorary Secretary,
Palestine Exploration Fund.

Anderson is indefatigable in exploring, we seldom see each other before dark; his maps will be a valuable addition to the topography of Palestine.

Private.]

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PALESTINE EXPLORATION FUND.

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PATRON.

HER MAJESTY THE QUEEN.

Fourth Report from Captain Wilson, R.E., in charge of the first Expedition of the Association.

NAZARETH, February 20th, 1866.

We have now reached Nazareth, and in continuation of my last I send a few notes of what we have been doing lately.

Topography.—Anderson has made astronomical observations fixing the positions of Khan Minyeh, Mejdél, Tiberias, Kefr Argib (near north end of Lake), Wady Fik, Alma, Kefr-Birim, Meiron, Alebbon, and Nazareth, and has added considerably to the map we are making. I can hardly describe this part of the work, so enclose a small tracing from Van de Velde's map, shewing in colour the district which has been reconnoitred and plotted, on a scale of one inch to a mile, since we reached Banias; we have not, of course, been able to fill in all the small detail, which would require the extended operations of a regular survey, but this will give with great exactitude the main features of the country. The greatest error found in the existing maps is in the course of the Wadys running into the plain of Gennesareth, the great bend of Wady Selameh, shown by V. de V. as forming portion of Wady Amud, being really a continuation of Wady Rubadiyeh. We were disappointed at not being able to take our mules round the Lake, and thoroughly explore the eastern side, the Governor of Tiberias, who appears to be at open war with the Bedouin, refusing to give us an escort, and without this our muleteers would not cross the Jordan; we, however, hired a boat at Tiberias, and landing at the mouth of the Jordan, made a three-days' walking excursion, during which we were able to examine the country to about half a mile below Wady Fik, when the weather compelled us to return to Tiberias, and it was hardly considered worth while to start

No. .]

on another excursion to explore the small remaining portion, the character of which we could see from our last point. It would take too long now to send you a full description of this part of the country, but I may mention that there is only one place, about half way between W. Fik and W. Semakh, which fulfils all the conditions required by the Biblical narrative of the destruction of the herd of swine.

Archæology.—I think I mentioned that we had been able to trace the ancient system of irrigating the Ghuweir, and that our excavations in the mounds at Khan Minyeh had been without result, the masonry uncovered and pottery found being of comparatively modern date. Some excavations were made at Irbid, and detail plans and drawings made of the building there, which is an old synagogue, but has suffered a good deal by having been at one time converted into a Mosque. The caverns Kalat Ibn Maan were explored, and found to have been at one time used as a convent. At Tiberias the ruins of the old town occupy a larger area than we had been led to expect, and we traced an old aqueduct which supplied the town with water to its course some miles off in the hills. At the north end of the Lake, Et Tel was visited; the ruins there are small, and no trace of architectural detail could be found amongst them. On the plain we visited several old sites; one, near the northern edge, to which no name could be obtained, had a portion of the city wall standing, and a few basaltic fragments of architraves and cornices, one with a well-executed scroll of vine leaves and grapes; on the shore we found some ruins called Kefr Argib (perhaps the Argob of the Bible?),—they are of some extent, but contain nothing remarkable; at the mouth of W. Semakh are some ruins called Khersa, much of the same character as those at Kefr Argib; at Kalat el Husn (Gamala) are numerous capitals and fragments, but no distinct plan of any building could be made out. The line of the entire street can still be plainly traced. Being so near Um Kais we took a holiday one day and paid it a flying visit; one peculiar feature which I have not seen noticed before is the enormous number of sarcophagi, all of basalt, and ranged side by side in two rows, through which one of the main roads leading eastwards part. From Tiberias we turned north again, to complete the examination of the Jarmuk district, and at some ruins called Nebartein discovered an old synagogue, on the lintel of which was an inscription in Hebrew, and over it a representation of the candlestick with seven branches, similar to the well known one on Titus' arch at Rome—a squeeze was taken of the inscription; at Kasyan, the ruins of a small temple were found, and a mutilated Greek inscription; at Kefr Birim, some small excavations were made to disclose the plans of the two synagogues, of both of which detailed plans and drawings have been made. A plan has also been made of the church at Yaran, the style of architecture of which is very peculiar, and like nothing we have seen elsewhere; the cross has been used with great freedom as an ornament, and no two capitals were found alike—on one were some curious designs, on another each face had a bust in the centre, &c. Two Greek inscriptions were found at Yaran, both mutilated. At Meiron, plans, &c., were made of the synagogue, and drawings of some of the tombs which are peculiar. At Um el Amud we found the ruins of another synagogue, and a broken slab

on which are two lions. Some fine sarcophagi, similar to the Kedes ones, were found at Shallabbon.

Photographs.—The following have been added to our list :

View of the Ghuweir from Khan Minyeh.

View of the Aqueduct at Khan Minyeh.

Two views of ruins at Irbid.

View of Kurn Hattin, "Mount of Beatitudes."

View of Wady el Hamman.

View of ruins at Kalat el Husn (Gamala).

View of Tiberias.

View of lintel with inscription and candlestick, at Nebartain.

Four views of ruins at Keft Birim.

View of ruins at Meiron.

View of large Sarcophagus at Meiron.

View of Slab with lions at Um el Amud.

Meteorology.—The three aneroids reached us safely on the 9th, the day we left Tiberias, and since then a regular series of barometrical and hygrometrical observations have been made; the aneroids have been found invaluable for filling in the relative heights of places on the reconnoissance sketch.

We intend remaining here three or four days, photographing and exploring the country round, and Mr. Zeller* has been kind enough to draw up a list of places where there are old remains; he is also going to try and accompany us to Beisan, where, from his personal acquaintance with the Bedouin, he will be of the greatest assistance to us in our explorations, indeed, we have already benefitted very much by the information he has given us about the country. From Beisan we shall go *viâ* Zerín to Sebus-tiyeh and Nablous, whence I hope to be able to send you another short sketch of our work; we expect to be at Jerusalem the end of March, but it will depend very much on what there is to be done at Nablous and Sebus-tiyeh. I hope you received my last letter sent from Khan Minyeh, by the hands of Mr. Griffiths, who was proceeding direct to Acre. I will send you a statement of expenses at the end of the quarter, by which time I hope to have got rid of our present mules and muleteers. We have just heard that there is likely to be some trouble in getting to Beisan, the Adouan and Sukka Bedouin being at war, nearly all the government horsemen have gone down to help the Sukkas, and a grand fight seems imminent, on the result of which some of our movements will depend; it has already slightly altered the intended programme, as we shall now leave our notes, photographs, and most valuable instruments, here, and go direct to Zerín, from thence to Beisan, and return to Nazareth *viâ* Endor, after which we shall go straight to Sebastiyeh. Anderson and I are going to try and get down to the Sukka camp in time to see the battle. The whole country round is very much disturbed, the people being in many places absolutely starving; the locusts cleared off last year's crops, and are now eating up the Jordan

* Anglican Clergyman at Nazareth.

valley, threatening to return to the mountains when summer sets in; and the cattle disease was so severe that there are now not enough cattle left to plough the land, and there seems to be every prospect of an increase in the distress.

I hope the funds of the Committee are progressing favourably; the photographs we bring home, if they arrive safely, ought to contribute a good sum towards it--very few of them have ever been taken before.

With kind regards from Anderson and myself, believe me,

Very sincerely yours,

C. W. WILSON.

GEORGE GROVE, Esq.,

Honorary Secretary,

Palestine Exploration Fund,

Sydenham.

Private.]

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PATRON.

HER MAJESTY THE QUEEN.

Fifth Report from Captain C. W. Wilson, Royal Engineers, in charge of the first Expedition of the Association.

NABLUS,
March 17th, 1866.

MY DEAR GROVE,

Before commencing an account of our work since leaving Nazareth, I must acknowledge the receipt of your last letter of the 26th February, with its enclosures, five circular notes for (£100) one hundred pounds each, on the Union Bank of London, and numbered from 61,760 to 61,764, which reached me on the 14th March.

Topography.—The positions of Nazareth, Zerîn, Lejjun, Beisan, Jenîn, and Nablus, have been fixed astronomically, and a one-inch sketch made of the eastern portion of the plain of Esdraelon and Valley of Jezreel down to Beisan; a reconnaissance sketch of the road from Jenîn to Nablus; sketches of Beisan and Sebustiyeh on a scale of six inches to a mile; a chained survey of the summit of Gerizim, on the 1-500th scale; and a sketch of Ebal and Gerizim, with the valley between, which is now in progress. A base line has been chained for this, so that the distance between the two mountains will be obtained with the greatest accuracy.

Archæology, Excavations, &c.—At Zerîn some small excavations were made near the large square building in the village, but without result. In and around the village are more than 300 cisterns or subterranean granaries for corn; a number of these were visited at various points, in the hope that some remains of the old town might be found in them, but neither there nor in the large accumulation of rubbish round the village could any foundations or remains be seen of sufficient importance to justify the commencement of excavations on a large scale. The examination of the mound is quite practicable, but would require some time and a large sum of money. Lejjun, Taanuk, and other places around, were

visited, and notes made on their ruins. Descending to Beisan, we were much struck with the isolated appearance of the hill on which Kumieh stands, apparently the "hill of Moreh, in the valley" (Judges vii. 1). At Beisan we were utterly at a loss where to dig, and the disturbed state of the district made it difficult to find labourers; over the greater portion of the area the rank grass and vegetation reached nearly to the shoulders, so that the character of the foundations could not be seen; and it was only by stumbling amongst the loose hidden stones that the existence of a great portion of the ruins was detected. Most of the columns standing appear to have at one time ornamented a street which ran from the Gadara gate round the Acropolis. A plan was made of the Theatre; two rock-hewn tombs and several sarcophagi were found. Whilst at Beisan a visit was made to Sukkat. The name seems to be applied to the district as well as to a small Tell, on which are some inconsiderable ruins; there is no very marked feature, such as would answer to the expression "Valley of Succoth"; the district is rich and well watered, and was, when visited, occupied by over 200 tents of the Sukr Bedouin, who are now at war with the Adouan. The river being unfordable the fighting has been confined to an exchange of Arab abuse and a few long shots across the river; some four or five men have been killed. Excavations were carried on simultaneously at Sebustiyeh and Gerizim; at the former some excavations were made at the Church of St. John and two of the temples. A plan was made of the church, and the grotto, which seems to be of masonry of a much older date than the church. There are six loculi in two tiers of three each, and small pigeon-holes are left at the ends for visitors to look in; the loculi are wholly of masonry. The northern side and N.W. tower are of older date than the Crusades; I think early Saracenic; in the latter there is a peculiarly arched passage. The church is on the site of an old city gate, from which the "street of columns" started and ran round the hill eastwards. The old city was easily traced; plans were made of the temples, they are covered with rubbish from ten to twelve feet deep, to remove which with Arab labour would take some three or four months. Anderson took charge of the Gerizim excavations, and opened out the foundations of Justinian's Church within the Castle; in many places but one or two courses of stones are left: the church is octagonal, on the eastern side an apse, on five sides small chapels, on one a door, the eighth side too much destroyed to make out, probably a sixth chapel; there was an inner octagon, and the building without the chapels must have been a miniature "Dome of the Rock." A few Roman coins were found. The southern portion of the crest has been excavated in several places, but no trace of any large foundations found: in an enclosure about four feet from the Holy Rock of the Samaritans, a great number of human remains were dug up, but nothing to tell their age or nationality; we have since filled in the place and covered them up again; the Amran says they are the bodies of those priests who were anointed with consecrated oil, but may more probably have been bodies purposely buried there to defile the temple, or rudely thrown

in and covered up in time of war. An excavation was made at the "twelve stones" which appear to form portion of a massive foundation of unhewn stone. M. De Sauley is quite right about the name of Luzah being applied to the ruins near the place where the Samaritans camp for the Passover. They are not of any great extent, by far the most important remains are on the southern slope of the peak, where a portion of the city wall can still be seen and the divisions of many of the houses. Whatever its name or date, there was certainly at one time a large town surrounding the platform on which the wely and castle now stand.

Photographs.—View of Fountain at Nazareth.

Two views of town of Nazareth.

Cliff behind Maronite Convent, Nazareth.

View of Zerîn with Mount Gilboa.

Two general views of ruins at Beisan.

Old Roman Bridge, Beisan.

Theatre, Beisan.

Three views of Church of St. John, Sebustiyeh.

General view of Sebustiyeh.

Street of the Columns, Sebustiyeh.

Ruins on Mount Gerizim from south.

Sacred rock of the Samaritans.

Interior of castle, with Ebal in the distance.

The twelve stones and west wall of castle.

View of ruins of Mount Ebal.

Supposed scene of assembly of twelve tribes under Joshua.

Geology. The only peculiarity noticed was the construction of Jebel Duhy (Little Hermon), which is composed of a conglomerate of trap fragments, flints, and portions of hard limestone. The highest point where the wely stands is entirely of basalt, as is also an isolated conical shaped hill, Tel Ajal, lying between Endur and Nein, and these appear to have been the centres of eruption for the basalt which covers the country as far as Beisan.

We hoped to have been able to leave Nablus on the 19th, but a return of rainy weather will probably delay us another day or two, as I am anxious to get plans of those mosques in the town which have been Christian Churches. We shall not be sorry to leave, as there has been more trouble here than in any other place. Attempts have been made to rob the tents on four separate nights, and on one occasion they managed to break in and steal a few small articles out of the tent in which Anderson and I were sleeping; last night there was a gang of six or seven who made two separate attempts, but found us on the alert each time; we gave them a volley, but it was too dark to take certain aim: the other evening an attempt was made to stone Anderson, fortunately he got off unhurt. The Mudir (governor) has been very civil and given us every assistance; the secret of the whole thing seems to be an absurd report which has

become circulated among the natives, that we have dug up a great quantity of treasure on Gerizim. We intend on leaving this to go to Tubas, and thence, if matters can be arranged with the Bedouin, by Wady Ferrah to Jisr Damieh, where we shall be able to check Lynch's Astronomical observations, and sketch in a portion of the Jordan, at the same time fixing the position of Wady Zerka; we shall then return by Yanun to Awertah, where I hear there are some inscriptions in the Samaritan character, and tradition places the tombs of Eleazar, Phinehas, and other priests; from Awertah we go to Seilun and Bethel, thence by Tibneh to Kefr Saba, and if time allows, on to Casarea and Athlit. The season will be too late to do much in the way of excavation at Jerusalem, but there are several small things left undone last year from want of time and means, plans of some of the smaller mosques, and the tracing of the aqueducts between Solomon's Pools and Hebron. The Jordan valley is in such an unsettled state this year, that our visit there is doubtful; we are going to make the attempt, and see what a little bakhshish will do. Excavating is far more troublesome than I expected, one of us has to spend his whole time on the ground to ensure any work being done, and this, of course, throws other work in arrear; wages are high, from 2s. to 2s. 6d. per day, and it takes at least five men to do the work of an English navvy. I am afraid you must not look for any great discoveries, this part of the country has undergone too many changes and been ransacked too often, to leave much chance of any. As far as I can see at present, we shall leave Palestine by the mail of the 4th or 14th May, Corporal Phillips will go direct, Anderson and I by Naples and Rome. I wish I could send you the photographic negatives, as they give me a good deal of anxiety on these rough roads, but I cannot see any way of managing it. Anderson joins me in kind regards, and believe me,

Very sincerely yours,

C. W. WILSON.

March 29th.—I have just received your two notes of 20th and 22nd of January, sent *via* Trieste. It is a great nuisance, but I have never received a letter properly by that route yet, they generally send them for a cruise amongst the Greek Islands. De Saulcy's last visit to the Round Fountain seems to have been under unfavourable circumstances. I was of course aware that he placed Capernaum there, but could find no ruins except some small foundations close to the fountain, which may have been anything. Abu Shushah, which is now occupied by Algerians, is certainly an old site, but the ruins which stand at present are all old mills, and there is no old castle such as De Saulcy describes. We leave to-morrow for Tubas and Teyasir, and shall, I hope, be able to give a good account of them.

C. W. W.

Private.]

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—♦—
PATRON.

HER MAJESTY THE QUEEN.

JERUSALEM,
April 2nd, 1866.

MY DEAR GROVE,

Since last writing to you we have come down the country quicker than I at first intended, on account of our muleteers and servants who have left us. The Topographical work has consisted in fixing the positions of Tubaz, Bedouin Camp near Jordan, Beit Dejan, Turmus Aya, Beitin and Jerusalem, by astronomical observations and sketching in as much of the country as could be done on the march. The discrepancies in the position of Wady Zerka have arisen from the peculiar course the stream takes after leaving the mountains. The mouth of the Wady is nearly correct in Van de Velde, but the confluence is some four or five miles lower down near Jisr Damieh ; I am not sure of the exact distance, as the work has not yet been plotted to scale, but we have the necessary material. The annexed rough sketch will show you the peculiarity mentioned, and this can only be seen from the hills immediately above that part of the Jordan valley.

Archæology.—Plans have been made of an old masonry tomb at Teyasir, and of the churches at Beitin and Bireh. Seilun and Beitin were examined with a view to excavation : at the former there is very little rubbish, except the stone walls of the deserted fellahin village, and we could not see any suitable plan for excavating ; at Beitin the modern village covers the whole of the mound of rubbish. I intended to clear out the interior of what is known as Burj Beitin, but found that since last year it had been thickly planted with fig trees, and the amount of compensation demanded was too exorbitant. I may however be able to come to terms before leaving Jerusalem.

The following *Photographs* have been taken :—

Doorway of Mosque at Nablus.
Two views of Nablus.
Tomb at Teyasir.
Bedouin Encampment.
Ruined Mosque at Seilun.
General view of Ruins at Seilun.
Fountain of Seilun.
General view of Beitin.
Two views of Ruins near Beitin.
Two views of Church at Bireh.

I send you by this mail some prints which I have been able to strike off at Jerusalem through the kindness of Mr. Berghem ; there has not been much convenience for doing this, and the negatives will give better results when properly printed in England.

Accounts.—I enclose a statement of the expenditure up to the present date. The expense of travelling has come to about £3 7s. per diem—more than I expected, but not at all unreasonable for the time of year ; a measure of corn which last year was only six piastres is now eighteen, and everything else in proportion. The only items I think I need notice are those for Zaptis and a guard at Nablus ; we have travelled through most of the country without escort or government aid, but in some places found it necessary to employ horsemen to show the villagers that we had authority to excavate, and prevent attempts at pilfering. At Nablus the repeated attacks on the tents, and the report of our finding hidden treasure, obliged us at last to apply for a guard from the Governor to enable us to get a night's rest. I start this week for Urtas, and shall be away a few days tracing the course of the aqueducts beyond Urtas, and then go on to Tibneh. I have met Sir Moses Montefiore since my arrival ; he takes great interest in our work, and I hope may be persuaded to subscribe to the fund. Dr. Hodgkin has been left at Jaffa seriously ill. I am afraid at his age he will hardly recover. Please excuse this short note ; the Sirocco has been blowing all day, which always brings on a low fever and makes me not good for much. With kind regards from Anderson and myself, believe me

Very sincerely yours,

C. W. WILSON.

What do the Committee wish done about Tel Salhiyeh, near Damascus ? Rogers has kindly offered to look after anything done there. If you write by return of post an answer would reach me before I leave the country. £50 would I think do the whole thing thoroughly.

THE
PALESTINE EXPLORATION FUND.

A SOCIETY FOR THE ACCURATE AND SYSTEMATIC INVESTIGATION OF THE ARCHÆOLOGY, TOPOGRAPHY, GEOLOGY AND PHYSICAL GEOGRAPHY, AND MANNERS AND CUSTOMS, OF THE HOLY LAND, FOR BIBLICAL ILLUSTRATION.

PATRON.

HER MAJESTY THE QUEEN.

JERUSALEM,
May 2nd, 1866.

MY DEAR GROVE,

Since my last note astronomical observations have been made by Anderson at the following places: Tibneh, Ras el Ain, Kefr Saba, Cæsarea, Athlit, Mukhalid, Bir Addis, Lydda, Ain Shems, Beit Jibrin, and Hebron. A reconnoissance sketch was made of the route, and a plan of the ruins of Cæsarea; during the journey the course of Wady Surar was examined, Van de Velde gives it correctly in the first edition of his map, but in his second has followed Mansel's error.

Archæology. All the tombs we could find at Tibneh were opened and visited, they are not very numerous and have been rifled of anything valuable that they may have contained. Many of the "loculi" contained great numbers of bones, and one a perfect female skeleton, which, however, crumbled to pieces directly it was touched. Detailed plans were made of two of the most remarkable in the group. At Abud a fragment of a Greek inscription was found, and near the village a number of rock hewn tombs, in one of which the sides were painted; the porticos were ornamented in a style somewhat similar to that of the Tombs of Kings and Judges at Jerusalem. A plan was made of a curious old building near the village of Mezarab. The castle and fountains at Ras el Ain seem to be the "Mirabel," and "Deaf fountains" of the Crusaders; the latter give out a larger body of water than any we have seen in Palestine. At Kefr Saba the village covers nearly the whole mound, and excavations could not well be made; there are enough remains to show that it has been an old site, and near it we found portions of the old Roman road. The total absence of all running water, on the presence of which Josephus lays such stress in his description, is very remarkable. Kalansawa, Kakun, Burj el Atal,

Arsuf, and other old ruins on the plain were visited. At Cæsarea the only remains *in situ* of the Herodian city that could be found were portions of the outer wall, the amphitheatre, a pool, and four aqueducts, one of which brought the Nahr Zerka into the city; a plan was made of the Crusader's church. At Tantura men were busily employed quarrying stone for the Jaffa market, they had opened a great portion of the mound but found no remains of a temple or other public building. At Hebron we were able to get good photographs of the Haram masonry, and detail drawings showing its character, which is identical with that of the Wailing Place masonry; unfortunately, we arrived there the first day of Bairam and were unable to avail ourselves of the permission to enter the mosque which his Excellency Izzet Pacha would otherwise have granted. A couple of days were given to the exploration of the water supply beyond the Pools of Solomon, the low level aqueduct derived its supply from a fine fountain in Wady Aroob, but the source of the high level one could not be found, the depth and softness of the mud in the long tunnel preventing all attempts to get through it; I hope to get some one here to undertake the exploration next October, before the winter rains commence. Some interesting excavations were made last summer on the site of the ancient Etham, by Mr. Walcher, the Austrian Consul, disclosing some curious cuttings in the rock. At Jerusalem itself two excavations have been made, one in front of the gate Gennath, (so-called,) the other in front of the Bab el Burak of the Haram, the former is finished and shows the gateway to be of comparatively modern construction, the latter is now in progress, it is fifteen feet deep, but the sill has not yet been reached. I have been able to get down into the continuation of the passage from this gateway, a portion of which forms the present Mosque of El Burak. I have no plan with me to lay my sketch down on, but after running east for a short distance, it turns sharp to the south and ascends by a gentle incline. The masonry is very fine, apparently Herodian, and the faces of the arches have the same moulding as that on the one in the Mosque El Burak (vide De Vogüé, *Temple de Jérusalem*). A curious cistern near the Bab el Kattanin has also been visited. Anderson returned yesterday, 2nd, from Nablus, with a valuable addition to our photographs, he was opposed, from the moment of his arrival, in every possible way by Yacoob es Shellaby, who has behaved very badly throughout and brought the Samaritans down from the mountain whilst the old roll was being photographed and tried to make a disturbance. Fortunately the negatives and camera were preserved. Anderson's account of his visit is very interesting, and the negotiations were conducted with great skill and judgment; the Amram was his friend throughout, and the greatest assistance was kindly given by Mr. Falscher, the Protestant missionary at Nablus. A descent of Jacob's Well was made, and a few additional excavations on Mount Gerizim, showing the castle and church to have been built on a rough masonry platform.

Photographs.—The following have been added to the list :—

View of large tree (Balutti) at Tibneh. * .

Two views of tombs at Tibneh.

- Ruins near Mezarrah.
- Three views of ruins at Cæsarea.
- View of ruins at Dor.
- Two views of ruins at Athlit.
- Six views in and around Hebron. (Three of Haram masonry.)
- Two views of Beit Jibrin.
- Samaritan Camp on Mount Gerizim.
- View showing conical hill north of Gerizim,
- View of masonry platform (so called twelve stones).
- Place of sacrifice on Gerizim, with wood and kettles prepared.
- Samaritan inscription in tower (S.W. end of town).
- View in gardens at Nablus (for specimens of trees).
- Two views (panorama) of Ebal and Gerizim from Jacob's Well.
- Two views of old silver case containing Pentateuch.
- One photograph of interior of old roll.
- Two photographs of an old Pentateuch (the book wrapped in shawls and mentioned in your note), one photograph is of the portion with the name of the scribe, the other of the Ten Commandments.

A photograph of the portion of the oldest roll containing the name of the scribe could not be obtained.

Whilst working on the plain the bath unfortunately got out of order, and several views were missed which I should like to have taken. Now, however, everything is again in working order. I forget whether I mentioned that the box with additional plates, &c, had arrived with only the loss of one plate and a bottle of collodion.

Geology.—The only peculiarity noticed has been the formation of the plain north of Jaffa, which is traversed in a north and south direction by low hills of tertiary sandstone; these retain the water draining down from the mountain country between them, making large marshes unfit for cultivation, and causing in great measure the unhealthiness of the district; we found, however, that formerly there had been a perfect system of drainage, the water being carried to the sea through open cuttings and tunnels in the sandstone hills; these are now choked up with rubbish and rank vegetation.

Corporal Phillips, R.E., will leave for England on the 14th of this month, taking the first P. & O. steamer for Southampton after his arrival at Alexandria; he will leave the instruments, &c., at Southampton, but will deliver the photograph negatives to you, that they may be put into some printer's hands at once, as the sooner they are known to every one the better; I hope you received those I sent in safety.

Anderson and I intend returning *via* Naples and Rome, where we shall spend a few days, arriving, if any faith is to be placed in railway guides, on the morning of June 10th. I shall be at Bury Street, No. 36, and will telegraph to you as soon as possible after arriving. We shall have little or nothing to show when we get home as we have had no time to draw our plans, hardly enough to keep up our note books; I thought it would be waste of time doing here what can be done equally as well in England, and

at less expense. I need hardly mention to you the assistance which Mr. Moore, our Consul, has given us, his kindness to travellers is too well known to require any remarks of mine. His Excellency Izzet Pacha, the Governor of Jerusalem, has been most obliging in granting every facility for excavations, &c., in his district. The only difficulty in carrying on excavations in the city would be those of arranging the terms of compensation with the landholders and obtaining their consent, and I think with a special vizierial letter they might be made in the Haram Area, certainly underground if not above; any such excavations, however, must be on a large scale, most of the houses have no foundations being built on loose rubbish, and they would have to be underpinned with masonry if any opening was made near them, this has given some trouble this year and causes a good deal of anxiety. With kind regards from Anderson and myself, and hoping to see you soon, believe me,

Very sincerely yours,

C. W. WILSON.

THE
PALESTINE EXPLORATION FUND.

PATRON
HER MAJESTY THE QUEEN.

PRELIMINARY REPORT OF CAPTAIN C. W. WILSON, ROYAL
ENGINEERS, ON THE RESULT OF THE FIRST EXPE-
DITION UNDER HIS CHARGE.—1865-6.

GEORGE GROVE, Esq.,

Hon. Secretary, Palestine Exploration Fund.

SIR,

I have the honour to submit, for the information of the Committee of the Palestine Exploration Fund, a Preliminary Report of the first expedition undertaken by the Fund, to be read in connection with the letters addressed to you from time to time during its progress. A final report, containing a detailed description of the district visited, and embodying in one document the contents of the letters, will shortly be prepared to accompany the maps and plans now in progress.

The expedition, which consisted of Lieut. Anderson, R.E., Corporal H. Phillips, R.E., and myself, left England the first week in November, 1865, and arrived at Beyrout on the 23rd of the same month. After some little delay in procuring the necessary transport, &c., the party proceeded to Damascus, and having examined the remains in the city, at Harran el-Awamid, and Tel Salhiyeh, travelled southwards *via* Baniyas, paying special attention to Kedes, Keft Birim, Meiron, Tel Hum, Khan Minyeh, the plain of Gennesareth and district surrounding the Sea of Galilee, Zerin and plain of Esdraelon, Beisan, Sebastiyeh, Nablus, and ruins on Mounts Ebal and Gerizim, Seilun, Beitin, Jerusalem, &c.

The expedition left Jaffa on the 14th May, and arrived in England on the 9th June, 1866.

Tbography.—Observations for time and latitude were made at Beyrout, Mejdell Anjar, Baalbek, Surghaya, Suk Wady Barada, Damascus, Tel

Salhiyeh, Harran el-Awamid, Kaukab, Jeba, Banias, junction of the Hasbany and Banias rivers, Tel el-Kady, Hunin, Kedes, Safed, Tel Hum, Khan Minyeh, Mejdél, Tiberias, Kefr Argib, Wady Fik, Alma, Kefr Birim, Meiron, Alebbon, Nazareth, Zerin, Lejjun, Beisan, Jenin, Nablus, Tubaz, Bedouin Camp near the Jordan, Beit Dejan, Turmus Aya, Beitia, Jerusalem, Tibneh, Ras el Ain, Kefr Saba, Cæsarea, Athlit, Mukhalid, Bir Addis, Lydda, Ain Shems, Beit Jibrin, and Hebron, forty-nine separate points in the district between Beyrout and Hebron. A line of azimuths was carried through the country from Banias to Jerusalem, and observations for the declination of the needle were taken at Banias, Hanin, Alma, Sasa, Safed, Nazareth, Jebel Duhy, Mount Ebal, Mount Gerizim, Jebel Hazur, and Jerusalem; the longitude of these points will be accurately determined by the azimuth lines, and the longitude of the camps computed from them, giving determinations independent of those derived from the rating and comparison of the pocket chronometers at the forty-nine observing stations. The longitude of Jaffa will be taken from the Admiralty Chart, and that of Jerusalem from the Ordnance Survey made in May and June, 1865.

The district which has been reconnoitred and sketched on a scale of about one mile to an inch, is coloured blue on the annexed tracing. It includes the line of water parting, from the bend of the Litany near Deir Mimas to Mount Gilboa, and from Tubas to Hebron (the greater portion of what may be called the back-bone of the country), the Lake of Tiberias, and all the watercourses descending to its western shores; the two questions of the confluence of Wady Zerka, and course of Wady Surar, were examined and may now be considered as settled.

In connection with the reconnaissance, the barometrical observations were made over a large area, which, when compared with those made during the same period at Beyrout, Damascus, and Jerusalem,* will give the altitudes with tolerable accuracy.

The nature of the country, especially in the south, is very unfavourable for rapid reconnaissance, as the numerous watercourses which descend abruptly to the east and west are so narrow, and have such tortuous courses, that it is unsafe to trust the eye and lay anything down that has not actually been visited. Most of the errors in the existing maps seem to have arisen in this way.

Archæology.—Materials have been collected for making about fifty plans, with detailed drawings of churches, synagogues, mosques, temples, tombs, &c., amongst which are the plans of the cities of Beisan, Sebastiyeh, and Cæsarea, of the summit of Mount Gerizim, of churches at Baalbek, Yarus, Sebastiyeh, Beitin, Bireh, Cæsarea, Lydda, Beit Jibrin, Kuryet el-Enab, and Jerusalem, of seven Jewish synagogues, of the Grand Mosque at Damascus, of a mosque at Nablus, of temples at Deir el-Kalah, Mejdél Anjar, and Kedes, and of numerous tombs in various parts of the country.

* Mr. Eldridge, Her Majesty's Consul-General, kindly made observations at Beyrout; Mr. Rogers, Consul, at Damascus; and Dr. Chaplin, at Jerusalem.

Inscriptions were found and copied at the Nahr el-Kelb, at Deir el-Kalah, Masi, Damascus, Tel Salhiyeh, Harra el-Awamid, Banias, Kedes, Yarun, Nebartein, Kefr Birim, Kasyun, and Nablus; several of these are new, and two of them are in the Hebrew character. Squeezes were taken of the most important.

The most interesting remains are those of the synagogues at Tel Ham, Irbid, Kefr Birim, &c., which are somewhat similar to each other in arrangement and construction; they all lie north and south, have three gateways in the southern end, the interior divided into five aisles by four rows of columns, and the two northern corners formed by double engaged columns. The style of decoration does not always appear to have been the same at Tel Ham and Kerazeh. Corinthian capitals were found. At Irbid a mixture of Corinthian and Ionic; whilst Kefr Birim, Meiron, and Um el Amud have capitals of a peculiar character. The faces of the lintels over the gateways are usually ornamented with some device, on one at Nebartein there is an inscription and representation of the seven-branched candlestick; at Kefr Birim the ornament has been purposely defaced, but appears to have been intended for the Paschal lamb; and at Tel Ham there are the pot of manna and lamb. A scroll of vine leaves with branches of grapes is one of the most frequent ornaments.

Although no inscriptions were found, the presence of extensive remains, including those of a synagogue, at a place bearing the name of Kerazeh, seems to fix the position of the ancient Chorazin with some certainty.

The ancient system of irrigating the plain of Gennesareth can still be traced, and may help to throw some light on the site of Capernaum. From the streams which descend the three wadys, Hammam, Rubadiyeh, and Amud, water was carried to the right and left by small aqueducts, and beyond these towards the east the plain was watered by the fountain of Tabighah. The Round Fountain seems to have irrigated a comparatively small extent of ground between W. Rubadiyeh and W. Hammam, the aqueducts from both of which can be traced nearly up to the fountain the latter one being still in use. By carefully using the water derived from these sources the entire plain was perfectly irrigated, and from the richness of its soil must have been of great fertility; now only a portion is cultivated by the Bedouin, who depend on the winter rains for raising their crops. Neither Ain et-Tin or the Round Fountain answer to the account given by Josephus of the Fountain of Cepharnome; they are too small, and hardly come into the scheme of irrigation, the former not at all; but supposing it to be Ain Tabighah, his allusion is at once explained by the copiousness of the supply, and the remarkable piece of engineering by which the water was carried into the plain; the fertilizing powers of the fountain are still attested by the rank vegetation around the mills, more noticeable there than at any other point on the lake.

Near the mouth of Wady Semakh, on the eastern shore of the lake, some ruins called Khersa were visited, possibly those of the ancient Gergasa, and between this and Wady Fik appears to have been the scene of the destruction of the herd of swine; indeed it could have happened at no other point on that side of the lake. From the eastern plateau the

ground slopes steeply, in a few places almost precipitously, down to the level of the lake, leaving a margin of fertile land from half a mile to a mile broad between the base of the hill and the water of the lake, but at this particular point, and only at this, a spur runs out to the shore of the lake; there is no cliff like that at Khan Minyeh, but a slope sufficiently steep to fulfil all the requirements of the Bible narrative.

Excavations were made in three places in the mound of Tel Salhiyeh, near Damascus, with no decisive result, except the re-discovery of the sculptural slab mentioned in Porter's "Five Years in Damascus." The difficulty to get labourers to work during the winter rains, and the daily expense of the mule train, which would have remained idle, made it advisable to leave a thorough exploration of the mound for some future occasion; and Mr. Rogers, Her Majesty's Consul at Damascus, having very kindly offered to take charge of the excavations in case they were renewed, a sum of £50, voted by the Committee, was forwarded to him from Beyrout.

Besides determining the general form of the authentic synagogues, the excavations made in Palestine showed the supposed synagogue at Kedos to have been a Greek temple of about the same age as those at Baalbek, and uncovered the foundations of Justinian's Church, on Mount Gerizim; this is octagonal in shape, and has an apse and side chapels. At Jerusalem, the gate Gennath, so-called, was found to be of comparatively modern construction; and the continuation of the passage from the Babel-Burak of the Haram, was discovered; the vault is of massive, well-built masonry, and there seems no reason to doubt that it is one of the original entrances to the Herodian Temple.

On Mount Gerizim numerous excavations were made, under the direction of Lieut. Anderson. Within the ruin known as the "Castle," the foundations of an octagonal church were laid bare, probably the one known to have been built by Justinian. On the eastern side of the church is an apse, on the northern side the main entrance, and on each of the others, doors leading to small side chapels. In the interior are the piers of a smaller octagon, apparently intended to carry a dome. The church and castle were found to be built on a rough platform of large stones laid together without mortar, and of this—which may possibly be that on which the Samaritan Temple stood—the so-called "twelve stones" form a portion. No trace of large foundations could be found on the southern portion of the small plateau on which the castle stands. Close to the Holy Rock of the Samaritans a number of human remains were dug up, but no clue could be obtained to their age or nationality.

In illustration of the ruins and sacred localities in different parts of the country, a series of 164 photographs was taken, a list of which is appended.

Except during the month of January and part of February, daily barometrical and hygrometrical observations were made at the different camps.

Geology.—Whilst travelling through the country, notes were made on its geological structure, and in the volcanic districts the boundary of the

basalt traced as far as practicable and laid down on the map. The most interesting features are, the structure of Jebel Duhy (Little Hermon), the series of small valleys running in a north and south direction through the mountain district, and the parallel ridges of tertiary sandstone in the northern portion of the maritime plain.

The journey through the country was too rapid to admit of that close, exhaustive examination which it requires, and in case of any future expedition returning to the country, it would be well to take into consideration a suggestion made in some notes supplied by Mr. Trelawney Saunders, that the party should confine their attention to one particular district, and do that thoroughly, by far the most satisfactory and economical way of working the country.

No opposition was made to the excavations last winter, but the Arab workmen are so slow, and have such bad tools, that it takes a long time to do anything; it was found, too, that unless a European was actually on the spot little progress was made, and this, in a party of three, greatly interfered with other duties. Except at Tel Hum and on Mount Gerizim, the excavations were not of any great extent. Openings were made in numbers of places with little success, but this is no reason why any future attempts should fail. There is in several places, as at Zer'in, Beisan, and Sebsatiyeh, a large accumulation of rubbish, and the better way would be to vote a sum of money for some particular place, and take the chance of finding anything, and men might probably be found at Jeru-salem to act as overseers at a reasonable rate. Excavations in the Jordan Valley or on the maritime plain should be made only in December and January.

Excavations at Jerusalem would be of little use unless they were made on a large scale, and this could be done in few places without either purchasing or renting the houses which cover many of the interesting sites, and sheathing the sides of the opening with timber, an article not easily procurable in the city. Excavations might be made anywhere without the walls of the Haram enclosure, and in the vaults and cisterns within them, under the authority of a vizierial letter; they would, however, be attended with some expense, of which compensation to landowners and bakshish to the various sheikhs would form the largest items. Permission would scarcely be granted to disturb the surface of the Haram area, but excavations might be made, within the city, to determine the character of its western wall, north of the Mahkameli; others might be made to ascertain the natural features of the ground between the Ecce Homo Arch and St. Stephen's Gate, and between the Jaffa Gate and the Bab es-Silsileh of the Haram, in the Muristan, south of the Church of the Holy Sepulchre, for traces of the second wall, and in front of the Damascus Gate, where there is an old gateway; in the vaults of the Haram enclosure the western wall of the "triple passage" might be uncovered, two old doorways in the passage under El Aksa (one of which is said to lead to the tomb of Aaron's sons shown in the Mosque above) opened, the course of the curious passages discovered by Mr. De Saulcy, in front of the "triple gateway" traced out, and

several cisterns, which appear to have been originally constructed for other purposes, examined.

The Arab population was in general well disposed; in the north little or no inconvenience arose from travelling without even an Arab attendant, but in the district south of Nazareth it was usually found advisable to employ one or two Government horsemen, to obtain labourers from the villages, and accompany any member of the party who might be at a distance from the camp. The Jordan Valley may be easily explored by approaching it through the proper channels, the Sukr Bedouin, who own the northern portion, having friendly relations with the people of Nazareth, and the Mesa'id Bedouin, who own the centre, with the people of Nablus; the districts occupied by these tribes might thus be visited separately, when it would be unwise to pass directly from one to the other.

Expense.—The travelling expenses during last winter averaged about £3 5s. per diem, a much higher rate than was expected, due to the increased price of forage and provisions, nearly double that of ordinary years. The high prices were caused by the locust plague of 1865, and a virulent cattle disease which had run through the whole country.

Instruments.—The astronomical and surveying instruments were kindly lent by Colonel Sir H. James, R.E., F.R.S., Director of the Ordnance Survey, and the meteorological instruments by General Sabine, P.R.S., and James Glaisher, Esq., F.R.S. Chronometers were hired from Messrs. Frodsham and Co., and were of great service to the expedition.

Their Excellencies the Governor-General of Syria, and Izzet Pacha, Governor of Jerusalem, took much interest in the proceedings of the exploring party, kindly giving every assistance in their power; and, with one exception, the minor Turkish authorities were equally ready to further the objects of the expedition.

It is difficult to find terms in which sufficiently to thank Mr. Eldridge, Her Majesty's Consul-General at Beyrout; Mr. Rogers, Her Majesty's Consul at Damascus; Mr. Moore, Her Majesty's Consul at Jerusalem; Dr. Chaplin, of Jerusalem; Mr. Zeller, Anglican clergyman at Nazareth; Dr. Sandrenski, Protestant missionary at Jerusalem, and Mr. Falscher, Protestant missionary at Nablus, for their great kindness, and the valuable assistance and information they so readily gave on every occasion.

It is proposed in a final report to give detailed descriptions of the various ruins and remarkable localities to accompany the maps and plans now in course of preparation.

C. W. WILSON, Captain R.E.