

there. I feel that the time will soon come when I shall no longer be able to attend the Committee, for I have always thought that the chairman should attend every meeting; if he misses one the link is broken. I thank you very much for the vote you have given me to-day.

The proceedings then terminated.

FOURTEENTH REPORT ON THE EXCAVATIONS AT JERUSALEM.

By F. J. BLISS, Ph.D.

THE last Report was dated June 8th, only 12 days before the permit expired and the excavations were closed. Hence the present Report must be necessarily brief. The chief interest during this short period centred in the search for the drain and street in the Tyropæon. I was anxious to trace these as far north as possible. Owing to the depth of the shafts necessary to reach the drain from point to point; to the occasional change in direction and in the rise of its base, which prevented our coming down immediately upon it in the trial shafts along the supposed line north; and, finally, to the fact that the drain was, as a rule, silted up almost to the soffit of the covers, the progress was slow, and we advanced only a distance of 250 feet, leaving a distance of about 400 feet to the City Wall, and of about 700 feet to the south-west angle of the Haram area. As a rule, this part of the drain has about the same dimensions as described before, but at one point a contraction occurs in both width and height. This is due to a reparation, effected by building a second lower wall against the original west wall of the drain, and by using smaller covers. Work along this section was very tedious, as the later wall had to be quarried away to allow of any progress. After 30 feet of this contraction the drain reverts to its original dimensions: height, 8 feet to 10 feet; width, 2 feet 6 inches to 2 feet 8 inches. The bottom is sometimes rock, sometimes a making up of cement.

At every point possible search was made for signs of the street above the drain, or, in the absence of this, for the making up below its pavement; but these were absent, even where the covers of the drain were *in situ*. Only at one point was observed a bit of a kerbstone (similar to the kerb of the street) with a wall of a house back of it; but the absence of the making up below it makes it doubtful whether it belonged to the desired street. During last season, at points where the pavement was ruined, we found this making up still existing above the covers. However, the fact that for 450 feet of its length we have proved the drain to run under the street suggests strongly that they were always in connection. It is quite possible that the drain may have been in use

after all signs of the street and its making up had disappeared from certain parts of the line.

Though our street was lost some 1,150 feet from the south-west angle of the Haram area and the drain was traced only to a point some 700 feet south of this corner, yet the discoveries of Sir Charles Warren at this same angle give a hint as to the further course of both. From a point 160 feet north-west of Barclay's Gate he traced a channel along the west side of the Haram area to a point some 130 feet south of the south-west angle, a distance of about 550 feet. For the first 160 feet it is only a narrow passage 18 inches wide, having a flat roof of flagging. It then broadens to a width of 3 feet, and turning to the south runs for 123 feet, with masonry walls, roofed over by a semicircular arch, the height being 8 feet. It then enters the rock, which continues to the south-west angle, the height varying from 8 feet to 12 feet, the breadth from 3 feet 9 inches to 4 feet. The roof is of arched masonry. In its course it passes through two circular cisterns. "After passing around the south-west angle, the aqueduct changes its direction more easterly, and, emerging from the rock, is carried on in masonry 3 feet wide, with an arch of five voussoirs. . . . After about 40 feet it turns to south and is continued in a drain 2 feet wide, roofed over with flat stones for a further distance of 59 feet, when it becomes silted up and very narrow."¹

At this place it is pointing in general towards our drain, which is some 570 feet to the south. Although the central part of this channel is arched over yet both at the north and the south it is covered with flagging like our drain. The higher part of this channel is called an aqueduct, but for the last 59 feet to the south it is distinctly called a drain. Comparing the level of the base of this channel at the south-west angle with the level of the base of our drain at the point last seen we find a drop of about 1 in 14. The average fall in our drain is about 1 in 16. The fall in the northern channel is 1 in 20. It should be noticed that the northern drain where last seen has a breadth of 2 feet and is said to be narrowing. Our drain has a breadth of from 2 feet 6 inches to 2 feet 8 inches. This need not necessarily militate against the identity of the two, as the construction of our drain varied at different places both in height and the class of masonry employed.

West of the Haram wall, at various points between the south-west angle and Barclay's Gate, at a height of from 10 to 23 feet above the roof of the channel, Sir Charles Warren found a fine pavement, connected here and there by manholes with the channel below. The blocks are of hard *missae*, the largest of which measures 7 feet by 4 feet, with a thickness of 18 inches. They are well polished as if by traffic.² The largest of the paving stones in the street above our drain measure 6 feet by 4 feet, with a thickness of 18 inches. They are also of hard *missae*, and well polished. From our street also occur manholes leading to the

¹ Jerusalem Volume of "Survey," pp. 179-183.

² *Ibid.*, pp. 172 and 178.

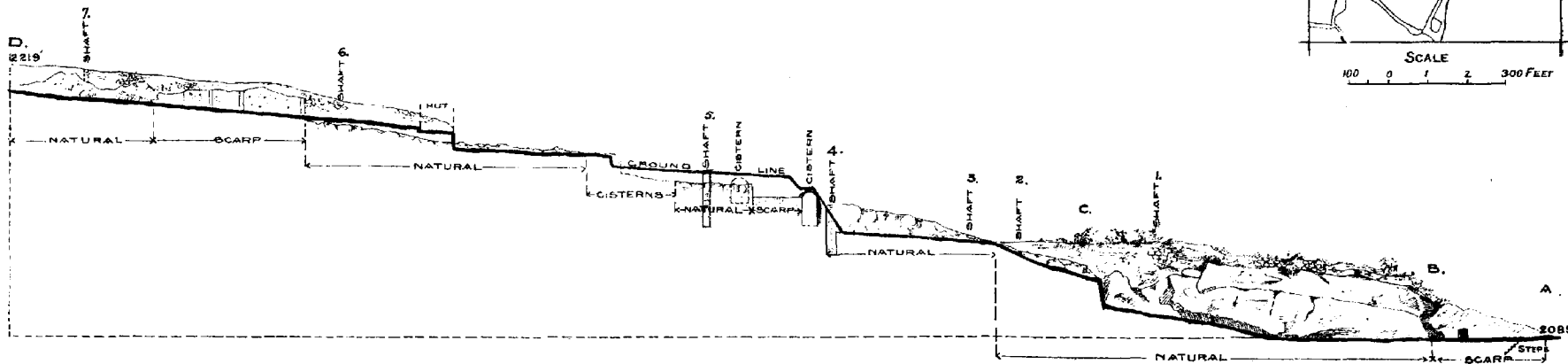
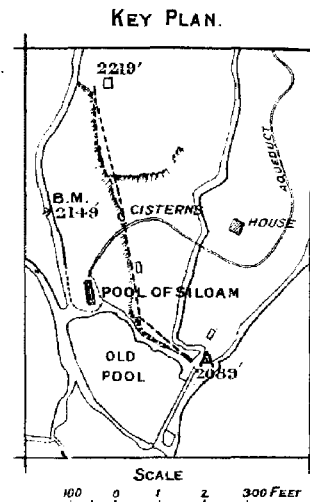
drain. Circumstances prevented our testing the connection of our work with that of Warren, but the identity of our drain and pavement with the northern channel and pavement is strongly suggested by a comparison of those two systems, almost directly pointing towards each other. We have thus at least a hint of a paved road leading from Barclay's Gate down the Tyropœon Valley, terminating at the gate which we found south-west of the Pool of Siloam.

In my last Report I spoke of the examination of the west slope of Ophel, which was not then complete. This was made from the place where the hill tapers down to a point, near the junction of the Kedron and Tyropœon Valleys, northwards to the point where it is cut by the section CD (*see* last Report), a distance of 725 feet. The object of this study was double: first, to see whether there exist any remains of an ancient wall along the top; second, to ascertain whether any rock-hewn steps descend into the Tyropœon. In order to test the first question, it was necessary to examine the top of the rock; in order to test the second, to examine the slope. Along a large part of the line the top of the rock is either exposed or lies very near the surface, hence only a few trenches or tunnels, driven back 10 feet from the top of the rock, were required to exhaust the probabilities.¹ In none of these was the looked-for wall discovered. Between B and Shaft 1 a modern cemetery prevented any work. Shaft 1 was sunk back from the face of the exposed cliff. Rock was found at 6 feet; here a scarp facing *east* suggested a cistern sunk in the rock in the path of the desired wall. In Shaft 2 the rock was found at 5 feet. At Shaft 3 the rock was found by merely scraping away the face of the terrace. Between Shafts 3 and 4 the rock is exposed. At Shaft 5 the top of the rock appeared at a depth of 6 feet. Driving back a tunnel for 10 feet we found nothing but shallow cuttings. A gallery was driven back towards Shaft 4, and at a distance of 16 feet a cistern hewn in the rock back of the cliff, and vaulted over, occupies the place where a wall should run. Thirty feet further on another cistern occurs.

Between Shafts 5 and 6 the top of the rock is exposed in places, and for the rest it was examined by tunnels where cisterns and other such obstacles did not prevent. Near the hut a scarp runs at right angles with the section for some 40 feet, but no signs of a wall having been built against it are visible. Between Shafts 6 and 7 the rock is exposed, being mainly scarped for dwellings, as shown by the partitions projecting at right angles for a few inches, where they are broken off, and by the cupboard-like niches. There are also square holes for the insertion of beams, common in all cliff-dwellings, indicating that constructions were set against the scarp. The top of the cliff is usually so near the surface that we sunk only one shaft, No. 7, which showed that a cistern had been hewn directly inside its outer face. Thus, not only was no wall found, but at least at five points its place is taken up by cisterns.

¹ *See* Plate I.

EXCAVATIONS ON OPHEL



SECTION SHEWING ROCK ON WEST SLOPE



Excavated by *Frederick J. Bliss*
 Plans drawn by *Arch. C. Dickie*
 June 1897

In order to determine whether rock-hewn steps led down from the hill to the valley, an examination of the slope was necessary. This was carefully made along its whole length from A to D. From A to B the rock is scarped, but from B to C the exposed cliff shows no signs of tooling. Between C and Shaft 4 the rock, in places exposed and for the rest examined by tunnels, was all seen to be unworked. That the natural cliff continues north is shown in Shafts 4 and 5, where it is respectively 25 feet and 21 feet high. At these depths it breaks out level for a few feet, but this may only indicate a ledge in the cliff. A tunnel was driven from Shaft 4 to 5. For the first 13 feet the rock is cut for a cistern, which partly projects from the cliff, beyond this for 23 feet the rock is scarped.¹ At that point it breaks out for 3 feet and then the natural face continues, back of which is the cistern described before. Beyond Shaft 5 the same natural face was traced for 14 feet, when operations were interrupted by three small cisterns, two of them containing water. From the last of these to the hut the rock crops up, but as the top had been recently blasted away, we cut a trench along it deep enough for us to see that it sloped down in a natural condition. Between the hut and the scarped cliff an examination by tunnels showed the rock to be unworked. In the scarp—plainly cut for dwellings—no signs of steps were found. To recapitulate: between A and D the greater part of the cliff is quite unworked, and where cuttings occur, these appear clearly to have been made for dwellings or cisterns. The portions of the cliff which are natural and those which are scarped are indicated on the section.

At A, however, an interesting discovery was made. At the point where the road which leads down from Ophel approaches the dam-wall of the Old Pool, Mr. Dickie called my attention to two paving stones at different levels which suggested that steps might occur at this point. Setting some men to dig there we found a flight of five steps terminating in a paved platform. The breadth of treads is uniformly 15 inches, the height of the risers is 10 inches. The steps are laid in mortar, are well polished by use, and are dressed with the chisel pick. Unfortunately this excavation was not undertaken till the day before the closing of the work, hence several points were left undecided. The trench down the steps was dug parallel to the scarp of the cliff, some 18 feet away, but I think it highly probable that they extended to the scarp. Their limit in the other direction was not ascertained, but we may safely assume that they were at least 18 feet broad. The platform may be simply a break in the stairway, which is pointing in a north-westerly direction to the flight of eight steps we found descending from the south to the courtyard in front of the original Pool of Siloam.² It is very annoying that time forbade our pulling up the steps to see whether rock-hewn steps

¹ As plaster occurs on the scarp we may have here another cistern.

² See general plan in January *Quarterly Statement*, 1897, and plate facing p. 14.

underlie them. They occupy the place where it is reasonable to expect the "stairs that go down from the City of David."

We read in Nehemiah iii, 15, that the section repaired by Shallun included the Fountain Gate, the wall of the Pool, and extended as far as these stairs, which would naturally be expected at a point near the wall. The steps we have just discovered occur inside the city and near the angle of the wall that we discovered turning up Ophel.

In the last *Quarterly*, p. 180, I mentioned a large clearance which we made south of the curve formed by the Siloam Tunnel before it enters the Pool of Siloam, stating that it had been suggested that the tombs of the Kings might be looked for within the curve. I should have added that the suggestion came from M. Clermont-Ganneau. His views were published in the "Revue Critique," of November 7th, 1887, pp. 336-340. I had not the article by me and I find since that he indicated the region to the north of the curve. When on the spot it seemed to me that the argument would equally well apply to the region to the south of the curve, and it was here that I made my clearance to the rock, marked on the plan in the last *Quarterly*. As I have said, no entrance to tombs was found, but I am now able to publish a plan¹ of the area excavated, the breadth of which was 44 feet (erroneously stated at 36 feet in the last report) and the average length 100 feet. The rock, seen over the whole area, has an average depth of 12 feet from the surface. Almost everywhere it bears the marks of tooling. Many of the cuttings were made simply for quarrying stones, and such are not indicated in the plan. Many rock-cut dwellings and cisterns were found, but parts of even these had been quarried away.

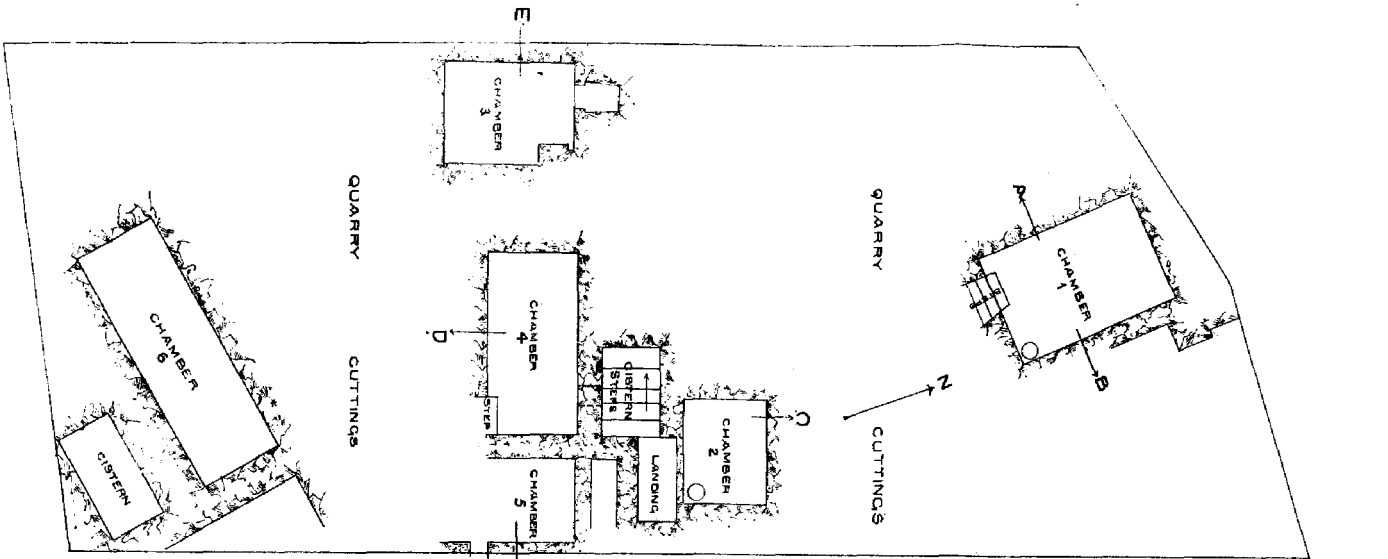
Chamber 1 had been seen by Dr. Guthe in a trench across this field.² It is approached by rock steps from the south. In the south-west corner of its floor is a round hole, 18 inches in diameter and 14 inches deep. On sounding its floor we found no indication of a cavity below. The east and west sides have been covered with plaster, and have an inward batter for 9 feet, where a ledge 8 inches in breadth occurs. Below the ledge the walls curve inwards. Along the ledge there is a single course of masonry, slightly curved, which suggest that the lower part of the chamber had been arched over. The height of the key-stone of such an arch above the floor would have been 6 feet 6 inches.

In the south-west angle of Chamber 2 is a circular hole similar to that in Chamber 1. South of Chamber 2 is a cistern, stepped down from the landing, similar to many cisterns found by us on the Western Hill. These steps are covered with two coats of plaster, the inner composed of chips and ashes, the outer of chips and earth. The broken arch shown in Section CD indicates that the cistern had been entirely hewn in the

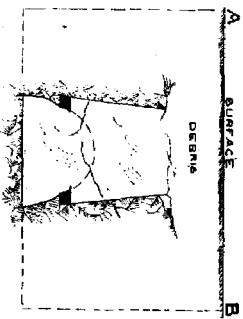
¹ See Plate II.

² For his section of this chamber, called by him a cistern, see Plate I in connection with the "Zeitschrift des Deutschen Palestina-Vereins," 1882, Band V, Heft 4.

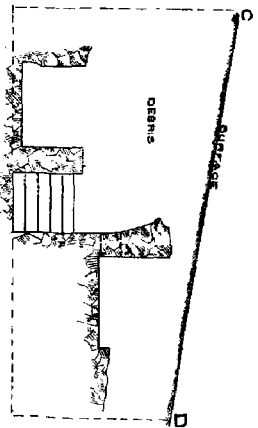
EXCAVATIONS ON OPHEL



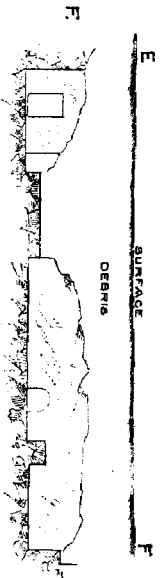
PLAN OF AREA CLEARED TO ROCK



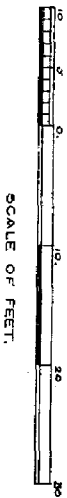
SECTION A.B



SECTION C.D



SECTION E.F



Excavated by H. J. Bliss
 Plans drawn by Cecil C. Davis
 June 1897

rock. In the north walls of Chambers 3 and 4 are niches, the one in the former being 3 feet 9 inches deep. On the scarped sides of Chamber 6 and of the cistern to the south of it run rude masonry walls, probably of later construction. The floor and sides of the cistern are plastered. The descent into most of these chambers must have been by a ladder. It seems probable that they once had rock-cut roofs, since quarried away.

The types of pottery found in the *débris* above these rock cuttings were chiefly Roman, including tiles and the common ribbed ware. There were two Byzantine lamps, and some bits of Jewish jars occurred. Many coins were found. The task of cleaning them was kindly undertaken by Mr. Herbert Clarke, of Jerusalem, who was able to identify 21, the rest being so corroded that nothing could be made of them. Fifteen of these certainly are not later than the first century A.D. I append a list:—

1. Half shekel of Simon Maccabæus, year 3 (B.C. 141 or 145). Very well preserved. See Madden's "Jewish Coinage," p. 44, No. 6.
- 2-3. Coins of Herod Agrippa I (A.D. 37-44).
4. Coin of Felix, Procurator. Date of coins, fourteenth year of Claudius (A.D. 54-55).
- 5-6. Coins of Felix, Procurator. Date of coins, fifth year of Nero (A.D. 58-59).
- 7-14. Coins of First Revolt, second year (May A.D. 67 to May A.D. 68).
15. Coin of First Revolt, third year (May A.D. 68 to May A.D. 69).
- 16-20. Roman coins, not further identified.
21. An Arab coin.

I also began a clearance to the north of the curve, but, owing to the unexpected depth of the soil and to the expiration of the permit, this had to be abandoned before much progress was made. However, immediately to the north of the house included in the curve (*see* key plan in Plate I), in an area measuring, roughly speaking, 80 feet by 40, the rock has been quarried away in modern times. Some soil has since accumulated over the area, but the peasants informed me that nothing had been discovered there resembling a pit entrance to a tomb.

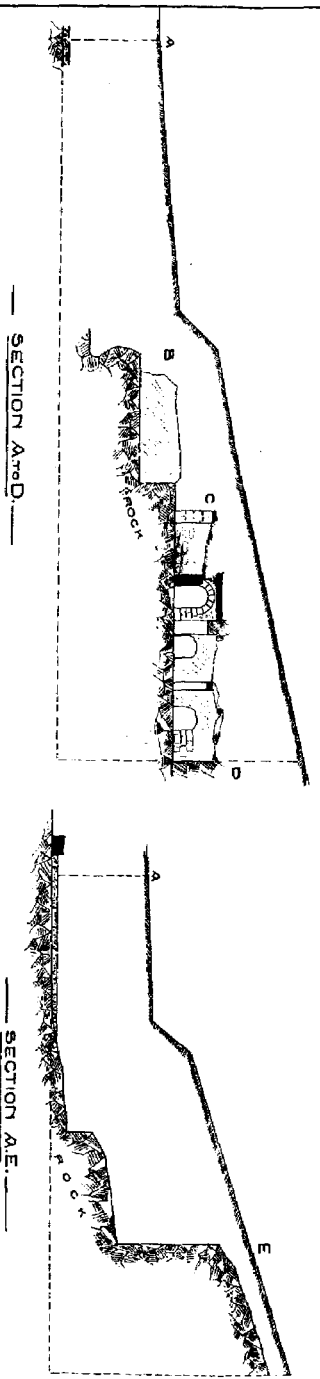
Some 250 feet south of the Aksa Mosque, and immediately east of the Hakûrat el Khâtûniye, where the city wall turns north to join the Haram area, there are six olive trees arranged roughly in the form of a semi-circle. This same rude semicircular form may be observed in the surface contours immediately behind the trees, the ground sloping towards a common centre with a radius which may be roughly taken at 100 feet. As the appearance of the ground suggests that a theatre might be buried beneath the surface, I was instructed to make an excavation at this point. Accordingly I sank three shafts to the rock, near C, E, and G (*see* Plate III), with the intention of pushing a tunnel from each one to the central point A, in order to find out the slope of the rock, and especially to see whether it was cut in the form of seats or had seats built upon it. In the first shaft (*see* Section AE), sunk some 20 feet north of E, rock was struck at a depth of 4 feet. Between this point and E it was found

to have the same slope as the surface and to be, for the most part, in a natural, unworked condition, having the virgin earth clinging to it. At E the rock descends in a perpendicular worked scarp, 17 feet 6 inches high. From the face of this scarp we continued our tunnel towards the south. For 19 feet the rock slopes gently, when another small scarp occurs pointing north-west, thus running at right angles with the lofty scarp. From the face of this second scarp the rock slopes gently towards A, falling only 3 feet in 47. Meanwhile, to save time, we had sunk another shaft at A, finding the rock at a depth of 15 feet, and had pushed north to meet the other tunnel. Resting immediately on the rock we found a concrete flooring, some 15 inches thick, extending north for 31 feet, and bounded on the south by a thin wall of masonry, forming an angle at A.

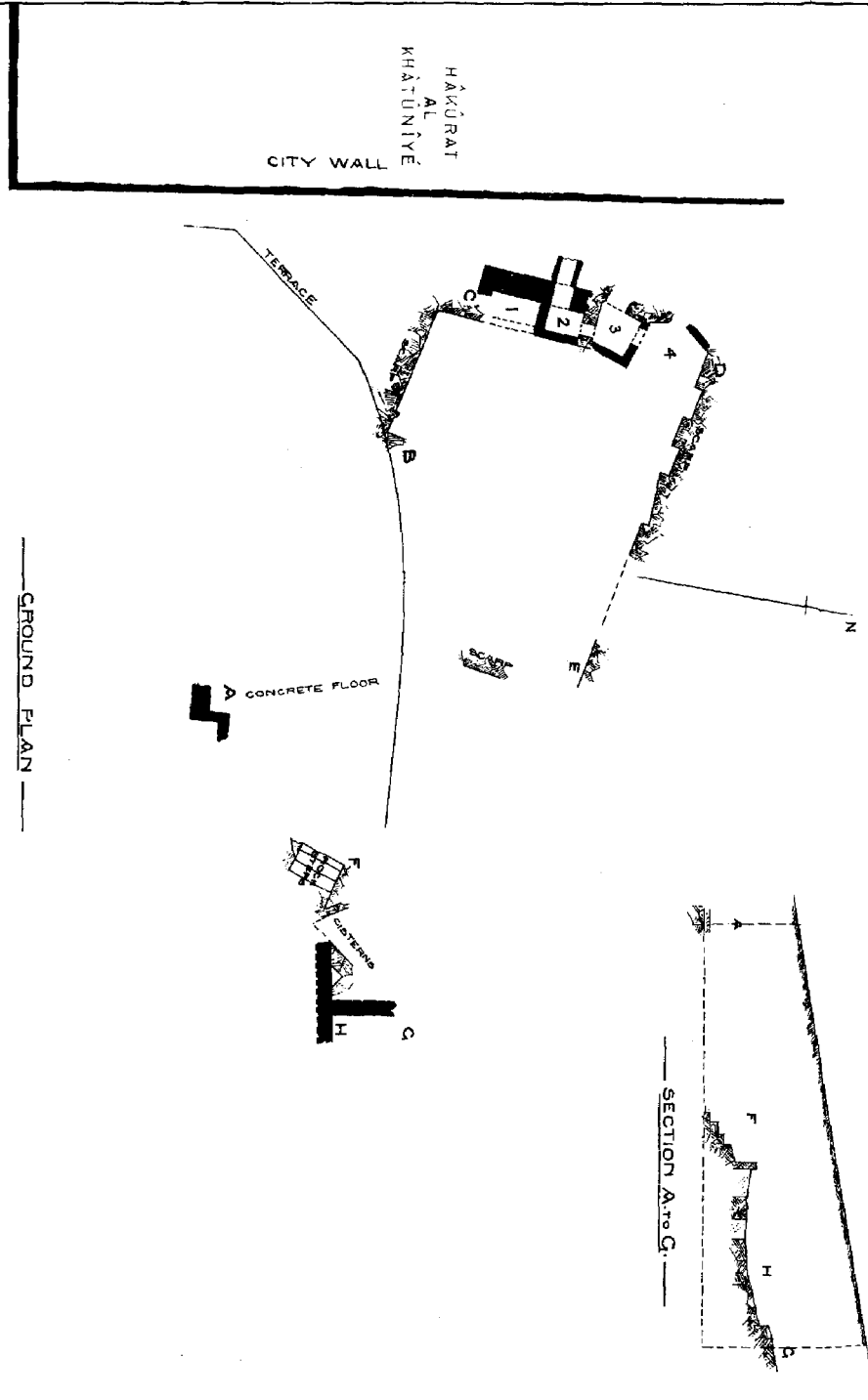
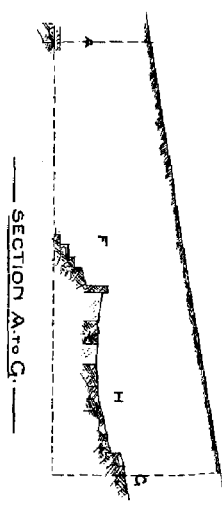
In the shaft at C rock was struck at a depth of 12 feet. Here was found the corner of a wall running north. This was found to belong to a system of chambers, to be described later, as the main purpose of the shaft was to examine the rock between C and A (*see* Section A to D). At the west of the shaft an angle of a scarp was found (*see* Plate III, plan) from 5 to 6 feet high. Sinking to the base of this, we pushed along the side that faces north for 23 feet to B, where the rock drops abruptly for 8 feet 6 inches, though here it is unworked. As the rock at the base of this drop is only 5 feet higher than the rock at A, giving a fall between the two points of only 1 in 10, and as time was very precious, we did not make the connection.

In the shaft at G we found rock at a depth of 17 feet. Our intention of pushing a tunnel straight to A (along the radius of our supposed theatre) was at first frustrated by a wall so solid that we did not attempt to break through it, but followed along its face to H. Here, however, we found this wall butting up against another of equal hardness. Accordingly, we broke through the first wall, which, notwithstanding its solidity, has no great thickness, and followed the rock, in which cisterns were hewn, to four rock-hewn steps, the lowest of which has the level of the rock at A (*see* Section A to G). This stairway is only 8 feet wide, and the treads vary in breadth, but the rises are all 13 inches. As the plan shows, the descent is towards the north-west. The slight height of the steps, as well as their direction, shows that they had not formed seats for a theatre, as in that case the incline should have been south-west, towards A.

The results of our work along these three radii, AC, AE, and AG, may be summed up as follows :—(1) No signs were found of cuttings in the rock corresponding to tiers of seats in a theatre, and the virgin soil clinging to rock from E 20 feet north shows that the rock here had never thus been cut. (2) No signs were found of foundations of seats built on the rock. (3) Though the fall of the rock along the three radii would have rendered the construction of a theatre easy, yet the entire absence of any signs of such a construction makes it appear improbable that a theatre has ever existed here.



EXCAVATIONS ON OPHEL
 NEAR MOSQUE AL AKSA



Drawn by T. P. Riley
 Measured from by G. A. C. O. D. etc.

I may now describe the curious dwellings found by following to the north the wall struck at C. The entrance to Chamber 1 may have been at C, the offset in the wall representing the jamb of a door. The east wall was not seen, and is only dotted in on the plan; but the chamber could not have been wide, as it is roofed with slabs about a yard broad. Nothing was found on top of the slabs. The west wall is covered with plaster. Signs of mosaic were seen in a narrow channel passing out of the supposed doorway at C. Breaking through the north wall (which is not bonded with the west wall, is not plastered, and seems to be of later construction) we found ourselves in Chamber 2, which measures only 6 feet 6 inches by 5 feet. The west side consists of a circular archway of masonry, the apex of which is 6 feet 3 inches above the floor, leading into a passage or drain, 3 feet wide, having masonry walls and covered with slabs. This passage we did not explore. The north side of Chamber 2 consists of scarped rock with an opening 2 feet 4 inches wide, having a circular head, the apex being 6 feet from the floor. In Chamber 3 the roof and the walls to west and south are all of rock, masonry walls, similar to the south and east walls of Chamber 2, forming the east and north sides. In the west side an opening with circular head (whose apex is only 4 feet from the floor) leads into a passage which we had no time to follow. Passing through an opening in its north wall we came into Chamber 4, the limits of which we did not ascertain. The west side is partly of rock, partly of masonry, with an opening similar to that in Chamber 3. The north side consists of a scarp (*see* plan), which was traced for 38 feet towards the east, beyond which point it seems to run on, being in line with the high scarp at E, though the level of its base is 9 feet higher than that of the latter. In this scarp are niches 5 feet 6 inches wide and 14 inches deep, one of them having a circular head. Beyond the second niche the scarp bends inward, but soon returns to the line by an offset. Plain white mosaic, occurring at two different levels, was observed *in situ* on the rock floor.

From the above description it will be seen that not much can be told as to the use of these chambers. We have evidently three periods. First, the rock-cut chambers which may originally have served as tombs. Second, the plastered wall at C. Third, the other masonry walls, with the mosaic floorings, the slabs covering Chamber 1, and perhaps the passage or drain leading west from Chamber 2. The third period appears to be Roman or Byzantine. Our object in examining the top of the slabs over Chamber 1 was to ascertain whether any seats were built upon them, the idea being that possibly the chambers might represent dressing rooms of the theatre. As I have said, nothing was found. The pottery in the *débris* was all late.

At the side of the road leading west from the Tomb of the Virgin, in the Valley of Jehoshaphat, at the point where it turns to the north, Dr. Flinders Petrie observed, in 1890, several irregular rock-hewn steps, pointing about west to the Bab al Asbat, at the north-east angle of the Haram area. I was instructed to ascertain whether these steps led up

the hill. At 39 feet from the steps a trench was dug across the desired line, the rock being only a foot or two beneath the surface. At 146 feet from the steps, in the same line higher up the slope, rock was found at 10 feet, and tunnels were driven to north and south. In neither case were steps found, but in the second excavation rock-cut tombs were discovered containing bones, glass vases, and Byzantine lamps, similar to types of the fifth and sixth century A.D. We did not think it worth while to clear out the tombs, so no plan could be made.

At this time the work was spread over a large area. We had men on the south end of Ophel, others in the Tyropœon, others near the Khâtûniye, and still others west of the Virgin's Tomb. Discipline, however, was maintained, and on a whole they worked very faithfully. It was not until near the close of the last week that they began to suspect that they were to dig for us no longer. I was sorry to part with these brave men and boys, many of whom had worked for us from the very beginning.

LONDON, *August 24th*, 1897.

THE GREAT MOSQUE OF THE OMEIYADES, DAMASCUS.

Report by ARCHIBALD CAMPBELL DICKIE, A.R.I.B.A.

ON November 16th, 1896, Mr. R. Phenè Spiers, F.S.A., read a paper on these buildings at a meeting of the Royal Institute of British Architects. The mosque is now being restored from the fire of 1893, and the present was thought the most suitable time to make a further study of the remains and complete, as far as possible, the work which had been begun by Porter and Spiers. Consequently in the end of last December I was asked by the Committee of the Palestine Exploration Fund to go to Damascus for that purpose. I had already received from Mr. Spiers a copy of his paper, besides full notes on the different points which he wished cleared up.

On account of the usual winter hindrances to the work in Jerusalem, and an enforced trip to Medeba, I was unable to leave for Damascus before the middle of January. At Beyrout I was lucky enough to meet Mr. W. W. Reid from Edinburgh University, who is the "Blackie travelling scholar" of the year, and who had just arrived from Greece, where he had been studying at the excavations of the British School in Athens. We travelled together to Damascus, and I had the benefit of his valuable assistance throughout my stay there. Before our arrival the thirty days' fast of Ramadan had commenced, the one month of all the year which seemed most unfavourable to my work. I decided to start work where I was least likely to give offence to the Mohammedans,