

PALESTINE EXPLORATION FUND:

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

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[Continued on last page.]

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 Argyle. 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 East 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 Tibnin; 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. |
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Sydenham, S.E., Feb. 22nd, 1866.

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PROSPECTUS.

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. It is not to be expected that the modes of life and manners of the ancient Israelites will be revealed by any discovery of monuments in the same fulness that those of the Egyptians and Assyrians have been. But still, information of value cannot 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 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 a great accession to our knowledge of the successive inhabitants of Syria—Canaanite, Israelite, Roman?

Hitherto the opportunity for such systematic 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 inhabi-

tants. 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. *Archæology*.—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 interesting and important materials for the Archæologist or 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 they 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, the capital of Ahab and Jezebel—the Assyrian mound, called Tel es Salhiyeh, near Damascus, &c. &c.

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.

3. *Topography*.—Of the coast-line of Palestine we now possess an accurate map in the recent Admiralty Charts. What is wanted is a survey which when we advance inland should give the position of the principal points throughout the country with equal accuracy. If these were fixed, the intermediate spots and the smaller places could be filled in with comparative ease and certainty. In connection 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 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.

4. *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 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 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.

5. *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, fish, birds, and eggs—that the researches of M. Lartet on the geology of the Dead Sea, and those of the Duc de Luynes, De Vogüé, and De Saulcy on archaeology, 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

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

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 (including both remuneration and expenses).

Her Majesty the Queen has been graciously pleased to become the Patron of the Association, and to contribute to its funds.

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 in its aid.

Subscriptions are received by the Bankers of the Association, Messrs. Coutts and Co., Strand ; and the Union Bank of London, Princes Street, Mansion House, and by the Honorary Secretary.

By order of the Committee,

GEORGE GROVE, *Hon. Secretary.*

Sydenham, October 1, 1865.

REPORT

OF THE PAPER READ AND OBSERVATIONS MADE AT
THE MEETING OF THE ARCHÆOLOGICAL INSTITUTE,
ON MONDAY, JULY 23RD, 1866, AT THE ROYAL
INSTITUTION, ALBEMARLE STREET, LONDON; THE
VERY REVEREND THE DEAN OF WESTMINSTER IN
THE CHAIR.

Mr. CYRIL GRAHAM.—Mr. Chairman, ladies and gentlemen,—The subject upon which I am about to have the honour to address you is the exemplification of the principles of the science of topography from researches in the Holy Land. Through all ages the leading points of Palestine have been known; the positions of Jerusalem, Nazareth, Tyre, Sidon, Joppa, have never been a mystery, and to several painstaking travellers in the last and the previous century we owe the discovery of intermediate places of interest; but it was reserved for the ingenuity of our own generation to create that regular and connected system of research which has rescued hundreds of historical sites from oblivion, and is showing itself continually to be more and more exhaustive. Dr. Eli Smith—profound in Arabic scholarship, and conversant with the colloquial idioms—undertook the task of framing as complete a catalogue as he could obtain of the villages and landmarks throughout a large extent of Palestine. Between this and the names given in Scripture in connection with the same localities, he instituted a careful comparison, the result of which was the identification of a host of sites which had hitherto been lost or forgotten. A careful inspection of certain districts by himself and Dr. Robinson, the learned professor of New York, confirmed many hypotheses, and added still further to our knowledge. The traveller who follows their path may satisfy himself of the theatre of Samson's life—of the cities of the Philistines—of the journeyings of the ark to Ashdod, where Dagon fell broken to the ground before it, of Ekron, where it brought so much sorrow, and where it was last detained, and of Bethshemesh, where the reapers spied the oxen “lowing as they went”—of the scene of David's combat with Goliath in the valley of Elah, by its little brook, between Shochoh and Azekah—of the positions of Eglon, Lachish, and Jarmuth (perhaps of Makkedah), of Bethel, and Lebonah, and the holy Shiloh, defined so accurately in the Book of Judges to be “On the north of Bethel, on the south of Lebonah, and on the east of the highway that goeth up from Bethel to Shechem.” He may discover the plains of Moreh, the camping-ground of Abraham, the same or the

immediately adjacent "parcel of ground" on which Jacob also encamped when he came from Mesopotamia, of which he became possessed when Joseph sought his brethren (who had removed northwards to Dothan), in which Joseph was buried, and lies to this day, and where Jacob dug that well, where, ages and ages later, the woman of Samaria, as she pointed to the temple of her sect, the ruins of which yet crown Gerizim, wondered at the words of the Messiah. Again, he may visit that same Dothan, and picture the sale of Joseph—Tirzah, the summer-palace of Solomon, the residence of the first kings after the secession of Israel from Judah; and as he revels in the park-like scene, the vales, and the turf, and the running streams—an oasis in Samaria—repeat with all his heart the exclamation of the royal poet in the Song of Songs, "Beautiful as Tirzah"! Then a view of Shunem and Jezreel, with the hills of Gilboa, and Endor immediately to their north, indelibly impresses in the mind the last page of the history of Saul, his three hours' ride across the hills and back again to visit the remnant of the witches, the defeat of his army, and his death. To the east of Jezreel, down the straight valley, along which Jehu drove so violently, lies Beth-Shan, where Saul's remains were insulted, and Jabesh Gilead, a few miles further across the Jordan, rewarded for the loyalty of its people, who rescued and buried the body of their king. We may still enter Nain, and Cana of Galilee—sanctified by the miracle of our Lord—and from the slopes of Tabor descry the campaign of Sisera to its end in the waters of Megiddo, beneath Carmel, where the Kishon becomes a marsh. The sea of Galilee, and the shores of Genesareth, are a map of half the Gospel, but we may still discuss where were Capernaum and Khorazin, so utterly are they forgotten. Above them on the hills was Kadesh, a city of refuge in the midst of Canaanite strongholds, and to the north of it, close to one of the sources of the Jordan, is a green mound, encumbered with blocks of stone, marking a very ancient site, neglected, and utterly deserted, except by shepherds and nomads, who call it the "Hill of the Judge." There once stood Laish, afterwards named Dan, the extremity of Palestine Proper. The town has disappeared, the appellation has been lost, but the attribute of Dan still clings to its site. Dan was the judge. I might continue in this manner to sweep the country to the west of the Jordan, and still leave the undefined space to the east of it untouched—the land of the Rephaim, and of the Amorites; the land of Bashan and of Gilead, with its walled and unwalled cities, and its monuments of a primæval age. I must, however, refrain, lest the patience of my audience should be too much exhausted to tolerate the appeal with which I have to conclude. The sketch which I have given suggests rather than illustrates some of the results of what we may call inductive topography: results which are mainly due to the conservatism of the Semitic nations and their language. Dialects, indeed, have changed, yet according to an unerring rule, and the closely cognate Arabian idiom now takes the place of the Syriac, the vernacular Hebrew, or the Aramaic. The aborigines of Palestine, a people of lower organization, yielded their language to their Shemite conquerors, but upon the descendants of these last no alien race have compelled

their foreign speech. In all the Holy Land I cannot count ten vestiges of Roman or Grecian nomenclature. Even the city of Zenobia, which probably obtained its widest fame as Palmyra, is known to the native and the wanderer now only as it was known three thousand years ago, as "Tadmor in the Wilderness"! Yet, ample as have been the harvest and the gleanings in this field of research, ampler harvests and ampler gleanings are in prospect, and it is my particular object to try to impress upon this audience that the exploration of Palestine is still very incomplete. Travellers, with rare exceptions, are always hurried, follow each other's tracks with rigid persistence, and, utterly destitute of the language, are at the mercy of an ignorant if not a designing interpreter. A passion for archæology unskillfully discovered, may be satisfied and glutted by the tact of these men; and in the East, even more than in the West, the real inquirer should abstain from "leading questions." Any site, if he asks for it, will be pointed out to the over-sanguine and incautious traveller. The smallness of the Holy Land—its length from Dan to Beersheba does not exceed 140 miles, or two-thirds of the distance from London to York, while its mean breadth is barely half that distance—the greatness of the period occupied by its history, and the consequent reproduction of the same area or spot as the theatre of events, renders a critical, a microscopic, knowledge of its topography requisite for the perfect appreciation of the manifold scenes which are described. Such is the limit to which well-conducted explorations should continually help us to approximate.

In the summer of last year, at the last general meeting of the Palestine Exploration Fund, a Committee, of which I had the honour to be a member, was chosen, to which was deputed the duty of organizing a preliminary or tentative expedition to the Holy Land. But for the elaborate and extensive researches of M. Rénan, we might have been tempted to expend our curiosity upon the Phœnician cities; as it was, we determined—and I think judiciously—to apply our limited resources to the investigation of a series of points of undoubted Scriptural interest, and the instructions which we placed in the hands of Captain Wilson pointed to a supposed Assyrian site, near Damascus, some Canaanite places above the waters of Merom, to the shores of Tiberias, and so onwards to Jerusalem. The rectification of the map was also a prominent object in this and in any future exploration. The results of the expedition have been more intrinsic perhaps than popular,—a series of valuable observations, nearly two hundred admirable photographs, the incision of several mounds, the careful examination and measurement of many ruins hitherto cursorily seen or overlooked; and in the last category I should wish to call particular attention to the delineation of a synagogue apparently about the time of the Christian epoch, and situated, there is great reason to think, in Capernaum. In topography alone, I repeat, much, very much, remains to be done, even to the west of Jordan, the country which I should first of all wish to see exhausted, then geology, botany, entomology, and natural history in general, are calling loudly for satisfaction with regard to Palestine.

Sir, before I give way to my successor, I have two apologies to make :

twenty minutes were allotted to me, I have consumed nearly half an hour; and whereas, according to custom, I should have laid a written thesis before you, I have taken the liberty, without further preparation, of saying what came uppermost to my mind. Yet I hope in some way to have prepared the meeting to appreciate the importance of Captain Wilson's labours, and to have given some slight impulse to the interest which already exists in the further efforts of our Association.

The CHAIRMAN.—I have to propose the thanks of the meeting to Mr. Cyril Graham for the very interesting address which he has been good enough to make, and in which he has so well put before us the important grounds on which the Association has proceeded, and which have given us such fruitful results, as well as for having shown also the necessity of proceeding in the same direction. The kind of condition in which Palestine is at the present moment as regards investigation, may be illustrated from our own country. With regard to Western Palestine, taking the size of the country as compared with England, it is very much as if we knew perfectly well the sites of the towns along the Great Northern Road from London to York, or along the Great Northern Railway, but at the same time were in great uncertainty about the sites of those on the right and on the left of that road, while of others, more remote from the road, we were in total ignorance. The condition in which we are as to the country east of Jordan, is just as if we had an exact knowledge of only three or four towns and mountains in Wales. I think I cannot do better than ask the Secretary to read the Report or Statement of the Committee of the Fund, founded mainly on Captain Wilson's Report to us, by which you will see what we have been doing up to the present moment, and what remains to be done in future years. (Hear, hear.)

The HONORARY SECRETARY, Mr. Grove, read the "Statement of Progress," which will be found printed *in extenso* at the close of this Report.

The CHAIRMAN.—I am sure you will all have heard this Statement with the greatest interest. It may be rather irregular for the Chairman to make a running commentary on what has been said, but perhaps it is the best thing I can do on this occasion. As the Report states, the persons to whom the Exploration Fund is chiefly indebted, are Captain Wilson and Lieutenant Anderson; and we have, by their activity and intelligence, been enabled to carry out what could not have been carried out unless they had given their hearts and minds to it. (Cheers.) There are some others whose names could not be brought forward directly in this Report. We ought first of all to remember the munificent person who contributed the first large sum of money, without which, not exactly the work on which we are now engaged, but that which was preliminary and kindred to it, could not have been begun, and out of which have proceeded all those maps of Jerusalem which are now before you, and which were constructed by Captain Wilson on his first expedition to Palestine. I am speaking of a lady whose very name is identified with acts of munificence—Miss Burdett Coutts. (Cheers.) Miss Coutts entertained the philanthropic purpose of supplying the inhabitants of Jerusalem with water; and upon the best advice she could get she found that the best mode of seeing how the water could be brought there, was to have a complete and accurate survey of

Jerusalem made, and she contributed her money firstly for this object, and secondly from the extreme scientific interest which arises from such a complete survey of Jerusalem being made for the first time. From that undertaking arose, I believe, the proposal of an Association for the accurate and systematic investigation of the whole country, in support of which we are met to-day. To Miss Burdett Coutts, therefore, our thanks are due in the first instance for that liberality without which we should hardly have begun the exploration of Palestine at all. (Cheers.) We should also bear in mind the great energy and exertions of our Secretary, without whom the whole effort would have come to nothing. (Cheers.) Perhaps you will allow me to call attention to some of the points mentioned in the Report. First, with regard to the Synagogues. No doubt Dr. Robinson called attention to them, but it was not till his second journey to Palestine in 1858, that he mentioned these Synagogues at all. He then gave a very brief account of them, but there had been no account of them at all before; and it gave me, and some others among us, a new idea of what the Jewish Synagogues were which we read of in the New Testament. People are disposed to think they were rude and barn-like structures, whereas it turns out that they were magnificent buildings,—not, indeed, like the great Jewish Temple at Jerusalem, or some of our modern churches, but still they were built with as much architectural display as possible. They may not be of the time of the Christian era, but they show the nature of the Jewish Synagogues in which those scenes which form so large a part of the gospel history are described to have taken place. It shows them in a manner that we did not know till within the last few years, and we have had no full account of them until this present exploration. (Hear.) Another point is the gradual approach to the identification of the site of Capernaum. This is, perhaps, the most interesting place in the gospel history,—more interesting even than any of the sites in Jerusalem itself,—because there the greater part of the Life described in the gospel history was spent, and the chief events of it took place there. And yet so completely has the interest of pilgrims and travellers been diverted to other objects, that hardly any care, trouble, or labour, has been spent on the discovery of this place. Now, the attention of travellers has been drawn to this, and this discovery of the irrigation of the plain, and its connection with particular springs, narrow the limits within which Capernaum can be situated, and there is accordingly a very good chance of its being ascertained beyond dispute. I do not attach more interest to this than it deserves, but whatever charm there is in knowing the exact site of the *home*, for so it was, of our Saviour, that interest is attached to this question. (Hear, hear.) Then another interesting point is that question about the scene described in the gospels of the destruction of the herd of swine, and which appears to have been on the eastern side of the lake. I mention that as an illustration of the extreme difficulty of ascertaining the facts of the natural features of a place, unless persons are sent there with the express view of determining them. I was never able to get across the lake myself, and I could only guess at the situation by looking, with the best glasses I could, across the lake. The

only grounds I had to go upon, therefore, were the two accounts of Lord Lindsay and Mr. Elliott, at that time the only travellers known to have been on the eastern shores of the lake. These were so discrepant that it was with great difficulty I could choose between them. I followed Lord Lindsay, but since that time I think I may say I have had in three successive years three absolutely contradictory accounts from three parties of travellers, so that after re-writing my note again and again, I was obliged to scratch it out altogether. But now that we have had our own explorers going there, and examining at leisure that side of the lake, I hope in some future edition to give a note which shall be proof against any further contradiction. With regard to Jerusalem, Mr. Gilbert Scott said to me lately how much interested he was in hearing of the discovery of that gate on the northern side of the city, because by his investigations, and his study of Josephus, he had come to the conclusion that there must have been a gate in that place. I do not know that I have anything more to say to you on this question, except that the Statement will show you what there is still to be done, and I believe that we shall be able to accomplish a great deal. (Cheers.) Mr. Layard I think is here, and will address a few remarks to you.

A. H. LAYARD, Esq., M.P.—Mr. Chairman, ladies and gentlemen,—I rise in obedience to your command, sir, but I do not know why you should have singled me out in this large company, because I am quite certain there are others present who are better able to give you information upon the subject under our consideration than myself. When this subject was first brought before the public at the meeting at Willis's Rooms last year, I had the honour to say a few words; and I then warned those who were invited to subscribe to and take an interest in this undertaking, that they could not expect from it such very important results as had attended the investigations in Assyria and Babylon: and for more than one reason; because we know that the Jews were prohibited by their law from representing the human form, and although in the temples which they constructed there might be various kinds of decoration in which foliage and natural objects are introduced, yet we cannot expect to find representations of events, including pictures of persons, such as those found in Assyria. Again, in Syria there was not the material for sculpture which abounds in the plains of Mesopotamia. In Assyria there is a soft and easily-worked alabaster of a greyish colour, which enabled the Assyrians to decorate their palaces with those wonderful bas-reliefs now in the British Museum. This material was wanting in Syria; and, being convinced of this fact, I pointed out last year that though among the ruins of Palestine some interesting fragments might be discovered, no series of sculptures such as those at Nineveh and Babylon could be hoped for. But the results of the work which has been hitherto undertaken is highly satisfactory to those who have subscribed towards the Palestine Fund. (Cheers.) I listened with great interest to the speech which has been made to us by Mr. Cyril Graham, and I quite agree in all that he said. No doubt tradition will enable us in many instances to restore sites in Palestine, and it is singular how frequently the Arabs have retained traditionary names. I can fully corroborate, by

my own observation, what Mr. Graham states, and it is even more remarkable that although many of those ancient sites were built upon by the Romans, and a change of name introduced, and coins struck bearing the new name of the site, yet, notwithstanding this, the Arabs have still preserved the original traditional name. Thus, for instance, Palmyra in the Desert is not known by that name to the Arab, but ask him where Tadmor is, and he will take you to Palmyra immediately; and the same is the case with Philadelphia (Ammon), and the rivers in Mesopotamia, and the places upon those rivers. Throughout that part of the country the Arabs have preserved the ancient names, even when they had disappeared during the Roman occupation; and there is no doubt that by carefully collecting traditional accounts many ancient sites can be restored and identified. (Hear, hear.) Then, again, what Mr. Cyril Graham says is true—we must be on our guard against those who would invent names for purposes of their own. It requires a considerable knowledge of the people and the language when we are collecting such information as may warrant us in founding theories upon the traditions preserved by the Arabs. As an illustration of the importance of this knowledge I may allude to a traveller,—I won't mention his name, as it might be invidious,—who published, for the benefit of those who might follow in his footsteps, a little vocabulary; but his own ignorance of the language is shown by the fact that several places on his map are marked with the words *Mabarafsh*. The fact is, that when he asked his guide the name of a place, the man answered, *Mabarafsh*,—"I do not know,"—and down went this name on the map, so that this site is constantly seen upon this gentleman's map. (Laughter.) Then, again, in his vocabulary "nose" is put down as "snuff." Probably when the traveller wanted the word for "nose," he raised his hand, and the Arab supposed he wanted snuff. (Laughter.) I mention these as illustrations of the necessity of being very careful in accepting names from Arabs, especially from dragomen, as to the sites to be visited. (Hear.) As to the field for future operations, no doubt it is an extensive one. The present expedition has limited its efforts to a small part of Palestine, and it is desirable that they should be extended far beyond the area of the present investigations. Now that this country has taken so high a place in Biblical study—now that we have the able work which we owe to my learned friend, Dr. William Smith, who is now sitting to my right—it appears to me that we cannot better crown the edifice than by placing this country first and foremost in the exploration of Palestine. (Cheers.) I quite agree with what Mr. Grove has said, that we should not limit our investigation to the ancient sites alone, because there are other things of great interest. The geology of the district is little known; the botany and fauna of the country are slightly known, but there is much more in both to be ascertained; and all this cannot be done by a casual traveller—you must have an organized expedition. Every traveller may add something to it, but for a complete and scientific account you must have a complete and scientific expedition. (Hear, hear.) Although the country to the west of Jordan contains many important sites, that to the east

has many also, and, perhaps, ruins which are more important. Many years ago I went into that district, but not in a favourable condition to examine those sites, although I saw many of them, for I had the honour of having been sold to an Arab sheikh for £10. I went alone to explore that part of the country to the east of the Jordan, and having a profound reliance upon Arabs, and no less upon myself—neither of which were quite justified, as events proved—I went up to Kerak, but going up there I was plundered by the Arabs. I went on boldly to Kerak, and got hold of the sheikh of the place; and he got back for me some of the things I had had with me. I then told him I wanted to go on to Jerash. This he told me was impossible then, but that if I remained there a few days some one would be going through in whose charge he could place me. Some days afterwards an Arab passed through Kerak, and my friend there told me that if I liked to go on with him I could do so. He made arrangements to take me, and I went; but in two days afterwards I found that he had paid 2,000 piastres to the sheikh of Kerak, on the ground that I was a wealthy Englishman, whom he could plunder as he pleased. Accordingly, he kept me there three months, insisting all the while upon my writing to my friends for ransom. This I steadily resisted; and at length, being satisfied that I could not pay him any money, or perhaps finding it was a bad thing to feed me for nothing, he turned me loose, and I found my way back to Kerak. During that time, however, I saw the sites of Amman, Jerash, Um er-Rusâs, and other places; but I was unable to take notes, not only because I had no paper or pencil, but because taking notes among the Arabs was dangerous, inasmuch as Ali Pacha was then invading Syria. But I saw many interesting things, particularly the high road leading from Syria in the direction of Babylon, with old watch-towers upon it at certain distances, convincing me that there must have been high roads extending across the desert, perhaps in the Babylonian period, connecting Syria and Babylon; and no doubt if they exist they would explain events in Scripture history which we are not yet acquainted with. (Hear, hear). These things are worthy of examination. I know they exist; and after we have explored Palestine to the west of the Jordan, I trust this expedition will be employed in doing something to the east. At present, however, we are in a condition of poverty—what is strongly called “hard up.” We want some money; and that is the reason why Mr. Grove has done me the honour to propose that I should say something with a view of asking you to contribute towards the funds of this expedition. I wish I could do so in as adequate and eloquent terms as others now present could—the Dean of Westminster, for example; but I hope you will allow me to impress upon you the importance of carrying out to the full extent the purposes of the fund, and to reiterate how much honour you will do to this country, and what a lasting scientific effect this expedition will have. If you will allow me to do this, and if you will respond to it, I shall feel grateful to you. (Cheers). I do not think the expenses incurred during the winter have been very great. £1,500 for rather a large expedition is no very great sum. But you must remember, as we go on we shall have to dig a bit; and when you begin digging,

greater expenses will be necessary. You must have workmen; and there are a certain number of things which you must take with you. And unless you have more money, you will be unable to do that which is most important, namely, to dig in the great mounds to the east and west of Jordan. Mr. Cyril Graham appeared to me somewhat to undervalue the importance of M. Rénan's exertions. Much money was spent by him, no doubt, but he discovered monuments throwing considerable light on the works of the Phœnicians, especially those interesting tombs of which there are now several specimens in Paris and one in the British Museum. Those tombs and monuments show what was before suspected, but not proved, that there was a Phœnician art, uniting the art of Assyria to that of Egypt, and of considerable importance as connected with the history of the Jews. I have no doubt many of the mounds in Syria, if explored, would yield monuments of a similar character, showing what the arts of the ancient populations of those countries were. We must not be discouraged by the fact that a few attempts have produced little effect. Year after year for a long period excavations were made in Babylon and Assyria with no effect whatever. The great remains discovered there were 30 or 40 feet under ground. And in Palestine also there is often a large accumulation of soil, and you will have to go to a great depth before you get to the monuments of the early period of Syria. I attach great importance to those; and although you will get nothing like the great Assyrian works, you will probably meet with sculpture, bas-reliefs, and inscriptions, which will throw much light on the early history and arts of the Jews. (Hear, hear). I am convinced, if those who have done me the honour of listening to me will exert themselves a little, and talk to their friends, and if those connected with the press will write a little, and point out the importance of this—I am convinced that a rich country like England will not refuse to find the funds for so thoroughly interesting and important an investigation.

The CHAIRMAN.—I am sure we are all very much obliged to Mr. Layard for what he has told us, and exhorted us to do, and I hope we shall do it. There are, I believe, two or three gentlemen here who on different grounds might give us some information or advice on this question. Two at least I may venture to name, and I will name them at once, and they may rise in the order which may be most convenient to them. One is Colonel Fraser, who was the English Commissioner in Syria, having succeeded Lord Dufferin in that important office. I can answer for the interest he takes in the objects of this fund, for in the short time I was in Syria with him I remember the ardour with which he promised, and the perseverance with which he followed out his determination to prevent any building being erected over that interesting site which Mr. Cyril Graham has alluded to, the scene of the sacrifice of Elijah on Mount Carmel. There was great danger of this being closed by the Greeks or Latins, and of the obliteration of the natural features of one of the best authenticated spots of any in Palestine. I have no doubt my friend can give us some advice as to what had best be done with regard to the local authorities. (Hear, hear.) Another gentleman

is Professor Porter, who is well known by his work on the cities of Bashan, and (I believe it is no secret) to whom every traveller in Palestine is so much indebted for his very useful compilation of what is commonly called "Murray's Handbook."

Colonel FRASER.—Ladies and gentlemen,—Called upon thus unexpectedly, I rise with very great hesitation, and solely in deference to the request just made by our respected Chairman; for apart from my being thus prevented from giving to the subject the consideration it so well merits, my public engagements in the East required me to be too entirely occupied with the people to admit of my giving such attention to places, however interesting in themselves, as would now enable me to add to what has already been so well said. It has, however, been a source of great satisfaction to me to be able on some occasions to prevent the destruction or appropriation of interesting sites, and ensure their being left as far as possible in their pristine condition for the use or enjoyment of all—not always an easy matter in a country which has been, and still is, subject to so many contending influences, but an object which might well engage the attention of this Association. The spot and circumstance to which the Rev. Chairman has just alluded was one of these, being "El Mukhrakah," the place where Elijah's sacrifice was offered up, on the eastern brow of Carmel, overlooking the plain of Esdraelon. I had ridden from Beyrout to meet His Royal Highness the Prince of Wales, and having ascended the mountain and looked in vain over the wide plain for the expected cavalcade, I thought I might employ my time in exploring the jungle of oak and bay which yet crowns Carmel, to see whether any ancient remains were to be found, or, failing that, whether a wild boar or leopard would not give satisfactory employment to our rifles. Having fired at a wild boar dashing through the thicket, there rose soon after a great shout from the beaters, of various creeds, who accompanied me. On reaching the spot, the cry was general, "This is a good omen! See, the game has fallen where it *should* die—at El Mukhrakah!" (the place of Sacrifice). But, to my great disappointment, I found there had also been erected on the spot since my previous visit a "chappelle," with altar, crucifix, &c., as in Catholic churches, and foundations partly prepared for more extensive building. The non-Christians of the party seemed much vexed about this attempt to build on the spot, and refused to enter the "chappelle," as did I. They truly said, "This is a holy place for all—the spot where our great prophet of old established his religion for ages in the land—we have all been accustomed to come here and to reverence this place, Mussulman, Jew, Metawali, and Druze, as well as the Christians—and why should the monks now take it from us?" I confess I sympathized with the speakers, and regretted that any attempt should be made to monopolise a spot that had so long remained the common property and place of worship of all faiths: and having myself been so recently a witness in that land of the terrible results of religious fanaticism, I was only too glad that some one bond of union, some common spot where all could come to worship, should exist and be free to all. I accordingly took immediate steps to have the spot left unenclosed and open to the sky, as it had heretofore been, and I believe

this was done. (Cheers.) That is the matter to which the Dean has kindly alluded. With regard to suggestions for further explorations, Mr. Graham and Mr. Layard have already so fully pointed out the principal fields deserving attention, that I fear I can add but little more. I might, however, mention the ancient remains belonging, probably, to an early period of Jewish history, and as probably connected with the worship of Baal, which are to be found on the summit of and near Mount Hermon (Jebel es Sheikh), as well as on the Antilebanon range between Baalbek and Hermon. I had the great pleasure of pointing out some of these to our Chairman himself—among them square blocks cut from the live rock as if to form an altar, with others resembling rude but immense vases for libations. It strikes me that for these or similar detached investigations on the outskirts of the principal work in Palestine, it might be possible advantageously to make use of amateur effort; for doubtless among the many able and enthusiastic travellers visiting those countries, some might be found who would take a pleasure in supplying both the ability and pecuniary resources requisite to carry out any such work, under the direction of the principal agent, and with or without such subordinate aid from the central staff as might be needed for astronomical observation, mapping, photography, &c. It appears probable that valuable work might thus be secured, very much to the benefit of the funds of the Association. Having heard that the Rev. Mr. Porter is likely to address us, I feel that I ought not any longer to occupy the time of the meeting. (Cheers.)

The Rev. PROFESSOR PORTER.—I must confess I owe an apology to this meeting for appearing before them. I did not expect when I came here to be asked to say a single word;—I came for the purpose of hearing that admirable statement which has been made by my old friend and fellow-traveller, Mr. Cyril Graham, and of receiving further information on a country which I love and venerate, not merely because of its associations, but because for a considerable period I was privileged to call it my home. I trust, however, you will bear with me for a few moments, while I try, as I best can, to show this meeting, not merely the importance, but the absolute necessity, of such a scientific exploration of Palestine as that proposed by this Society, in order that we may know that interesting country, and, knowing it, fully understand that great book which was written there—the Bible. During a residence in Palestine, extending over nearly ten years, I felt it to be my duty to embrace such opportunities as I possessed, not merely of traversing the great roads of the country that are traversed by ordinary travellers, who are a kind of birds of passage, but trying to go away through the byways of the land, diverging from the great roads, and travelling east and west: as far as I was able to the east of the Jordan, and pretty full to the west, so as to explore places not previously mentioned or fully described. There were three things which I always regretted in paying visits to those places. The first was my inability to spend sufficient time in minute research, or to obtain those instruments which were necessary for fixing Scripture sites. That can scarcely be done by a traveller like myself; it can scarcely be done even by a man resident upon the spot, except he is aided by an Asso-

ciation such as this supplying him with the necessary instruments and funds. Another thing I regretted was my inability in some cases to pay for a sufficient guard to conduct me to places which I wished more fully to explore; to follow up some stream to its source, or follow down some river to the sea or to the Jordan, so as to be able to mark out the leading topographical features of the country. We have, in fact, now a series of sketches of certain districts in Palestine, and a few lines running through the country accurately defined; but what we want is to increase the number of these, and to fill them up, so as to complete a correct map, and that can only be accomplished by the scientific investigations of such a Society as the present. Then there was another thing which I also greatly regretted, perhaps more deeply than either of the other two points, my inability to carry on excavations wherever I went; whatever site in Palestine I was privileged to visit, I found there ruins or mounds whose contents might, and I believe would, have thrown light upon the antiquities and history of the country, had I been able to excavate; but that, of course, it was impossible for a solitary traveller like myself to undertake. I generally travelled alone; I had no companions, no staff, excavators, or photographers to accompany me. I had my own servants and my own tents, but that was all. All the work I was able to do I had to complete myself. Perhaps you will permit me to direct attention to some of those places which I think it is of the greatest importance thoroughly to excavate. First there is Jerusalem. Now the difficulty of excavating in Jerusalem is known to you, Mr. Dean, and to me, and to all who have visited that place; but with such an Association as this, commanding, I am glad to be able to state, the very highest patronage in this land, I think that it might be possible through representations at Constantinople and to the authorities in Syria, to obtain facilities for carrying on extensive excavations in the city, and even around the Temple area. But there are other places which have not been referred to. There are a number of mounds upon the plain of Philistia; there is a low mound, for example, at Ashdod; and I believe most important information regarding the antiquities of Philistia might be obtained by excavating that mound of Ashdod. You know there was a great city there, but the ruins of it are gone, and you see nothing but a mound. There are portions of columns cropping up from the sides of the mound, or lying at its base, but its contents are unknown. The sites of Gaza and Gath are now also marked by huge heaps of rubbish which might be examined with advantage. Then there are two or three mounds scattered over Sharon. There are also some in the valley of the Jordan, not far distant from the river. They are not very high or conspicuous, but they appear to me to mark ancient sites. There is also the great mound of Beth-Shean already partially explored. Then there are others beyond what is usually defined as Western Palestine, but still within the borders of Palestine as divided among the tribes. The mounds in the great valley of Bukâa, the ancient Coëlesyria, are among the largest in Syria. As far as I could judge they are of Assyrian origin, formed perhaps at a time antecedent to Jewish history; and there can be no doubt that they would amply repay excavation. Then when we pass over anti-Lebanon,

we find mounds marking the sites of ancient cities. There also, and northward upon the plain of Hamath, near the city of Emesa, there is one of the largest mounds in Syria, upon which once stood a magnificent temple of the sun. I believe no excavation has ever been made in it, though it would, doubtless, yield a rich harvest to the antiquary. There are some mounds not of very great size in the plateau to the east of the Sea of Tiberias, south-east of Mount Hermon. Now it would be of great importance could funds be obtained, and could the attention of scientific and learned men in this country be directed to these mounds, so that excavations might be carried on among them, and the remains of ancient art and architecture exhumed. I am convinced that very great advantages would thence be derived by Biblical students, and a great light thrown upon the ancient history of the country. I have again to apologize to the meeting for these crude remarks. Had I known I should have been called upon to address you, I might have pointed out many other things worthy of the notice of the Palestine Exploration Society; but as it is, I do not wish to waste your time, and would rather give way to others. (Cheers.)

MR. BERESFORD HOPE, M.P.—Mr. Dean, ladies, and gentlemen,—I owe you my apologies for interrupting the current of these most interesting and instructive discourses which have followed each other with such rapidity from those who have had the rare satisfaction, which so few of us who are concerned in the active life of the west have, of being able to tread these sacred spots themselves; but I wish before the meeting gets thinner to recall you to a little business which I have to perform on the part of the Archæological Institute, and that is to return our best thanks to the Palestine Exploration Fund, in its corporate and individual character in the persons of its eloquent and learned members, for having thrown so very interesting and important an element into our week's enjoyment. (Cheers.) Our Congress in itself was a most interesting and important one—but they have doubled its interest; they have given it a cosmopolitan character, and carried it beyond the bounds of London, and while we have been discussing interests of the highest importance to the Christian world, we have been brought back to that part of the world in which the Gospel civilization of the west took its birth. Most touching and true analogies might be drawn from the fact of the exploration of Palestine and Jerusalem having been so prominently brought forward in the London Congress of the Archæological Institute; but to take a more practical and every-day view of the matter, we have been very much engaged lately in the discussion of the propriety of grouping. I should say that the grouping of the Palestine Exploration Fund and the Archæological Institute is one with which all sides and parties will be thoroughly content, because it gives more to both, and disfranchises neither. (Cheers.) I will not, I cannot, detain you much longer, when you have other practical matters to listen to; but, having taken great interest in this Congress, I could not refrain from rising to thank the Palestine Exploration Fund for coming here to-day, and at the same time to express a hope that while the Fund will have full credit for what it has done, the Congress will feel the credit of the addition made by the Fund to that body of

Archæology which we hope to put forth. (Cheers.) In the name of the Institute I beg you not to forget the Fund; and I recommend it to you as one of the most important movements of the day which you can possibly help. (Loud cheers.)

The CHAIRMAN.—I do not know whether there are any other Eastern travellers here, or whether we have exhausted our discoverers. If so, I will only say, first of all, that, as Mr. Hope has said, the Palestine Exploration Fund having protruded itself, as it were, into the midst of the Archæological Congress which is gathered from all parts of the country, it is a good opportunity of calling your attention to the best mode of carrying out our objects and collecting funds, that is, that local committees may be formed in the different places from which you have come together, so as to raise those contributions which, as you have seen, are absolutely necessary to carry on the excavations and labours which are so important with regard to this fund. Then, secondly, I would explain that here are the photographs which have been brought together by this fund, and I am sure if any persons wish to look at them and have them explained, they will receive every assistance from Mr. Grove, our indefatigable Secretary, and also from Captain Wilson, who is too modest to speak as he ought to do upon this occasion. He is here I know, and so is Lieutenant Anderson, and they will be only too happy to render their services in explaining and pointing out what they have done, and what these photographs indicate. With regard to the plans of Jerusalem, those, as I have already said, belong to an earlier date—a sort of pre-historic stage of our Palestine Exploration Fund. Properly speaking they are in the department of Sir Henry James. It was through Sir Henry James that Captain Wilson was first sent out, and it is through his kindness that the plans prepared in the Topographical Department, and therefore prepared with the accuracy and beauty which distinguishes the maps of that department, have been exhibited here. He is not here, but still we can give our thanks to him for sending them on this occasion, and for the activity and interest he has shown in the whole progress of the matter. Therefore I will now leave you with these excellent guides to take you over those parts of Palestine which are placed before you in the photographs and plans. (Cheers.)

STATEMENT OF PROGRESS,

DRAWN UP BY THE ARCHBISHOP OF YORK, THE DEAN OF WESTMINSTER,
AND PROFESSOR OWEN, AND READ TO THE MEETING OF JULY 23, 1866.

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 Baniyas 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 Genesareth 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, 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, 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, Der el-Kalah, Masi, Damascus, Tel Salhiyeh, Harran, el-Awamid, Baniyas, Kedes, Yarus, Nebartein, Keft 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, Meiron, and Um el-Anund have capitals of a peculiar character. The faces of the lintels over the gateways are usually ornamented with some device; at Nebart-in 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 Genesareth 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+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 Pacha, 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, Lieutenant 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 Mons. 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 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.

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 inquiries, 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.

For the Committee,

W. EBOR.
A. P. STANLEY.
RICHARD OWEN.

5, NEW BURLINGTON STREET,
July 23rd, 1866.

LETTERS

FROM CAPTAIN WILSON, R.E., TO THE SECRETARY OF
THE PALESTINE EXPLORATION FUND, DURING THE
PROGRESS OF THE PRELIMINARY EXPEDITION, 1865,
1866.

I.

DAMASCUS, December 19th, 1865.

You must please excuse a short account of our proceedings, as we have had hard frost every night since leaving Beyrout, which is not conducive to even-
ing work, at least, in the writing and drawing line.

First, *Surveying*.—We have astronomical observations for fixing the positions of Beyrout, Mejdél Anjar, Baalbek, Surghaya, Suk Wady Barada, Damascus, Tel Salhiyeh, and Harran el-Awamid. We examined the French *Carte de Liban* along our route, and found the "filling-in" very correct, but our latitudes, as far as they have been worked out, differ in some places nearly a mile, running nearer to those in Mausel's Admiralty chart; the French map has been very carefully made, and the country, so far as we could judge, seemed to have been thoroughly explored, no feature being omitted. An unfortunate robbery committed on us at Harran prevented our exploring the lakes as much as I could have wished, but we followed their edge from Harran to Atübeh. They are now little more than huge swamps, the rains not having yet set in; the different times of year at which travellers have visited them has given rise to the discrepancies in their shape, the country being so flat that a very wet winter would increase their size to a great extent. A reconnoissance sketch of our route has been kept.

Archæology.—Plans, with occasional detail drawings, have been made of the old temple at Deir el-Kalah (near Beyrout), the temple at Mejdél Anjar, the old city of Chalcis, a small Greek church at Masi, the basilica of Theodosius at Baalbek (this I have not seen distinguished from the other ruins in any book of travels,—it is in the great quadrangle, abuttin on the western end of the great temple, the back of the apsis resting on the steps; the French are now excavating at Baalbek, and fuller plans will doubtless be given in their publications), a temple at Ain Fijeh, and the Roman gate of Damascus, Bab Shurky. One night was spent at Tel Salhiyeh, and after some little trouble the Assyrian slab mentioned by Mr. Porter was found and raised; there is no inscription, and the figure differs from the usual Assyrian type; if it can be procured for a reasonable sum, the slab will be removed to Damascus for transmission to England. A small excavation was made in the mound: it seems to have been built entirely of sun-dried bricks, which have crumbled to powder under the influence of weather. Arrangements are being made for commencing excavations on a scale sufficiently large to show the character of the building. The expense will be about £12 or £15. At the foot of the mound were found traces of a

later building, and on one stone a Greek inscription, ΧΑΙΡΟΙ It is my
OC

belief that many of the slabs were taken and used up in building this. At Harran a new inscription was found on the fragment of a basaltic column,

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FLAVALCONSTANTINO the entire line very distinct, the others hardly legible.

SAIUC

From some portions of the frieze lying about, the temple appears to have been dedicated to the sun. Arrangements have been made for commencing a plan of the great Mosque at Damascus to-morrow.

Photographs.—Two of the Slabs at Dog River—the light at this time of year never falls on them, and the colour of the rock being dead, good results could never be obtained.

The Pine Grove near Beyrout.

The Encroaching Sand Hills at Beyrout.

The Three Stones in Wall at Baalbek.

The Gateway of Lesser Temple at Baalbek.

The Stone in Quarry at Baalbek.

The Suk Wady Barada, showing Roman Road.

The Sculptured Slab at Tel Salhiyeh.

The Three Columns at Harran.

The curious Sculptured Slab at Harran, portion of the entablature.

The photographic tent was stolen at Harran, and since our return here we have been making a new one. Notes have been made on the geological structure of the country passed through.

Anderson has, I am glad to say, entirely recovered from the severe attack he had at Beyrout, and is indefatigable in the use of his sextant, and has obtained a good series of observations every clear night since we left Beyrout. I have forgotten to mention anything about meteorological observations; our only aneroid went wrong the day we left Beyrout, and our sole dependence is now on a frail Guy Lussac barometer. I am afraid this will very seriously interfere with our topographical work, as when separated we shall have no means of filling in heights of hills, watersheds, &c., and even now are afraid to scramble about much with our only instrument. Could you send out two, I think it would be feasible to do so through the Consul at Alexandria, requesting him to forward them on speedily to the Consul-General at Beyrout, who would know where to find us. Those I had last year from Negretti and Zambra worked admirably; they were the small pocket size, which is preferable for rough travelling than the larger one. I cannot make out the reason of the failure of ours, as, for safety, I carried it myself, and it had no sudden jolt or shake, our horses being obliged to go at a walk on account of the chronometers. Hygrometrical and barometrical readings have been taken at each camp, and observations will, I hope, be carried on at Beyrout, Damascus, and Jerusalem, whilst we are in the country.

20th.—To-day we have made a plan of the Mosque and court, and to-morrow are going to take a series of photographs there, to illustrate the different styles of architecture. Anderson goes out to Salhiyeh to-morrow, to start the excavations there, so in a few days we shall know more about it. The Governor-General of Syria has been profuse in his offers of assistance, and has given us every facility for carrying on our work here, and will, I have no doubt, do so in our way south. If nothing very important turns up at Salhiyeh, we intend leaving this on the 26th, and going, *viâ* Sasa, to Kuneiterah, and thence up to Banias, so that after that you will not hear of me for some time; I will let you know the results of the Salhiyeh excavations before leaving this.

C. W. WILSON.

G. Grove, Esq.

I forget whether I mentioned having received the firman; it is all I could

have wished for. Mr. Rogers, the Consul, tells me he is going to write to you this mail; he has kindly assisted us in our work here, and is going to look after the removal of the Salhiyeh slab.

II.

BANIAS, *January 2nd, 1866.*

As this is the last opportunity I shall have of writing to you before we reach Nazareth, and have made our excavations at Kedes, Tel Hum, &c., I send some particulars of what has been done since my last note of the 21st December. We left Damascus on the 28th, and travelling by Sasa and Jeba reached this place on the 31st. We had our usual bad luck as regards weather,—sleet and snow every day; the country between Jeba and Kuneiterah was half under water, which, with the bad weather, induced us to push on straight from the former place to Banias. It would take up too much time to send you full notes of everything, so I will adopt the same plan as in my last.

Topography.—The positions of Damascus, Kaukab, Jeba, Banias, and the junction of the Hasbany and Banias rivers have been fixed astronomically, and the calculations made; a list of the latitudes and longitudes is subjoined. The calculations may be subject to some little alterations hereafter, especially for longitude, as Captain Mansel having, I believe, fixed the longitude of Damascus with great exactness, it may be advisable to refer all our determinations after leaving that place to his, taking them as correct. The subjoined list is from our own observations solely. A reconnoissance sketch of our route from Damascus to Banias has been made, showing great discrepancies in Van de Velde's map: he has not got the village of Jeba marked down at all; he seems to be right, however, in the flow of the waters to the Awaj and Yarmuk. To settle this question decisively would have required a reconnoissance of three or four days, and neither the state of the weather or country admitted of this at the time we were there. A reconnoissance sketch is now being made of the district around Banias, to show the junction of the three streams and the course of the wady near the town; the snow is so low down that it will not be possible to trace them out, and for the same reason the Merj el Man is inaccessible. There is, however, no trace of any subterranean communication with the fountain at Banias, and the physical character of the country seems to preclude the idea of there being one either from that place or from Birket er Ram. The quantity of the water in the three streams might be represented by the numbers—Leddán, 10; Banias, 5; Hasbany, 3.

Archæology.—Plans have been made of the Great Mosque at Damascus, and Bab Shurky, and a sketch of the mound at Tel Salhiyeh. Excavations were made on a small scale at three places in the mound at Salhiyeh, but heavy rain set in on the 23rd, and continued incessantly till we left Damascus, which put a stop to them. It was impossible to get men to work during the wet weather, and as the expense of the mule train was going on all the time, I thought it advisable to leave any further excavations which might be considered desirable to some future time. It could be done much cheaper by some one residing at Damascus, and a sum of £50 would probably explore the whole mound. The sections exposed by the excavations showed the mound to have been built of a compact mass of sun-dried bricks, the horizontal joints of which could alone be distinguished, and those not very clear in all places. Traces of terraces were very marked in places, but the action of time and weather has reduced the whole to such a shapeless mass that they could not be traced out. Some slabs may be found amongst the rubbish,

but the greater part of the masonry has probably been re-used in the buildings at the foot of the mound, and I am not very sanguine about finding anything. Mr. Rogers has kindly undertaken the care and transport of the slab we dug up, to Beyrout, and I would suggest that if the Committee deem it advisable to carry on any more extensive excavations, he should be asked to undertake them. I think he would be very happy to do this, as he has taken great interest in what we have done, and he would be able to do it at a much cheaper rate than any one else. Copies have been made of the Greek inscriptions above the fountain at Banias, and the town and castle explored; the latter has no signs of the extreme antiquity which has been ascribed to it, and I should not place it earlier than the 8th or 9th century, A.D. I do not see any favourable place for excavation here except on a large scale, nor does it seem to be of such importance as Tel Hum, Khan Minyeh, and other places.

Photographs.—The following Photographs have been taken :—

General view of N.W. portion of area of Mosque, Damascus.

View of capitals in Kubbet et Kutab.

General view of N.W. corner of area, with cupola.

Main entrance to Mosque.

General view of area from eastern side.

Ornamental Gateway, with Greek inscription on south side.

Exterior view of S.W. angle of Mosque.

Bab Shurky.

City Wall opposite Tomb of St. George.

Views of Mr. Rogers' house, to show domestic architecture of Damascus.

View of entrance to Mosque area, showing brasses with sacramental cup.

Old Arch and Pediment over Book Bazaar.

View of Banias from Wely Khudr.

View of Niches and Grotto at Banias.

Fountain head, Banias.

Castle of Banias, S.E. angle.

Round Tower in south face of castle.

View of castle from north corner.

View of S.W. corner of castle.

View of Keep in castle.

Corporal Phillips has also been employed in assisting in the topographical work.

Geology.—After leaving Damascus, the basaltic country was reached at Kaukab, and continued with only a slight interruption to Jeba. On the march from Jeba to Banias the limestone was again met with where the spurs of Hermon terminate abruptly; the notes with the dips and strikes where noted will be laid down on the sketch.

Meteorology.—I am very sorry to have to tell you that our mercurial barometer has got out of order, owing to a sudden jolt which it appears to have received whilst we were crossing the rough country between Sa'sa and Jeba, though every care was taken to prevent the possibility of such an accident, the bearer's horse never being allowed to move out of a walk. We are now without any means of determining the levels of the country we pass through, which will greatly lessen the value of the reconnaissance sketches, as we are unable to fill in the relative heights of the different hills, and I hope, therefore, that you have been able to forward the two aneroids I asked for in my last letter, as they will arrive in time to be of use in the country between Nazareth and Jerusalem.

We intend leaving this on Saturday the 6th for Deir Minnas, and thence following the ridge down to Kedes; from Kedes we shall go *via* Kefr Birim, Meiron, and Safed, to Tel Hum. This will enable us to get in part of the dividing ridge between the Hasbany and Litany, and the topo-

graphy round Jebel Jermuk and Safed, whilst the excavations, plans, and photographs are being made amongst the ruins. Anderson has taken charge of the astronomical observations, and is gradually getting a very valuable series together.

C. W. WILSON.

| | Latitude. | Longitude. |
|---------------------------------------|-------------------|--------------|
| Beyrout | 33° 54' 30" N ... | 35° 30' 0" E |
| Camp at Mejdal Anjar, near Chalcis | 33 42 36 ... | 35 32 35 |
| " Baalbek | 34 00 27 ... | 36 10 34 |
| " Sargayeh | 33 48 48 ... | 36 08 18 |
| " Abila | 37 27 26 ... | 36 6 2 |
| " Damascus (French road) ... | 33 30 43 ... | 36 16 54 |
| " Tel Salhiyeh | 33 30 28 ... | 36 28 2 |
| " Harran | 33 27 2 ... | 36 33 29 |
| " Kankab | 33 24 24 ... | 36 9 5 |
| " Jebbeh | 33 9 36 ... | 35 52 34 |
| " Banias | 33 14 45 ... | 35 38 57 |
| Junction of the Jordan and Banias ... | 33 10 39 ... | 35 34 17 |

III.

TEL HUM (N.W. end of Lake of Galilee),
January 20th, 1866.

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 Mitelch, 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 Jermuk, 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 Hazar, 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 or £200 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 Genesareth 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 Mejdél, 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 Minyeh. Our one-inch reconnaissance has been advanced to Mejdél, and observations made at Khan Minyeh. The maps are all greatly in error in this district. The Wady Rubadiyeh, shown 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 Minyeh, 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 Nazareth to Zerin 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.

C. W. WILSON.

Anderson's maps will be a valuable addition to the topography of Palestine.

IV.

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, Mejdal, Tiberias, Kefr Argib (near north end of lake), Wady Fik, Alma, Kefr Birim, Meiron, Alebbou, 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 Veld's map, showing 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 Genesareth, 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 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 source 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 Keis, 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 Kasyun, 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 Yarun, 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 Yarun, both mutilated. At Meiron, plans, &c., were made of the synagogue, and drawings of some of the tombs which are peculiar. At Um el Amund 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 Shellabon.

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 Hanmam.
- View of Ruins at Kalet el Husn (Gamala).
- View of Tiberias.
- View of Lintel with inscription and candlestick, at Nebartein.
- Four views of Ruins at Kefr 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 benefited very much by the information he has given us about the

* Anglican clergyman at Nazareth.

country. From Beisan we shall go, *via* Zerín, to Sebustiveh and Nablus, 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 Nablus and Sebustiyeh. 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 *via* Endor, after which we shall go straight to Sebustiyeh. 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 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.

C. W. WILSON.

V.

NABLUS (Shechem), *March 17th, 1866.*

Before commencing an account of our work since leaving Nazareth, I must acknowledge the receipt of your last letter, of the 26th of February, with its enclosures, five circular notes for £100 each, on the Union Bank of London, which reached me on the 14th March.

Topography.—The positions of Nazareth, Zerín, Lejjun, Beisan, Jenín, 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 Jenín 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 Zerín 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 tel, 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 Sebestiyeh 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 north-west 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 stone 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 Saulcy 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 at Nazareth.

Cliff behind Maronite Convent, Nazareth.

View of Zerin 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 Zanun to Awertah, where I hear there are some inscriptions in the Samaritan character, and tradition places the tombs of Eleazer, Phinehas, and other priests; from Awertah we go to Selim and Bethel, thence by Tibneh to Kefr Saba, and if time allows, on to Cæsarea 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.

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 Sauley'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 Sauley describes. We leave to-morrow for Tubas and Teyasir, and shall, I hope, be able to give a good account of them.

VI.

JERUSALEM, *April 2nd, 1866.*

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. Bergheim; 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.

C. W. WILSON.

What do the Committee wish done about Tel Salhiyeh, near Damascus? Consul 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.

VII.

JERUSALEM, May 2nd, 1866.

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 reconnaissance 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 Mezarah. 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 Kattain 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 Yacoub 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 (Baluth) at Tibneh.
- Two views of Tombs at Tibneh.
- Ruins near Mezarah.
- Three views of Ruins at Cæsarea.
- Views 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.

C. W. WILSON.

LIST OF PHOTOGRAPHIC VIEWS

TAKEN IN PALESTINE BY THE FIRST EXPEDITION,
NOVEMBER, 1865—MAY, 1866, UNDER THE CHARGE
OF CAPTAIN WILSON, ROYAL ENGINEERS.—CORPORAL
H. PHILLIPS, R.E., PHOTOGRAPHER.

1. Beyrout; view showing encroachment of sand.
2. Beyrout; Pine Grove.
3. Dog River. Assyrian Tablet.
4. Dog River. Egyptian Tablet.
5. Baalbek, Gateway of Temple.
6. Baalbek, Western Wall of Temple Enclosure. The Three Stones.
7. Baalbek, Large stone in the quarries.
8. Suk Wady Barada. Roman road cut in rock.
9. Tel Salhiyeh, near Damascus. Slab found in the mound.
10. Harran el-Awanid, Basaltic slab.
11. Harran el-Awanid, Remains of Temple.
12. Damascus, Cupola in Court of Great Mosque.
13. Damascus, Great Mosque. Exterior view of south-west angle.
14. Damascus, Great Mosque. Ornamented Gateway with Greek inscription.
15. Damascus, Great Mosque. General view of Court, with Fountain.
16. Damascus, Great Mosque. Kubbet et-Kutab.
17. Damascus, Great Mosque. North-Western corner of Court.
18. Damascus, Great Mosque. The principal Entrance.
19. Damascus, Bab Shurky.
20. Damascus, City Wall, near Tomb of St. George.
21. Damascus, Interior of a house. The Court.
22. Damascus, Interior of a house. Room fitted with Divan.
23. Damascus, Great Mosque. Door showing brasses.
24. Damascus, Portion of Gateway near large Mosque. (Arch and Pediment over Book Bazaar.)
25. Banias (Cæsarea Philippi), from the Wely.
26. Banias, Grotto and Niches.
27. Banias, Fountain Head of Jordan, below Grotto.
28. Banias, Castle, from south-east angle.
29. Banias, Round Tower, south face of Castle.
30. Banias, Interior of Castle, from the north.
31. Banias, Castle, south-western angle.
32. Banias, Keep of the Castle.
33. Tel Hazur, near Banias. Oak Grove.
34. Banias, Castle, from the south-east.
35. Tel Hazur, Oak Grove (Castle of Banias in the distance).
36. Banias, from the west. No. 1.
37. Banias, from the west. No. 2.
38. Kedes, Ruins of Tomb.
39. Kedes, Ruins of Temple. Side Gateway, with figure of eagle on lintel.

40. Kedes, Sarcophagi.
41. Kedes, Ruins of Temple.
42. Kedes, Sarcophagus.
43. Kedes, Ruins of Temple. Lintel of Main Gateway (supposed figure of the sun).
44. Kedes, Ruins of Temple. Portion of Cornice.
45. Kedes, Ruins of Temple. Lintel of Main Gateway, with supposed bust of Baal.
46. Kedes, Ruins of Temple. Eastern face, with Gateways.
47. Kedes, Sarcophagus.
48. Kedes, Ruins of Temple. Niche with figure in Toga, holding spear in left hand.
49. Kerazeh (Chorazin), Ruins of, looking east.
50. Kerazeh, Ruins of Synagogue.
51. Kerazeh, Ruins of Synagogue.
52. Kerazeh, Ruins.
53. Tel Hum, Ruins of Synagogue.
54. Tel Hum, Ruins of Synagogue.
55. Tel Hum, Ruins of Synagogue. Lintel, with Pot of Manna, &c.
56. Tel Hum, Ruins of Synagogue. Cornice, Capitals, &c.
57. Tel Hum, Ruins of Synagogue. Portion of Entablature.
58. Genesareth, from Khan Minyeh. Lake of Tiberias and Plain of Ghuweir. Wady Hammam and Kurn Hattin in distance.
59. Genesareth, Aqueduct and Plain or Ghuweir, at Khan Minyeh. (The aqueduct at this point is cut in the rock.)
60. Irbid, Ruins of Synagogue.
61. Irbid, Ruins of Kurn Hattin ("Mount of Beatitude") in background.
62. Caves of Arbela in Wady Hammam, Plain of Ghuweir and Lake of Tiberias in the distance.
63. Irbid, Ruins of Synagogue.
64. Kalat-el-Husn (Gamala), Ruins.
65. Tiberias and Lake. Kalat-el-Husn and Wady Fik.
66. Nebartain, Lintel of Synagogue, with inscription and representation of candlestick.
67. Kefr Birim, Ruins of Synagogue.
68. Kefr Birim, Ruins of Synagogue.
69. Kefr Birim, Ruins of Synagogue. Showing Lintel with inscription.
70. Kefr Birim, Ruins of Synagogue.
71. Meiron, Ruins of Synagogue.
72. Meiron, Sarcophagus near.
73. Um el-Amud, Ruins at. Slabs with sculptured lions.
74. Nazareth, Church and Fountain of the Annunciation.
75. Nazareth, Panorama No. 1, from the north.
76. Nazareth, Panorama No. 2, from the north.
77. Nazareth, Cliff behind Maronite Convent. Supposed scene of Precipitation.
78. Zerin (Jezreel), Mount Gilboa in the distance.
79. Beisan (Bethshan), Acropolis and Ruins, from the east.
80. Beisan, Ruins of Roman Bridge.
81. Beisan, Ruins of Theatre.
82. Beisan, Acropolis and Ruins, from the north side.
83. Sebastiyeh (Samaria), Church of St. John, northern face.
84. Sebastiyeh, Church of St. John, western and southern faces.
85. Sebastiyeh, Church of St. John, interior, with Cupola over Tomb.
86. Sebastiyeh, from the south.
87. Sebastiyeh, Street of Columns.
88. Mount Gerizim, Ruins on southern slope.

89. Mount Gerizim, Sacred Rock of the Samaritans.
90. Mount Gerizim, Ruins of Church and Castle, Mount Ebal in the distance.
91. Mount Gerizim, Ruins on, from the west. Twelve stones (10 called) in foreground.
92. Mount Ebal, Stone Enclosure.
93. Mount Ebal, Recess in, from the corresponding one in Mount Gerizim.
94. Nablus (Shechem), Gateway of Mosque.
95. Nablus, Panorama No. 2, from the west.
96. Nablus, Panorama No. 1, from the west.
97. Teyasir, Tomb.
98. Camp of Mesaid Bedouin.
99. Seilun (Shiloh), Ruins of Mosque.
100. Seilun, Ruins of, from the north-west.
101. Seilun, Rock-hewn Tombs near Fountain.
102. Beitin (Bethel), Ruins at, from the west.
103. Beitin, Ruins at ; Old Doorway.
104. Beitin, Circle of large stones east of.
105. Bireh, Ruined Church.
106. Bireh, Ruined Church.
107. Tibneh (Timnah), Tree at.
108. Tibneh, Hewn-rock Tomb (of Joshua, so-called).
109. Tibneh, Rock-hewn Tomb.
110. Mezrah, Ruins at.
111. Cæsarea, Ruins of Tower.
112. Cæsarea, Ruins from the south.
113. Cæsarea, South Wall of Fortress, showing sloping escarp.
114. Tantura (Dor).
115. Athlit, Ruins, from the south.
116. Athlit, Ruins of Tower.
117. Hebron, from Quarantine Hill.
118. Hebron, Abraham's Oak.
119. Hebron, Vineyard.
120. Hebron, South-east Angle and Entrance to Haram.
121. Hebron, North-west Angle of Haram.
122. Hebron, Masonry of Haram Wall (Western side).
123. Beit Jibrin, Ruins of Castle.
124. Beit Jibrin, Ruins of Church.
125. Mount Gerizim, Samaritan Camp. Wely and Ruins in the distance.
126. Mount Gerizim, Mound on Northern Spur.
127. Mount Gerizim, Twelve Stones (so called), showing excavation.
128. Mount Gerizim, Samaritan Place of Sacrifice, shortly before Passover.
129. Nablus, Samaritan Inscription.
130. Nablus, Ruined Church and Garden. Traditional site of the receipt of Joseph's coat by Jacob.
131. Ebal and Gerizim from Jacob's Well, Panorama No. 2.
132. Ebal and Gerizim from Jacob's Well, Panorama No. 1.
133. Jerusalem, Lintel of Old Gateway in Western Wall of Haram Enclosure, south of Wailing Place.
134. Jerusalem, south-west Angle of Haram Enclosure, from the west.
135. Jerusalem, Escarpment of Rock in Valley below Jews' Quarter, showing course of aqueduct from Solomon's Pools.
136. Jerusalem, Cottages erected by Sir Moses Montefiore, Bart.
137. Jerusalem, north-west corner of platform, Haram es-Sherif, showing natural rock rising nearly level of platform.
138. Jerusalem, Interior of the Mosque El-Aksa.
139. Jerusalem, Church of the Ascension, Mount of Olives.

140. Jerusalem, Terebinth.
141. Jerusalem, Tombs of the Judges.
142. Jerusalem, Pine Tree near.
143. Jerusalem, Rock-hewn Tomb near village of Shafat.
144. Jerusalem, East face of City Wall, near N.E. angle, showing ditch cut out of rock.
145. Jerusalem, Scarped Rock within the City, east of Damascus Gate.
146. Jerusalem, North-east Angle of Haram Enclosure, from City Wall near St. Stephen's Gate.
147. Jerusalem, Supposed Postern in east wall of Haram Enclosure, near Golden Gateway.
148. Jerusalem, Old Fountain near St. Stephen's Gate.
149. Tomb of Jehoshaphat.
150. Bethlehem, Interior of Church of the Nativity.
151. Jerusalem, Tomb of Ananias.
152. Jerusalem, Pool of Siloam.
153. Kuryet-el-Enab, Ruined Church.
154. Ramleh Tower.
155. Irrigating Apparatus, Ramleh in the distance.
156. Lydda, Church of St. George.
157. Lydda, Church of St. George.
158. Amwas, Ruins at.
159. Jaffa, View of, from north.
160. Nablus, View of old silver case, containing Samaritan Pentateuch.
161. Nablus, the same, but the other side.
162. Nablus, interior of Pentateuch in silver case.
163. Nablus, Portion of an old quarto Pentateuch.
164. Nablus, another portion of the same.

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The following are the papers referred to:—

The original Prospectus.

Report of the Public Meeting held in Willis's Rooms, June 22nd, 1865.

Letters of Captain Wilson from Palestine, Nos. 1 to 7.

Preliminary Report of Captain Wilson.

Statement of Progress.

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

SUBSCRIPTIONS PROMISED £3,045 11 0

| RECEIPTS. | | | | EXPENDITURE. | | | |
|--------------------------------|----|----|------------|----------------------------------|----|------------|---------|
| | | | £ s. d. | | | £ s. d. | £ s. d. |
| To Subscriptions and Donations | .. | .. | 1,742 13 0 | By Exploration Expenses, viz. :— | | | |
| Interest | .. | .. | 7 11 0 | Excavation | .. | 169 6 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, }
JOHN ABEL SMITH, } *Treasurers.*
GEORGE GROVE, *Hon. Secretary.*

August, 1866.

PALESTINE EXPLORATION FUND.

Patron, Her Majesty the Queen.

MEETING AT CAMBRIDGE, IN THE SENATE HOUSE,

ON WEDNESDAY, MAY 8, 1867.

THE VICE-CHANCELLOR IN THE CHAIR.

N.B.—The following Report, taken from the 'Cambridge Chronicle' of May 11, has been corrected by the various speakers.

A MEETING took place in the Senate-House, Cambridge, on Wednesday afternoon last, for the purpose of furthering the operations of the Palestine Exploration Fund, a Society established for the accurate and systematic investigation of the archaeology, topography, geology, and physical geography, natural history, manners and customs of the Holy Land, for Biblical illustration. There was a large attendance of ladies and gentlemen, the majority of the latter being Members of the Senate and Undergraduates. The Vice-Chancellor presided, and with him we noticed the Very Rev. the Dean of Ely, Professors Sedgwick and Babington, the Rev. G. Williams, and the Rev. T. G. Bonney, &c., &c.

The General Committee of the Fund were represented by a strong deputation, consisting of the following gentlemen:—the Very Rev. the Dean of Westminster, Lord Henry J. Scott, M.P., Rev. H. B. Tristram, Mr. Cyril C. Graham, Lieutenant Anderson, R.E., and Mr. George Grove, the Hon. Secretary to the Fund.

It will not be out of place to commence this Report by quoting a circular issued by the Cambridge Local Committee, which sets forth concisely and clearly what the Society has already done, and what it now seeks to do:—

“The Members of the Society which was formed in 1865 for the exploration of Palestine are anxious to make known the results of the expedition, conducted from Dec., 1865, to May, 1866, by Captain Wilson, R.E., with a view to exciting a more general public interest in the work, and to enable them to follow up many investigations which on that occasion were necessarily left incomplete, owing to want of time and funds.

“They hope that the results of the comparatively small expenditure on the first expedition (about 1500*l.*) will be considered of more than sufficient importance to justify another, and a more extended, examination of so interesting a country. During the progress of the exploring party from Damascus to the south of Palestine the following were among the results obtained:—

“(1). The construction of a series of detailed maps (one inch to the mile) of the whole backbone of the country from north to south, between Beyrout, Bania, and Hebron, including the Lake of Gennesaret, by means of which several important topographical questions have been answered.

"(2). Materials have been obtained for making about fifty plans, with detailed drawings, of tombs, ancient churches, synagogues, mosques, temples, cities, and other sites of great interest. Besides this a great number of inscriptions (several of them previously undiscovered) have been copied. The investigations about the Lake of Gennesaret will throw much light on the vexed questions of the site of Capernaum, Chorazin, and other towns in this region. Excavations were undertaken which put the expedition in possession of complete plans of several ancient Jewish synagogues, and of the ruins on Mount Gerizim. Some interesting discoveries were also made with reference to the topography of Jerusalem.

"(3). 166 photographs (9 in. by 6 in.) were taken, most of them for the first time.

"Among the matters left for a future expedition are, the careful exploration of the Jordan valley and the basin of the Dead Sea, as well as of the rarely visited tracts to the east of it—the homes of Reuben, Gad, and the half-tribe of Manasseh; excavations in heaps of rubbish at Jezreel, Bethshan, and Samaria; in the plain of Capernaum, at Nazareth, Cana, and in several parts of Jerusalem itself; besides a careful examination into the geology and natural history of the country.

"How far this programme can be carried out depends upon the support which this Society receives from the nation. Its members are anxious to awaken a general interest in the undertaking, and in order to do this purpose sending deputations to the Universities and several of the more important towns, in order to explain more fully both what has been and what remains to be done."

The VICE-CHANCELLOR said that in introducing the numerous speakers to the meeting, he would merely observe that the subject which had called them together was a very important one—it was a subject most interesting to himself and to all present, but it would be better for him to leave it in the hands of those who had come expressly to speak upon it. The Vice-Chancellor then, amidst much applause, alluded to Dean Stanley and other distinguished persons present, and called upon Mr. Grove, the Honorary Secretary to the Fund, to address the Meeting.

MR. GROVE said that he should best introduce the subject of the meeting by stating, as succinctly as possible, how the Palestine Fund originated—what its objects and intentions were—what had been already done to carry out those objects—and what was proposed to be done. He said that this Society had been originated in the early part of 1865, by the Archbishop of York, the Dean of Westminster, Sir Henry Rawlinson, Mr. Layard, and other distinguished persons well versed in Oriental and Biblical subjects, who saw how inadequately Palestine had been explored, notwithstanding the large number of travellers who visit it. The maps were inaccurate, not only in detail, but in general features; confusion reigned throughout the spelling of the proper names; no excavations had been made, and consequently the archæology rested on no sufficient basis; the geology was all conjecture; the natural history was but imperfectly investigated. Of the manners and customs of the people—so important in their bearing on the ancient inhabitants of the country, and so likely ere long to be obliterated—no record had yet been made. It was to remedy this state of things that the Palestine Exploration Fund had been established by the learned and eminent persons just mentioned—the object of which was the accurate and systematic investigation of all these different branches of inquiry. The first thing to do was to send out an expedition of persons acquainted with the subject, not so much with the view of arriving at positive results, as to see what a future expedition of explorers might accomplish; so that the first expedition was merely tentative. For this the Committee chose two officers of the Royal Engineers. The first was Captain Wilson, who had in the previous year had charge of the survey of Jerusalem, which was undertaken through the liberality of Miss Burdett Coutts, and carried out by Captain Wilson and the men

of the Ordnance Survey under the general direction of Sir Henry James. It was under his charge that a trustworthy survey of Jerusalem was made for the first time, and Mr. Grove might call the attention of the meeting to the fact that there was now as accurate a map of Jerusalem as of London or any other city of the Western World. The other officer was Lieut. Anderson, who had with Captain Wilson had much experience in surveying and examining ground. These gentlemen had taken a Corporal of Sappers with them, an expert photographer and practical surveyor. They landed at Beyrout, and occupied six months in passing slowly through the country from North to South, determining the exact positions of places, recording the features of the ground, taking heights, examining ruined sites, photographing, and generally investigating everything that came in their way. They had fixed, for the first time, the exact latitude and longitude of nearly 70 places between Damascus and Jerusalem, and had obtained accurate detailed sketch-maps of the whole centre line of the country, with several outlying districts. They had also photographed 170 views, most of them for the first time, and had taken careful measured drawings of between 30 and 40 structures—temples, synagogues, churches, which had never before been taken. These maps and photographs would be found in the adjoining room; and it would be seen, from the former, what a substantial addition had been made to the topographical knowledge of the Holy Land. In fact the Palestine Exploration Fund had already, during the few months of its existence, done much to remove the reproach that no trustworthy map existed of this most interesting and important country.

One indirect result had come out of the first expedition, namely, that the great mine of discoveries was at Jerusalem; and accordingly, in organizing the second expedition, Jerusalem had been made the head-quarters. The operations of the second expedition were to be more extensive, and embraced the various heads of topography, archaeology, geology and natural history. Captain Wilson and Lieut. Anderson being prevented from going out again, Lieut. Warren, R.E., had been selected for the topographical and excavation department. Mr. Warren had had much experience in similar operations in Algeria and Gibraltar; and he was now, in Jerusalem, with two Sappers, actively engaged in excavating and exploring. He was also extending the detailed map, begun by Wilson and Anderson, into districts which they had been unable to visit.

In connexion with geology, it was the hope of the Committee that Mr. Prestwich would be induced to go out and undertake a complete survey of the structure of the country, which, especially in the Jordan Valley and Dead Sea, was one of the most remarkable in the world, from the point of view of pure geology alone, without considering its Biblical relations. For this work Mr. Prestwich was especially suited, as his great reputation had been achieved in connexion with Tertiary and Post-tertiary geology, into which periods the most remarkable spots in the Holy Land came. If Mr. Prestwich were enabled to complete his geological survey, a vexed question would be settled once and for ever, and his testimony on the subject would be received not merely in England but on the continent of Europe and in America.

As regarded Zoology, Botany, and in fact, Natural History generally, his friend the Rev. Mr. Tristram, who would speak presently, had already been twice to Palestine, and had made most valuable discoveries; and now there was every prospect, if the necessary funds could be raised, that he would go out a third time. In his second journey he derived great advantage from the experience of the first, in knowing what to seek for and how to go about his work; and the third visit, now proposed, would enable him to supplement and complete the inevitable *lacunæ* of the former journeys, and to present the Fauna and Flora of Palestine in a systematic and complete condition. The Society was most fortunate in having secured

Mr. Tristram's services. With him would be associated, as Botanist, Mr. Marshall A. Lawson, B.A., a member of this University and a gentleman of high attainments and great energy.

As to manners and customs, those now in vogue were in many important respects similar to those prevalent among the ancient inhabitants; and it was important to gain information respecting them at once, before they underwent a change, as they no doubt would from the railways which were shortly to be made. Mr. Grove spoke of the ready and valuable assistance rendered by the British Consul at Damascus and the Prussian Consul at Jerusalem: the latter was having careful topographical lists made of the names of villages, sites, hills, &c., which would be of the greatest use in making maps. Consul Rogers, of Damascus, was engaged in preparing a work on the Manners and Customs of the Modern Syrians; while by the kindness of the British Association the Committee had also been enabled to set on foot measures for taking accurate observations as to the climate and the meteorology of Palestine. In conclusion, Mr. Grove drew attention to the fact that nothing could be done without funds; but, if these were supplied, he was full of hope that the time would come when Palestine would be as well known as it deserved to be, as well known as many countries nearer home, which had not half its value or half its interest [Cheers].

The DEAN OF WESTMINSTER, who was received with most enthusiastic cheering, moved the following resolution:—

"That it is desirable to make further efforts for the accurate investigation of the archaeology, topography, geology, physical geography, natural history, manners, and customs of the Holy Land, for Biblical illustration."

He said this resolution was the natural sequel to the statement they had just heard from Mr. Grove, setting forth the objects of the Society. Before entering upon the subject of the resolution, he could not but dwell for a moment upon the pleasure which it gave him to appear before the sister University of Cambridge, in connection with this interesting and important Society. The Vice-Chancellor had been kind enough to allude to him in the generous welcome he had given them, and he was sure the deputation, and himself in particular, esteemed it a great pleasure to be here. For himself he might say, with the greatest respect to his own University, that his first desires and aspirations to explore the Holy Land were more fostered here in Cambridge than in Oxford. Long before he visited Palestine, he used to come here to question his friend Mr. Geo. Williams, whose very name savoured of Jerusalem, and whom he used to regard as a colossal oracle on all matters relating to that place [laughter]. Then there was another oracle, always a valuable one, though it was a man who had never been in Palestine—that oracle was Professor Willis; he remembered on one occasion coming here and spending a whole morning with him, in which he had received from the Professor a lecture, upon which he had never ceased to dwell, in reference to the interest he took in the Holy Land. Professor Willis was the first person to give him a really lively idea of what the Temple at Jerusalem resembled, and in anything he had ever said upon this subject, he had ever been careful to acknowledge his obligation to Professor Willis for that valuable information. Besides this, though he had never been to the Holy Land, Professor Willis had written an admirable dissertation upon the Church of the Holy Sepulchre, which had been incorporated in Mr. Williams' book; and when he (the Dean) was in Jerusalem at the Feast of Easter, waiting in the Church of the Holy Sepulchre before the entrance of the Greek Bishop on the occasion of the performance of the "miracle" of the holy fire, with Professor Willis' book in hand, he was able to compare the description with the church itself. In these

ways Cambridge had upon him peculiar claims of gratitude for the interest he had taken in the Holy Land; the lucid work of Mr. Williams, written from ocular inspection, and the lively and scientific illustrations of Professor Willis, having furnished him in a peculiar degree with the knowledge which he needed [cheers]. On his return from the Holy Land, he again had recourse to the oracles of Cambridge: in Mount Sinai he came upon numerous mounds which he took to be heaps of mere scoræ and ashes; he brought back specimens of these to the greatest oracle on such a matter, Professor Sedgwick [enthusiastic cheers], who very soon dissolved any theories and explained any difficulties which he (the Dean) had felt about the matter, by stating them to be only specimens of the detritus of iron in sandstone. In saying all this he was not wanting in respect to his own University, but he was bound to acknowledge what he owed to Cambridge [applause]. Now, as to the object of this Fund, he had no need to repeat what Mr. Grove had so admirably set forth on this point; only there was one statement made by Mr. Grove which was, he begged to say, entirely false: Mr. Grove described the persons who originated this Society as the Archbishop of York, the Dean of Westminster, and other eminent persons; he (the Dean) assured them that these gentlemen did nothing of the kind, and that the person who started the Fund and caused its progress was Mr. Grove himself [cheers]. Indefatigability was Mr. Grove's characteristic, and he it was who had enabled other people to take the question up and form a society; Mr. Grove was the head and front of the whole proceeding, and without him it never would have been undertaken. The first thing the Society ought to do, if it had the means, would be to send Mr. Grove himself away to Palestine, to direct the work; but as they could not do that, they must do the next best thing, which was to follow the plan he had chalked out for them, and by contributions help forward the object he had put before them. With regard to these objects, he thought the right course in a case of this kind was for a speaker to dwell upon that part of the subject with which he was himself most familiar. He would leave it to other speakers to dwell on the rest of the points that had been mentioned, and he would confine his own remarks to what he thought the main claim for the establishment of the Fund, and that which had for him the greatest interest—he meant the excavation of the city of Jerusalem. The objection often raised to this was at first sight a very natural one; people said that hundreds and hundreds of travellers had visited the country, and asked what there was to find which had not been already described. There were many answers to this objection; but the great answer was, that ordinary travellers who went through the country, had neither the time nor the means on these occasions to arrive at the bottom of the many speculations and theories that were started about Palestine. The great mass of travellers went through the country rapidly, and confined themselves to viewing those places which had the greatest interest for themselves and for the world, and had no means of pursuing further investigations, which would only be carried out by great labour and expense. Speaking of the importance of *excavation*, the Dean said the scientific sense of the word was quite modern; Johnson's dictionary did not contain it; and yet this seeking below the surface by excavating was the only real means of arriving at the truth and root of the matter: without it they would find out comparatively nothing. The great cities of the world were Athens, Rome, and Jerusalem. Now, to show how important this excavation was of Athens, and still more truly of Rome, their knowledge fifty years ago was not for a moment to be compared with that which was possessed now through excavation. The Dean of Ely had just come from Rome, and he could tell them how much had been done by excavation and how much remained to be done—and how much light had been thrown upon the history of Christianity

during the third and fourth centuries by the discoveries made in the Catacombs and elsewhere. Lord Byron had described the Palatine as a heap of confused ruins, but the arrangements of the palace of the Caesars was now well known. 'What had been so successful at Rome and Athens needed to be done in the Holy Land; though we were already becoming acquainted with the sites of all the more important places, &c., in a way which our forefathers, and even our fathers, would have thought impossible. Jerusalem, above all places, was the city which needed excavation: from its great antiquity it carried within its ruins traces of ages and generations further back than any city in the world; it had been seventeen times captured and destroyed, so that it was literally a series of masses of ruins heaped one upon another, and wherever you began to dig, you came, not upon solid ground, but upon house-tops and such like, buried at all varieties of depths below the surface. These ruins contained, so to speak, the key to the internal topography of Jerusalem. He did not mean to say that its topography was the most interesting feature about Palestine; no doubt the most interesting feature was the general aspect of the country, because this remained unchanged. But Jerusalem had been what it is now, the capital of Palestine, ever since the time of King David; it was involved in the most sacred events of the world's history, and it possessed interests of all sorts; so that it was impossible to deny that this subject of topography was most deeply attractive. But without excavation all the theories and speculations that existed about the internal topography of Jerusalem rested upon mere air; upon excavation depended the solution of many of the most important questions relating to the history of Jerusalem; and, for his own part, he had abstained from entering into a discussion of those questions, when he suspected that there might be beneath his feet that which would explode all that he had said, though at the same time we should acknowledge our obligation to those who, like his friend Mr. Williams, had ventured on a discussion of those matters. For his part, he would not theorise about a question that might be solved by evidence within our reach; therefore, by all means, let us get at this ground underneath. Moreover, till something definite was arrived at, controversy would always be waged as to the correctness of any solution that might be arrived at, and there was no place in the world about which there had been more topographical controversy than Jerusalem, and, as might be expected, with the *odium topographicum* was mixed up no little of the *odium theologicum*. Even the wars of the Crusades, and that in the Crimea, might have been perceptibly affected, if it had only been known where the site of the Church of the Holy Sepulchre really was. The question whether the present site of the Church of the Holy Sepulchre was the real site was one of deep interest, and people might form any arguments about it they liked; but to come to any conclusion worth having on the subject, they must know the direction of the ancient walls of Jerusalem, and these could only be discovered by excavation. Another point of great interest was with reference to the site of the sepulchre of the Kings of Judah. These Kings, we know, were buried within the walls of Jerusalem, and no doubt they were buried in the same way as all the ancient Jews, namely, in rock-hewn tombs; so that it was in the highest degree probable that excavation would discover the catacombs of the Kings of Judah, and when that was found we should be sure that much light would be thrown upon the history and actual position of the sacred places. If only these two spots—the catacombs of the Kings of Judah, and the site of the church of the Holy Sepulchre—could be discovered, it would be worth while to carry on these investigations; and whether they found them or not, what they did went as nearly as possible to the bottom of the question, and the whole thing was resolved into its first elements. Probably they would not find works of art, and they would not expect to do so;

but whether they found much or little, they would do much to settle the question, and they would have arrived at truth: truth might be at the bottom of a well, and when they took the trouble to seek for and find it, it might be unwelcome—still it was truth. In conclusion, Dean Stanley said that every man must take an interest in the only city which was associated with the greatest events in the world's history, and which was known equally to prince and peasant. They might remember what the great Napoleon said when at Jaffa, when asked if he "would not go on to Jerusalem, as it was only 30 miles away." "Jerusalem," he replied, "does not come within the line of my operations" (laughter). It was gratifying to believe that the judgment of this meeting is exactly the reverse of the French General's, and that Jerusalem *did* lie within the line of the operations of the University of Cambridge.—The DEAN sat down amid warm cheers.

LIEUTENANT ANDERSON, R.E., of the Palestine Survey, in seconding Dean Stanley's motion, said that the objects of this Society could not fail to meet with the approval and cordial support of the University of Cambridge. With regard to the City of Jerusalem, in which all Christendom took such a deep interest, Captain Wilson, R.E. (who had charge of the Ordnance Survey of Jerusalem, under the superintendence of Colonel Sir Henry James, R.E.), had accomplished all that could be done by means of surveying, photographing, and examining all the archaeological remains that are exposed to view; but discoveries below the surface must be the result of excavations carried out in some places on a large scale, and by a large expenditure. But in many parts of the city, outside the sacred area, places might be probed without great labour or expense, and various questions with regard to them finally set at rest, such, for instance, as tracing the course of the second wall, and exploring the underground covered way near the Ecce Homo Arch. In many places it was necessary to go to a depth of 40 feet before reaching the solid ground, and in tracing the height of an old gateway of the Haram, the Gate el Burak, the lintel stone of which is at present close to the level of the present surface, a shaft 25 feet deep was sunk without coming to the sill, and further excavation could not be continued, in consequence of the extreme crumbling nature of the soil and the danger of the earth falling in upon the diggers. Hitherto the work of the Society has been confined to tentative operations, in examining ruins that were above the surface, and in ascertaining how far it was practicable for a thorough and systematic examination of the country to be carried out. The people, for the most part, were not unfavourably disposed, and there was never any difficulty about hiring as many Arab diggers as were required. West of the Jordan a small party could travel wherever they pleased, buying provisions and forage at the different villages, and much interesting information concerning the localities might be collected from the shepherds and people of the villages. The dragoman, who is generally made use of as interpreter, guide, and caterer, is, for purposes of exploring away from the beaten tracks, your greatest obstruction, and he will cause the people of the villages to make up false statements to deter you from leaving the beaten path. In any future investigations no dragoman should be engaged, but an interpreter would be required, who should be completely under the orders of the explorers. In the late expedition, of which Captain Wilson, R.E., was chief, although the scene of our work was confined in a great measure to districts that are tolerably well known, there was, for the first time, a systematic examination and record taken of all the old sites embraced in the area of the investigations. Commencing from the north, at Beyrout, the expedition moved gradually southwards; but, as we have already referred to Jerusalem, it will be more convenient to start from there, and notice a few places that were visited and examined. Bethel, a few miles north of Jerusalem, is one of the first places of great interest, and here is a heap of ruins of undoubted antiquity,

and on the opposite side of a little valley are the ruins of an early Christian church, built upon the mountain east of Bethel, from which Abraham and Lot must have examined the country, previous to their separation. About two hours' journey north of Bethel are the identified remains of Shiloh, the Arabic name of which—Seilun—bears great resemblance to the old Hebrew name. The country passed over in the journey to Shiloh from Jerusalem is very rocky and uninteresting in its physical appearance. Immediately on the right hand is the great "break down" of the watercourses to the Jordan Valley, descending nearly 4000 feet in twelve miles. The precipitous valleys lie so close upon each other that it is almost impossible to make any progress by attempting to advance in a direction crossing their course. On the ridges between these valleys occur a great number of sites of ruined cities: indeed there is not a ridge or hill-top where evident traces of old cities cannot be found, and the Arabs have names for all these old sites. The great system of valleys around Jerusalem has never been examined, and it is certain that a systematic exploration of this particular locality will lead to the identification of many lost towns and villages. After a very long day's journey from Jerusalem, over rocks and through dreary places innumerable, late in the day's journey, a beautiful little plain suddenly bursts upon the view, and as it stretches northward for several miles, the great high road follows along the level of the plain. This is the Plain of Moreh, and at the north-east corner of it is a little pass of great beauty, on the sides of which are two prominent hills 1000 feet high, Mounts Gerizim and Ebal, and this little pass to Samaria is the Vale of Shechem. At the entrance to the pass is Jacob's Well, of undisputed authenticity, about ninety feet deep, in shape like the barrel of a gun, lined throughout with rough masonry, built in regular courses. It is about seven feet in diameter, and it was probably at one time 150 feet deep. Nablûs—the Shechem of old—is situated in the midst of the vale, a spot unsurpassed in Palestine for beauty and luxuriance, and in the centre of the town numerous and copious streams issue, conveying life and refreshment through the vale. In this town of Nablûs there live all that remain of the Samaritans of old. They are only about 144 in number, but they still preserve their old customs, and they still celebrate the Passover on their holy mountain Gerizim in the same primitive manner as their forefathers did in the Old Testament times. On the summit of this mountain a Christian church, built upon the site of the old Samaritan temple, was excavated and partially examined. From Nablûs, proceeding northwards by rugged hills and valleys, and passing along a plain whose direction is north and south, and consequently opposed to the general drainage of the country, we reach in about six hours the ridge from which we make a gradual descent to the great plain of Esdraelon, "the battle-field of Palestine." This magnificent plain is about 14 miles long, and more than 20 miles wide in some places. It is subject at the present day to the same inroads and predatory excursions from the Bedouin tribes, that was always the peculiar fate of Issachar's portion. We were fortunate in being one half-hour in the rear of 500 horsemen, who having made a successful raid through all the villages of the district, had retreated across the Jordan with their spoils. The site of Jezreel was covered with a heap of modern ruins, but it still bears traces of its old name in the present Arabic name Zerîn. About 8 miles to the eastward lies Beisan (Bethshean, Scythopolis), one of the great cities of the Decapolis, and among the ruins could be clearly traced two theatres, a temple, a street of columns, and the city wall defending the eastern side of the city, where was a gateway, from which the road proceeded direct to Gadara. A very hurried visit was paid to Gadara, and the ruins found were in wonderful preservation. The paved roadway is in places quite perfect, and traces could be observed of the ruts caused by the

chariot wheels. One theatre was almost in thorough repair, and a great number of stone coffins lie scattered about in all directions. About two hours' journey north of the plain of Esdraelon, and after ascending the great natural wall which bounds the plain on the north, we arrive at the town of Nazareth, situated in the most sheltered and retired little spot in Palestine. There was every appearance of order and decent living in this little place. The children were clean and well-clad, and the Protestant clergyman, Mr. Zeller, celebrated Divine service in Arabic twice every Sunday to a most attentive audience, who joined most audibly in the service. The good example set by this little Christian community at Nazareth cannot fail to make a great impression on their Moslem neighbours. Leaving Nazareth, and travelling towards the N.E., we pass the village of Kefer Kenna, where it is probable that Cana, the scene of the miracle, was; and passing over an extensive arid plateau, the scene of the final defeat of the Crusaders by Saladin, we come at last, towards the end of our day's journey, to the edge of the plateau, and the beautiful Sea of Galilee lies 800 feet below us, in full enjoyment of a tropical climate, and at a depression of 600 feet below the sea. The walled city of Tiberias, the home for poor and expatriated Jews, has now shrunk into about a quarter of what was evidently its former limits; and just below the city the hot sulphur-baths are still in full vigour, the resort of the miserable Jews in all stages of suffering. In the beautiful plain of Gennesareth, a little north of Tiberias, all the spring flowers were in full bloom early in January, while in the hill country of Upper Galilee, immediately above it, cold and cutting winds prevail till April. In the examination of the old sites in the plain of Gennesareth, no archaeological remains could be found except the Round Fountain by which the southern half of the plain was irrigated, and the aqueduct cut in the rocky promontory at the north-east corner, by which water was brought from some copious fountains half a mile away, for the irrigation of the northern half of the plain. At the ruins of Tell Hâm, on the north-west shore of the lake, a synagogue was excavated, and the plan of the building completely disclosed. The massive blocks of limestone used in the building are of such hard material as to be susceptible of a high polish, but most of the stones have been carried away at different times to be built into new buildings in Tiberias. The ruins of the old city at Tell Hâm extend for more than half a mile along the shore of the lake, and there is but little doubt of this being the site of the Capernaum of old. In a little ravine, two miles to the north of these ruins, is a ruined city called by the Arabs Kerazeh; and in the midst of the black basaltic stones there are the remains of a little synagogue, of the same peculiar style of architecture as the one just alluded to. An examination was made of the whole of the eastern shore of the lake; and about midway are the ruins of a place called Kersa, which may be the Gergesa of old. The hills on the eastern side, instead of being retired some distance from the shores of the lake, at one particular spot reach to the water's edge, and then recede again. This spot is the only one which fulfils the conditions of the scene of the destruction of the herd of swine. A little further south, on an isolated summit, are the ruins of Gamala, where the Jews in their revolt against the Romans made their last stand and perished. The appearance of the site (so much like a camel's hump) leaves no doubt of the identification of these ruins with the Gamala of Josephus. To the north-west of the Sea of Galilee the flow of lava has been very marked and confined to a limited area. The examination of this district would be of special interest to the geologist. In the mountain country to the westward were found numerous old Jewish sites; the remains of eight synagogues being found, all of a peculiar but similar style of architecture. Over the doorway of one of them is an inscription, in Hebrew, invoking peace upon the building; and at another place was found a representa-

tion of the seven-branched candlestick, a counterpart of which can now be seen in the triumphal arch of Titus at Rome. This evidence of an amount of prosperity and repose existing among the Jews, at a time when it was supposed they were all either massacred or dispersed, will doubtless admit of still further investigation. At Kadesh, the old city of refuge, a little further to the north, some extensive ruins were excavated and examined. One of the most prominent buildings was a temple of the Sun, and there was a distinct representation of the Sun and an image of a supposed Baal on one of the stones. Some curious sarcophagi to contain two or three bodies were also found, and were of special interest. Travelling for a few hours further north brings us to an old crusading castle, Hunin, built on a commanding site of great antiquity, being one of a line of very strong positions commanding the road from Tyre to Damascus. In the valley of the Jordan many hundred feet below, the old site of Casarea Philippi was examined, and a curious temple dedicated to Pan can still be seen cut in the face of the rock, with several inscriptions in Greek, explaining by whom and to whom the temple was dedicated. Just below the temple one of the three tributaries of the Jordan issues a full-grown stream. On a little grassy mound in the middle of the valley, and about two miles west of this old site, once stood the old city of Laish, subsequently called Dan, known as the northern limit of the Holy Land. From beneath this mound issues the second tributary of the Jordan, a large stream, and the chief source of the Jordan itself. Having touched upon a few places only, visited by the late expedition between Jerusalem and these sources of the Jordan, I may mention that Damascus was visited, and, for the first time, a regular plan and series of photographs were taken of the old church of St. John, now the Great Mosque of Damascus. Plans and detailed drawings and photographs were prepared of every building or ruin of archaeological interest, and they are now exhibited for your inspection. I have not time to touch upon several other excursions around the seacoast and to the south of Jerusalem; but there is still a vast field for research still untrodden, and we ought not to rest content till material has been collected to make us as familiar with the Holy Land as we are with the spots around our own homes. A map has now been commenced on the same scale as the 'Ordnance County Maps' we all find so useful (the one inch to a mile); and if with the extension of this the other branches of much intrinsic interest—natural history, geology, &c.—progress simultaneously, we shall in time have made a great stride in support and in elucidation of the Scriptures. I feel confident that this Society is in every way worthy of your most active interest and substantial support.

REV. H. B. TRISTRAM, in supporting the resolution, said he was glad to find that the Society, in turning their attention to the investigation of Palestine, had not forgotten that it was the country of the father of natural history, and that, therefore, its physiological character had a special interest as being the subject-matter of the researches of Solomon, "who spake of trees, of beasts, and of fowl, and of creeping things, and of fishes." The study of the natural history of Palestine had a twofold interest:—First, as it bore upon Biblical illustration; secondly, from the peculiar nature of the fauna and flora of the country, which had many phenomena absolutely unique on the earth's surface, and which rendered its natural history specially important and valuable, even apart from its sacred and historical interest. The reproach uttered by Linnæus, one hundred and thirty years ago, that we knew more of the natural history of further India than we did of the Holy Land, had remained unwiped out to the present day.

Now he was able to prove to them how much required yet to be known upon these points, for, when he undertook to write some articles for Dr. Smith's

'Dictionary of the Bible,' he was anxious to obtain all the information possible on the fishes, bats, and serpents of the Holy Land, but found, after inquiry at the principal museums, both British and Continental, that no specimens whatever were to be found in them. It was simply impossible that ordinary travellers could supply the information which the Society sought to obtain, because it required much time to be spent in the country: moreover, the dragoman always opposed himself to anything like a turning-aside from the ordinary track through the country; if a traveller talked of examining any object that had attracted his attention away from the regular parts, he was at once threatened with all kinds of dangers, and every possible obstacle thrown in his way. Hence, travellers desiring to explore the country properly should only take an interpreter, and be independent of the dragoman. To show the extreme interest of the discoveries which might be made in the country he would mention that, in his last visit to Palestine, he brought back fourteen species of fishes from the Lake of Genesaret, four of which were new; only one was common to it and to the rivers which flow into the Mediterranean; and, of the remainder, several were of the same genus (and that a new one) as those which are still found in that chain of lakes which stretch away through Central Africa to the district which Livingstone has explored.

Historical naturalists would at once appreciate the immense importance of this link, as connecting the Jordan basin not with Asia, or with Europe, but as the northernmost of that vast chain of African lakes which modern research was just opening to our knowledge; but this fact of these African fishes does not stand alone as a living link in the chain of geological and palæontological history. Perhaps no country affords evidence so valuable to the geologist; for example, the lower part of the Jordan valley is some 1200 feet below the sea, hence the climate is tropical; and birds, plants, and fishes are found closely resembling those of Central Africa and Southern Arabia. Those, then, must be regarded as the relics of that warm period which prevailed in the world before the glacial epoch. Again, in Libanus and Hermon, the fauna and flora were Arctic, resembling those of the Pyrenees and Alps; these were the inhabitants of Palestine during the cold epoch, now they have retreated to the mountains, and the mid-regions are possessed by Mediterranean species from the temperate zone. The importance of this fact could hardly be over-estimated. Palestine would supply the key to many geological riddles, and nowhere could the investigation of the traces of the glacial epoch be carried on with better prospect of new discoveries. He had himself found, in the flooring of caverns in the Lebanon, bone breccia containing the teeth and bones of reindeer, red-deer, bison, elk, and apparently also of the great extinct Auerocks, the Urus of Cæsar, and most undoubtedly the unicorn (or *reém*) of our Bibles. Here was an example of the mode in which careful investigation might throw light on Scriptural allusions.

As an example of the way in which the explanation of the Bible was made more easy by a residence in, and careful observation of the country, he instanced the passage in Isaiah, translated in our version, "Like a crane or a swallow so did I chatter." Now the crane could not be said to twitter or chatter, and there had been much learning expended on the meaning of the Hebrew word *sûs* or *sis*. One day, in Palestine, he was observing a number of swifts flying about, and asked his Arab attendant what their name was—"Oh, that is the *sis*," was the reply. In this way he believed that most of the Hebrew names would be found still to prevail in the country among the common people. He had provided himself carefully with a list of all the names of animals, birds, and plants mentioned in the Hebrew Scriptures, and had, without reference to it, compiled a vocabulary of the vernacular Arabic names of all these things in the country; and he had been

astonished to find that there was scarcely a Hebrew name which had not its counterpart in the names still used by the peasantry of the country. So, also, with the places mentioned in the Bible: most of them will still, upon careful enquiry, be found to be in use—it was most remarkable how the Hebrew names have in nearly every case supplanted those given in the classic period. The two things needful for explorers were—never to be in a hurry, or to ask the Arabs leading questions. By waiting patiently for an opportunity, it was generally possible to go anywhere and do anything; but if the Arabs thought that the traveller wanted to find any particular locality, they would directly invent a name, so as to save further trouble. Thus, for instance, he was able to identify Mount Nebo, as he believed, with certainty. Coming one day to a well in the neighbourhood, he asked its name—"Moses' well," was the reply. He then, without making any remark on the subject, began quietly to ask the names of the neighbouring hills, and presently one was pointed out as Neba; he then rode up that, and found a view exactly according with that described in the Bible. He also strongly urged the exploration of a district well seen from it, the Belka—the Wilderness of the Wanderings: no desert indeed, but a series of rich downs of waving grass, sloping away, swell after swell, into the far east, among which a multitude of cattle might be pastured, and which, when he saw them, were dotted over with the brown tents of the Beni Sakk'r tribe of Arabs, numbering some 30,000 souls, and possessing large flocks and herds.

In this region he fully anticipated the most important discoveries. No European has traversed it, yet it is undoubtedly part of the Wilderness of the Wanderings; comprising the kingdom of Sihon, the first conquered possession of Israel. It is no barren desert, but a rich succession of downs and corn plains. It is camped in by the Bedouin, therefore there must be water. The wells must have names: the names have probably remained with little change from the days of the Midianites. We need a carefully made itinerary of these camping-places, their positions and their names, before we can say that the itineraries and localities of Numbers are lost.

So it is with the south-west of Judah, the scene of David's exile. Where was Ziklag and many other towns named in Samuel? We know them not, for the simple reason that no investigation has yet explored that comparatively easy region. But he felt certain that the localities might be as easily identified there, as Gibeah, and Mizpeh, and Bethel, and Ai, and all the villages of Benjamin, had been marked down by the indefatigable Robinson and others.

He would also point out northern Galilee west of the Huleh, as a region little known, and containing abundance of remains to reward research.

Nor must they imagine that delay was unimportant in the work the Committee had undertaken. There were many olden customs and manners lingering yet among the Syrian villagers in the unvisited nooks of Palestine. These were fast perishing away by the contact of Turks and Europeans, just as the old Syrian language is now confined as a vernacular to five secluded villages.

He might mention one illustration. The "horn" as worn by men is frequently alluded to in Scripture. We are familiar with descriptions of the horn, as it used to be worn by Druses and other mountaineers, in one book of Scriptural illustration; but who of modern travellers has ever seen the horn, except, perhaps, worn by some very aged person on a gala day. It was as extinct now as the pigtail and bishop's wig among ourselves. So with many other customs that might be adduced. The East was often said to be the land of fossils, fossilized habits, fossilized modes of thought, while the West was the land of progress. Rather, he should say, the East had entombed olden fashions and olden ways, like the cairns which cover the bones and relics of our Celtic predecessors. They have been

exhumed—they are now accessible to the West—contact with Western thought and Western air is already acting upon them. Let us photograph them while we may: time is short, and they are crumbling into the dust of a lost antiquity.

The VERY REV. THE DEAN OF ELY rose to propose the next resolution. He said it appeared, from what they had heard, that there was a great deal to be done in the Holy Land by way of exploration; the speakers had made out a case, and pointed to the manner in which the work could be accomplished, and that effectively—all that was required was united effort from every one who took an interest in the subject. As to exploration, it appeared to him the difficulty now was to find not persons who had travelled, but those who had not. In these days of travelling, the person who had simply gone over a few miles in poor old England would soon be looked upon as a very peculiar person, and a very pleasant one to talk to. The time, he believed, was arriving when for gentlemen to read with tutors in Palestine during the vacation would be considered as requiring no extraordinary effort. The doubt, therefore, which occurred to his own mind, and which probably might have occurred to the minds of others, was this—in these days of travelling, what need is there of a special machinery in the form of an exploration fund? He was bound to say that the Dean of Westminster had cleared away that doubt. The Dean had pointed, for instance, to the excavation of Jerusalem as a great work which needed to be done, and which ordinary travellers could not do: a work of this kind required residence on the spot, a large body of workmen, and considerable expenditure of money. In referring to Dean Stanley, he could not refrain from expressing his personal thanks to him for his valuable work on Palestine; any one who, like himself, was not gifted with the pictorial and historical faculty, could not but feel grateful to a writer who, like Dean Stanley, brought before his readers in such a striking and vivid manner the scenes which he undertook to describe. He (Dean Goodwin) thanked him both for his book and for his speech that day, and when he said that it was to Cambridge he attributed the interest he took in Palestine, he felt as a Cambridge man proud to hear the Dean of Westminster confess his obligation [applause]. Dean Stanley had acknowledged his gratitude to Mr. Williams and Professor Willis for the information which they had supplied: now for a man who had travelled it was no easy task to describe what he had seen, but for a man who had not travelled he thought it the most marvellous thing imaginable that he should be able to describe what he had not seen [laughter]. Well, the vivid description which they had heard could not but have increased their interest in this work of exploration, and he thought they were bound to assist it as far as they could; his business was to impress upon them the duty of co-operation, and to bring the matter to a practical issue. Considering the Palestinian character of the weather, and that there was a match with all England that day, he was glad to see so many persons present to give to the explorers a cordial welcome. To show that the meeting was desirous of assisting the work, he was about to propose the appointment of a committee who should invite contributions for further exploration, or rather he would propose the formation of a body of excavators. There was a work of excavating to be done in Cambridge as well as in Palestine: not in excavating the earth, but in excavating the pockets and obtaining from them those nuggets of gold which were excavated for in Australia [laughter.] The Committee which he had to propose were the Vice-Chancellor, the Dean of Ely, the Master of Trinity College, the Master of St. John's College, the Master of Gonville and Caius College, the Master of Jesus College, the Master of Clare College, the Rev. Professor Jeremie, the Rev. Professor Selwyn, the Rev. Professor Swainson, the Rev. Professor Lightfoot, the Rev. Professor Churchill Babington, Professor Cardale Babington, the Rev. W. G. Clark,

the Rev. J. E. B. Mayor, the Rev. E. H. Perowne, the Rev. George Williams, the Rev. T. R. Birks, the Rev. W. J. Beamont, the Rev. R. Burn, the Rev. G. F. Browne, the Rev. J. Lamb, the Rev. J. C. W. Ellis, W. Aldis Wright, Esq., and the Rev. T. G. Bonney (Secretary). A noble body of excavators; and he would just add that if anything *should* be discovered it could be deposited in Messrs. Mortlock's Bank.

Mr. CYRIL GRAHAM, in seconding this motion, said—I should wish for a few minutes to carry the audience to a region upon which the preceding speakers have not touched,—the remotest of the portions promised to Israel, the kingdom of Og, in Bashan, the land of the Rephaim.

Travellers and pilgrims of the middle ages and later, had confined their wanderings to the west of Jordan, and Seetzen and Burckhardt, in the present century, were the first to explore the wonders of the Haurân, and to astound the world with the descriptions of great cities scattered in numbers from Edrei to Salcah, monuments to this day of that old old page of History which relates the subjugation of the giants. Porter's journey, in 1852, added largely to our knowledge. But these several explorers had to regret that their progress towards the East was limited by that chain of mountains which formed the natural frontier of the dominions of Og. From these a vast undulating tract extends without a hindrance to the Euphrates and the heart of Arabia, a tract which is described by geographers as the great Syrian Desert, but which is only desert inasmuch as it is desolate, for its rich soil, which may once have supplied many nations with corn, teems with vegetable life. On the southernmost spur of the mountains of Bashan stands the castle of Salcah, a stronghold of the Rephaim, their Mizpeh, their watch-tower, commanding the approach from the east. From its battlements, the traveller, as he strained his sight over the unknown tract before him, was tantalized by black objects scattered here and there in the distance, evidently other towns, but whether similar to those behind him, or of what age, people, or design, the imagination only could say, since the dissensions of the wandering Arabs closed their country against him. Burckhardt, Buckingham, Porter, and Dr. Robinson, made one burn to transport oneself to the point from which they had viewed this scene, and to penetrate its secrets. Stimulated by their descriptions, and Professor Porter's conversation, I determined in 1857, when the great heat was past, to visit the Haurân, and then, if possible, proceed into the Eastern Desert. The Anti-Lebanon and the Lebanon, with their glens, their high places, and their ancient temples, occupied my summer. September had nearly passed away, and, although the temperature was still higher than might be wished for a journey in a volcanic region, I determined to delay it no longer. A little expedition to those eastern lakes, the receptacles of the rivers of Damascus, which had then only been visited by Professor Porter, and to a series of convents and border fortresses beyond them, long neglected and forgotten, brought me in contact with a tribe of Arabs, whom war, on more occasions than one, had led into the country which I was so anxious to explore. "You will find ruins there in abundance," they said, "and pictures on the stones;" but "ruins" of the Arabs so often prove to be mere natural fragments of rock, and "pictures," cracks, or even moss, that one's confidence in a harvest of antiquities was by no means perfect. Yet fortune favoured me beyond my best hopes. I will not dwell upon my travels in the Haurân proper, which has been described by others. Arrived at Shuhba, one of its oldest cities, the residence of an important chief of the Druzes, I explained to him my wishes. "Not one of us has been beyond these mountains," he replied, "but a certain poor tribe which clings to them for safety and for pasturage in the summer, moves every winter far away to the east, and if we summon their Sheikh, he may be able to obey your commands." To my proposal the old man at first answered that the moment was

inopportune, that two great rival tribes were encamped not far off, with their outposts within a few miles of each other, that his people had blood feud with them both, and that the passage could only be effected with great risk.

The point before all others which I wanted to reach was a certain hill, called Es-Safâh, whose summit had often been observed from the Anti-Lebanon, and whose position was approximately noted in Mr. Porter's map. This landmark attracted me the more, that, if once gained, another radius of great extent would be opened farther towards the east. At length it was arranged that we should start by night, run the gauntlet of the tribes, place the Safâh between us and their encampment, and then wander at comparative leisure on the other side of that mountain or hill. A few hours' ride brought us to the old Sheikh's tents. At sunset, a party of twelve men—mounted on seven dromedaries, besides two horsemen to scour the country before us as frigates,—we commenced our voyage: once on our right hand and once on our left during the night, the barking of dogs warned us of too close an approach to our enemies, and the second day was some hours old before we ventured to halt. Even then we avoided lighting a fire, lest the smoke should betray us. The ground undulated, and was thick with shrubs; late in the afternoon we reached the summit of a slight incline, when, to my surprise, the hill of Safâh expanded into a chain many miles in length, black as jet and springing from a platform of volcanic rocks,—a duplicate, in fact, of that remarkable and hitherto, as had been thought, unparalleled formation, the Lejah or Argob, in Bashan. A mass of once molten matter vomited in some convulsion, and tossed and fissured with its jagged edges rising like an island from the stoneless plain, is a rough description of either of these wild works of Nature. As I skirted the southern border of this new range, my attention was attracted by the picture of a palm-tree and a short inscription on a polished stone. I took the impression of it, and, after vainly looking for another, continued my course. Twice at equal intervals this phenomenon was repeated. Were they milestones? Who were the people that placed them? The character was of no recognised Semitic type. While I was pondering over these things, I rounded a corner of the rocky shore which I was coasting, and a ruined city lay suddenly before me at the bottom of a bay. In its centre was a large building of white stone, a castle or a palace, the materials for which must have been transported from a distance of many leagues. A curious legend is told of it by the Arabs, too long for me now to repeat, but which helped to throw some light on my subsequent investigations into its history. Some sculptures of animals on its walls reminded me, though imperfectly, of Assyrian bas-reliefs, but not a line of writing remained to puzzle or to guide me. I could willingly have lingered here, but the drought of the summer had exhausted the water in the hollows of the rocks, and our stock was disappearing. At Seis, a deserted place, a day's journey further to the north, was a spring, and besides the importance of replenishing our waterskins, I wanted to visit the spot, because my companions assured me that it contained a large red stone which I could not help fancying might possibly be a monolith of granite similar to the obelisks at Tadmor. The scouts, however, brought us word when we were not very far off from it, that it was already occupied by some hostile tribe, so we altered our course towards a valley, in which, it was hoped, we might still find some lingering vestiges of the winter rains. Several towns and curious sites were discovered on our way, and, what I prized more than all, *fields* of inscriptions. One whole moonlight night, while the Arabs slept, I passed in copying the strange writings and pictures, and I leave it to the imagination of my hearers to conceive the intense interest of those hours.

I should be trespassing on your patience were I to enlarge, or to describe my journeys further south amongst the cities of the plain, some of them mentioned

by Jeremiah, in the 48th chapter, and, like those of Og, in Bashan, "cities of stone with high walls, bars, and gates, besides unwall'd towns a great number." I have said thus much because I hope that after our Association has done more work to the west of Jordan, its efforts may be directed to this wonderful country, where the cities are desolate, but still perfect, where houses may yet be seen, which I believe to have been inhabited by the predecessors of the children of Israel, yet so intact that the huge basaltic rafters are still spanning their walls, and the massive doors of stone rolling in the sockets into which they were hoisted 3000 years ago.

The land again may be peopled, the houses tenanted, and the last verse of that prophecy of Jeremiah thus explained, which says, "Yet will I bring again the captivity of Moab in the latter days, saith the LORD. Thus far is the judgment of Moab."

MR. VICE-CHANCELLOR, I beg most cordially to second the resolution which has been moved by the DEAN OF ELY.

Professor SENGWICK, who was most heartily welcomed, said the resolution which he had to propose was as follows: "That the thanks of the Meeting be returned to the deputation for their addresses." The Professor said what he had heard that day fully justified the proposition. It was with very great pleasure that he attended, but it was with a great deal of reluctance that he rose to address an audience—that reluctance did not arise from any squeamishness about public speaking, but from physical debility—for he rather liked to hear the sound of his own voice [laughter]. He was glad, however, of the opportunity of sounding it in praise of those illustrious persons who had given the meeting such a stock of valuable information [applause]. He confessed he was not very well acquainted with the Society, and was therefore the more grateful for the information received, and which enabled him to comprehend the work with profit. The work was one which appealed to the hearts of all Christians; with that land of Palestine were associated all our highest interests, and those scenes that had a vital importance for every one of us. Let the work of exploration and excavation go on; let them count it an honour to be associated with it; and let them evince willing hearts to aid it. The work of the Society was most invaluable, inasmuch as its researches afforded us demonstrations of the faithfulness and truthfulness of the Bible, which, it must be remembered, was the moral history of Man, and in which any scientific allusions were mere adventitious scattering and foreign to the grand aim in view [loud cheers]. But as in Cambridge they had never been afraid of the enlargement of the borders of science, nor the spread of knowledge, he was sure that this Society would still further demonstrate the truth of the sacred records [applause]. His friend Dean Stanley only paid this University an occasional visit, but they must thank him for placing before them so eloquently and so magnificently this subject [applause]. Their thanks were also due to other gentlemen, and sure he was that the remarks which they had that day heard would not soon be forgotten. What a great field of investigation in natural history had been opened up by Mr. Tristram in his admirable speech! The result of further inquiries on that topic might result in a great modification of our present ideas and opinions in several branches of natural history. He paid a high tribute to the men who had at great sacrifice toiled for the honour and good of the country at large, and made allusion to its great explorers that had gone forth—such as Livingstone and Mackenzie—through whose labours great good had followed—slavery had lost its hold on a benighted country and civilization had taken its place. The very last time, he believed, that he (the Professor) had moved a vote of thanks in that Senate House was on the occasion of Livingstone's visit; if their co-operation in that good man's efforts had not been

so successful as could have been desired, yet there was nobody who would say that Livingstone had lost his life for nothing, if, as there was too much reason to fear, he had really lost it. He gave the Society an old man's blessing, and, in reference to religion and science, the Professor, with enthusiasm, said that he had no fear that the latter would progress without advancing the cause of truth. He hoped for and believed in the arrival of that day in which there should not be a corner of the earth into which those beams of God's heavenly light, with which we had been so greatly blessed, should not have penetrated [loud cheers]. He had much pleasure in proposing a vote of thanks to the gentlemen who had addressed the meeting, and asked for the vote to be so cordial as to make the room ring with its accents. [The suggestion was duly complied with].

The Rev. G. WILLIAMS (King's) seconded the resolution proposed by Professor Sedgwick. Mr. Williams said that he supposed it was owing to the deep interest he had long taken in the subject they had met to discuss—which had been so kindly alluded to by the Dean of Westminster—that he had been asked to take part in the proceedings that day. It was with peculiar pleasure that he seconded the vote of thanks to the Deputation, because no one could appreciate more highly than he did the eminent services which those gentlemen had rendered to the cause. With regard to the question raised between Mr. Grove and the Dean of Westminster, as to the origin of this Association, he thought it might be thus adjudicated. There could be no doubt that to Mr. Grove belonged the credit of originating the scheme; though, with characteristic modesty, he had put forward the names of the Archbishop of York, the Dean of Westminster, and others, who would probably never have thought of organising such a Society unless it had been suggested by Mr. Grove. But to Dean Stanley belonged the merit of popularising the subject, and making such a Society possible. This the eminent American traveller, Dr. Robinson, had failed to do; for no one could deny that his volumes were peculiarly dry and uninteresting. Precisely the contrary was the case with Dean Stanley's work on 'Sinai and Palestine;' and after its publication Mr. Grove saw that the time was come for the formation of this Society, which owed whatever success had hitherto attended its labours to his indefatigable zeal and ability as its Honorary Secretary. The other members of the deputation were scarcely less eminent in their various departments. Those who had read Mr. Tristram's book, published by the Christian Knowledge Society, would know that he had justly earned the praise bestowed by the learned Reland on Maundrell, whose volume of Travels was so deservedly popular during last century, as "*vir de geographia sacra optime meritus.*" Lieutenant Anderson had been a member of the first exploring expedition; and Mr. Cyril Graham and Lord Henry Scott had passed through various parts of the East, not as mere travellers, but for the purpose of adding to the knowledge which we already possessed of that most interesting country. Such were the gentlemen who had come down as a deputation of the Palestine Exploration Fund; and he felt that the best thanks of the meeting were due to them for coming, and for the manner in which they had brought the subject before them. With regard to the main object itself he should say little, as what he had wished to say he had been anticipated by the preceding speakers; but he thought that the importance of the investigations which were being carried on by the agency of this Society could hardly be over-estimated. The chief interest which he had himself felt in the undertaking was owing to the light which it could not fail to throw on the records both of the Old and New Testament. For the latter, perhaps, much could not be expected, as the New Testament entered but little into geographical or topographical detail. Yet surely it was a matter of deep interest to have discovered the Synagogue of Chorazin, in which there could be no question that

our Lord had preached; and the grand Synagogue at Capernaum, of which the Jewish elders had said concerning the good Centurion, "He loveth our nation, and hath built us *the* Synagogue;" and he should not soon forget the emotions with which he had regarded the grand doorway of a ruined Synagogue at Keft Birim, in Upper Galilee, upon which he had come unexpectedly in his journey last year.* Over the doorway, he had read an inscription in Hebrew, praying for "Peace on this habitation, and on all the habitations of Israel," and he could not doubt that its threshold had been trod by

"those blessed feet
Which eighteen hundred years ago were nailed,
For our advantage, on the bitter cross;"

and that all those Synagogues, the ruins of which had been lately discovered, had been visited by Him, "as He went through the cities and villages of Galilee teaching in their Synagogues:" for he (the speaker) must assign these buildings to a period prior to the destruction of Jerusalem, both because the depopulation of the country after that event made it almost impossible that they should have been built subsequently, and because the style of ornament so much resembled that of the tombs of the Kings of Jerusalem, that he could not but assign it to the Herodian era. These, then, were places of New Testament interest; but as regarded the illustration of the Old Testament, much more might be expected from a thorough exploration of the country; for the geographical details, which were so minute and particular, were so mixed up and interwoven with the history—and that a supernatural history—that it was impossible that the geography could be correct and the history false and fictitious. He should say nothing about Jerusalem, as the Dean of Westminster had dwelt so fully on it; except that during his recent visit, he found no cause to regret that he had been so bold as to attempt to illustrate its topography; for he had found much to confirm his theories, and comparatively little to modify or correct. He hoped that the excavations would be carried to a depth not of 16 feet only, but of 50 or 60 feet. As to Palestine in general, for his part he believed that there was not a name mentioned in the book of Joshua (which the Dean of Westminster had so well entitled "the Domesday-book of Palestine"), whether of hill, or valley, or city, which might not still be recovered, either in its Arabic form or under a translation, or some synonymous equivalent. Thus the site of *Dan* was now called Tell-el-Kadi (both *Dan* in Hebrew, and *Kadi* in Arabic, being equivalent to Judge in English), while the river that rises there is still called by the original name of the town "*Nahr le-Dan*," i.e. the River of Dan; thus also the Gath of the Old Testament, noted as the birth-place of the Giants, had probably become in Arabic "*Beit Jibrin*," the House of the Mighty. It seemed to him to be by a providential arrangement that, while the veracity of the Old Testament history was being assailed, so much was being done to confirm its authenticity, through the agency of this Association in its various departments. Perhaps there was no place in Palestine more clearly identified than the scene of Elijah's sacrifice on Mount Carmel. Although he had been the first—so far as he knew—to call attention to the place, yet the tradition had existed from time immemorial among Mahometans, Jews, and Samaritans; and there were historical notices of it at intervals so wide apart at the times of Pythagoras and of the Emperor Vespasian; and the spot, not marked until recently by any building, had retained the name of el-Maharakah, the place of burning, or of burnt offering. The tenacity with which names in

* A photograph of the synagogue, and of the inscription alluded to, is among the photographs of the Palestine Fund.

Palestine cling to sites, however long desolated and ruined, was perfectly marvellous; and what he had himself remarked with reference to the ancient towns of Carmel, Maon, and Ziph, to the south of Hebron, warranted the belief which he had expressed that all might be recovered. In conclusion, he would suggest, on his own responsibility, one very effectual way in which the University might aid the objects of this Society, and best express to the deputation the gratitude which it felt for their visit. They would remember that Mr. Worts, among his other benefactions, had endowed two travelling Bachelors to visit foreign parts, and to write home Latin letters containing an account of their travels; which letters were preserved in the University Library, but not much read. In 1861 the University passed a statute, afterwards confirmed by the Queen in Council, to the effect that the annual pensions should cease to be applied as before, "shall constitute a fund from which the University may make grants, from time to time, by Grace of the Senate, at its discretion," for various other objects stated, "or for antiquarian or scientific research in foreign countries." He found from the last statement of the University accounts that the accumulation of that fund was not far short of £2000, and he thought that some part of that sum might very well be applied to this purpose. He saw that Mr. Lawson, who was to be associated with Mr. Tristram, as botanist of the expedition, was a B.A. of Trinity College, so Mr. Worts's will might be literally carried out by a grant to this particular department, which he had no doubt the Senate would gladly sanction if proposed by the Council.

Lord HENRY J. M. D. SCOTT, M.P., proposed a vote of thanks to the Vice-Chancellor for presiding that day. In the course of some brief remarks, he alluded to the meeting being held in the University of Cambridge, where he was quite sure the Society would receive that support it deserved. He also alluded to the services of the Rev. T. G. Bonney, Honorary Secretary of the Cambridge Local Fund, to whom the Association was greatly indebted.

Professor C. BABINGTON seconded the resolution, observing that he felt convinced the meeting would separate with a most earnest intention to do all in its power to promote its objects.

The resolution was carried by acclamation, and the Vice-Chancellor having acknowledged it, the proceedings terminated.

The collection of photographic views taken in Palestine during Captain Wilson's expedition, 164 in number, were placed in the Arts' School, and inspected by several of the audience, as also were the detailed maps (scale 1 inch to the foot) prepared by Lieut. Anderson.

Subscriptions to the Fund are earnestly requested, and may be forwarded to the Hon. Secretary, G. GROVE, Esq., Sydenham, S.E.

THE PALESTINE EXPLORATION FUND.

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EXPLORATION OF JERUSALEM.

Reprinted from "The Times."

THE appeals of Mr. Grove in favour of the Palestine Exploration Fund ought to excite in the educated public a zeal like his own. An indefatigable advocate of the cause he has undertaken, he calls on clergy and laity to lend their aid ; he strives to convince them that they know little accurately of a land whose name is ever on their lips, and that by due research their knowledge may be largely increased. No one, probably, would deny that such additional information is well worth the modest outlay which the Committee demand. Palestine is to thousands of Englishmen the only country whose history they have ever read. The heroes and sages of classic antiquity are known only to the few ; to all but a mere knot of scholars the most celebrated personages of Greece and Rome are mere names, concerning which the crowd have some vague ideas,—as that this man was an Emperor, and that a philosopher, and the third a poet,—but of whose lives or characters or writings they would be puzzled to give any intelligible account. The annals of Israel, on the contrary, are the study of the people wherever the English language is spoken. The recollections and the hopes of multitudes are bound up with that little province at the corner of the Mediterranean hemmed in between the desert and the sea. What subject, indeed, is more interesting to the popular mind than the Holy Land, and all connected with it which can throw a light on the Old Testament or Gospel history ? The books of travel which relate to it are eagerly bought, and, poor and superficial as these generally are, they please if they furnish a vivid description of some celebrated spot, or an account of modern manners which seems to have a relation with the past. The deep sympathy which the tourist author or the popular lecturer can rely upon for the success of his compositions may well be expected to promise the Palestine Exploration Fund the support it needs. Mr. Grove complains, however,

that subscriptions do not come in with a copiousness befitting the interest of the work and the thoroughness with which it is being executed. He wants but a few hundreds yearly, and in this wealthy, educated, and religious country they are not to be found. The clergy draw weekly illustrations from the history, the geography, and the natural productions of Palestine; their knowledge of these must necessarily be incomplete, yet they do not support, as might be expected, the little band who for the first time are attempting to discover and publish the truth on these and many more matters. The congregations read their Bibles, and need all the commentary they can obtain to throw light on the records of a remote age and nation. There can be no doubt of the right of the Exploration to support, and if it has not yet received all that it deserves the cause is not difficult to discover.

The general public requires everything to be put before it in a popular manner. It is strange with what unwillingness and distaste even well-informed people approach anything which comes before them in an abstract or scientific form, or in the guise of learned research. Now, the Exploration of Palestine is necessarily a dry subject. Its promoters do not seek to make it popular. The country has been overrun with ordinary bookmakers, and they have added little enough to the store of knowledge. Mr. Grove and his friends have undertaken a task which, if completed, will be an honour to this country. They desire to survey the whole face of the country, with the view of determining, if possible, the sites of all places of historic interest. They desire to present a truthful picture of the land geographically and geologically. They will examine and register its natural productions as they exist at present, in the hope that these may throw a light on the narratives of the past. They will sink and excavate wherever a spot seems likely to repay investigation by yielding relics of scriptural times. But chiefly their efforts will be directed to an examination of the site of Jerusalem, in order that the interminable controversies concerning it may be brought to a close. It will easily be understood that these purposes do not readily take the popular mind. The most interesting, if not the most important, is the attempt to determine the limits of the old Jerusalem, and if we put it broadly that the Exploration will enable

archæologists to reconstruct in some measure the City of Christ and the Apostles, to give ground-plans with something like accuracy, and elevations with fair probability of truth, there will be plenty to applaud and perhaps to support the enterprise. But, unfortunately, it is difficult to invest topographical details with interest, or even to make them intelligible. The relative positions of the various districts of even so famous a city as Jerusalem are unknown to the majority even of the educated. Mount Zion and Mount Moriah, the Valley of Jehoshaphat, and the Brook Kedron, are like household words, but they give but a vague picture to the mind's eye. When the topography of the ancient city is complicated with that of the Mussulmans, the difficulty of understanding the reports of those who write on the spot for others equally acquainted with the localities will be manifest. We may, then, we think, with advantage to many of our readers, state in a few words the design of the explorers in the Holy City, and why we think their work deserves the support of educated Englishmen.

Jerusalem has been, like many other cities, but perhaps more than any still existing city with which we are acquainted, whelmed under heaps of rubbish. Some parts of it are as completely buried as the buildings of the desolate mounds of Assyria. Thus the Tyropæon which passes to the north and east of Mount Zion, and was once a deep ravine dividing the Upper City from the Lower and from the Temple, is now but a slight depression. Walls and gates are found low beneath the accumulated *debris* of centuries. Towers, fortifications, houses have come down in the course of ages, and the old ruin has always been taken as the foundation of the new edifice. This fact explains the hot controversies of Jerusalem topography, and the present labours of Lieutenant Warren. To find the city of Herod, much more that of Solomon, it is necessary to sink far below the dwellings of the present race. Hence the works which to the uninstructed reader might seem to be prompted by a purposeless antiquarian curiosity. If the present Exploration were to come to an end to-day, it would have satisfied inquirers of the marvellous nature of the monuments which await further perseverance. The massive character of the substructions of the Temple, the great height of the walls, the mighty stones on which

the foundations of the Holy House were laid, are such as must rouse astonishment and admiration. The researches, as yet, have been principally in the neighbourhood of the Temple, and it has been necessary to carry them on with great caution, since, as is well known, this quarter is equally sacred to the Mahomedans. When all that can be done in this direction is completed, we may hope that the limits of the city and the course of the great walls behind which Jewish valour or desperation sheltered itself will be made known to the world. In short, the field for discovery is most extensive, and the British public have the opportunity of securing for their own country the credit of accomplishing a great work. We feel sure that when the objects and the method of the Association are well understood, they will no longer suffer for lack of funds.

To the Editor of the "Times."

SIR,

I have the honour to forward some further reports from Lieutenant Warren, R.E., exploring for the Palestine Fund in Jerusalem, in continuation of my former letter of the 26th of September, and in so doing I am much grieved to have to say that I fear these may be nearly the last which I shall have to ask you to publish. The funds of the society are all but exhausted at the moment that Mr. Warren's strenuous and able labours are beginning really to tell.

Briefly to sum up his discoveries, the details of which will be found in his reports, Mr. Warren has established by actual demonstration that the south wall of the sacred enclosure which contained the Temple is buried for more than half its depth beneath an accumulation of rubbish—probably the ruins of the successive buildings which once crowned it; and that if bared to its foundation, the wall would present an unbroken face of solid masonry of nearly 1,000 ft. long, and for a large portion of that distance more than 150 ft. in height; in other words, nearly the length of the Crystal Palace, and the height of the transept. The wall, as it stands, with less than half that height emerging from the ground, has always been regarded as a marvel. What must it have been when entirely exposed to view! No wonder that Prophets and Psalmists should have rejoiced in the "walls" and "bulwarks" of the Temple, and that Tacitus should have described it as *modo arcis constructum*.

The question immediately occurs, What does the lower

part of the structure formed by this enormous wall contain? our present knowledge being confined to the existing level of the ground. Of this I can at present say nothing, though the passage discovered by Mr. Warren, 30 ft. below the "single gateway," and described by him under Oct. 22, promises to lead to important discoveries.

The valley west of the Temple (Tyropœon) turns out to be very different in form from anything hitherto supposed—viz., tolerably flat for the greater part of its width, with ample space for a "lower city," and suddenly descending close below the Temple wall to a narrow gully of great depth. The well-known arch discovered by Dr. Robertson, the centre of so many speculations, may thus prove to have been only a single opening to span this gully, instead of the commencement of a long bridge or viaduct. The minor researches related by Mr. Warren, at the aqueduct below the Coenaculum, the Virgin's Fount, the Hospital of St. John,—I pass over, not to occupy your space. I sum up by recording the important fact that his discoveries have completely changed the conditions of research in Jerusalem. They are nearly equivalent to the discovery of a new city. Hitherto we have explored the surface, or at most the vaults and cisterns immediately below it. We must now go far deeper, and penetrate those mysteries which the kind earth has entombed and preserved for centuries for the advantage of our generation.

I am well aware that discoveries of the kind I have named are barren and uninviting to the majority of readers, even to many who are keenly interested in the Holy Land and Holy Writ. They find little in them to throw direct light on the lives which they so cherish, and every detail of which they so dearly prize. True; but it must be recollected that exploration in Jerusalem is at present in the condition of a puzzle or joining-map of which only half-a-dozen pieces are found out of sixty or seventy. Find the others, and the whole can be put together, and will then be intelligible enough. Extend to the other parts of the city the researches here begun, and the sites of the Temple, Calvary, the Holy Sepulchre, the Pool of Bethesda, will be problems no longer. I may, therefore, with good reason, beseech all who are interested in Biblical studies to give their aid to the Palestine Fund for this work. This society is no private enterprise. The Queen is our patron. The Archbishop of York is our president. The committee contains some of the most eminent names in science, literature, education, and religion. Our accounts are regularly audited. Our investigations are conducted by gentlemen of proved ability and energy. Lieutenant Warren's letters speak for themselves, and it is unnecessary to say a word in commendation of the remarkable zeal and intelligence of himself

or his assistant, Sergeant Birtles. The Fund has been in existence two years, and, under all the difficulties of a first enterprise, we have succeeded in making an Ordnance survey of 2,300 square miles, in obtaining 340 photographs, and in making the discoveries which form the immediate subject of this letter. In this work £3,242 have been expended—a sum which no one conversant with the subject will think extravagant. I entreat the public of England not to let it drop. Mr. Warren estimates his expenses at £200 a month for six or eight months. £1,500! What is this to raise in England from the very large number of persons who take an interest in researches bearing so directly on the illustration of the Bible? If Mr. Warren is obliged to relinquish his operations, not only will his shafts fall in and his trenches fill up, but the Arabs, whom he has trained to work so well, will go back to their old habits of indolence, and the whole process will have to be gone over again, if, indeed, it is ever again attempted. But it will not be relinquished. I cannot believe that an undertaking which has so many points of attraction to archæologists and architects, as well as the religious public, can be allowed to fall through.

Of the other parts of the society's operations—the geology and natural history—important as they are, I will not now speak; the archæological department being so much more pressing. I shall be happy to send the papers of the society, including fuller reports of Mr. Warren's proceedings, with sketches illustrating them, to any one so desiring, and I trust that I may be favoured with the kind aid of the press and of all who sympathise with disinterested endeavours, and of the liberal contribution of every one who wishes to forward a deserving work.

Your obedient servant,

GEORGE GROVE,

Sydenham, Nov. 11.

Hon. Secretary.

To the Editor of the "Times."

SIR,

Surely, in the mind of every one interested in Biblical topography, or in historical antiquity in any form, the letter in your columns of this day from Mr. G. Grove, the admirable secretary to the committee of the abovenamed Fund, must excite at once the most thrilling interest and the most humiliating uneasiness.

Who that has heard of the controversies and the conflicting opinions on the subject of the temples of Solomon, of Zerobabel, and of Herod, with the churches, mosques, &c., since erected on their site, has not felt dreamy longings to probe

the accumulated soil which conceals and protects the evidence which would set these questions at rest,—secrets which have been hidden for centuries, but perhaps reserved to be unfolded in our own day? Now, at length, the desired moment seems to have arrived. An English society has raised funds and provided the machinery for the investigation. An able and zealous English engineer is hard at work, sinking shafts and running underground galleries, in the ancient mounds round the Temple of Solomon, and “bringing to light things of darkness.” He has made discoveries of the most intense interest, tracing down the almost Cyclopean walls to wells nigh a hundred feet into the earth; finding out subterranean passages, long-buried walls, underground towers, and the sites of ancient quarters of the Holy City deep beneath the soil. He has just found enough to excite us to almost breathless interest and expectation, when the fact suddenly comes upon us that “the funds are exhausted,” and that unless they be replenished the work must cease!

Now, I would ask, is it possible to conceive that we, Englishmen and Christians, shall allow of so disgraceful a termination to what we have undertaken? Let us not so much as entertain the question. Let us at once, one and all, renew and redouble our endeavours, and without delay supply funds for this most interesting of all possible investigations. It is beside the question to plead the numerous calls upon our finances. There is but one Jerusalem; there was but one accredited Temple of the Older dispensation; there was but one Holy Sepulchre. We need not, therefore, fear that the precedent will endanger our resources. We find funds for memorials to all who claim public respect and gratitude. Let us not refuse funds to investigate the sites of which the memory is bound up inseparably with the history of our holy faith both in its earlier and later dispensations!

I speak as an architect and as an experienced investigator of antiquities when I say that it is only by such processes as those now being carried on that the secrets of the history of this great historical site can possibly be unravelled, and that the investigation could not be more ably, practically, and judiciously carried out than is now being done by Mr. Warren.

I have the honour to be, Sir,

Your most obedient servant,

GEO. GILBERT SCOTT.

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PALESTINE EXPLORATION FUND.

EXTRACTS FROM THE REPORT OF THE PUBLIC MEETING HELD AT WILLIS'S ROOMS,

On Thursday, June 11th, 1868.

HIS GRACE THE ARCHBISHOP OF YORK, in the Chair.

THE CHAIRMAN, in opening the meeting, expressed his own regret that pressure of public business prevented him from remaining through the whole of the proceedings, and the regrets of the Earls of Carnarvon and Harrowby that they were prevented from coming at all.

After a few remarks explanatory of the purposes of the Society, expressing his conviction of its importance and utility, and explaining the unavoidable absence of Mr. Grove from the meeting, His Grace moved the Earl of Shaftesbury into the chair, and retired.

The EARL of SHAFTESBURY, on taking the chair, called on the Rev. F. W. Holland, one of the Honorary Secretaries of the Society, to read the Report.

REPORT OF PROGRESS.

"Since we are so fortunate as to have with us to-day the able officer, Lieut. Warren, who is so admirably conducting the operations of the Palestine Exploration Fund in the Holy Land, and since he himself is prepared to give an account of the most interesting and important portion of his work, viz., the excavations at Jerusalem, the report which I shall have the honour to read to you will be very brief.

"During the past year there has been a considerable increase in the number of subscribers to the Fund, yet the total amount subscribed has fallen far short of the amount required to enable the Committee to carry out the whole scheme of operations which was proposed, and they have found themselves compelled to confine their attention mainly to explorations in and near the city of Jerusalem.

"In spite of the many difficulties which surrounded him, Lieut. Warren has succeeded in carrying on extensive excavations with little interruption, and has made discoveries of the utmost importance, which not only tend to throw new light upon the original features of the Temple Hill, but lead to the hope that before long we may have in our possession sufficient data for forming a tolerably accurate opinion upon the position of the various sites in the Holy

City which have so long been matters of dispute. For the first time the actual streets of the ancient city have been reached—underground passages, which have been hidden for centuries by the mass of superincumbent ruins, have been brought to light, and by degrees a complicated network of drains and reservoirs is being laid bare, which, when fully explored, will no doubt aid very considerably in settling many difficult points connected with the level of different portions of Jerusalem. In the valleys of the Kedron and of the Tyropœon by a succession of shafts, many of them sunk to enormous depths, discoveries of intense interest have been made with regard to the original course and character of those valleys. The limits of the hill and position of the wall of Ophel have been in great measure ascertained—and shafts sunk on the south of the wall of the Haram Area have shown that the account given by Josephus of the giddy height of the battlements of the ancient city at this point, is not, after all, the gross exaggeration that up to this time it has always been believed to have been.

"The exact nature and result of these excavations, Mr. Warren will himself explain.

"Independently of the difficulties that must necessarily arise from time to time in carrying on explorations in such a city as Jerusalem, inhabited by a population the different sections of which are drawn asunder by so many counter interests of nationality and religion, the treacherous character of the soil, and the imperfect nature of the apparatus which had to be employed, have constantly offered no slight impediments to the work of excavation.

"No words can express too strongly the zeal and perseverance with which all difficulties have been met by Lieut. Warren, and his assistant Serjeant Birtles. The Committee rejoice now to be able to state that never has the field for excavation at Jerusalem appeared so open, while at the same time the discoveries of the past year give the surest promise of future excavation being attended with still more interesting results. If, as Lieut. Warren confidently hopes, the time will soon come when we shall be able to commence digging in the Haram Area itself, it is impossible to overrate the interest of the discoveries that are in store for us.

"The researches at Jerusalem were felt by the Committee to be of such supreme importance, that the other operations, for which the Palestine Exploration Fund was established, have been in a great measure suspended.

"Several surveying expeditions have, however, been made to different parts of the country, and considerable progress has been effected in the formation of an accurate map of Palestine.

"Lieut. Warren has thoroughly surveyed the Philistine plain, as far south as Gaza, together with a large tract of country to the S.W. of Jerusalem.

"He has also surveyed that portion of the Jordan Valley which lies between Kurn Surtabeh and the Dead Sea, on the West; and on the East of the river he has completed a survey of the rest of the valley, and of a large tract of the mountainous country lying on the N.E. of the Dead Sea. Amongst other spots on the East of the Jordan, he has visited the ruins of Jerash, Amman, and Es-Salt, of which he has sent home a large collection of very interesting photographs.

"On Saturday next Lieut. Warren will start on his return to Jerusalem,

having made arrangements during his very short stay in England for a more permanent residence in Jerusalem, and a more systematic prosecution of the operations of the Society.

"He will return, we trust, not only with renewed health, but also, having had the opportunity of conferring with many of the eminent men in this country who are best able to advise on the difficult questions which must necessarily come before him, with renewed power to carry on the work of exploration.

"The Committee hope to be able to obtain permission from the Horse Guards, to send out again Serjeant Birtles, who has already given such proof of his ability and zeal, to rejoin Lieut. Warren. Two other non-commissioned officers are still at work in Jerusalem, under the superintendence of Dr. Chaplin.

"It is proposed to increase the staff still further by the employment of a draughtsman, who will undertake the office work, which is necessarily extensive; and thus Lieut. Warren will be able to devote his attention more entirely to the personal supervision of the excavations.

"It is calculated that, with these additions to the staff, the expense of carrying on the excavations will amount to the sum of at least 300*l.* per month.

"With regard to the other departments of the proposed operations of the Fund, the exploration of the *Geology, Zoology, and Botany* still remain untouched.

"A grant of 50*l.* was made to the Society by the British Association, for the purchase of meteorological instruments, which were to be established at different points in Palestine for the purpose of taking observations. The instruments were duly despatched, but unfortunately were for many months delayed in the transit. They have at length, however, arrived safely at Beyrout, and Lieut. Warren has received instructions to see, on his return, that they are at once forwarded to their several destinations.

"Some progress has also been made in the collection of local names in various parts of Palestine—a work of great importance.

"The Committee regret that no progress has been made with the proposed establishment of a *Biblical Museum*. Amongst other causes which have hindered this work, the lack of Funds to send out Scientific collectors has been one of the main obstacles. It is, however, intended that the Museum shall be established, as soon as possible; and a large collection of various objects of considerable interest, including pottery and glass, from the excavations at Jerusalem, is by degrees being formed.

"The Committee, in conclusion, desire to return their thanks to the various gentlemen who have given their valuable aid in Palestine, in forwarding the explorations; more especially to *Dr. Chaplin*, who is superintending the excavations during Lieut. Warren's absence, and has also kindly offered to make arrangements for the supervision of the meteorological observations—and to the *Rev. Dr. Barclay*, who has on many occasions given valuable assistance.

"Their thanks are also due to *Mr. Moore*, the Consul at Jerusalem, *Mr. Rogers*, the Consul at Damascus, who is engaged in writing a work on the

manners and customs of the inhabitants of Palestine, *Dr. Rosen*, late Prussian Consul at Jerusalem, and *Mr. Habîb Kayat*, British Consular Agent at Jaffa.

"Special mention should also be made of the interest taken in the excavations at Jerusalem by *American* travellers, many of whom have subscribed largely to the Fund.

"The important body of the *Freemasons* in our own country have warmly advocated the claims of the Fund, and several of the Lodges have given handsome donations. Many of the well known Scientific bodies, including the *Royal Institute of British Architects*, have also made grants in aid of the explorations; while local committees have been established in some of our large towns,—amongst which may be mentioned Oxford, Cambridge, Glasgow, Edinburgh, Liverpool, and Leeds.

"On the whole, the Committee feel that the Palestine Exploration Fund has taken deeper root during the past year; the importance of its operations is more widely acknowledged; and, although the Funds have fallen short of the amount required for carrying out all its objects, the prospect of the future appears brighter than it did at the end of the last year."

The CHAIRMAN then introduced Lieutenant Warren.

LIEUTENANT WARREN.—"My Lord, Ladies, and Gentlemen—I have been called upon to give some account of the excavations which we are now making at Jerusalem, but they are so inseparably connected with what we have done already, that I hope I may be pardoned if I discuss them collectively, touching only on those points which may be considered of the first importance in bringing to light the hidden topography of the Holy City.

"We have at present engaged on the works two corporals of Engineers and about seventy Mussulmans of various races. The difficulty with the Mussulmans is to keep up sufficient supervision; but, what with a quick dragoman, Jewish overseers, and parties of three each, working together,—one a Nubian and the other two fellaheen from hostile villages,—we create such a jealousy that anything going wrong very soon crops out.

"Notwithstanding all our precautions, the articles found on the works are remarkable chiefly for their paucity; what we have found consisting mostly of pottery, bronze, nails, and glass: the first of many different dates, the glass apparently of the third or fourth century. The coins are generally Cufic, though we have found a few Hebrew mixed up with those of later date, and throwing no light upon our labours. I may also allude to the seal of "Haggai, the son of Shebaniah," which has an inscription supposed in Jerusalem to be of the time of Ezra. We may hope, as we go on, to come upon some more decided remains, but our main object is with regard to nether Jerusalem in its topography. *We want to know where the Temple was.*

"In studying the Holy Land it is most disappointing to find such a dearth of evidence of sites of places, and the more we look into the matter the more difficult it becomes: there are certain points we know beyond contradiction,—such as Jaffa, Jerusalem, and others,—but when we attempt to go into details we find the most conflicting evidence. Just now I may mention two points at Jerusalem about which all parties agree—the first, that the Temple stood somewhere on that rectangular spot which is marked 'Haram' or 'Moriah,' and the

other, that the Mount Olivet was some part, or the whole, of that hill to the right of your card. As you have all, probably, your little Plans of Jerusalem, I will refer to them in speaking of the several places. Probably the Valley of Kedron is also correct, but about almost all other places there are controversies, and if, in speaking about the works, I make use of biblical names, I only do so because they are the generally received names. In exploring we must go on the principle that we know nothing until it is fully established; ever ready to acquire ideas and to suspend judgment, we are busy collecting facts, and have no time for speculation, so long as we can apply to the *ground* for information. With regard to any opinions I may offer, they are simply the passing thoughts of the day: to deliberately offer judgment on a subject on whose threshold we are but just entering were an offence to common sense. As far as my short sight will allow me to judge, we must be content to be baffled and perplexed for a long time to come before we can bring out Jerusalem as it was, for, startling as it may appear, we have not a single known fixed point at which to commence. For instance, the Temple—we know that it stood somewhere on that rectangular spot marked ‘Haram.’ But where? We are led to believe that the Temple, courts and all, took up six hundred feet square, while this is a space of one thousand by seventeen hundred, so that there is room in it for more than three squares of six hundred feet. Where is Mount Sion? that of the present day we put to the west of Moriah, and yet there are those of authority who put it to the north—and so on. We have not a point to start from, and it is only by patient investigation that we may hope to come to a satisfactory conclusion.

“*Haram Area*.—Within that rectangular space, no doubt, there is a mine of information, and it is to this part we wish to direct our attention. All that part marked ‘Moriah’ is scooped out into large tanks: that under the RIA is the great sea, which holds a million gallons of water, and under A, in Aksa, there is another we found last year, capable of holding 700,000 gallons. The tanks altogether in the Haram Area will hold about five millions of gallons.

“To the west of the word ‘Aksa’ is the mosque of that name, and under it there is a cistern called the ‘Well of the Leaf.’ There is a curious legend about this cistern—namely, that a man going down there, found a door which led into a beautiful garden: he plucked a leaf from one of the plants, and returned to tell his companions; one of whom told him that he was a great fool to have come back, as he had got into Paradise, and would not have much chance of going there again. In examining this tank, we found at the bottom a curious arched passage leading towards the west, but there was too much water to explore it; it is, however, only one illustration of the way in which most of the legends of the Arabs are founded somehow upon fact. If this arched passage should turn out to be anything, it would lead in the direction of the so-called Dung Gate, where it is supposed there were gardens: we may hope at some time when the water is low to explore the cistern, and see if the tradition is correct.

“Under the Aksa is a double passage by some called the Huldah Gate, which was supposed to be joined to vaults on either side, but on getting through the walls I found only made earth.

“Under the word ‘Aksa’ is a system of vaults called the ‘Stables of

Solomon;' and in the older portion, underneath, we found a passage about three feet broad, covered with huge lintels, and the remains of a cemented aqueduct, with a sort of step on each side. It has been supposed by some that this was the passage by which the blood from the offerings was carried away; we could not explore it to any distance, as it appeared to have been filled up before the piers of the stables were built, and a crash might have been the result of any interference. The piers of these stables are at pretty regular intervals, except at one point where there is an appearance of there being another chamber. I can find no evidence of it on the outside; but when the time comes that we may dig in the Haram Area, we may hope to find something there.

"Outside the Haram Area one of the great points is the direction of the Tyropœon Valley, north and south. To the north we have not yet directed our attention, but to the south we have nearly come to a conclusion.

"Between what is usually believed to be Mount Zion and Moriah there is a broad valley which we call the Tyropœon. On excavating we find that on the western side it is nearly level, but that it breaks down to the Haram Wall, forming a narrow gully, which probably carried off the water from the high ground; all appearance of this is now gone, and the valley is filled up with débris to nearly a hundred feet in some places. Near the point M in 'Moriah' the Haram Wall is concealed by the débris to a height of about sixty feet, while further down, at the south-west angle, it is covered up to a depth of ninety feet at least, and, what is very remarkable, down to the very bottom the stones are worked with the Jewish or Phœnician bevel or draft, and the joints are so close that the blade of a knife can scarcely be thrust in between them.

"At the upper end of this valley there are three springs or wells of brackish water, corresponding in taste to that at the Virgin's Fount, which is in the Valley of the Kedron near the second I in 'Valley.'

"In excavating, we have found another spring or passage of water near the M in 'Moriah,' and it would be very interesting to find if they are all in connection: to this we have been directing our attention, and at one time it appeared likely that the valley might take a turn near the Dung Gate, down to the Virgin's Fount.

"It has been conjectured that the brook which flowed through the midst of the land passed through this valley, and, if so, we ought to find traces of it. Until now, I think it has been generally believed that the lowest point of the valley lay outside the Haram Area to the west; but the day I left Jerusalem, we completed some work by which it is proved that the lowest course of the valley is *inside* the Haram, about sixty feet to east of south-west angle, so that we are as far as ever from finding any trace of the brook. Near the point M in Moriah, the valley is crossed by a causeway which is united to the Haram Area by Wilson's Arch. It was a very nice point arranging for excavating under this causeway, which runs west towards the Jaffa Gate, forming the principal entrance to the Mosque, and on which the houses of some of the principal effendis are built; however, it was managed, and, after some disappointments, we came upon what we sought. It is a most difficult place to describe for those who have not seen it, for many who went through it could hardly understand it. The best way I can think of describing it is by at-

tempting to build it up from the beginning, as far as can be judged from existing remains.

"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 feet 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 feet wide, and reached to within 42 feet 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 feet wide and 14 feet 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.

"*Robinson's Arch.* At the south-west corner of the Haram Area, and to the west, are some projecting stones called Robinson's Arch, because, so far as we know, Dr. Robinson was the first to call attention to its being the spring of an arch. Sections have been made across this valley at this point, but no pier was found until we arrived within 40 feet of the Haram Wall, when we found *in situ* a handsome pier of large bevelled stones, similar to those in the Haram Wall. It rests on the rock, which at this point is about 50 feet below the surface. Between the base of it and the wall there is a pavement, and on this are resting the fallen voussoirs of Robinson's Arch. We had reason to suppose that we should find the pavement supported by an arch; but, in excavating, we found nothing but débris and masonry to a depth of 23 feet, and on following this out, we found a cutting in the rock, 13 feet deep, and 6 feet wide, and running north and south, apparently for carrying off the water: on it are lying what appear to be the voussoirs of another older arch which is destroyed. If I may be permitted to hazard an opinion, I should say that originally there was an arch over the gully from the pier to the Haram Wall, of the same age as the wall itself; that, when it was destroyed, the débris filled

up the gully some 20 feet, and that afterwards, when the new bridge (Robinson's Arch) was built, the pavement was made under it, in order to conceal the confused heap of rubbish below. Whatever age may be assigned to Robinson's Arch, there can be no doubt that the pier has every appearance of being coeval with the Haram Wall, and of being the most ancient communication that we know of as yet.

"Fountain of the Virgin." The Fountain of the Virgin is not marked in your map; it is close to the top of the second *l* in 'Valley of the Kedron.' You will see on the other side of the hill, marked 'Pool,' what is usually called the Pool of Siloam, and these two are connected by means of a winding aqueduct cut right through the hill. It was Dr. Robinson, I believe, who first in our day ascertained beyond a doubt that the water from the Virgin's Fount runs to the Pool of Siloam. It has been much a matter of speculation as to what was the rise of this aqueduct, and some have supposed it to be connected with the Altar of the Temple. There is no evidence of any such connection. In the aqueduct, about 50 feet from the fountain, there is an opening, about which many theories have been started. We opened this out last autumn, and found it to lead to a shaft going upwards for 60 feet. Getting up this by means of scaffolding, we found a passage leading down from the higher ground of Ophel. My impression is, that the Virgin's Fount is one of the fountains closed by King Hezekiah outside the city; that the secret passage from Ophel was made by the people at the time the fount was closed, and that the continuation of the aqueduct was an afterthought. However this may be, supposing the Virgin's Fount was closed on the outside, we could now from the high ground go down and get water unknown to an enemy in the Kedron Valley.

"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 100 ft. 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 12 feet 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 fire-clay. We cleared it out to the north for about 100 feet, and found it to be a great aqueduct 6 ft. high and from 3 ft. 6 in. to 4 ft. 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

sanatory 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.

"I see many here who have accompanied me down the excavations, and who can speak about them. I must acknowledge that the interest displayed by English and American travellers—particularly the latter—has very much furthered the works. I hardly know an instance of an Anglo-Saxon visitor to Jerusalem who did not visit the excavations; and without their sympathy the work would often be dreary indeed."

After the reading of the Report of the Hon. Treasurer, Mr. WALTER MORRISON, M.P.—

The DEAN of WESTMINSTER rose to propose the following Resolution:—

"This meeting, having listened with great pleasure to Lieutenant Warren's statement of the excavations at Jerusalem, hereby expresses its cordial thanks to him for his labours, and earnestly hopes that he may be able to continue them with the like success."

In support of the Resolution the Dean of Westminster stated, that, besides the general interest in the exploration of the Holy Land possessed in common by all, there were two sets of feelings which made these excavations and researches absolutely necessary: one set represented by travellers who had formed theories and written in support of them,—of whom the Rev. George Williams was a conspicuous example; and the other set represented by travellers like himself, who had abstained from forming theories, on the ground that explorations, such as those now being made, might at any moment explode those theories.

The Dean went on to congratulate the Society on the energy and perseverance of Lieut. Warren, and on the simplicity and straightforward character of his Report. In allusion to Lieutenant Warren's statement of the interest generally felt by travellers in the excavations, he compared, in this respect, the interest of Rome, since the commencement of the recent excavations, with that of Jerusalem.

"This is," he concluded, "the only chance of figuring to ourselves the internal conformation of the old city of Jerusalem. We shall never be better able to realize what was the building that stood upon the hill of Jerusalem;

because, from the habits of the Jews and their notions, it is probable that no great architectural remains will be discovered, such as my friend Mr. Layard found at Nineveh. It is not likely that that will ever be the case: but what we can look for, and what will be of the greatest interest to us, will be to see the forms of the streets, valleys, and hills, that were comprised inside the city; and that we hope may be accomplished by Lieut. Warren. Mr. Holland has called your attention to these excavations. They have confirmed—I do not say the accuracy of Scripture narrative—I do not mean the Biblical accuracy, because the Biblical accuracy of the Old Testament is above suspicion; but they have confirmed what is so remarkable in them, the extreme sobriety and accuracy with which they describe the sacred events that took place upon them. . . . Every one who goes to Jerusalem goes there with a hope of going there again; and it always seems to me something like what is described by Wordsworth in his three poems, on ‘Yarrow Unvisited,’ ‘Yarrow Visited,’ and ‘Yarrow Revisited.’ Most of us, or at least many of us, have the feeling about Jerusalem that is described in the first of these poems, ‘Yarrow Unvisited,’ when we have an imaginary picture which we are unwilling to describe. The second is what we feel when we have been there, and which is described in the second poem, ‘Yarrow Visited,’ and the third feeling is like ‘Yarrow Revisited,’ that is, of going into the whole secret and mystery of the thing, and putting together all that can be fancied, or imagined, or got together on the subject: that is the kind of feeling we shall have about it, if these excavations are carried on.”

THE RT. HON. A. H. LAYARD, M.P., rose to second the Resolution proposed by the Dean of Westminster.

He alluded in the first place, speaking from his own experience, to the great difficulty of working in the summer heats, and next to the tact shown by Lieut. Warren in meeting and overcoming difficulties caused by the different religions of the country. “I should like,” he said, “to put it to my reverend friend who has just spoken, and to ask him what he would say if he saw a band of Turks go into his sacred precincts, and dig up the sacred remains that are interred there. I venture to say that he would, first of all, try his physical powers in order to eject them, and would then call the first policeman—if a policeman were to be found—to assist him in his duty. Such being the case, I think we ought not to forget our good friends, the Turks, to whom I am always willing to bear my testimony of thanks, although it seems, at this time, unfashionable to do so; and when sects are so apt to persecute each other, we must return our grateful acknowledgments to the Sultan, and to his Minister, for enabling, in the most generous and liberal manner, Lieutenant Warren to carry out these important and valuable researches.

“Let me remind you, Ladies and Gentlemen, that these are undertakings which, according to Christian notions, tend to establish the truth or the authenticity of our religion; and it is no small mark of tolerance that the Sultan, the head of another religion, should give his sanction, assistance, and authority to Lieutenant Warren in prosecuting his researches. When the Sultan was in this country last year, his Grace the Archbishop of York had an interview with his Minister, Fuad Pasha, who is a most intelligent man, as all those who have had the pleasure of his acquaintance know, and who assured

his Grace that the Sultan would give every facility to Lieutenant Warren's work. But, as we know, in the East very often all the commands of the Sultan are not carried out, and obstructions are placed in the way by minor authorities, who reckon on their distance from the capital, and take leave to act on their own account. It is notorious that the difficulties are great, and they have been very serious indeed to Lieutenant Warren, who has shown so much tact in the course he has pursued; for not only has he had to contend with the local authorities, but also with the immense amount of prejudice that must exist among people, not only Jews and Mahometans, but others who have been taught from their childhood to consider as sacred that which is now being invaded by persons with pickaxes and shovels. My reverend friend, the Dean, has said that we must not be disappointed if the results of this excavation are not such as would reach the sanguine expectations of some. I own that, when this Fund was originally instituted, I took the liberty of warning the meeting that we might not expect to find, in the excavations about Jerusalem, any such large specimens of sculpture as were frequently discovered at Nineveh. There are two reasons against it. In the first place, we know that the Jews were forbidden by their religion to sculpture any figure which represented a human form, or a figure of life, upon their monuments; and, secondly they had not the materials, which the Assyrians had in Nineveh, upon which they could sculpture the various series of friezes which have been discovered in the ruins of that great Assyrian capital.

"But there are other things that I think we may discover: for instance, we look forward to the discovery of objects illustrative of the origin and of the history of the Jews. It is remarkable that notwithstanding the interest that we all take, and which all Christianity takes, in the Jewish nation, there is no people of antiquity of whose arts and architecture we have less knowledge than of the Jews. One or two monuments have been brought to Europe; but it is doubtful whether they are really Jewish or Assyrian—they certainly were not part of the tombs of David, Solomon, or any of the Jewish kings. At present we know but very little of what Jewish art was. In the Bible and in Josephus the description leads us to imagine that their architecture and their architectural ornamentation were not different or dissimilar to those of the Assyrians, the Phœnicians, or any other neighbouring nations. I certainly believe that, as Lieut. Warren proceeds with these excavations, he will find many curious small objects which will illustrate the arts of the ancient Jews, and, in that respect, I think the excavation will lead to important results."

The CHAIRMAN here put the Resolution to the Meeting, which was carried unanimously.

SIR HENRY RAWLINSON, in moving the next Resolution, contended that the geography of the Holy Land, in enabling the reader to follow the Scriptural narrative, was quite as important an object as the topography of Jerusalem. Up to the present time no map has been made—no map that is worthy of confidence, full and reliable—of Palestine. Particular routes have been laid down and, in some instances, particular districts have been surveyed and described, but there has been made no general or scientific map of the country. The country must be conscientiously mapped; the principal positions must be astronomically determined; the intervals must be filled in; the distances

noted; all the marks of the former places of antiquity duly recorded; and, above all, the existing names must be carefully and accurately recorded by a competent scholar in vernacular Arabic. Hundreds of sites remain to be verified; hundreds to be discovered: the Palestine Exploration Fund has, from the very first, recognised this part of the work as most important.

Sir Henry Rawlinson concluded by moving the following Resolution:—

“It is of the utmost importance, while the excavations of Jerusalem are carried on with unabated vigour, that the survey of the whole of Palestine should be completed as soon as possible.”

In seconding the Resolution, the REV. HENRY ALLON spoke of the immense interest connected with these explorations. “The theology of the Bible,” he said, “is independent of locality, but, by the laws of our nature, we cannot avoid feeling a vivid interest in locality, and even a cursory traveller, after visiting places whose names he remembers in the Bible, looks on the Scriptures henceforth as far more than a book of mere religious teaching.” The problem of the site of the Holy Sepulchre might be determined by the discovery of a part of the ancient wall, which could happen any day. The statements of Josephus could be verified or ascertained to be exaggerations: a commentary on the Bible far more interesting and accurate than any yet published would result from the exploration; light would be thrown on the incidents and even on the meaning of the Scriptures.

The speaker expressed his opinion that it would be impossible for the great work of this exploration to sink back into obscurity and negligence. Public attention is aroused to it: every year there is an organized expedition to the Holy Land by ordinary tourists; and there is every reason to believe that, so far from any cessation to the operations of the Society, it will go on until every important place in Palestine has been thoroughly investigated.

The REV. MR. WILLIAMS said, that with respect to theories—allusion to which had been made by the Dean of Westminster—the Society was established on an absolutely colourless basis; that Captain Wilson, Lieutenant Anderson, and Lieutenant Warren had conscientiously carried out the instructions they had received, by having no bias, or at least shewing none in their reports. After mentioning his own satisfaction at the discoveries made by them, he proceeded to move the following Resolution:—

“That it is highly desirable that further research be made with regard to the Geology, Zoology, and Botany of Palestine.”

In illustration of the necessity of supporting this Resolution, Mr. Williams said—

“When in Palestine, I sailed up and down the Sea of Tiberias. On the occasion of my first visit, there were two boats; but between my first and second visit one of the boats had been wrecked, and therefore there was, on the occasion of my second visit, only one boat, and I then went backwards and forwards from east to west, and from north to south, to see it as thoroughly as I could. I asked constantly about the fish in the sea, and I was told by the Jews and the Mahometans who were the owners of the two boats, that there were only three kinds of fish. When Mr. Tristram went there, he investigated

the subject, and discovered as many as thirteen different kinds of fish in that small sea.

"Now, among the questions relating to the shores and the Sea of Tiberias, has been one with reference to the site of the old city of Capernaum. Some people put it on the north, and others on the west coast of the sea. One of the data given by Josephus for the identification of the site is supposed to be the fountain—which he mentions by name—of the City of Capernaum. He speaks of a round fountain, which he describes as having been the centre of a great system of irrigation; he gives it the name of Capernaum, and adds that it was naturally the cause of the abundant crops which were produced in that neighbourhood. Just as there has been a great fight about the site of the city, so there has been a great fight about the site of the fountain. There are two or three fountains, any one of which might be that mentioned by Josephus as a circular fountain. Josephus, on the ground that it produced a kind of fish only found in the Nile, goes on to say that this fountain must be a vein of the Nile, that is, must spring from some subterranean stream connected with the Nile. Mr. Tristram was the first to look for this particular fish, which he actually found in large quantities in one fountain, thus appearing not only to verify the statement of Josephus, but to ascertain the site of Capernaum. The theory formed by this discovery of Mr. Tristram has, however, been rudely interfered with by Captain Wilson's subsequent investigations.

"It was a great puzzle to know how the fountain could effect the irrigation of the Plain of Gennesareth. Captain Wilson visited a plain called 'Tel Hum. Here is a very copious fountain, with a round wall of Roman masonry to confine the water and raise it to a great height. From the great tank so formed the water was conducted by an aqueduct, and now serves to turn a mill. This fountain, then, and not the one which Mr. Tristram was disposed to identify as the fountain of the City of Capernaum, seems to be that which irrigated the plain, and was mentioned by Josephus.

"Now I should be very anxious for Mr. Tristram to go out again, if only to see whether some or many of these fish are not to be found in the stream that runs round the hill. But this is only one of the many interesting discoveries which have resulted from the various observations and investigations of Mr. Tristram; and I have no doubt, if he goes out again, that he will succeed in sending us home other facts interesting, not only in confirming the veracity of Josephus, but also the minute veracity of the Bible on the subjects of Botany, Zoology, and Geology."

MR. CYRIL GRAHAM seconded the Resolution. In allusion to the fish of the Sea of Tiberias, he mentioned, as facts not generally known, that most of the fish in that sea, and in the Jordan, are a kind of carp, which are also the principal inhabitants of the Nile; that there exists a little river in the south of Phœnicia where are crocodiles of small size, but the same species as those of the Nile; and he said that the habits of that curious creature called the coney had been thoroughly investigated. Then with regard to the great trees. There are no fewer than forty different kinds of oak on Mount Tabor; the whole of Palestine, from Nazareth to Cæsarea-Philippi, is covered with oaks of different kinds; and the slopes of Lebanon are shaded with oaks that would do honour to the finest

parks in England. As for the cedars, there is probably only one spot high up on Lebanon where the remnant still stands of those old trees which Hiram and his workmen used to cut down. With regard to their age, it is possible that some of them may have been little striplings in the time of Solomon. Coming to the flowers, the country is, in the spring, one carpet of flowers. Dr. Hooker said some years ago that, though its flora is richer than that of any country out of the tropics, it was then less known than that of any other locality in the world. What is wanted is to get an account of the plants rewritten, like that of King Solomon's, written 4000 years ago. Had that been preserved, the present investigations would be unnecessary. Again, the geology of the country presents many points of great interest, especially that great volcanic basin of the Dead Sea, the lowest in the world, being 1300 feet below the level of the Mediterranean. There are also vestiges of volcanic action east of the Jordan awaiting exploration.

Mr. Graham concluded by calling attention to the importance of map making, and the great assistance rendered by Captain Wilson and Lieutenant Anderson.

The CHAIRMAN then put the Resolution, which was carried unanimously.

Mr. TYSEN-AMHURST proposed, and Mr. M'GREGOR seconded, a vote of thanks to the Chairman and to the Archbishop of York.

The EARL of SHAFTESBURY : "Ladies and Gentlemen,—It is very kind of you to return me thanks for the very small services I have rendered. I came here for instruction and interest, and I have found both, and that is sufficient reward for every labour I have had. But I think your thanks are due, and should really be expressed in a most emphatic manner, not only to Lieutenant Warren, but also to Captain Wilson and Lieutenant Anderson, Mr. George Grove, and to all those gentlemen who have laboured so hard in this matter, and have brought the affair to its present issue. I hope, too, as you have heard that Lieutenant Warren is to leave this country on Saturday next, you will take care that, before that day, he goes so charged with the means of carrying on his admirable works and valuable operations, that nothing shall be left for him to desire."

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.

*Reports from Lieutenant Charles Warren, Royal Engineers, to
George Grove, Esq., Hon. Secretary.*

I.

JERUSALEM,
August 22nd, 1867.

MY DEAR SIR,

We completed our travels on the other side of Jordan by a thirty-six hours' ride into Jerusalem, where we arrived on Thursday last. I wrote to you from Ain Hemar, near es Salt, on 3rd inst., but on arriving at es Salt, on 13th, I found that my letter had been buried with the property of the man to whom it was entrusted. The inhabitants feared to trust their goods to the mercy of the approaching army. I will send a copy. I told you in that letter that I had heard of the march of troops against es Salt, and was hurrying on to Jerash, so as to complete the work before the war commenced in earnest. On arriving there I found that the troops were a day's march from us, and Sheikh Goblan was in a very nervous state. He has upwards of 200 unwiped-out murders on his hands; among others, that of a Turkish officer and six men, whose throats he cut while they slept. All day long he kept away from our camp, and stole down to us in the evening to keep a furtive watch. During the day we were attended by men of Suf. We found employment for three days. After selecting sites for the photographs, I set to work measuring the public buildings and walls of the town, while the Rev. W. Bailey (who had joined us from es Salt) very kindly undertook the copying of many of the inscriptions, which were numerous. I believe that we have five or six which have not been seen before; at any rate, we had to get at them with pick and shovel. They are Greek. They will not be ready to go by this mail. On the third day I had notice that the troops were coming to Jerash, they having arrived at a place three hours' distant the night before; so, fearing they might

take a fancy to our mules, I sent the baggage on early in the morning, and we started ourselves in the afternoon. Two hours after we left, Jerash was occupied by 10,000 men. Sheikh Goblan was particularly anxious we should not sleep at Jerash that night, as it appears there was an arrangement among the Bedouins to harass the troops by musketry volleys during the darkness. The first day at Jerash was insufferably hot, the thermometer registering from morning to evening 105 to 107 Fahr. in the shade of the buildings. I made a general plan of the town, and detailed plans of the two temples, the two theatres, triumphal arch, and cathedral. Sixteen photographs were taken; the negatives are excellent. The bath had cracked again from the heat, and the photographing was attended with considerable difficulties. I could make nothing of the tombs spoken of by several writers, and I don't think there are any visible tombs among the Bedouins which have not been rifled. They care little for sacred places; and once when we passed a sacred or sainted tree, near Zerka, where the corn of the fellahin was buried, they plundered as much as they needed for their horses, the sheikh's chaplain absolving all the men from the sin, and taking the responsibility on himself.

On leaving Jerash we went westwards towards Reimûn. As we passed along we found all the villages deserted and empty at the approach of the soldiers. I was very curious to know where the people had gone to, and was told they had left the country. Passing Mount Haggart (?), I climbed up to the top to take some angles. Among the rocks and thick brushwood near the top we suddenly came upon the rusticated villagers, who were not at first quite satisfied with our appearance. They had their cooking utensils with them, and seemed very comfortable in their retirement. Mount Haggart is 5,000 feet above the level of the Dead Sea; it is a few feet higher than Jebel Osha, and 1,000 feet higher than Nebbeh (Nebo); I believe it to be Mount Gilead—and there are two villages close together in a gully to the north—Reimûn, on the top of a precipice, which I take to be Ramoth Gilead, and Sarchab, which is probably Mizpeh. Their close proximity may account for the name Ramoth-Mizpeh. After crossing the Zerka we went to Jebel Osha, where Sheikh Goblan appeared to breathe more freely. The first day was very foggy, but afterwards I was able to get a very good round of angles, fixing Jerash and Ain Hemar. None of the distant mountains to the north were visible, and it was difficult to distinguish Nebbeh. We stopped at es Salt one day, and visited the castle. The place was in great confusion, the soldiers were expected every hour, and the people were in a great state of apprehension as to how they would be treated. They wished to submit quietly, but the Adouans and Beni-Hassan Bedouins surrounded the town in great numbers and urged them to fight. The Christians feared for their property, if not for their lives: the Greeks had a promise that they should not be hurt, having a friend in the person of the Greek patriarch at Jerusalem, who is recognised by the Turkish Government; but the wretched members of the Anglican Church were in despair, having no one to appeal to. There are twenty-five families members of

our Established Church. They sent me a deputation to describe the difficult position they were in, and asked me to write a letter to the Governor-General of Syria, stating that they represented themselves as loyal subjects, and imploring his protection in case the town was given over to the mercy of the troops. This I did. Es Salt has since been given up to the Porte, and I hear that my letter was of much service in obtaining protection for the persons and property of the Anglicans.

During the afternoon we were at es Salt, the cry suddenly arose that the soldiers were coming. All the people appeared to turn out; and pell-mell we all hurried up to the top of the hill from whence the cry arose—the Bedouins numbering about 200 to 300 horse, and the men of Salt 400. Forming up as they reached the top of the hill, they waited for the approaching squadron, which proved to be a tribe of the Beni-Hassan who had come over from the enemy. When it was found that they were friends, a fantasia was got up in a natural theatre among the hills, and we witnessed different styles of Bedouin horsemanship. Not wishing to get embroiled in the little war, I pushed on for Jerusalem; but the question was how to get there. Sheikh Goblan is Commander-in-Chief of the Bedouin army, and did not much relish crossing the Jordan, there being 3,000 troops from Jerusalem encamped at Jericho; but also fearing he would lose his money if he did not go, he was greatly perplexed, and once or twice evidently thought it would be better to detain us. I kept him to his bargain, however, and told him he must take us to Jerusalem. On Wednesday we started from amongst the hills near Arak-el-Emir; visited Suwaimeh, near the Dead Sea; then returning by Aram, we started after sunset for the Jordan, arriving at 11 p.m. We were passed over in silence, and moved on to Hajla, where we fed our mules, starting about sunrise, and avoiding Jericho. The mules got to Jerusalem by Neby Musa.

I went down to the Dead Sea, and with some difficulty found the Ordnance Survey Bench Mark, which is in good preservation, but is covered up. The level of the sea is within a foot of what it was when Captain Wilson levelled there, but during the spring months it must have been 5 ft. 6 in. higher.

Goblan came up with us as far as Bethany, and hid himself at the back of the Mount of Olives, where I next day settled with him.

I don't think I can get you a sketch plan ready for this mail, showing the relative sites of the villages we passed through.

I think Aram is, without doubt, Haram, or Beth Haran (or Libias). Nimrah (Nimrin) is four and a-half miles to the north, and Suwaimeh (Beth Jesimoth?) is four miles S.S.E., immediately under Nibbeh. Kaferein may be Abel Shittim. Aram and Kaferein have each an artificial mound attached, which guard the Wady Kaferein like two dogs.

I have surveyed on the other side of Jordan about 400 square miles, which, with 600 to S.W. of Jerusalem, and 250 in Jordan Valley, will make in all 1,250 square miles. I have still a good deal of work to do between this and Hebron to West; and also near Taiyibeh and Rimmon. I cannot get you the maps ready for at least six weeks. I have had no time

for office work since I have been out, and have to calculate the positions of about forty places astronomically.

I must devote the next two months entirely to office work.

The photographic stores—camera, plates, and everything else—have come to an end, and I have no more work for Corporal Phillips. As the work now wanted is interiors of buildings, and you do not mention having sent the magnesium lantern I asked you for some time ago, I therefore send Corporal Phillips home in charge of the negatives by the next mail. There are 185 in good preservation, and I hope you will see them in the same state about this day three weeks. Corporal Phillips has done excellent work since he has been out here. Most of the negatives are virgin subjects, and I think will be of immense interest in England.

I wish to draw your attention to two points:—1. I consider it most desirable that Corporal Phillips should print off a specimen set from these negatives as patterns, otherwise you will not get the copies as good as they might be. 2. A hundred sets sent out here would probably be sold very quickly. Visitors are always asking me why they cannot get our photographs here; they are so much more valuable when bought in Jerusalem. Last winter a great number could have been sold. I could make arrangements for their sale here. In the meantime, will you send me out a set of the Ordnance Survey Photographs, and also of those taken last year by Captain Wilson? I am continually wanting them out here; and also I must have a set of those taken this year before I can make out my report. I don't know that there is in Jerusalem a single photograph taken last year or the year before; and I know the Fund suffers by their absence. Will you send me out a prismatic compass as soon as you can? The one I have at present is much worn, as I have had to use needles for the last six weeks. Accidents have happened to it several times, and nearly all the glass was broken. One of the photographic plates was cut up by means of a ruby I had picked up a few hours before. I fear some more serious accidents may happen to it before the other comes out.

I send you two sketches of the section through the Tyropœon Valley by this mail, also some detailed plans of the excavations and descriptions. I cannot send you accurate detailed plans of the works when going on. If you like to have them I will send them, but it only interferes with the work, and will confuse you. I find with regard to the wall parallel to the South Haram wall we were wrong; it is only 15 ft. from it instead of 20 ft.

I send a leopard by Corporal Phillips, and also a small hawk—present the Zoological Gardens; they will excite some interest in England if they arrive in safety. The leopard I got in Moab; it is about a month old. If you will present them in the name of the Palestine Exploration Fund, it will take more than if I send them myself; so Corporal Phillips has instructions to take them to you.

At the entrance to the Church of the Holy Sepulchre some steps have been cleared away, and a marble slab discovered—grave-stone—undated.

"Hic jacit Phillipus de Aubencin, cujus animus, resurreseat in pace. Amen."

There are some small characters near scratched on, of which I have tried to take a squeeze, but it is very faint. I have to thank Mr. Eaton for the squeeze paper ; he left all he had with me.

Very truly, yours,

CHARLES WARREN.

P.S.—Nearly all my time since my return has been taken up in prosecuting the Consulate Dragoman for swindling me. The case is proved, and I have obtained from Mr. Wood a verbal assurance that the man shall be suspended at the least ; otherwise, I had determined to leave the British Consulate and apply to some other when I wanted assistance.

EXCAVATIONS AT JERUSALEM—FEBRUARY TO JULY, 1867.

| | |
|--|-------------------|
| A. Water Passages from Tank X. | Closed. |
| B. Excavation at S.E. angle Haram Area | Do. |
| C. Do. between Triple Gate and Aksa | Do. |
| D. Well of Gihon (?) | Open. |
| E. Church of England Cemetery | Do. |
| F. Near Orphan Asylum | Closed. |
| G. Cave between St. Stephen's and Damascus Gates | Do. |
| H. 1. Damascus Gate | Do. |
| 2. Do. do. | Do. |
| 3. Do. do. | Do. |
| I. 1. Shaft at Ophel | Do. |
| 2. Do. do. | Do. |
| J. 1. Gallery between S.E. angle and Kedron | Do. |
| 2. Do. do. do. | Do. |
| 3. Shaft do. do. | Do. |
| K. 1. Dung Gate | Do. |
| 2. Do. | Do. |
| 3. Do. | Do. |
| 4. Do. | Do. |
| 5. Do. | Work going on. |
| L. Shaft at S.E. angle of Haram | Closed. |
| M. Do. Kedron | Waiting for wood. |
| N. Clearing rock face at Siloam | |
| O. Muristan | Closed. |
| P. 1. Wall of Ophel | Do. |
| 2. Do. do. | Do. |
| 3. Do. do. | Work going on. |

A. *Water Passage from Tank X.*—These passages were first (?) discovered by M. de Saulcy. They are under the Triple Gate and are shown on the Ordnance Survey Plans.

The masonry blocking up the ends of these passages was knocked down, and they were found to communicate with Tank No. X. at different levels, and also with the vaulted chambers under the Haram Area. A passage was also discovered running apparently from the Great Sea, and also another winding passage or overflow channel from the Tank (see plan). During the examination of these passages the work was stopped by the Pasha, and has not since been resumed. It would be most interesting to trace these passages.

It is a curious fact that the long passage at Adullam Khureitun, lately explored by Mr. Eaton, is similar in construction to this passage, the side steps being of the same dimensions.

B. C. These excavations will be remarked upon, together with those of L.

D. *Well of Gihon*.—This was the continuation of an excavation commenced by Captain Wilson, R.E., and followed up by Mr. Schiek. It is a natural perpendicular cleft in the rock, and was filled with red earth, stones, and pottery. After arriving at a depth of 135 ft. a storm partially filled the cleft with water, the clay swelling smashed in the shoring, and the work was rendered too dangerous to continue during the wet weather.

There are several traditions with regard to this shaft. It is supposed by some to be the site of a sealed fountain. I consider the results that are likely to accrue are too problematical to allow of my continuing this work at present, while money can be spent more profitably elsewhere.

E. *Church of England Cemetery* (sometimes called the Bishop's Cemetery).—This was the continuation of the laying bare of some steps cut in the solid rock, discovered when the cemetery was levelled. The rock here appears to have formed part of the ancient wall of Zion. These steps are considered by some to be those of the prophet Nehemiah, but the Rev. T. Barclay has shown me steps at Siloam which answer more nearly to the Biblical description.

The excavation reached a depth of 18 ft., and on arriving at the thirty-sixth step a landing was found, and a gallery was driven along it for 17 ft. without any results. This landing was probably the foot of the rock scarp, which must have presented to the enemy a perpendicular face of 29 ft. in height.

F. *Near Orphan Asylum*.—No results.

G. *Cave between St. Stephen's and Damascus Gates*.—No results.

H. 1, 2, and 3. *Excavation at Damascus Gate*.—1 and 2. Eastern side of road; 3. On western side. They will be spoken of as one excavation.

It appears that in the 12th century the present Damascus Gate went by the name of St. Stephen's, and the only large buildings near it that are spoken of were the Church of St. Etienne and the Asnerie or Donkey House, which was used by the knights in the execution of one of their three old duties, viz., that of conducting pilgrims between Jerusalem and the sea-coast. It is also supposed that there was at one time near this gate a tower called "Maiden's Tower," which may have been made use of as the Asnerie. As it is probable that the Church was at some distance from the Gate, any massive walls found near to the latter would appear to

belong either to the ancient tower or to the Asnerie, always supposing that the present Damascus Gate stands on its former site. This Gate is at present built of two very different styles of masonry, the older portion of which is probably of the same age as the bottom *visible* portion of the S.E. angle, Haram Area. (See Captain Wilson's O. S. Report on this Gate.)

An excavation was commenced near the mouth of the cistern close to the wall at point A, east of road, where a solid wall was discovered with a relieving arch, blocked up with masonry. A passage was jumped 5 ft. into this wall, nearly as far as the foundations of the present wall, with no results. To the north of this was found a flight of steps, leading down to the tank. When these steps were used the tank was probably an open pool or sea. North of these steps was found a very ancient wall running east and west. The stones are bevelled and similar to those at the wailing-place, but appear not to be *in situ*, there being other stones in the wall of more recent date. Nearly opposite the Gate the wall suddenly stopped, and on digging round was found to be 10 ft. 6 in. in thickness, the north side being of a different style of masonry to the south, but of similar age. The foundations of this wall are 3 ft. below the roadway at the Damascus Gate, and it is improbable that the ground line there was ever lower than it is at present. Although this masonic wall is above the roadway leading through the Gate, an immense quantity of rubbish had to be cleared away, because it has been the custom to throw rubbish outside the Gate on either side, and consequently it has accumulated until it has formed two hills. With the roadway deep in the middle, the plan and elevation will best describe this wall, together with a photograph already sent. I should place the date of the building of this wall at an intermediate interval between those of the two styles of masonry at the Damascus Gate. Taking everything into consideration, I consider this wall was built by the Crusaders, and was destroyed when they were compelled to leave the Holy City. A stone with a Templar's Cross on it was found at the foot of the wall among the rubbish; it had formed part of the wall. On the west side of the road the core of the wall was traced, but the hill of rubbish rose so suddenly, and the authorities got so nervous about the city wall, that I considered it prudent to close the excavation. It has sometimes struck me that there was a port on this site, with the pool in the centre, but I have not yet had time to investigate the matter.

I. *Shafts at Ophel, South of the Haram Area—*

These were sunk to find the depth of soil and to learn its nature.

No. 1.—Large cut stones found at depth of 25 ft., also the solid rock, in which was discovered the entrance to a watercourse, 1 ft. 9 in. high, and 5 ft. broad, with a gentle slope, probably for surface water, direction south-east, filled with red earth. After 21 ft. the channel became too small to work in. An interesting peculiarity with regard to this channel is that the soil appears to be virgin. No clue was found as to its use.

No. 2.—Trench, 12 ft. long, 4 ft. broad; rock found at 15 ft. 6 in. No ruins.

J. Galleries in Western face of Kedron Valley, below the Haram wall.—

Three separate attempts were made to find the rock at an intermediate point between the S.E. angle and the Kedron. First a gallery was driven about 70 ft. below the surface. At the S.E. angle the substance met with was a dry loose shingle, lying at an angle of 30 degrees. The greatest difficulties were experienced in driving this gallery. The shingle, when it got a start, ran like water, and after driving the gallery 47 ft. such an immense cavity was formed above the frames, that, spite of its being filled up with brushwood and straw, the shingle eventually got the upper hand, and smashed in the frames, and I considered it dangerous to proceed with it.

No. 2.—An oblique gallery was tried at an angle of 60 deg., so as to be perpendicular to the layer of the shingle and also to the presumed lie of the rock. After driving 14 ft., the shingle commenced running rapidly, and destroyed the frames.

No. 3.—A perpendicular shaft was next attempted, and sunk about 14 ft. 6 in., with like results; the shingle (stone chippings, without a particle of earth) being in character almost a fluid.

K. *Dung Gate*.—Five shafts were sunk in a line from the centre of Robinson's Arch, perpendicular to the West Haram Wall.

1. 285 ft. from Arch and near Sion Hill. Shaft sunk through common garden soil. At 21 ft. 6 in. a polished limestone slab was found, 6 ft. square, the covering to a sewer, full of very offensive matter: sewer 6 ft. high, 3 ft. broad. Some bits of paper thrown in appeared in a few minutes outside the Dung Gate. Sewage kept moist by a *current of water* running through it, probably from the baths. Sewer apparently cut in solid rock. This is likely to be the sewer through which the Fellahin entered in the time of Ibrahim Pacha.

2. Shaft 250 ft. from Arch came upon a masonry pier, 3 ft. by 4 ft., and in it the entrance to a circular cistern of more ancient date. Drove galleries north and west, and at 12 ft. 6 in. each way came upon similar piers, with fallen arches between: the whole appeared to have formed a colonnade or bazaar, running east and west. Stone, a sort of sandstone, similar to the ruins at Jiljul, Kakoon, and Suwaimeh, well dressed, flooring (much disturbed) of finely-dressed limestone flagging in square chesses parallel to the walls of the building.

Colonnade closed towards the north, built of rubble well rendered. Cistern had a quantity of camels' bones in it. It is circular, rendered in cement 2 ft. thick; roof slightly domed; rock 18 ft. from surface of ground.

3. Shaft 216 ft. from Arch. At 12 ft. found small arch in line with north wall of No. 2 shaft, and at 18 ft. came upon polished limestone pavement similar to No. 2. Also *débris* of cut stone 2 ft. by 1 ft. 1 in. below pavement. Rock at 32 ft. below surface, wall resting on it running north and south of squared dressed stones (*melekeh*).

4. Shaft 182 ft. from Arch. At 12 ft. found *débris* of building stones and part of marble column (white) one foot in diameter. These ruins appear to form part of colonnade found in Nos. 2 and 3. At 22 ft. a row

of stones and mouth of cistern in solid rock ; a piece of marble pavement found among rubbish in cistern, roof flat, sides square ; plaster or cement 2 ft. thick ; no entrance for water ; two man holes, 1 ft. 4 in. by 2 ft. 3 in., and 2 ft. 6 in. by 2 ft. Seven feet of rock at top of cistern ; rough chisel marks on it. This was probably a receptacle for grain used by the Jebusites or early Jews [?].

5. Shaft 82 ft. from Arch—just commenced. At 2 ft. struck small arch and vaulted passages, apparently for water. Sandstone. All the stones in these shafts in the line of the colonnade are cut in a similar style.

I conclude from what we have brought to light at present that there was formerly a ramp leading from near No. 1 shaft over Robinson's Arch, with an arched colonnade built on it, and that Robinson's Arch was similar to that discovered by Captain Wilson, extending over the Tyropæon Gully, which was probably a ditch 45 ft. wide. I think the present No. 5 shaft will throw more light on the subject.

M. *Kedron*.—I anticipated your wishes with regard to the shaft in the Kedron Valley. I was so much struck with what I saw in the wadies of Surah, Dewaimah, &c., that I came to the conclusion, independently of your article, that there must be water flowing in the Kedron Valley concealed from sight. I wished first to commence about 50 ft. east of the present Valley of the Kedron, so as to strike the natural valley in the rock, but the loose shingle prevented this, and it was considered better to follow the rock at the bottom of the present valley. A shaft was sunk 20 ft. deep to the rock, and then a gallery was driven west 37 ft., and soundings taken to the rock, which still falls to the west, and I think will do so for another 20 ft.

The work was discontinued for want of the frames I expected from England. I cannot get any more wood here for months ; there is not a scrap at Jerusalem or Jaffa, and I have sent by this mail to Malta for some fifty frames, which will keep us going until you forward some. The price is enormous here. I am sure that there will be very interesting results from the Kedron Valley Shaft, and I am most anxious to get on with it. A 2-in. board, 14 ft. long, costs 6s. 8d.

L. *South-east Angle of Haram Area*.—On first arrival at Jerusalem I bared the south wall in two places—at the south-east angle for 20 ft. in depth, and between the Triple Gate and Aksa for 16 ft. This work was suddenly stopped by the Pacha ; in both cases the stones were comparatively small compared with those visible above, and similar in every way to those at the Jews' Wailing Place. As any work near the Haram Area was stopped, I determined to find what the foundations of the wall were like, by sinking a shaft at a distance, and driving a gallery up to the wall. Commencing at 40 ft. south of the Haram Area south-east angle, a wall was struck, and a shaft driven down along to a depth of 53 ft. It had been my intention to drive straight for the south-east angle, but we were obliged to follow the direction of this wall, which abutted on the Haram wall 12 ft. 6 in. west of the angle ; the total length of gallery driven was therefore only 37 ft., and not 40 ft., as stated previously (see plan). At 15 ft. from the south wall, a wall was encountered

4 ft. in thickness, parallel to the south wall. Great difficulties were experienced in mining through this, as the stones were large. On striking the Haram wall, the stones were found to be similar to those bared above and to the Jews' Wailing Place; this course of stones was 4 ft. 6 in. high. A shaft was then sunk and passed the next course, which had a draught at top and bottom of 6 in.; but the centre bulged out and was not dressed—4 ft. high; the next and bottom course, resting on the rock, was rough, with no draught; it was not intended to be seen; the rock was partially levelled for the resting of the stones. The wall running N. and S. and that mined through parallel to the south wall, are of similar age, and of *mezzeh*, very hard. For the first 30 ft. down the stones were bevelled, but after that they were very roughly dressed; they appear to have been exposed and worn by the atmosphere. The wall, 5 ft. thick, has been traced for 300 ft. from the Haram Area to the south. A tower has just been discovered—a face of 23 ft. 6 in. projecting about 8 ft. beyond the wall.

There are several very interesting points connected with the Haram Area which this discovery has raised. I find that the Single and Triple Gates are nearly (within 3 ft.) on the same level as the plane within, on which the bases of the piers rest; and this plane is 17 ft. above the earth at the south-east angle, and 80 ft. above the rock at that point. That this should be filled up solid seems improbable; and it seems more than likely that there is another system of older arches underneath those visible at present. All the masonry and piers and arches above the level of the gates are comparatively modern. I will try and solve this problem. My next work will be to sink a shaft opposite to the single gate, and examine the wall. Your questions, and those of M. de Saulcy, you must give me time to answer.

I send an elevation of the south-east angle that was bared, and plan of gallery. Great caution had to be taken while driving this gallery, the workmen at last refusing to go to work for fear of imprisonment.

II.

JERUSALEM,

2nd September, 1867.

MY DEAR SIR,

I send by Corporal Phillips (who left here on Friday week) an account of the excavations to be posted at Alexandria. I send now some sketches and plans which I had not then time to get ready. You will be very much interested in the Wall of Ophel, and I am now making arrangements to excavate between the tower and the furthest point to the S.W. exposed, where I think another tower may exist.

I am also excavating about 30 feet in front of the single gate to the south, and have arrived at what appears to be a passage leading north. I

commenced this excavation under the impression that there is likely to be a gateway under the single gate leading into the supposed lower vaults. As soon as we arrive at the rock we shall drive a gallery up to the Haram Wall.

I am also excavating near the Golden Gate, where a fellah says he found a tower, which may possibly be the remains of steps; but it is too far north for the remains of the Red-Heifer Bridge, which appears to have been a wooden bridge supported on pillars, just sufficient, I should imagine, to keep it off the ground, as it is impossible there could have been pillars a hundred feet high. I was quite sceptical about the existence of such a bridge until within the last fortnight, but the Mishna is so explicit about it that I have taken the matter up in earnest. I have already excavated to a depth of about 20 feet below the present east side of the Haram Area, where there are two stones bulging out—something like the springing of an arch—with no result.

The bridge I think must have commenced from a point 600 feet north of the south-east angle. The graves are in the way there, and I cannot dig.

To send the gallery frames out as soon as possible, there is no wood to be got in Palestine. I have sent to Malta for fifty frames, but they will only help us on a little.

I told you that at the bottom of shaft, No. 1, Tyropœon Valley, we had come to a drain with a stream of water running through it. I am getting suspicious about this stream. Its flow is too constant to come from the baths, and it is not the waste from Solomon's pools: it must be from a spring at the top of the Tyropœon Valley. This will engage my attention.

I have made what I consider to be a very important discovery, viz.: an ancient aqueduct, south-east of the south-east corner of the Cenaculum, and about 50 feet above the present aqueduct—I have no doubt the original aqueduct from Solomon's Pools to the Haram Area. We dug out the earth from a cut stone shaft 2 feet square, and at 16 feet was a channel running from the west to the north-east, precisely similar in construction to the passages under the Triple Gate. It varies very much in size; sometimes we could crawl on hands and knees, then we had to creep sideways, again we lay on our backs and wriggled along, but still it was always large enough for a man of ordinary dimensions. In parts built of masonry, in parts cut out of solid rock, it is generally of a semi-cylindrical shape; but in many parts it has the peculiar shoulders which I have only seen under the Triple Gateway, but which I told you in my last letter had been noticed by Mr. Eaton, in the channel leading towards Tekoah. To north-east we traced the channel for 250 feet, until we were stopped by a shaft which was filled with earth; to the west we traced it for 200 feet, till it was stopped in the same manner. In part of this passage we could stand upright, it being ten or twelve feet high, with the remains of two sets of stones for covering, as shown in M. Piazzi Smyth's work on the Great Pyramid; the stones at the sides being of great size—12 feet by 6. This channel cannot be so late as the Romans; it is evidently of most ancient construction. It is built in little spaces, as

if the work had been commenced at two or three points, and had not been directed properly. The plaster is still in good preservation. I shall have the passage cleared out, if possible, as far as the city walls. I presume it goes into the Haram, at a slightly higher level than the present aqueduct; if so, by following it we may arrive at some very interesting conclusions as to the original method of supplying the Temple with water.

This channel must have been of great consequence in olden times, both from the distance it is driven under ground, and from the well-cut shafts which lead to it. I think the question is to be hazarded whether the supply of Jerusalem was not obtained by this aqueduct, which is quite concealed from an enemy.

The work underground is now becoming too great for Sergeant Birtles both to superintend and to set the frames, and I am looking for some one who can manage the latter part, which is a very important job. Sergeant Birtles has an admirable method of getting work out of the fellaheen, and with him they do a very fair amount of labour per diem.

I have drawn three cheques since I have been back—£150 and £70—on account of trip to Jerash, and £50 when I sent Corporal Phillips home. With regard to what you say about my instructions, I had done the work laid down in them, except parts which I left for September, when I must go out for a week or two, and the plain above Jaffa and the desert of Judea would have been too hot. I have stood a good deal of heat, but I could not possibly work at Wady Zuweirah without water—in Moab there is lots of water, but in other parts it is very difficult to find it, and when I am working all day in the hot sun I require several gallons to keep up the perspiration. The Wilderness of Judea must be done in the winter; the extra expenses of the trip to Jerash were £145—about £4 10s. per diem—nearly half of what Tristram did it for, and £4 10s. per diem for feeding mules, &c.,—in all £270—and the photographs (50) I consider to value £500, while the upwards of 400 names I have written in Arabic are of considerable value also; fourteen astronomical stations and a map of 450 square miles, besides a box of specimen stones, and a book of dried flowers of Moab.

As I found it necessary to send Corporal Phillips home, I considered I ought to take all the photographs near at hand first. I very much doubt if anything can be done in Moab this winter. The Sultan's troops have taken Salt, and will go on to Kerak; but Ibrahim Pasha lost an army there, and it seems a matter of doubt whether these troops will take it this summer; in the meanwhile the country is in a disturbed state.

If the Society object to my journey to Jerash, I have no objection to taking the photographs and my labour off their hands for the price paid for the expedition, and pay, &c., but I consider what I did was for the interest of the Society, and so I know you would think, had I an opportunity of discussing the matter *vis à vis*.

Very truly, yours,

CHARLES WARREN.

P.S.—The bottles are from No. 6 Shaft. No bones found. I will send some more plans by Austrian post.

III.

[*Copy of Letter lost at es-Salt.*]

AIN HEMAR,

August 4th, 1867.

MY DEAR SIR,

On returning from the plain of Philistia, I found the works of excavation at a standstill, and as I had no more photography to do near the city, I considered it better to make a trip to Engedi, and then to Jerash, so as not to be waiting idle until I should hear from you. I consider that the heavy expenses of these trips will be covered in six months by the sale of photographs of places, of which such views have never been taken before. I will send a list of what have been taken already, and I hope that soon the ruins of Jerash will be added to the number. We left Jerusalem on 17th ult., under the guidance of Sheikh Goblan, and crossing the Jordan opposite Nimrin, came up to Nebbeh by Heshbon. I think there is little doubt about Nebbeh being the height of Nebo, as I came upon the ruins of an extensive fort and town about a mile west of Nebbeh, of the same name; and north of both, running west, is a deep wady, with a spring, named Ain Musa (Spring of Moses). On the other side of Nebbeh is another spring. I have also fixed the position of Main, which is generally described as being near Heshbon. I found it about ten miles to the south on Wady Zerka. I went about a mile further down the Zerka, but, being already on the ground of another tribe, Goblan refused to go on, promising to take us round to Callirhoe by the Dead Sea. I can hear nothing of the name Beth Jesimoth, but there is a ruin on the north-east of the Dead Sea called Swaimeh, where there is a hot spring. Higher up, near Keferein, we were shown a hot spring, temperature 96 deg.

After leaving Nebbeh we went to Naur [?], and after that for a week wandered among minor cities south of Amman, only a few miles distant. I have a list of altogether more than 150 names. We reached Amman on Saturday, 27th, stopping there four days. I made detail plans of the buildings, and a relative site plan. In photography we have been most successful, Corporal Phillips having produced some of the most perfect negatives I have ever seen. The hot, dry air has, however, spoilt all the photographic apparatus, and, with the exception of the lens, it will be of no use after this tour till it is repaired. The woodwork is all fallen to pieces, and the leather is like tinder. On return to Jerusalem I shall send Corporal Phillips home with the negatives, which I think will number close on 200. My great fear is now that some mishap may befall them before we get safe across the Jordan. These people are very queer. They

take the corporal in his tent for a magician practising the black art, and very little would induce them to stone him to death.

I suggest that these negatives should be sold at a higher rate than those taken on the other side, to cover the extra expenses—2s. to subscribers, and 2s. 6d. to the public; and I also think that the copyright should be obtained.

I found some inscriptions at Amman belonging to the triumphal columns, which appear to have stood on the citadel. I will give you what I can get from them, but I fear nothing can be made out. A portion appears in the photograph. I also found a sort of bas-relief of an animal—the back of a cow and head of a pig. It was so much worn that it could only be distinguished at a distance.

I am convinced that surveying is the first object east of the Jordan, because until the positions of the places are determined, it is difficult to know where one is going when out of the beaten track. I have now completed the survey of a small portion whose limits are lines between Keferrein, Nebbeh, Main, Kurgeh [?], es Salt, Amman, Ain Hemar and Nimrin. I wish I could stay here and complete the survey up to the Hauran. I have just had an invitation from the Sheikh of Kerak to visit his country, but there are not enough points to photograph to make it pay for the surveying.

I shall, I hope, complete the survey of the plains on this side Jordan, but it is so disagreeably warm down there that I am not very sanguine; even up here it is more than comfortable during the day. For nine hours the thermometer ranges from 96 to 100; but at night it is cool. I am pushing on for Jerash now, as I find that the soldiers with the Kurds have got down to within a day's march of it, and I want to get my work done before the fighting commences. The tribes are gathering in to Wady Seir, [?] and matters look serious, as far as my visit to Jerash is concerned.

I send you the answer* which Dr. Barclay obtained for me from the Syrian Bishop with regard to the Deir Dubban inscription. I think myself that there is a concealed vault behind in the cave, and hope to make an excursion there shortly.

I have just received two letters from you. With regard to your remarks about the detail plans, it was not possible for me to send them without neglecting work in progress. The survey alone is as much as one man can do comfortably, and I have been nearly worked off my legs trying to keep all things square. When down in the plain I was, on an average, twelve hours in the saddle, besides observing at sunset and during the night; and although I do not take such long journeys here, still I can only keep up by working till after midnight—work all day and half the night in a semi-tropical climate, when continued for several months, is enough to knock up most men. I have also had to make all the arrangements for the excavations and read up the books of reference. I was not aware before that Captain Wilson sent any detail plans home until he went home himself. What I had intended to do was to devote August and September to these matters. I hope you will settle it all quickly with regard to the

* Not enclosed in the copy.—G. GROVES.

Haram Area, as my hands are quite tied at present. I cannot promise any plans until I return to Jerusalem, when I will devote all my time to their preparation.

Very truly yours,

CHARLES WARREN.

I have received much assistance from the British residents here, especially from Dr. Brewer, Dr. Barclay, and Dr. Chaplin, which I should like you to mention if you will write again to the papers.

IV.

WORKS IN PROGRESS, 2ND SEPTEMBER, 1867.

In line of Robinson's Arch. No. 5 shaft.—After arriving at a depth of 24.6 ft., was abandoned, it being dangerous; and another has been commenced 10 ft. north-west. A passage was found (floor at a depth of 14 ft.) with small communications leading north, west, and south, the last being a recess like a baker's oven. At second shaft, at depth of 9 ft., a tank has been found, 17 ft. deep, probably rock. Shaft 78 ft. from Haram Wall.

In line of Robinson's Arch. No. 6 shaft, 132 feet from Haram Wall.—This has been excavated to a depth of 26 ft., and a large stone has been found to-day, 3 ft. wide. It has not yet been examined—looks like a step.

Single Gateway, 37 ft. to south, shaft 22 ft. deep.—The top stones of a passage (?) are exposed. The shingle through which the shaft has been driven for the last 8 ft. runs like water.

Golden Gateway. Shaft about 100 ft. to east.—Searching for steps. Found some large stones 3 ft. by 2 ft. by 2 ft.

Outside Dung Gate.—Commenced this morning searching for passage (traditional). Shaft is being sunk. No information ready.

Shaft discovered south-east of south-east angle of Cœnaculum, and 50 ft. above present aqueduct. Shaft 2 ft. square; cut stone 16 ft. deep, opening into an ancient aqueduct, which probably led from Solomon's Pool to Temple Area; traced 250 ft. to north-east, and 200 ft. to west; passage cut in solid rock in parts, similar in all its details to the passages under the Triple Gate.

V.

PROGRESS OF WORK TO THURSDAY, 12TH SEPTEMBER, 1867.

JERUSALEM.

Tyropæon Valley. No. 6 Shaft.—Rock has been found at 30 ft. from surface. The shaft is sunk through an old plastered chamber, 13 ft. 6 in.; then passes a strong wall of hammer-dressed stones, running north and south, at 21 ft. 3 in.; and at 26 ft. 10 in. the top of a massive wall is reached, running east and west. There are three courses of stones remaining. They rest on solid rock at 30 ft. The rock is scarped away for 4 ft., and the bottom is cut down in steps, the lowest point being 37 ft. 6 in. below

surface. Abutting on this wall is another, running north and south, supported by a buttress which rests on a flag 3in. thick. This flag covers a sort of passage cut in rock—stone generally melekeh.

No. 5.—The original shaft became unsafe, and was filled up; a new one being sunk 10ft. north, 10ft. west. At 9ft. the mouth of a shaft leading to a chamber was found, passing through crown of arch, semi-circular arch to chamber; full of rubbish-stones; bottom 36½ft. below surface; plaster bottom broken through; and at 40ft. 9in. rock was found. This chamber is 18ft. long by 11ft. 6in.; apparently been used as a tank.

Single Gate in South Wall of Haram.—The stones which were considered to be the top of a passage are found to rest on pebbles. Their purpose appears to be doubtful. They are neatly arranged east and west, side by side. The under face is bevelled, and is the best. A wall found to east. Waiting for frames to drive a gallery.

Aqueduct South of Cœnaculum.—The newly-discovered aqueduct has been traced to about 300ft. to north-east; it follows a most zigzag course; it disappears close to the present aqueduct. Passage to west being opened out.

South of Dung Gate.—Shaft to find passage; sunk 40ft.

Golden Gate.—Sunk 27ft. The excavation was commenced at a level 51ft. below the surface in front of the Golden Gate, to the east of it. A trench was first opened 26ft. long and 6ft. wide, and sunk 9ft. deep. On first opening the ground, seven or eight stones were uncovered, one of which measured 3ft. by 2ft. by 1ft. 6in. They were in good preservation, the chisel marks being visible. No more stones being found, a shaft was sunk at the northern end of the trench, 17ft. 9in. deep, giving a total depth of 27ft. from the surface.

Soil.—First 8ft., loam mixed with small shingle; from 8ft. to 13ft. in depth the shaft passed through stone packing 9in. to 12in. cube; from 13ft. to 18ft., good solid dark brown loam; from 18ft. to 22ft. 6in., stone packing again; 22ft. 6in. to 26ft. 9in., loam mixed with stones; at 27ft. the sides began to run, and from want of wood the shaft was abandoned.

Ophel.—These walls are at present being exposed, and are too complicated for a description to be given by this mail. There are two walls close together, which measure nearly 30ft. across. In front of this Ophel wall, in another place, has been found a road of concrete, 12ft. wide.

VI.

PROGRESS OF WORK TO 22ND SEPTEMBER, 1867.

JERUSALEM.

Tyropæon Valley. No. 5 Shaft near Robinson's Arch.—Broke through eastern wall of cistern, 2ft. thick, found rock, and waiting for gallery frames.

Single Gate Shaft.—Filled up shaft, and preparing to sink another nearer the gate.

Wall of Ophel.—Tracing and exposing eastern or outer face of wall, well dressed squared stones, without bevel, 2ft. thick; traced wall for 47ft. from tower to north; sinking shaft 8ft. from south-east angle and examined junction of two walls, on outside; a detail plan of this will be ready next week.

Shaft outside Dung Gate.—Found rock at 47ft., a rude step cut in rock. Ancient aqueduct traced to near English School, the two aqueducts here cross, and we are at fault.

Shaft about 40ft. from South-west angle of Haram on South Wall.—Sunk 18ft. At 12ft. 6in. found a rough pavement. Stones of Haram Wall without bevel, similar to those above, about 3ft. 9in. each course, projecting lin.

VII.

JERUSALEM, 1st October, 1867.

The three remaining days of last week I devoted to completing my sketch of country north of Taiyibeh to Mejdal. Cantering over to Beitān on Wednesday evening, I started in the morning for the hill to north of Taiyibeh which you asked me to enquire about. There is no doubt about its being called Azūr; it is about the most conspicuous hill for some miles north of Neby-Samwil—it rises about 400ft. above the surrounding plain and the country people on all sides without exception know it well. I cannot find that it has been visited before. From the south it presents the appearance of having been cut down at top, but from the north it has a natural rounded appearance. The top is a flat surface about 300 yards by 100 yards, covered with vines, the fellahin said they knew of no ruins or cisterns there, but at the same time remarked that they had never excavated. After I left I heard that there is at least one large cistern at top. I had a very good view and fixed in the towns of Yebrūd and Seilad and also the ruins of El Chauleh to north, and Hulleh* es Sultān, K-ech-Skara and Sāmeh to south-east. On the whole, I think that the hand of man has been busy altering the appearance of the top of the hill, but I did not see sufficient proof of its having been the site of a town. Passing to the east I went down by Kefr Mālik to Wady Shām and thence by the ruins of Sē'a and of Kulasōn and village of Mughaiyir to Daumeh, a village overlooking the plain of the Jordan. An irritating sirocco was blowing, but through the haze the ruins on top of Kūrn Sūrtabeh could plainly be seen, and the mouth of the Jordan and Neby 'Osha were just visible; to the west of the Kūrn I could distinguish the Ains H'Affir and Guresli'a, which I had visited when at Fasāil, they are high among the hills and were surrounded by the Bedawin tents.

In the evening the villages of Daumeh sent some men to ask me to settle an alleged dispute between them and the people of Mejdal, respecting the ownership of the Wady Bursheh, which lies between them. I laid down the law that the southern half belonged to Daumeh.

* I have not been able to verify the majority of the names in this letter, or reduce them to Dr. Robinson's orthography.—G. GROVE.

and the northern to Mejdél. My dragoman a few minutes after heard some of them exclaiming in triumph that they had known it was all written down in our English books. It appears that they had had a dispute as to whether the Franks knew all about their country or not, and they had asked me the question to find out what I really did know.

I found prevalent here as well as elsewhere among the mountain villages the same ideas that exist in Philistia with regard to the coming of the Franks; it is deeply rooted in their minds that the Europeans shall come, drive them out, and take back the "land of their fathers" (*sic*); they all seem to look upon themselves as usurpers, only holding the land for a season, and are impressed with the idea that the time is very close at hand for them to be driven out. This, of course, makes them distrustful of the Europeans who write down the names of their villages. They know quite well the difference between the English and French nations, and look upon them as the two powers of the world. About Jerusalem, on the contrary, the Governments of France and Russia are looked up to as supreme, and the *prestige* of Great Britain is only kept up by the individual independence of the British residents, for whom the inhabitants have the greatest respect, the common binding to a bargain in the market being "on the word of an Englishman."

Before starting from Daumeh on Friday morning I was told by an old man that there was a place called Senna among the hills to the East. I was engaged at the time, and when I was ready to hear about it he was gone. I visited some of the tombs; they have been used for years as habitations for man and beast, and I could see nothing of interest in them. I heard of two large caves, one called Braûh; they are closed up. Passing to Mejdél, I could see Kûlasôn very clearly among the hills to S.W.; they say it is a large cave. North of Mejdél there were two places I wished to fix to complete my plans, Yanun and El Ifjim. I had to choose between missing them or Istûna, and I considered the latter of more importance, so, climbing up the hills to W. by Wady Nasîr, we came upon the village and ruins of Kefîl, and near it to N. is Bîr Shêshem. From hence passing Jalûd, and the plain of Seilûn and Turmus Aya, we came upon Istûna, situated on the spur of the hill in the south-east corner of the latter plain. There are considerable remains of buildings, the most important being those of a casemate, stones 3ft. by 2ft. by 2ft., and to the north-east are a few remaining of a very ancient-looking building apparently last used as a reservoir, stones 6 to 10 feet long and 3ft. 9in. in breadth and thickness, about eight or ten are visible, forming two sides of a square; an irregular plinth surrounds them, with a check cut in it for water to run into a rock-cut cistern below, which has now caved in.

Istûna was visited and identified by Schultz as Alexandrium. From hence I passed by groves of young fig-trees through Turmus Aya and Sinjil, and still keeping down Wady Sîreh, came upon the ruins of Haliarta, on top of a hill E. of Jiljîlia; then passing S. by Wady Carûn, we descended 1,000 feet to Wady Belât—thence ascended about the same height to Atâra, the north side of whose hills are terraced

and covered with fig and vine-trees. The view from the top is very extensive—Nehy Samwîl, Gerizim, Jaffa, and a host of villages. I saw no signs of antiquity about the village.

On returning to Jerusalem, I passed the ruins of Turraffa, Hammûdeh and Durka, on the same level as Atâra (about 2300ft. above the sea)—and on the right the wadies of Muk-âfa and Rûmânie, on either side of road to Libneh; and thence passing by Jifna, I climbed the hill to its south, the ruin on top of which was called Kûteyeh and Areh-ûnta indifferently—thence through Bîreh towards Atâra (No. 2) north of which I found a high hill called Izbahîn (wanting an M to make it Mizpah). Jerusalem can be seen from this hill.

I forgot to state that I could hear nothing of Wady Mutyah when at Beitîn. The wady going by that name in V. de Velde's map is called there W. Jai, and then W. Mugheir, when it joins W. Asas from the north; it then changes to W. Sik on passing the castle of that name situate S.E. of Rûmmôn. I find as a general rule that wadies are called by the names of the villages that do or did exist on their banks—and on hearing of a change in name of a wady, I enquire indirectly for the ruin of that name, and have found several ruins in that manner. I should also on this principle consider that when a wady has many names, the country has been thickly populated, and *vice versâ*. It is from the frequent changes in the names that travellers differ so much in the names they give to the wadies. I conjecture that the name Mutyah occupies a short "reach" of the wady near the castle of Sik. The wady which runs from Beitîn between Mukmas and Jeba is first called Towahîn, and joining Cussura and Egshwâr from the west becomes W. Shiban, then W. 'Ain, Sûweint, and then W. Farah.

The nameless hill south of Tuleil-el-Ful, described as Nob by Porter, is called Sûmah.

VIII.

PROGRESS REPORT OF WORK TO 2ND OCTOBER, 1867.

Second Shaft at Single Gate in Haram Area.—14ft. south of Single Gate sunk 30ft. 6in. without any results. For the first 20ft. the work was very difficult, the material sunk through being composed of rough stones and rubbish. The stones had to broken up in the shaft, and the concussion caused the loose shingle to run like water. The workmen were continually stopping until Sergeant Birtles could come and set them going again. From 20 to 30ft. in depth the soil was very firm, of a dark brown colour; stones and chippings are again appearing. The stones are generally rough cubes from 9in. to 18in., some are fragments of dressed stone, *melekeh*, and a few are of *mezzeh*; some pieces of marble have been found. Shaft still in progress.

Shaft near South-east Angle of Haram Area, five feet S.E.—Commenced for the purpose of baring the east face of Ophel wall and to look for gateway. At a depth of 4ft. from surface the east face of Wall of Ophel was found, the upper course of stones are 3ft. 9in. high, and appear to

have had a draught round them, but they are now much worn; the average height of other courses is 1ft. 9in.; the stones are squared and well dressed, and are mostly *melekeh*. A depth of 26ft. has been reached. The work has progressed fairly except when large stones have been met with. From 18ft. to 23ft. a kind of shingle was met with which made the work, for a time, very dangerous. It is proposed at a depth of 30ft. to drive a gallery up to south-east angle, and examine the junction of the two walls, then tamp it up again and proceed with the shaft to a depth of 45ft. and examine the junction of the two walls again. The Wall of Ophel at the top projects 1ft. 6in. beyond the visible east Haram Wall, and it will be interesting to know how the junction is effected. This Ophel Wall is now found to be at top 13ft. thick, and at least 15ft. thick at a depth of sixty feet.

Shaft to bare south Haram Wall about 40ft. from South-west Angle.—This shaft has been sunk 45ft. 6in. and rock has not been reached, so that the present Haram Wall at this point is at least 100 high. The wall is now exposed for the whole depth. At 12ft. 6in. from the surface a pavement was found, stones of *mezzeh* not regularly shaped, general size 12in. by 15in., well polished, probably from wear. Below the pavement a kind of concrete was sunk through, composed of stones, bricks, and mortar, for a depth of 16ft. From 28ft. 6in. to 33ft. 6in. loose stones and shingle were met with, and after that large stones were found 3ft. by 2ft. 6in. by 2ft., one of which had a draft round it; also a wall of rubble running north and south, and abutting on the Haram Wall, stones about 2ft. cube.

The courses of the Haram Wall exposed are as follows: the first three courses are similar to those above ground at this point, that is, they are great squared stones without bevells, in height about 3ft. 3in. The courses fourth to ninth appear to be similar to those at the Jews' Wailing Place, but the first five are very much worn, though the bevel can be distinguished, height 3ft. 9in. The face of the ninth course projects 3in. beyond the draught. The tenth and remaining courses differ from many seen above ground at the present day. The faces of the stones appear as when they were brought from the quarries, roughly dressed into three faces and projecting in some cases eighteen inches beyond their draughts, which are about 4in. to 6in. wide, and most beautifully worked. The stones are fitted together in the most marvellous manner, the joints being hardly discernible; a section is enclosed. This work has been stopped a day or two for want of wood.

At a depth of 22 ft. was found the signet stone of "Haggai, the son of Shebaniah"; characters engraved in Hebrew, of the transition period. [?]

Nebi David.—The aqueduct discovered, after being traced for about 700 ft., is found to communicate with the present aqueduct near the English Cemetery. The builders of the present aqueduct, whether of the time of Herod or at a later period, appear to have made use of the more ancient aqueduct in places where cuttings in the rock would otherwise have to be made. The tunnel in the rock east of Mar Elias, by

which the lower aqueduct brings its water, has been examined, and parts of it are found to be of similar construction to that under the Triple Gate. It has been repaired at various periods. It is probable that a syphon may exist in the Valley of Hinnom similar to that described by Captain Wilson, near Rachel's Tomb.

Vineyard of the Palace.—This is an excavation to bare some caves above the Pool of Siloam; no results at present.

Muristan, or Hospital of S. John.—Three shafts were commenced last week in the continuation of the wall which is regarded by some as the ancient Second Wall of the City.

No. 1 shaft, 80 ft. west of the portion of this wall above ground; at 14 ft. masonry was found.

No. 2 shaft, 100 ft. west of No. 1; masonry found at 13 ft. 6 in. from surface.

No. 3 shaft, 26 ft. north of No. 2; masonry found at 8 ft.

The general impression obtained from view of the masonry is that there was a colonnade in the Muristan. Trenches are now being opened in order to make a plan of the existing work.

Another shaft has been commenced at the northern portion of the Muristan; no results at present.

Single Gate.—Shaft about ft. from the gate, sunk 34 ft. 6 in. to rock, whose surface was very rugged; shaft then filled up for 11 ft., and gallery commenced and now in progress to wall of Haram Area.

South-East Angle.—End of wall of Ophel about 5 ft. from angle; shaft sunk 40 ft. without finding any signs of gateway in Ophel wall; at 28 ft. from surface a gallery was driven to angle, and it was found that the Ophel wall simply abutted on the south wall of Haram Area; the Haram Wall projecting 6 in. each course on the eastern face.

Vineyard of the Palace.—Excavation to clear the face of some scarped rock which was traced for 30 ft. in length, and found to be 4 ft. high, but it was probably at one time far higher as extensive quarrying has taken place lately; two tanks or caves were found, respectively 7 ft. and 12 ft. in diameter, nearly circular.

Muristan.—Trench connecting 1 and 2 shafts was sunk to a depth of 14 ft.; two vaults or chambers were found, the tops being 13 ft. 6 in. and 14 ft. 3 in. from surface; the arches of these vaults are very rough, but the piers seem to be of older and better workmanship; the stones large and well dressed; the voussoirs of these arches appear to have been laid dry on the centrings, and then grouted in.

Muristan.—No. 4 shaft.—Sunk 28 ft. below surface, where a man-hole was found leading into a vault; on descending it proved to be the entrance to large tanks (dry), the bottoms of which are roughly estimated to be 53 ft. below the surface of the ground; the first tank entered ran north, 40 ft. long and 17 ft. wide, and in the north-west corner a flight of 25 steps; at 8 ft. from the north-east corner in east wall an entrance 6 ft. wide was found leading into another compartment running east, and being 68 ft. 6 in. long and 17 ft. wide, a little water lying at the east end of it; on the north side of this, about 25 ft. from the north-east

corner, an entrance was found leading north, but filled with hard mud, on clearing out which it was found to lead into another tank filled up with deposit, which is now being excavated out. The sides of this third tank are as fresh and impervious to water as if it had been newly constructed.

At the south-west corner of the tank first entered an entrance was found leading into another tank 16 ft. 6 in. and 6 ft. 6 in.

A plan will be sent as soon as it can conveniently be got ready.

These tanks appear to be by far the most extensive of any outside the Haram Area. I shall send to inform the Greek Patriarch of this treasure we have found in his ground as soon as we have completed our explorations there.

IX.

JERUSALEM, *October 2nd, 1867.*

MY DEAR SIR,

I received your letter and enclosures yesterday, and will attend to the suggestions.

I now send you a progress report of the works, which are getting on well. I only want gallery frames to make great way: opposition has ceased for a season, and we are prosecuting the work with all dispatch. I have now about twenty men turning up the ground at the Muristan, which has assumed the appearance of Chatham Lines after the commencement of the second parallel.

I have found a great change in the Effendis lately: they seem to be fast losing the apprehensions with which they were at first possessed, when they thought we were here for political reasons. They begin to appreciate our efforts now they see we do nothing to harm their religion; and the strict discipline to which the workmen are subject, and the prompt payments that are made, have invested our employment with a mysterious novelty.

We are getting really good work out of the men; they are gradually adopting our European notions, and a spirit of emulation has sprung up among them; instead of all wishing to be paid at the same rate, they now work hard to get on to the first class of pay. On Monday the measured work for the day showed six cubic yards per man dug up, and thrown out from an average depth of 3 ft. 6 in. During the whole summer we have worked English hours. Serjeant Birtles is indefatigable in his exertions; he has an amount of tact and discernment of character seldom to be met with, and I have always the satisfaction of knowing that what I leave to him will be done well. The work throughout has been of a dangerous nature, and we have hardly had an accident.

I sent you by the Austrian post the impression of a signet-stone found 22 ft. below the surface, in a shaft near the south-west angle of the Haram Area.

I send you a sketch of the tessellated pavement of the South Apse of Holy Sepulchre; I will try to take a tracing, but it will not be very successful. I could see no signs of *marble* veneering on the walls, but there was the appearance of there having been a veneering or plaster of some kind on the stone: I have got a specimen of the rock at the Holy Sepulchre.

X.

PROGRESS OF WORKS TO 11TH OCTOBER, 1867.

Shaft near S.W. angle South Wall of Haram Area.—Depth excavated, to Thursday, 10th October, 76 ft.

On Friday, having arrived at a depth of 79 ft., the men were breaking up a stone at the bottom of the shaft. Suddenly the ground gave way, down went the stone and the hammer, the men barely saving themselves. They at once rushed up and told the serjeant they had found the bottomless pit. I went down to the spot and examined it, and, in order that you may have an idea of the extent of our work, I will give you a description of our descent.

The shaft mouth is on the south side of the Haram Wall, near the south-west angle, among the prickly pears; beside it, to the east, lying against the Haram Wall, is a large mass of rubbish that has been brought up; while over the mouth itself is a triangular gin with iron wheel attached, with guy for running up the excavated soil. Looking down the shaft, one sees that it is lined for the first 20 ft. with frames 4 ft. 6 in. in the clear; further down, the Haram Wall and soil cut through is seen, and a man standing at what appears to be the bottom. An order is given to this man, who repeats it, and then, faintly, is heard a sepulchral voice answering as it were from another world. Reaching down to the man who is visible is a 34-ft. rope-ladder, and, on descending by it, one finds he is standing on a ledge which the ladder does not touch by four feet. This ledge is the top of a wall running north and south and abutting on the Haram Wall; its east face just cuts the centre of the shaft, which has to be canted off about two feet towards the east, just where some large, loose stones jut out in the most disagreeable manner. Here five more frames have been fixed to keep these stones steady. On peering down from this ledge, one sees the Haram Wall with its projecting courses until they are lost in the darkness below, observing, also, at the same time, that two sides of the shaft are cut through the soil and are self-supporting. Now to descend this second drop the ladder is again required; accordingly, having told the man at bottom to get under cover, it is lowered to the ledge, from whence it is found that it does not reach to the bottom by several feet. It is therefore lowered the required distance, and one has to reach it by climbing down hand over hand for about twelve feet. On passing along, one notes the marvellous joints of the Haram Wall stones, and also, probably, gets a few blows on skull and knuckles from falling pebbles. Just on reaching the bottom, one recollects there is still a pit of unknown depth to be explored, and cautiously straddles across it. Then can be seen that one course in the Haram Wall, near the bottom, is quite smooth all over, the stone being finely dressed, all other courses being only well dressed round the drafts; one also sees two stout boards lying against the Haram Wall, under which the men retire whenever an accidental shower of stones renders their position dangerous. One is now at a depth of 79 ft. from the surface, and from here we commence the exploring of the "bottomless pit." After dropping a rope down, we found that it was only six feet deep,

though it looked black enough for anything. Climbing down, we found ourselves in a passage running south from the Haram Area, 4 ft. high by 2 ft. wide, and we explored this passage. It is of rough rubble masonry with flat stones at top similar to the aqueduct from Triple Gate, but not so carefully constructed. The floor and sides are very muddy, as if water gathers there during the rainy season.

It at once struck me that it was one of the overflow aqueducts from the Temple of Solomon, and that there might be a water conduit underneath; we scrambled along for a long way on our feet, our skulls and spines coming in unhappy contact with the passage roof; after about 200 ft. we found that the mud reached higher up, and we had to crawl by means of elbows and toes; gradually the passage got more and more filled up and our bodies could barely squeeze through, and there did not appear sufficient air to support us for any length of time, so that having advanced 400 ft., we commenced a difficult retrograde movement, having to get back half-way before we could turn our heads round. On arriving at the mouth of the passage underneath the shaft, we spent some time in examining the sides, but there is no appearance of its having come under the Haram Wall. It seems to start suddenly, and I can only suppose it to have been the examining-passage over an aqueduct coming from the Temple, and I am having the floor taken up to settle the question. This passage is on a level with the foundations of the Haram Wall, which are rough hewn stones—perhaps rock—I cannot tell yet. The bottom is the enormous distance of 85 ft. below the surface of the ground, and as far as I can see as yet, the wall at the south-west angle must be buried for 95 ft. under ground, so that it must have at one time have risen to the height of 180 ft. above the Tyropæon Gully. I consider it very unsafe sinking these shafts without sheathing them, but I have been obliged to do so for want of wood. In this shaft in particular, there is about 60 ft. unsheathed, and a loose stone from any part might stave a man's head in before he is aware of it. I think it running needlessly into danger, and I hope that with what you are sending from England, and what I am getting from Malta and Alexandria, I shall soon have enough to go on with in a business-like manner. The amount of wood wanted is very great; this shaft when sheeted would require 100 boards, 18 ft. long, and 9 in. by 1 in. We are also very much in want of English dockyard rope, and rope ladders, all the work here consisting of driving shafts of great depths, it is necessary to have many ladders; we have only two, and are often in great difficulties about it. It is all very well climbing hand over hand 35 ft. up a rope, when hanging in the air; but when it is in an unsheathed shaft, with the dangling bringing down the loose stones on the head, it is unsafe. The anxiety of mind caused lately, by having to keep the workmen going without adequate means for their protection, is more than I can put up with willingly with any longer; *we must have plenty of money for the excavations or stop them altogether.*

I omitted to mention that the stones of the Haram Wall bared in this shaft are all the same size as those at the Jews' Wailing Place. I gave a description of the curious dressing of the centres of them last mail.

Virgin's Fount or Ain Um-ed-Deraj.—This was an excavation under the lowest step leading to the pool, in order to examine the communication by which the water enters. As the pool is usually occupied by water-carriers during the daylight, we went down about an hour after sunset on Friday, the 4th inst, and with three fellahin of Silwân commenced removing the pebbly deposit from under the steps. The Silwân people, however, got wind of our proceedings, and came trooping down in a very excited state and requested us to begone. By dint of chaffing they eventually changed their tone and sent us coffee. After three hours' work I found that there would be more difficulty in opening the space under the steps than I had anticipated, and hearing that during this month there are few persons taking water from the pool, I ordered the work to be resumed in the morning.

It appears that the village was divided on our account, one cantankerous Sheikh taking it into his head that we had no business out of our own country, and in the morning our men found that he had effectually stopped our resuming the work by sending a bevy of damsels there to wash. His scant wardrobe, however, did not take long to beat up, and sending down the men again in the afternoon, the pool was found untenanted, and we resumed the work and continued it on Saturday, the village taking our working anywhere as a matter of course, the Sheikh vowing vengeance on the men and threatening to get them placed on "the Road," which is just being commenced from here to Jaffa by forced labour. After removing the deposit under the steps for 4 ft., a hard substance was reached, either masonry or rock, and without the assistance of divers or letting the water off, it would be very difficult to continue the search in this direction any further. The other point of entrance of the water is a deep hole in the middle of the pool, at which nothing can be done. Finding our attempts thus abortive, I had the rock-cut passage to the Pool of Siloam examined, and Serjeant Birtles found two passages leading into it from the north-west, the further one being the largest, and being about fifty feet from the entrance to the pool. At this we commenced to open. It was difficult work, full of hard mud which had to be carried for 50 ft. through the water of the passage, and then taken up the steps leading to the pool. The men seldom have much more than their heads above water when removing the soil, and sometimes the water suddenly rises and there is danger of their being choked. The passage was cleared out 17 ft to-day, and a small cave was arrived at, being the bottom of a deep shaft cut in the solid rock. It is difficult at present to form an opinion on the subject. We must erect a scaffolding to get to the top of the shaft, which appears at least 40 ft. in height. The magnesium wire has come at a very opportune time.

I find that just where Thrupp places the ancient Pool of Siloam, near the Fountain Gate, up in the town, there is a tank of enormous dimensions, which I have not yet been able to visit, and the aqueduct from Solomon's Pools runs within a few feet of it and could fill it. The place is called Burg al Kibryt on the Ordnance Survey plan 1:2500.

XI.

JERUSALEM, *October 12th, 1867.*

MY DEAR SIR,

I have received your letter from Paris; you will find several letters from me on your return to England.

I send you by this mail descriptions of three valuable discoveries we have made this week about Jerusalem, viz., at the Virgin's Fount, south-west angle of Haram Area, and Muristan. The work lately has taken up so much of my time that I have not been able to write an account of our visit to Engedi and Usdum. I have this week been down to Wady Kelt, and traced it up to the Fârah, but I must defer the account until next mail.

I wish to call your attention particularly to the deep shafts we have sunk lately. It is absolutely necessary, if this sort of work is to be continued, that the public should give with sufficient liberality to enable me to conduct the works in perfect safety to those who are employed continually under ground. The shaft at the south-west angle is a prodigious depth, and not half so safe as I should like.

With reference to the south wall of Haram Area, you see by the enclosed tracing that the south-west angle carries off the palm with regard to height. I was much astonished at the result of our labour, not expecting to find the Tyropœon Gallery more than 50ft. deep, and it must be, I think, upwards of a hundred. The east side of this valley must break down in a very abrupt manner if the lowest part is west of the Haram Area. As for the passage we found running south, I do not know what to make of it; since writing the progress report the men have broken through the bottom of the passage and found solid rock. No wonder the poor Queen of Sheba's spirit failed her when she saw the stupendous ascent which must have led over the Tyropœon Gully.

With reference to the quarrying of the large stones for the building of the Temple, an American gentleman from the Western States says he is convinced that he has seen quarries in two places where the stone has been "water-blasted."

I am glad to hear that the negatives have arrived safely: you will find one, of the Bridge at Amman, taken from about the same spot as the picture by W. Tipping, Esq., of which an engraving is inserted in the "Dictionary of the Bible." An examination of the two fully bears out the character this gentleman has obtained for accuracy in his sketches of the Holy Land.

Very truly yours,

CHARLES WARREN.

XII.

PROGRESS OF WORK—ENDING 22ND OCTOBER, 1867.

Shaft at South-west Angle, 87½ ft. deep.—At 350 ft. along passage, a branch gallery from east was found, but it was impossible to clear out the deposit as this portion was only reached by crawling. The owner of the soil began to humbug about us being so long on his ground; I therefore have had the shaft filled up, much to his disgust, as he had begun to look upon it as an annuity.

The position of the passage has been fixed on the outside of the city walls, so that we can gain access at any time by sinking a shaft at Ophel. We are so much in want of wood that the few frames which will be liberated will come in very handy. This shaft will be closed to-day.

Virgin's Fount.—You may have been surprised last week when I described the finding the passage leading north as a discovery, after what Dr. Barclay, of the United States, says in his book about it; but I am prepared to show that in this instance he has misrepresented the facts of the case, and mistaking the main drain outside for a water conduit, has led his readers to believe that he has been up this conduit, which ends in a shaft over 40 ft. high, the passage to which was for 17 ft. closed with what appears to be the deposit of centuries. Next week I will send you a fuller account of this passage, as to-morrow I hope to be able to get the scaffolding up; it will be a tough job. Another small passage has been cleared out about 40 ft. from entrance from fount; it goes in for 9 ft. and suddenly terminates.

Single Gate.—In a former letter I stated that I believed there was another system of vaults under the present vaults, at south-east angle, and in a sketch at the same time I showed a point where I expected the entrance would be, under the Single Gate. I have been foiled once or twice in getting to this point, first the shaft failed, and when we had driven a second we had to wait till we could scrape together some gallery frames; finally we drove the gallery to the point I had indicated under the Single Gate, and on Wednesday, to our great delight, the hoped-for entrance was found. We were, however, both too ill to stay and explore it, and I had it covered up again. Yesterday we reopened it, and Sergeant Birtles set about getting out the *débris*. The entrance was into a passage which appeared to be blocked up—suddenly a crash, and the passage appeared clear and unencumbered, but after getting in Sergeant Birtles brought down another fall, and was blocked up in the passage without a light for two hours. It is quite clear now, the rubbish having settled at the bottom. I send you a plan which I made yesterday immediately it was open; you will see that the stones are of great size, one of them 15 ft. long, nearly all are bevelled and beautifully worked, but some of them are only hammer-dressed. The passage is 3 ft. wide, and is perpendicular to south wall of Haram Area, running between the piers which support the vaults above. After 60 ft. the roof stones disappear. On the east there is a passage blocked up, and also there is a second entrance above that by which we got in. The roof is composed of large stones, many of them levelled, and laid flat on the upper course of the passage wall. This upper course is 4 ft. in height, and at the bottom of it on each side is the remains of a small aqueduct jutting out from the wall, made of dark cement. The passage is probably from 12 ft. to 18 ft high, its roof is 20 ft. below the surface of ground in Haram Vaults, or about 60 feet below the level of Haram Area. At the point B on plan, there are indications of there having been a metal gate. A check, 10 in. cube, is cut in one of the roof stones, and there is the mark of abrasion on one of the stones, as if a metal door had swung against it; radius of swing about 13 in.

At present I have no clue as to the use of this passage.

Muristan.—Small arches are found all over the place—piers about 12 ft. to 14 ft. apart. They are probably Crusaders' work, as I understand the

Mahometans have never built here, the place having been cursed after they captured Jerusalem.

Detailed information in my next.

XIII.

JERUSALEM, 22nd Oct., 1867.

MY DEAR SIR,

I send you a description of our last discovery under the head of work in progress.

I had an attack of incipient fever last week after the post went out, and not being able to shake it quite off, I went for a three days' ride by Faghûr, &c., with Sergeant Birtles, who was also very unwell; we returned on Saturday quite recovered. I have made a list of the names of ruins, hills, &c., near Faghûr, and am getting it ready. I could hear nothing of the name Nubat Cohanim; Nuba, north-west of Hebron, appears to have no other name. With regard to the name Jeba ibn Kish, which you inquired about, the Jebâ south-west of Faghûr is called Jebâ beni Keisiyeh, because it belongs to the Keis faction, and to distinguish it from the Jeba of the Yemeniyeh. I have been trying to ascertain the boundaries of the land of Keis and Yemen. A Keisiyeh man told me that his faction wore red because they fought well, and that the Yemeniyeh wore white because they were afraid. No doubt the other faction have equally good reasons for the difference in costume. These distinctions are now done away with. It appears that the road from Jerusalem to Jaffa was very nearly the boundary line, the Keisiyeh being to the south, and their boundary to the east being the Jerusalem and Hebron road; the Ta'amerah were Yemeniyeh.

I have been examining the lines of water conduit about Urtas and beyond. I find remains of the High Level Aqueduct on the Plain of Rephaim, to east of the Bethlehem road, extending for several hundred yards. Nothing could be seen anywhere of the third aqueduct, and I could find no trace of any outlet in its supposed direction in the passage leading from the Sealed Fountain to Solomon's Pools which we explored for nearly 500 ft. until we were close to the head of the upper pool. Here we were unable to proceed, the mud and water being up to our hips, and the accumulation of bats all driven into a small space being more than we could contend against, our candles being blown out by the nasty little animals, which got entangled in our hair and beards, and were most unpleasant in their antics. We left a mark on the walls and I intend re-examining the passage from the end close to the pools, where there is an opening and vault very like that under the nave of the "Sœurs de Sion." I have made a plan of the chambers and entrances for water at the Sealed Fountain. There is a very small flow at present, but near the Upper Pool of Solomon it is joined by a rush of water from a higher level, apparently from the aqueduct of Wady Byar, which, however, is dug a few hundred yards higher up. Probably there may be another sealed fountain to the south-east of that known at present. There is plenty of water at this point to keep the High Level Aqueduct going all the summer, should it ever be repaired, and that without interfering with the supply to Bethlehém and Jerusalem by the Low Level Conduit.

Your question with regard to the name Hazazon : we passed Wady Hazâza at one-third of distance from Frank Mountain to Engedi.

His Excellency the Military Pasha called upon me last week, and seemed very much interested in the Abyssinian expedition.

The little coney is getting on capitally. A very large one was obtained about a fortnight ago. At first it got on very well, but eventually I had to have it killed, as its feet were in a bad condition; it was very savage, and, when at bay, flew at one like a rat, and though naturalists may say its teeth are powerless, we have by painful experience proved that they are capable of meeting together in the human fingers. The fellahin who caught them were bitten in several places, and the little animals bit through the wooden bars of their cages. It is a curious sight to see it snap savagely at a beanpod thrust at it, then suddenly finding it is good to eat, gobbles it up greedily. The one we have at present is about the size of a rabbit, but that which was killed was as big as a large cat. They certainly do not impress me with the idea of a "feeble folk."

With regard to my excursion to Wady Kelt, after passing Kahn Hazrûr (or Hudr), I passed about a mile along the Jericho road, and then turned north into the remains of what was a well constructed Roman road, cut in the side of the rock, and leading to the Kelt, before reaching which we passed the remains of a fine aqueduct about 200 ft. above the stream, and in one place the masonry supporting it is about 80 ft. high. The road appeared to run alongside of the aqueduct on the south bank of the wady towards Jericho. There were the remains of several mills on the banks of the Kelt, the stream of which here was abundant. There was also the remains of an aqueduct on the northern bank. I followed these aqueducts up, the latter comes from Ain Kelt, about one mile higher up; then passing Ain Shriyeh, I found that the former comes from Ain Tuârah, which is also a large spring, about midway between Kelt and Fârah. I cannot see what becomes of the aqueducts from Fârah, they appear to have been for local purposes. North-east of Fârah is a high hill called Gobâ, which may have been one of the ancient Gibeahs, or Gibeons; it is about $2\frac{1}{2}$ miles south-east of Gibâ.

Very truly yours,

CHARLES WARREN.

LIST OF PHOTOGRAPHS TAKEN IN 1867 BY SERGEANT
PHILLIPS, UNDER THE ORDERS OF LIEUTENANT
WARREN, R.E.*

165. Jerusalem :—Scarped Rock within City, east of Damascus Gate.
166. Jerusalem :—View of City from Damascus Gate, looking S.S.W.
167. Jerusalem :—Scarped Rock at Jeremiah's Cave, taken from City Wall.
168. Jerusalem :—Interior of Ruined Church (St. Peter), near St. Stephen's Gate.
169. Jerusalem :—Bottom of Wall at N.E. angle of City.
170. Jerusalem :—Minaret and Mosque of the Ascension, on Mount of Olives.
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172. Jerusalem :—from Samaritan Pentateuch, in possession of Mrs. Ducat.
173. Jerusalem :—from Samaritan Pentateuch, in possession of Mrs. Ducat.
174. Jerusalem :—from Samaritan Pentateuch, in possession of Mrs. Ducat.
175. Jerusalem :—View of S.E. corner of the Haram, from the Jericho Road, on Mount of Olives.
176. Jerusalem :—View of City from Bethlehem Road : Neby Samwil in the extreme distance.
177. Wady Khureitun, with Entrance to Cavern (between the two blocks of stone on the right).
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179. Jerusalem :—View of City from Damascus Gate, looking S.E.
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182. Jerusalem :—Old Steps exposed at Damascus Gate (March 8, 1867).
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186. Ta'amirah Women, with cooking utensils.
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189. Convent at Mar Saba.
190. Convent at Mar Saba :—showing the Ravine.
191. Dead Sea :—Mountain range on N.W. side.

* These photographs are to be obtained from Messrs. Bartlett & Co., Fleet Street, price 1s. 6d. each: to Subscribers to the Fund, 1s.

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194. View in Wilderness of Judah.
195. View in Wilderness of Judah.
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197. View of Wilderness of Judah from the Frank Mountain, looking east : line of Moab Mountains in the distance.
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203. Jerusalem :—Armenian Priests.
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205. Jerusalem :—Armenian Pilgrims.
206. Jerusalem :—Armenian Pilgrims.
207. Jerusalem :—Armenian Pilgrims.
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- 337. View over the Plain of the Jordan, from Neby 'Osha.
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- 343. View of Deir Rabbah.

XIV - XV

MEDITERRANEAN HOTEL, JERUSALEM,

October 28, 1867.

MY DEAR SIR,

I have been unable to explore passage in west wall of the Souterrain at "Sisters of Sion"; it is blocked up with masonry. I have, however, examined the hitherto unexplored passage cut in the rock at its southern end, and consider the results will be thought very interesting. Last week I looked into this passage, and found it to open out to a width of 4 ft., and to be full of sewage 5 ft. deep. I got some planks, and made a perilous voyage on the sewage for about 12 ft., and found myself in a magnificent passage cut in the rock 30 ft. high, and covered by large stones laid across horizontally. Seeing how desirable it would be to trace out this passage, I obtained three old doors, and went down there to-day with Sergeant Birtles; we laid them down on the surface of the sewage, and advanced along by lifting up the hindmost and throwing it in front of us. The general direction of the passage is due south; after 16 ft. it runs to west for 6 ft., and then pursues its original course. In some places the sewage was exceedingly moist and very offensive, and it was difficult to keep our balance whilst getting up the doors after they had sunk in the muck. After advancing 6 ft. we came to a dam built across the passage—ashlar—about 10 ft. high; the passage in continuation also containing sewage at the lower level of 6 ft. Everything had become so slippery that we had to exercise great caution in lowering ourselves down, lest an unlucky false step might cause a header into the murky liquid. After leaving this dam behind us some 50 ft. we found the sewage to be firmer at top, and after a few more feet we were enabled to walk on its surface with the aid of poles. The roof now began sloping down so that the height was considerably lessened, and on arriving at a little more than 200 ft. from the commencement we found our passage diminished to only 8 ft. in height, and blocked up at the end by masonry. The sketch will show more clearly the exact position of this passage: it is cut throughout in solid rock from top to bottom, and thus we have a fair section of the contour from the Serai to the Via Dolciosa.

It is evident that no ditch ever traversed the city across the line of this passage; and, therefore, the theory of a cutting from Birket Sorcet to Strut El Wad is untenable, unless it be supposed to have been more northerly in the direction of the arched Souterrain, whose direction, S.S.E., appears inconsistent with such an arrangement. I cannot for a moment think that this passage was originally intended as a drain; it may have been a natural cleft, utilised by cutting, and this would account for its great height, which in some places is full 36 ft. above the surface of the sewage.

Dr. Chaplin suggests that it is the passage, "Strato's Tower," mentioned by Josephus as leading to Antonia.

I have examined the well at the northern end of the Souterrain, and am convinced that it is a spring of considerable capacity.

I will try and obtain a section of the rock down the Via Dolorosa, but cannot see my way at present.

I find that the rock below that portion of the Akse set apart for women, is 15 ft. from the surface, and I think it improbable that there should be a continuation of the vaults between the triple and double gates.

Jerusalem is a necessitous place at present; to-day we can get no meat for love or money; yesterday no bread at any price, and all the week no charcoal; camel-drivers fear to come near the walls; at night you may see mysterious-looking dark bundles lying along the Jaffa road—they are the camel loads which have been brought up hastily and thrown down, the camels being got out of the way as soon as possible for fear of being pressed by the troops. To get mules you must guarantee their safe return to their stables, or the owners will have nothing to say to you. Baskets for removing earth are not to be had now in Jerusalem, the stores of them at Lydd were gutted by the authorities, and I have been obliged to send a fellah through the country foraging for some. All this is the effect of the war on the other side of Jordan, combined with a recent attempt at grafting European usages on Arab customs, which must fail.

The new road to Jaffa is going on most rapidly. Each village within a certain radius (at least 30 miles) has to furnish a contingent of men for so many days. It was estimated at five days each man, or a forfeit of 30 piastres (5s. 4d. English), but some of my men have already paid 50 piastres and worked on Sundays as well, so that in one village at least the pressure must be very heavy.

Portions of the road are told off to each village, and the men are marched off there by the soldiers as if they were prisoners, and are ordered to bring their own food and *water*. Some of them come all the way from Hebron.

Seeing how energetic the Turkish Government is in the construction of this road, it would be more satisfactory did we know that it is being made on sound principles, but as such is not the case, it seems hard indeed that the poor peasants should be forced to spend their time and money on a work which must certainly come to grief during the first heavy rains. There is no doubt but that the road has got on in the most astonishing manner, and is fair to view on the outside, but a system of flat stones thrown about, with earth patted over them with the hands, and then pressed down by rollers drawn by little children, can have little power of resisting the efforts of the winter's rain. It is said the road will be opened for traffic on the 1st of January.

Moab is still in a disturbed state. After Es Salt was taken by the Turkish troops, they proceeded to build there a citadel, and also to repair block-houses at Nimrin and Wady Hesbân, for which purpose men were pressed from the villages about Jerusalem, and all the mules and camels which could be laid hands on were taken up for carrying stones over there.

The pressing of mules into the service of this country is a strange proceeding. The head muleteer must send his men with them, and if he wants the animals to live he must provide money for their food, the rations served out being about 3lbs. of corn per diem. After they have been employed for a

month or six weeks, they are dismissed with a present of ten piastres for the head muleteer, so that it may be said that the mules have been paid for.

After the buildings were completed, the troops left for Damascus, a small garrison of soldiers remaining at Es Salt, and some Beni Hassan Bedawin at Nimrin and Hesbân. Hardly had the troops left when Sheikh Diab, of the Adouans, surprised the block-houses and drove off and killed many of the Beni Hassan and got back a great deal of corn. Part of the Adouans' land had been given up to the Beni Hassan, but Diab fell upon them and plundered their tents, &c. He was prevailed upon to give them back their property, but after he had done so he heard that this tribe were going to retaliate on him, and learning the exact time they would leave their camp, he hastily changed his, and then when they had gone out against him, he in his turn again plundered their tents, and drove them under the walls of Es Salt, where they are at present protected by the soldiery. When the Mushîr sent to know why Diab had driven out and killed the Beni Hassan, he was told not to interfere in the intestine quarrels of the Bedawins.

It is said that Diab has got back more corn than what he paid over to the Government, which must have been a large quantity, as he had not paid up previously for four years.

Goblan gave himself up to the Turkish authorities after he left me, and tied his khafia round his neck (a sign of submission); no doubt it was part of the policy of his tribe that some should give themselves up, but it was an awkward business for him, as a Turk's word is of no value, and he could hardly have known what would be done with him; he has been allowed to return to his tribe; he was very anxious to be taken in some manner that I should be responsible for his safe custody (this was when at Jerusalem); and I had to keep a sharp look-out that he did not get me into the business, and told him plainly that if he got taken through his own carelessness I should not consider myself in any way responsible. He was evidently in a most unhappy frame of mind, one moment wishing to give himself up, the next thinking it would be better to fly the country altogether.

He sent me word a few days ago that if I wanted to go anywhere that he would like to be my escort through his country; I had also a hint that travellers had better not take soldier escorts into Gilead and Moab, as the Bedawin would consider it an infringement of their rights. I also calculate that it would be more expensive to take soldiers, and they are no use as guides, and are apt to be insolent and idle, while the Bedawin, if managed with tact, are very decent sort of fellows.

1st November.—We now hear that Diab has been taken prisoner at last, and conveyed to Damascus, and that the country is quiet. I fear that it will be some time before travelling is the same there as it is over here.

WORKS IN PROGRESS.

Virgin's Fountain.—By last mail I told you we had cleared out the accumulation of centuries from the passage we discovered leading from the main aqueduct, and had arrived at a shaft leading upwards for more than 40 ft.; the sides being smooth, cut out of solid rock.

To-day, 24th October, having managed to obtain a small quantity of wood after infinite trouble, we went down to the Fountain shortly after sunrise; we had some 12 ft. battens 2 ft. square, but were obliged to cut them in half, as 6 ft. lengths could only be got into the passage; the water was unusually low, and we managed to crawl through on our bare knees without wetting our upper clothing very much, which was fortunate, as we had the whole day before us. After passing through the pool we had to crawl 50 ft., and then came upon the new passage, which is 17 ft. long, opening into the shaft. The bottom of this shaft is (now that the deposit is removed) lower by about 3 ft. than the bottom of the aqueduct, and was evidently filled from the Virgin's Fountain. The length of the shaft averages 6 ft., and width 4 ft. We had a carpenter with us, but he was very slow and quite unused to rough-and-ready style of work, and the labour of getting up the scaffolding devolved on Sergeant Birtles and myself; the fellahin bringing in the wood and handing it to us; once, while they were bringing in some frames, the spring suddenly rose and they were awkwardly placed for a few minutes, being nearly suffocated.

By jamming the boards against the sides of the shaft we succeeded in getting up 20 ft., when we commenced the first landing, cutting a check in the rock for the frames to rest on, and made a good firm job of it. Then, with four uprights resting on this, we commenced a second landing. On lighting a piece of magnesium wire at this point, we could see 20 ft. above us, a piece of loose masonry impending directly over our heads; and as several loose pieces had been found at the bottom, it occurred to both of us that our position was critical. Without speaking of it, we eyed each other ominously, and wished we were a little higher up. The second landing found us 27 ft. above the bottom of the shaft. The formation of the third was very difficult; and, on getting nearly to the loose piece of masonry, we found it more dangerously placed than we had imagined, and weighing about 8 cwt. So we arranged it that the third landing should be a few inches under this loose mass, so as to break its fall and give us a chance. This third landing was 38 ft. above the bottom of the shaft. We floored it with triple boards. It was ticklish work, as an incautious blow would have detached the mass; and I doubt if our work would have stood the strain. About 6 ft. above landing No. 3, the shaft opened out to west into a great cavern, there being a sloping ascent up at an angle of 45 degs., covered with loose stones about a foot cube. Having hastily made a little ladder, I went up; and very cautious I had to be. The stones seemed all longing to be off; and one starting would have sent the mass rolling, and me with it, on top of the Sergeant, all to form a mash at the bottom of the shaft. After ascending about 30 ft., I got on to a landing, and the Sergeant followed. We found the cave at this point to be about 20 ft., and to go S.W. and N.W. The former appeared inaccessible; the latter we followed, and at 15 ft. higher came on a level plateau. From this is a passage 8 ft. wide and 3 ft. to 4 ft. high, roof cut in form of a depressed arch, out of rock. We followed it for 40 ft., and came to a rough masonry wall across the passage, with hole just large enough to creep through. On the other side the passage rose at an angle of 45 degs., the roof being at the same angle and still cut in the same manner as before. The space between the roof and the bank is about

2ft. There are toe-holes cut in the hard soil, so that, by pressing the back against the roof, it is easy to ascend. 50 ft. up this found us at the top, where was another rough masonry wall to block up the passage; and on getting through we found ourselves in a vaulted chamber 9 ft. wide, running about N.W. for 20 ft.; arch of well-cut, squared stone, semicircular; crown about 20 ft. above us; below us was a deep pit. We had now to go back for ropes; but, on getting near the shaft, found it impossible to get down with safety. Luckily the Sergeant had a faja on, which, torn up in four pieces, just reached down to the ladder; and we hauled up the rope and took it to the vaulted chamber and descended into the pit about 20 ft. deep, and then into a smaller one about 8 ft. deeper, where we found the appearance of a passage blocked up. Coming back we explored another little passage with no results.

The sides of the horizontal portion of the passage are lined with piles of loose stones, apparently ready to be thrown down the shaft; on these we found three glass lamps of curious construction, at intervals, as if to light up the passage to the wall or shaft; also in the vaulted chamber we found a little pile of charcoal as if for cooking, one of these lamps, a cooking dish glazed inside, for heating food, and a brig for water. Evidently this had been used as a refuge. Two other brigs (perfect), of red pottery, we found in the passage; and also overhanging the shaft an iron ring, by which a rope might have been attached for hauling up water. Having now explored this passage, there only remained that going S.W. To get to it, it was necessary to go down half way to the shaft and then up again for about 15 ft. I had a rope slung round me and started off; the use of the rope was questionable, as it nearly pulled me back in climbing up. On getting into the passage we found the roof (of rock) had given way, and nothing definite could be seen but pieces of dry walls built up here and there. In coming down, part of a dry wall toppled over into my lap as I was sitting on the edge of the drop. Sergeant Birtles was 6 ft. lower down and narrowly escaped them; they were each about a foot cube; three of them came on me, but I managed to hitch them back into the passage. We now heard to our surprise that the sun had set, so getting together our delf, we made all haste down. On coming out, great was the commotion among the people of Siloam, who wanted to have a share in the treasure, and would not believe we had only got *empty* brigs. We got into town some time after dark.

28th Oct.—On going up the scaffold next day a stone over 2 ft. long was found lying on the top landing—it had fallen during the night. The men are now working at the blocked up passage in the vaulted chamber. Two more brigs have been found. A plan and section is sent.

Virgin's Fountain.—With regard to a supposed passage or aqueduct leading from Sion or the Sakhrāh to the Virgin's Fountain, the statements of Dr. Barclay, in the "City of the Great King," and of Sig. Pierotti, are copied into the work of Lewin on the "Siege of Jerusalem," and into the articles on Jerusalem and Siloam in Smith's "Dictionary of the Bible."

These statements are not correct, and have very much misled later writers. I will only speak with reference to Dr. Barclay's work, since if Sig. Pierotti's has the same character for truth and accuracy in England as it has in Jerusalem, it is not necessary for me to say a word on the subject.

There are three parallel passages in the "City of the Great King," bearing on the Virgin's Fountain, at pages 309, 518, and 523.

Page 309, Dr. Barclay states:—"In exploring the subterranean channel conveying the water from the Virgin's Fount to Siloam, I discovered a similar channel entering from the north a few yards from its commencement, and on tracing it up near the Mugrabin Gate, where it became so choked," &c. Again he states, with reference to the same channel, page 518:—"On closely examining a passage turning north, at a distance of 49 ft. from the upper extremity, it was found to be the termination of the channel leading across Ophel from Mount Sion, and explored as far as a point near the present Mugrabin Gate."

In both these passages he distinctly states that the passage was traced from the Virgin's Fount to Mugrabin Gate; and these passages have been made use of by later writers.

Now turn to page 523, and read what he really did do. "I then observed a large opening entering the rock-hewn channel, just below the pool, which, though once supplying a tributary quite copious—if we may judge from its size—is now dry. Being found too much choked with tesserae and rubbish to be penetrated far, I carefully noted its position and bearing, and on searching for it above, soon *identified it on the exterior*, where it assumed an upward direction toward the temple, and entering through a breach, traversed it for nearly a thousand feet."

The plain English of this is, that finding a subterranean passage branching off from the main aqueduct about 40 ft. below the surface of the *rock*, and not being able to get into it, he went on the hill of Ophel outside and *identified* as one and the same passage the main drain of the town, which is built of masonry, and generally only a few feet below the surface of the made earth.

The aqueduct which the two first passages in the book would lead most readers to believe that it was explored by Dr. Barclay, has been filled with deposit (not tesserae) for years, and was only supposed to be what it is—an aqueduct; but contrary to Dr. Barclay's statement, it is now found not to be a tributary to the fountain, but a conduit for water from the Virgin's Pool to the shaft, which the iron ring at the top would lead one to suppose was the ancient draw-well of Ophel.

The fact of the newly found aqueduct being nearly in a line with the first fifty feet of the old one, gives the idea that this may originally have been the means of providing Ophel with water, and that the remainder of the duct to the present Pool of Siloam may have been an afterthought.

Whatever new theories this discovery may give rise to, there is this certainty—that the inhabitants of Ophel had within their wall the means of procuring living water to almost any extent.

Very truly yours,

CHARLES WARREN.

SUBSCRIPTIONS RECEIVED SINCE 1st SEPT., 1867.

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"RESOLUTION PASSED AT A COUNCIL OF THE SOCIETY OF
ANTIQUARIES OF LONDON, NOV. 19, 1867.

"The Council of this Society learns with regret that the action of the Palestine Exploration Committee is crippled for want of funds; a want so urgent, that the operations now in progress in the Holy Land are in risk of being suspended for lack of proper support and sympathy at home. The Council believes the work to be one of the greatest pith and moment, and worthy of the warmest and most liberal support. The undying interest of the land explored, the sound and scientific basis on which the exploration is conducted, the vast importance of the results obtained, and the still greater value—as there is every reason to believe—of the discoveries which are on the eve of being made, and which want of funds will throw back into obscurity: all these considerations seem to the Council to commend this great work to the generous sympathy of all. The Council hereby authorise the treasurer to pay to the Palestine Exploration Fund the sum of £50.

(By order)

"C. KNIGHT WATSON, *Secretary*."

For particulars respecting the PALESTINE EXPLORATION FUND, apply to
the Honorary Secretary GEORGE GROVE, Esq., Sydenham, S.E.

JERUSALEM,

November 12th, 1867.

MY DEAR SIR.

I send you by this mail tracings of junction of the Wall of Ophel with south-east angle of Haram Area—sections through passages in continuation of Gate of Mahomet—sections through the Haram Area to show position of rock and plans of tank No. 11 and the passages west of Birket Israil.

There is a point somewhat north of the Mosque of Omar Platform, where there may probably be a deep ditch filled up with earth; if not, it must be a natural valley, as the rock is entirely wanting at surface.

The section through tank No. 11 is very interesting, as it shows that the arched passage from Triple Gate cannot be more than 3 ft. above the top of it, and that the west wall of the Triple Gate passage lies on top of this tank.

I send you a list of the tanks, with a note of the distance of rock from surface in each case. I have examined the passages west of the Birket Israil. The southern terminates abruptly, at 134 ft., in a masonry wall; the northern opens, at 118 ft., into small arched passage, running north and south, of modern construction, which appears to have been built to enable the rubbish to be thrown down. I am exposing the wall to the west, but at present there appear no signs of a continuation of the passage. This exploration was a very nasty piece of work, as the passage is now used as a sewer, and is choked up to the crown of the arch. In one place we both stuck for about ten minutes, not being able to get backwards or forwards.

I don't know now of any likely place that we have not examined, and feel quite content to see the rain pouring down, which it has been doing since yesterday evening.

I have been engaged for the last fortnight in examining tanks all over the place, but have found none, except Nos. 11 and 22, in the Haram Area, which are interesting.

The cistern at the Damascus Gate is the only one which had much water in it—5 ft.

We are now going on with the gallery under the Cedron, and have met with some very large stones, which have to be broken up.

At the Virgin's Fount we have sunk a shaft down to the upper arched chamber, lately discovered, and now can get in the passage from the Hill of Ophel. We can find no signs at present of a continuation of the passage.

Outside the Dung Gate a shaft is being sunk to open up the passage discovered at the south-west angle of Haram Area.

The gallery in shaft No. 6, Tyropæon Valley, is in progress.

Arrangements are being made to sink a shaft under the *southern* part of Wilson's arch along Haram Wall. The northern part of the arch has been built up, and is used for a tank.

Walls are found in every direction at the Maristan, but nothing definite. I am now sinking to find rock if possible.

Yours very truly,

CHARLES WARREN.

TANKS OF HARAM AREA.

(See Captain Wilson's Notes, page 43.)

No. 1. Rock, 12 ft. from surface of Mosque platform, 2,423 ft. above Mediterranean.

No. 2. Rock, 6 ft. from surface, 2,429 ft.

No. 3. Rock, 9 ft. from surface, 2,426 ft. The channel cut in rock was explored November 11, 1867. It runs north and south, and receives the surface water from smaller ducts, which run east and west.

No. 4. Rock, 11 ft. from surface, 2,424 ft.

No. 5. At North-west entrance, rock, 10 ft. from surface of platform, 2,425 ft.; at south-east entrance, 8 ft. below surface of area, 2,408 ft.

No. 6. Rock, 5 ft. 6 in. from surface, 2,410 ft. 6 in.

No. 7. Rock, 5 ft. below surface, 2,411 ft.

No. 8. Rock, generally 5 ft. below surface, 2,411 ft.

No. 9.

No. 10. Rock, 31 ft. from surface, 2,385 ft.

No. 11. Rock, 19 ft. from surface, 2,399 ft.

No. 18. Rock, 4 ft. from surface, 2,314 ft.

The following tanks are now numbered for the first time:—

No. 21. South of Birket Israil, 21 ft. deep, 24 ft. by 12 ft. Of masonry; no rock visible.

No. 22. Near Bab en Nazir, a large cistern, with roof cut in rock, domed; large circular openings into it from surface, and a flight of steps at south; rock 4 ft. from surface, 2,412 ft.

No. 23. North-west corner, and beyond Mosque platform, 35 ft. deep; small; rock on surface.

No. 24. Tank under building, south-west of No. 3; rock crosses at 9 ft. below surface, 2,425 ft.

No. 25. South of No. 24, small, 37 ft. deep, 20 feet to rock, 2,414 ft.

Tank No. 11.—Explored by me, November 11, 1867, is situate on east of Mosque of Aksa, bottom 61 ft. 6 in. below surface of ground, which is 2416 ft. above Mediterranean Sea level, consists of three tanks running east and west, and connected by a passage 14 ft. wide, running north and south, 100 ft. by 60 ft., contains an area of 80 ft. by 55 ft.=4,400 sq. ft., and is capable of holding 700,000 gallons of water, while the "Great Sea" may contain 1,000,000.

Steps run up along the west side, and issue close to the mouth of cistern, cut out of solid rock; roof of same, flat, and 30 ft. below ground line; surface of rock 19 ft. below ground line.

The vaulted passage from Triple Gate runs over this passage.

CHARLES WARREN.

XVII.

JERUSALEM,

November 22nd, 1867.

MY DEAR SIR,

I have but little to tell you by this mail with regard to the works : the mining-frames have arrived at Alexandria, and I hope to see the first instalment next week ; the tracing paper and compass have turned up safely. Mr. Moore found them at the Consulate at Alexandria and kindly brought them on. The photographs must be making a long sea voyage, for they are now two mails behindhand and I can hear nothing of them ; I am much in want of them.

I am going to try again to-morrow at the passage under the Single Gate,* but I fear we shall not be able to get further than we have done already. It is evident that the passage has been filled up intentionally, and as there are some very large stones jammed together at the end, I don't see how we are to get through them. The passage leading east is the entrance to a shaft which probably opens into the vaults above.

At the Kedron we are now about 40 ft. under the present false bed and 70 ft. to the west of it ; we have found rock again, but I do not think we have yet come to the original bed, and shall not know until we get more mining frames. Of this we are now certain, that the rock east of the East Haram wall stands at an angle of more than 30 degrees ; so that Josephus is again proved to be right when he says that the temple cloisters extended to the east to the edge of the rocky slope. We have met with some very large stones and some pottery.

At the Muristan we have had to fill up our trench in a hurry ; the rains came on, and ploughing is going on everywhere. Already a part of the open space is ploughed up and sown with broad beans. I am very much disappointed in our excavations there ; we did a great deal of work and found nothing but confusion in the shape of old walls running at each other in all directions. We went 40 ft. down in two places and found no signs of rock. The Greek patriarch says he does not want the tank, so I shall make a hole in the bottom of it and sink through it in search of rock, though I am not certain that it does not crop up in one place, and will examine it first.

Outside the Dung Gate we are sinking a shaft to find the other end of the passage found at the S.W. angle of the Haram wall ;† we are 26 ft. down and have not yet come to it.

I have left the passage at the Virgin's Fountain till I hear from you ; the only way I can see of exploring it properly is to tumble all the *débris* down the shaft and so fill it up, as it is so dangerous at present.

*At No. 6 Shaft, west of Robinson's arch, we have been examining the wall it is very curious. I sent you a model of the lower part ; the wall running E. and

See Letter of 12th October.

† See Letter of 2nd October.

W. is 14 to 15 ft. thick, but I cannot believe it ever was one of the piers of the bridge. The masonry, though very ancient, is not in keeping with that of the Haram wall; it is about 15 ft. high above the rock, the core of the wall only remaining in the upper parts; the remains of a house rest on the top of the wall.

We have been opening some conduits near Burj el Kibryt, on the outside of the wall. They appear to have come from a place under the Jews' Hospital. They are about 1 ft. 9 in. by 2 ft., and are in too bad repair to be explored. Similar ducts were met with in the spring, when extending the hospital, but they were equally out of repair.

Under Wilson's arch to south, we are sinking a shaft alongside of the Haram wall to see what it is like. We are down 15 ft., the stones are bevelled and are of the usual height, 3 ft. 9 in. I should think that the Greek or Roman foot had been in use in building the Haram wall, as the stones generally are in measure multiples of our English foot very nearly.

A wall has just been found in the gallery at the Kedron, rough rubble stones 2 ft. by 1 ft. 6 in.

I send two copies of the rough embodiment of my hill-sketching west of the Jordan, reduced by photography; the lines in the upper part of them are blurred, probably by the action of the wind on the plan while the plate was being exposed. The lower portion about Wady Kelt is the style according to which I should propose making the fair plan. It differs somewhat from that of Anderson, but so it must do of necessity, as at present we have no uniform scale of shade for plans 1 inch to the mile; and as the country I have worked over is more rugged and broken up, I have adopted a lighter shade.

I have great confidence in the positions of all places on my map north of Dawaimeh; of those parts about Gaza I am not so certain; we were among the Bedouins without any guard, and the observations had to be hurried, as the Arabs became very impatient, and it required some tact to prevent a quarrel, there being several of the Southern Bedouins about, attracted by the corn harvest.

The coincidence in position of Beit Jibrin, as fixed by Lieutenant Anderson and myself, is remarkable, since it was obtained by different methods. We differ one mile in longitude with regard to Ain Shems; but it is a ruin straggling along a hill running east and west, and we may have taken opposite ends. In that case, our latitudes agree to 4 minutes.

The whole of my work is based upon the position of Ramleh Tower and Jaffa, as given me by Lieutenant Anderson, and by my observations at Tell es Safiyeh for latitude; all other points are obtained by triangulation and checked at Esdud, Ascalon, Gaza, Sorah, and Beit Jibrin by observations for latitude.

The method I adopted was observing α Polaris morning or evening for meridian with a 5-in. theodolite, and taking rounds of angles to all villages in sight at same time. By these means I obtained a complete set of triangles connecting the following points, viz., Ramleh Tower, Jaffa, Yebneh, Esdud, Ascalon, Gaza, Tell es Safiyeh, Neged, Dawaimeh, Tell Bulnard, Arak Menshiyeh, Bint Ula, Tell Zakaria, Beit Attab, Beit Natif, Deir el Howa, and Surah. The other villages were fixed partly with compass and partly with theodolite. At its best, I consider the method I have adopted to be a vicious

system, but vastly preferable to any that have been used hitherto, except Lieutenant Symonds' triangulation, which was done under more favourable circumstances than can exist in the present state of affairs. I should have preferred to continue Lieutenant Symonds' triangulation down into Philistia, and I hope at some future period it will be done; but it would be expensive.

You will see by my tracing that the existing plans could be of little use as a guide to one who did not know the country, and I am not certain that they were not a hindrance, as I spent time in looking for villages which do not appear to exist—for instance, Kadûm and Saber. Arak es Sewerdan is in Van de Velde's map, about 3 minutes too far to south. Tell et Turmus is a village near the wady, and not a hill. The three Sawafirs are quite out of place.

The villages are all like so many peas, and unless they are each visited and angles taken from them, I defy anybody to make a correct map. I do not accuse the fellahîn of willingly putting one wrong, though they are quite equal to it, but they are quite unused to the exercise of their eyes except as regards petty larceny, and it is difficult to make them understand what is wanted. I should like to ride over all the country again and put in the *smaller* features of the hills, which could not be done while fixing villages.

Yours very truly,

C. WARREN.

XVIII.

JERUSALEM,

December 1st, 1867.

MY DEAR SIR,

The fifty-one cases of mining-frames have arrived, and we are using them in the Kedron and at No. 5 Shaft, in the Tyropœon, west of Robinson's Arch. I am very anxious to complete the section at these two points, as I think the identification of the east and west Haram walls with the east and west ends of the cloisters mentioned by Josephus depends upon the results we obtain.

"The hill that declined by degrees towards the east part of the city, till it came to an elevated level"—appears to me to be an exact description of the Tyropœon valley as we have found it; and as Josephus remarks that the wall was built up from the bottom of the hill, we may suppose that the deepest part of the Tyropœon gully would be a few feet to west of the base of the present wall. If we find such to be the case, I cannot doubt but that this is at least the site of the ancient wall. Again, at the east wall, if we prove that at that point the rock shelves down at a steeper angle, we shall be pretty certain that at that point the cloisters ended on the east side; and I cannot see how it can be said that the ancient wall ended at the Triple Gate, which is the very highest point of the rock in the south wall.

Don't expect to hear much for two or three mails, as we shall be some time working with the gallery frames before we can make much progress. I find with these Arabs that a sloping gallery would not be profitable, and from the tank in No. 5 shaft, we are driving a gallery on, for aught I know, a novel

system, viz. at an angle of 45 degrees—frames upright, and stepped down each one foot below the last, presenting the appearance of a staircase. It suits our style of work very well. If there is a pier we ought to reach it by the end of the week; if not, we shall go on until we come to rock or the wall, and I calculate we shall arrive just at the junction of the two. We shall pass under the lowest point of Captain Wilson's shaft by more than 20 ft., so that we must at least pass through the walls he came upon. The gallery in its sloping direction will be about 120 ft. long. At the shaft under Wilson's Arch we have got down 26 ft., but are nearly stopped, having got among the *débris* of huge stones of *mezzeh*, hard as iron. If we cannot get down to the foundation of the wall, I hope to run a gallery south at 30 ft. depth, in search of the second suburban gate. The stones in the Haram Wall in this shaft have assumed the appearance of those found at S.W. angle, rough-dressed on inside.

In the Kedron we don't exactly know where we are: whether at the bottom or not. We have come across the rock or else a huge stone, and cannot know for a day or two. We have got through the wall I spoke of in my last letter.

Very truly yours,

CHARLES WARREN.

XIX.

MEDITERRANEAN HOTEL, JERUSALEM,

December 12th, 1867.

MY DEAR SIR,

During the last fortnight I have been occupied in exploring cisterns and passages in and about Jerusalem, and it appears to me that the great question of the ancient Water-supply is soon likely to draw some attention.

I should have preferred waiting for another mail before making any observations on the subject; but as I know you are anxious to hear what is going on, I will endeavour to point out to what our present imperfect results in excavating are tending.

1. About a mile south of the village of Lifta,* on the crest of a hill, is a chasm in the rocks, about which there are many traditions, and which we failed to explore in the spring. We went there last Monday, provided with three ladders, reaching together 120 ft., and a dockyard rope 165 ft. long. We had three men to assist in lowering us on the rope. The entrance from the top just allows of a man squeezing through, but as you descend, the chasm opens out until at 125 ft. it is about 15 ft. by 30 in. At this point is a ledge, and we rested there while we lowered the ladders another 30 ft., to enable us to descend to the bottom, which is at the great depth of 155 ft. from the surface. The chasm is exactly perpendicular, and the bottom is horizontal. Water was dripping quickly from the rocks, but ran out of sight at once. On the floor was a rough stone pillar, and near it the skeleton of an infant; close to the pillar is a cleft in the rock, very narrow, into which the water was running. I got down into this, but it is a crevice which gets narrower and narrower, and there being no hold, I slipped down until my head was about 4 ft. below the surface. Here I stuck, every movement jamming me tighter down the cleft. Ten minutes of desperate struggling, and the help of a friendly grip, brought me to the surface again, minus a considerable portion of my skin and clothing. On ascending, we had some little excitement—at one time the grass rope-ladder caught fire; at another, the men suddenly let me down nearly three feet, the jerk nearly wrenching the rope out of their hands.

I cannot help thinking that this cleft is partially artificial. I have not yet ascertained its level with reference to Jerusalem, but there is the possibility of its being in connection with the cleft where we were excavating near the Russian buildings, which some suppose to be the shaft of an aqueduct by which the town used to be supplied with water.

2. *Within the walls.*—I have examined and surveyed the large tank at the Burj al Kibryt; it is fully described at p. 221, Lewin's "Siege of Jerusalem." The plans and sections shall be sent by an early mail.

I have also examined the Hammâm esh Shafa.† Captain Wilson's plans give every information on the subject. The smell of the water was disgusting, exactly similar to what is encountered in any of the dirty bath-rooms of Jerusalem. I conclude that a portion of the dirty water from the baths

* Two miles N.W. of Jerusalem; probably the ancient Nephtoa.

† A well outside the Bab el Kattaniin, on the west wall of the Haram.

finds its way back again into the well. The level of rock at this well I calculate to be 50 ft. below the surface of the Haram Area. On ascending, I found a second shaft reaching from top to bottom, and it is evident that at one time the water was obtained by means of a Na'ura, or "Persian water-wheel" (p. 276, "The Land and the Book"), which leads one to suppose that water may have then been more plentiful than it is at present.

3. *Siloam*.—I have examined and surveyed the rock-cut passage leading from the Virgin's Fount to Siloam. We entered from the Siloam end, so as to have as much clean work as possible. For the first 350 ft. it was very plain sailing; the height of passage sloping down from 16 ft. at entrance to 4 ft. 4 in.; the width 2 ft.; the direction a wavy line to the east. At 450 ft. the height of passage was reduced to 3 ft. 9 in., and here we found a shaft leading upwards apparently to the open air. This might be made use of to great advantage by the owners of the soil overhead. From this shaft the passage takes a north-easterly direction, and at 600 ft. is only 2 ft. 6 in. high. Our difficulties now commenced. Sergeant Birtles, with a fellah, went ahead, measuring with tape, while I followed with compass and field-book. The bottom is a soft silt, with a calcareous crust at top, strong enough to bear the human weight, except in a few places where it lets one in with a flop. Our measurements of height were taken from the top of this crust, as it now forms the bottom of the aqueduct; the mud silt is from 15 in. to 18 in. deep. We were now crawling all fours, and thought we were getting on very pleasantly, the water being only 4 in. deep, and we were not wet higher than our hips. Presently bits of cabbage-stalks came floating by, and we suddenly awoke to the fact that the waters were rising.* The Virgin's Fount is used as a sort of scullery to the Silwan village, the refuse thrown there being carried off down the passage each time the water rises. The rising of the waters had not been anticipated, as they had risen only two hours previous to our entrance. At 850 ft. the height of the channel was reduced to 1 ft. 10 in., and here our troubles began. The water was running with great violence, 1 ft. in height, and we, crawling full length, were up to our necks in it.

I was particularly embarrassed: one hand necessarily wet and dirty, the other holding a pencil, compass, and field-book; the candle for the most part in my mouth. Another fifty feet brought us to a place where we had regularly to run the gauntlet of the waters. The passage being only 1 ft. 4 in. high, we had just 4 in. breathing space, and had some difficulty in twisting our necks round properly. When observing, my mouth was under water. At 900 ft. we came upon two false cuttings, one on each side of the aqueduct. They go in for about 2 ft. each. I could not discover any appearance of their being passages: if they are, and are stopped up for any distance, it will be next to impossible to clear them out in such a place. Just here I involuntarily swallowed a portion of my lead pencil, nearly choking for a minute or two. We were now going in a zig-zag direction towards the north-west, and the height increased to 4 ft. 6 in., which gave us a little breathing space; but at 1,050 ft. we were reduced to 2 ft. 6 in., and at 1,100 ft. we were again crawling with a height of only 1 ft. 10 in. We should probably have suffered more

* The "Virgin's Fount" is a spring, the waters of which rise suddenly at irregular intervals, and subside again shortly after rising.

from the cold than we did, had not our risible faculties been excited by the sight of our fellah in front plunging and puffing through the water like a young grampus; at 1,150 ft. the passage again averaged a height of 2 ft. to 2 ft. 6 in. At 1,400 we heard the same sound of water dripping as described by Captain Wilson, the Rev. Dr. Barclay, and others. I carefully looked backwards and forwards, and at last found a fault in the rock, where the water was gurgling, but whether rushing in or out I could not ascertain. At 1,450 ft. we commenced turning to the east, and the passage attained a height of 6 ft. At 1,658 ft. we came upon our old friend, the passage leading to the Ophel shaft,* and, after a further 50 ft., to the Virgin's Fount. Our candles were just becoming exhausted, and the last three angles I could not take very exactly. There were fifty-seven stations of the compass. When we came out it was dark, and we had to stand shivering for some minutes before our clothes were brought us; we were nearly four hours in the water. I find a difference of 42 ft. between my measurements and those of Dr. Robinson, but if he took the length of the Virgin's Fount into account, we shall very nearly agree.

4. *Muristan*.—We have come to the rock at a depth of over 70 ft. in the shaft N.E.

5. Below the Bir Eyub there is a spring some 500 yards down the wady. I have had this opened, and at a depth of 12 ft. a stone suddenly rolled away, and revealed a staircase about 25 ft. deep, and at the bottom passages leading north and south. We are now at work clearing away the rubbish. Steps and passages are cut in the rock; the latter are about 6 ft. high, and may have been for leading off the Jerusalem waters out of reach of an enemy investing the city.

6. *Kedron*.—We have met with a good many hindrances in this gallery, but are now 90 ft. from the entrance.

7. *Robinson's Arch*.—I am on the tip-toe of expectation about this gallery. We are now about 55 ft. deep, and are only 54 ft. from the Arch. We cannot descend, as we are working along a smooth-cut face of rock underneath us and to our right.

8. *The Pool at Burak*.—We are now about 45 ft. below the surface, and getting on but slowly.

9. *Huldah Gate, at south end of double passage below the Aksa*.—Within the gate I have removed the stones and examined the passage through the wall at the south-west end of the great tunnel; the wall is about 16 ft. thick, and very rough on the outside. It is backed up with earth. I do not see any signs of the continuation of vaults or buildings to the west of this passage; this is an important negative discovery. On Saturday I am going to explore some other passages I have found under the Aksa.

10. I have been examining the western wall of Haram Area to north, and have found a cistern, where I think I can do something towards baring the wall. On 2nd January I hope to be able to send you a correct section through the Tyropæon Valley and Kedron, with the south wall of the Haram Area in elevation. At the same time, I shall be able to send you an approximate elevation of the southern half of the western Haram Wall. From what I can see at

* See Mr. Warren's letter of October 28, pp. 37—39.

present, it would appear that the ancient gate under the Bab el Magharibeh* (which I shall call Barclay's Gate) must at the level of its ancient roadway be some 40 ft. or 50 ft. above the bottom of the Tyropœon gulley, in which case there was probably a bridge here also, unless the gulley was filled up when the wall was built.

I have reason to believe that the Tyropœon gulley turns sharp off to the east after passing the Haram Wall, and joins the Kedron above the Virgin's Fount, thus cutting off Moriah from Ophel. This idea is founded on the supposition of the deepest part of the Tyropœon gulley being west of the Haram Wall, which, however, is not yet proved.

I send you a sketch of the position in which I suppose the gulley to be; if this turns out to be correct, then there will be good reason to suppose that the Hammâm esh Shafa is connected with the Virgin's Fount.

Very truly yours,

CHARLES WARREN.

XX.

JERUSALEM, *December 21st, 1867.*

MY DEAR SIR,

I have been so busy exploring this week that I have not time left to enter much into details.

1. *Kedron*.—Gallery driven 105 ft., ascending gently.

2. *West Wall of Haram*.—Under Wilson's Arch, 55 ft. below bottom of pool; at about 45 ft. water was found: it tasted like that at the Virgin's Fount. Excavation was made through the water to a depth of 2 ft., and then had to be stopped. For four days the water was carefully examined, and always found to be running through the bottom of the shaft. A very heavy day's rain came on, and next morning the water had disappeared, and we have since been able to excavate 10 ft. lower. It is most curious, and the only solution I can see to the question is by supposing that a stream of water at the bottom of the Tyropœon gulley had become dammed up, and that the heavy rain, washing away the impediment, enabled it to flow at a lower level. From different causes, I now find so many probabilities with regard to a stream flowing down the Tyropœon Valley, through the midst of the land, that I almost regard it as a certainty. From this shaft at Wilson's Arch I intend, if possible, to drive a gallery westward, to seek for the stream.

3. *Robinson's Arch, Shaft No. 6*.—In my last account (Dec. 12) we were driving eastward, along the rock, with a face of rock to our right. At about 54 ft. from the Haram Wall we found rock to our front and also to our left. The gallery happened to be driven in an artificial cutting in the rock, just a little larger than the frames, and this was only found out when we got to the end of it, and had rock on four sides of us. On poking up the rock a fine bevelled stone was found *in situ*, and concluding that it was the western pier of Robinson's Arch, I altered the gallery, raising it 12 ft. Yesterday we came upon the massive wall again, and I send you a section of it. Only two courses

* In the west wall of Haram, south of the Wailing Place.

of stone are *in situ* at the point we have struck the pier. They are splendid stones of hard *mezzeh*, the lowest course 3 ft. 6 in. high, the upper 3 ft. 9 in., which latter is the height of the large stones in the Haram Wall. The stone we are working over weighs at least 7 tons, but there is no reason why it should not be much larger, as I cannot yet get to the end of it either way. I have no reason to doubt about this being the pier, but, of course, we cannot consider it proved until we can get a look at the other side of it.

4. *Double Passage below the Aksa*.—Search was made on all sides of this passage. The "Well of the Leaf" was examined, and at the bottom was found a curious arch of tiles (like Malaga bricks): it has the appearance of having acted as an outlet to some subterranean flow of water. In examining the aqueduct which leads through the double passage to the well, a blocked-up passage was found, and, on removing the rubbish, it was found to lead into several ducts, which the plan* will best describe: they are about 5 ft. below the present Haram surface, and are similar to those beneath the Sakhra platform: one of them is rendered with a very curious plaster of broken pebbles, and somewhere in its length it is possible there may be the shaft to a tank beneath, as the inclination of the ducts appears to be towards this passage.

At the north end of the double passage, to the east, there is a vestibule or vaulted chamber 17 ft. square: its arch is similar in construction to that of the northern part of the double passage. It may perhaps have been built to serve as a guard-room or porter's lodge to the gate.

Entrance to the "Tomb of Aaron's Sons," in the Aksa Mosque.—The wall at this point was broken through, and found to be very rough on the outside: 10 ft. 6 in. thick; stones, 2 ft. by 1 ft. 6 in. by 1 ft. 6 in.; it is backed up with made earth.

"Standing-place of Elias," in the Aksa.—The end of the passage or doorway here was broken through; it is about 1 ft. 6 in. thick. Behind it is a mass of loose rubbish, and after removing about a ton of it I was able to get through, but could see nothing to lead me to suppose that there is anything beyond but made earth.

The conclusion I have come to after making these excavations is that the "double passage" is a tunnel built through the made earth of the Haram Area, and quite unconnected with any vaults on either side. I can only account for the ducts I have found to the west of it by supposing that at one time the passage only extended for 190 feet from the south wall of the enclosure (at which time the Aksa Mosque could not have been in existence), and that the ducts were used for collecting the surface water. When the Aksa was built, it appears that the passage was extended to its present length (260 ft.), but on the east side only, as a heavy mass of masonry supporting a considerable portion of the Mosque rests just where the western passage should come; also, it appears that in order to prevent the arch of this extended passage cropping up above the Haram surface, it was necessary to cut down the old ramp to a gentle slope, and by that means to cut through the duct leading to the well of the Leaf. I find there is a break in the arch of the eastern passage just where the western terminates, and the ramp at that point also changes its inclination.

* Lithograph, No. 9.

I have been taking many visitors over the works lately, and I can see that they do not at all realise what is going on until after they have been slung down some of the shafts and squeezed through a few of the holes.

Somebody has opened the Tomb of Jehoshaphat; it is the place where the Jews threw away the old copies of their books. The Rabbi seemed to think that I had done it, and sent to ask me to close it up. I sent at once to tell him that I had nothing to do with it, and to assure him that I did not touch the Jewish tombs. The Sheikh of Silwan also sent him word that he might be sure it was not my work, as if we had been there it would have been closed up again and nobody would be any the wiser. I am going to see the Rabbi in a few days, and show him the plans and sections of the Haram Wall, &c. I have offered to employ the Jews in excavating, but it is out of their line altogether.

Very truly yours,

CHARLES WARREN.

XXI.

MEDITERRANEAN HOTEL, JERUSALEM,

January 1, 1868.

MY DEAR SIR,

The weather has been very boisterous for some days, several steamers have been unable to touch at Jaffa, and our letters by the last mail have gone on to Beirût, and are not expected back till Saturday. The rain has been falling in torrents, and consequently, our progress has been small. Our excavations have been as follows:—

1. *Birket Israil*.—Commenced in search of rock: after getting sixteen feet through loose stones and boulders, the rains swamped out the workmen; this excavation will be continued in a few days.

2. *Kedron*.—Gallery ascending gently one in ten, 125 ft. in length: entrance has twice been choked up by debris brought down by the heavy rains.

3. *Under Wilson's Arch*.—The depth last post was given as 55 ft. instead of 50 ft. At 50 ft. 9 in., rock was discovered and the base course of the Haram Wall is found to be let into the rock: I wished to have driven a gallery to the west to explore the gully, but the pick could make no impression on the concreted mass of rubbish, and I cannot use gunpowder so near the Haram Wall.

At 21 ft. 6 in. from the surface I am driving a gallery to the south along the Haram Wall in search of Fergusson's Gate; we have got in about nine feet.

On the opposite side of the archway a shaft has been commenced to examine the east side of the pier, without any results at present.

4. *Aqueduct south of Bir Eyub*.—This has been cleared to the north for 107 ft., the roof is ascending rapidly, and we may hope to find an open passage in a few days. Where we are working it is right up to the roof with silt, without a stone in it. At the rate we are getting on now it will take 18 months to get up to Bir Eyub, so that if after another hundred feet I still find it completely choked up I shall relinquish the work there. I shall be very sorry to do so, as I think

that it is connected with the ancient system of water supply, and will probably lead to interesting results.

5. *On the Hill of Ophel, 350 ft. south of Double Passage.*—Sinking shaft to try the depth of rock; recently commenced.

6. At 27 ft. east of Single Gate I examined the Haram Wall for several feet beneath the surface, in search of an opening into a passage which I believe to exist under the vaults. I could find no signs of any opening. You may observe that in the bay east of Single Gate the piers of the arches are unusually wide apart, and under that space I think a passage must exist; however I can see no means of getting down to it through the masonry, as most of the stones are of *mezzeh*, of several tons weight, and so hard as to make an impression on the spalling hammer.

7. *Vaults east of Aksa.*—These vaults are now inaccessible to visitors, the broken arch having been repaired; there is, however, a small window, or opening, from the so called "Cradle of Jesus," and through this we crept or squeezed with some difficulty, as it is only 9 in. wide and 19 in. high. I made an elevation of the west wall of these vaults, and also an excavation through the wall for about 6 ft. and found nothing but made earth. I wish to drive a gallery from this wall underneath the Aksa, and hope to commence in a few days.

8. *Pier of Robinson's Arch.*—The results obtained here are very puzzling. The pier is 12 ft. 2 in. thick, and the distance to the Haram Wall, from east side of pier, is 41 ft. 6 in. There is a very curious opening, or gateway, in the eastern face of the pier, and beyond it towards the Haram is a pavement *in situ*, which has been traced as yet for 8 ft.—thus reducing the gully to a width of 34 ft., unless we suppose that it is the top of a low level bridge which has never been destroyed. Altogether it is incomprehensible, and cannot be cleared up before this mail, goes out. We are now apparently among the ruins of the upper bridge, and have got out some very large paving stones, and have had to break up some still larger stones of 3 and 4 tons. Luckily they are all similar to those at Robinson's arch, and are very soft; the paving stones are of very hard *mezzeh*, and their surface is polished. We have had to get them out whole, and have been two afternoons about it, six of them weigh $2\frac{1}{2}$ tons. I cannot find anybody about who is competent to assist Sergeant Birtles, and the Fellahin cannot be left to themselves for a moment while any work is being done, the neglect of which might cause accidents: even in bringing those paving stones up it took us both all our time to keep things going; and in getting down the bigger stones in the galleries the men are afraid to go on by themselves. To get on properly we ought to have a couple of English miners to assist Sergeant Birtles. I get so much manual labour just now, that I have little time to do anything else. I will not send any sketch of the opening in the pier, &c., by this mail. Perhaps in ten days more something definite will be known.

It will be noticed that the span of Robinson's arch is similar to within six inches the same as that of Wilson's arch.

What with the rains and Ramadan, we can get very little work out of the men; they are quite useless with the thermometer at 40 deg. F.; and now for a month they can neither eat nor drink during the day, so that they become

exhausted before they finish work. They work much better in the summer time. On a rainy day they would much rather lose their pay than go to work; they have no idea of working to keep warm, and present a ludicrously forlorn appearance standing first on one leg and then on the other, like a brood of half-drowned cochin-china chickens. Before the winter is over here I expect they will have improved very much.

A public execution took place here a few days ago of a Taamirah Bedawi: he had murdered a Jerusalemite Mahometan, and was lying in prison. The widow and brother-in-law of the murdered one, finding justice lagging, telegraphed to Constantinople, and obtained a firman for the Taamirah's execution: his family offered £200 for his release, but the widow of the Jerusalemite was too public spirited or too vindictive to allow such an offer to have any effect upon her, and it was settled that the man should be decapitated.

He was brought out for that purpose to the Jaffa Gate; but his family still seemed to think there was hope for him, and when the time was up made a last appeal to the widow of his victim. During the short conversation which took place with her, the convict opened his mouth, eyes, and nostrils in his endeavours to hear her replies, and when he was put out of his dreadful suspense by finding her inflexible, he appeared to be already suffering the pangs of death.

The execution was truly barbarous; the unfortunate man first got a cut across his shoulders, and turned round to say, "You are hurting me;" then the amateur executioner, finding that sixteen blows did not sever the head from the body, turned the man upon his back, and sawed away at his throat as if he were killing a sheep. Eventually he managed to get the head and part of the shoulder off the trunk, and together they were left during the day for the diversion of the multitude.

This execution will no doubt have a very salutary effect on the surrounding Bedouins.

Very truly yours,

CHARLES WARREN

XXII.

JERUSALEM, January 11, 1867.

MY DEAR SIR,

During the last ten days there have been a great many visitors to our works—nearly twenty. The discoveries of the pier of Robinson's Arch and the fallen arch stones have created no small stir in Jerusalem; and all classes

wishing to go down to see them. I have had a visit from Mr. Berlina, the son of the late Chief Rabbi of London, and have made arrangements for taking a party of learned Jews down next Monday; he talked about bringing a hundred, but it will take half a day to show ten all that there is to be seen. Yesterday the works were crowded with Jews wishing to go down: we were obliged to put them off until after working hours, so as not to interfere with the workmen.

To-day, when taking an English party round, I found some Jews seated at the top of the shaft, and asked them to come down: they declined on account of its being the Sabbath. One of our party explained that the Sabbath day's journey might be taken under ground as well as on the surface, and then one of them joined us and came down.

On Thursday I took the Consul-General of France and party over the excavations, and they were particularly interested and delighted with what they saw. Our progress on the whole is very slow, as now we are among large loose stones. We are trying the fellahin's courage a great deal.

WORKS IN PROGRESS.

Makhama, under Wilson's Arch.—Gallery driven to south along Haram Wall for 30 ft. No sign of any opening in wall corresponding to Barclay's Gateway.—Shaft under Arch on west side; a curious recess has been found in the pier similar to those at Robinson's Arch, except that it extends through the courses: a sketch of this will be sent when the shaft is completed.

Pier of Robinson's Arch.—This has now been bared to north for 25 ft. and the corner to west has been turned. The builders of this pier, in a truly economical spirit, characteristically Jewish, have built it with recesses so as to save a very large portion of the stone, which would otherwise have had to be used. As far as I can judge of the pier at present, it is 45 ft. long and 12 ft. through: it is built with a hollow space inside of about 5 ft. width, and the whole pier seems to be made up of smaller ones averaging 6 ft. in length, the bays or openings being similar in dimensions. These little piers are the height of two coursés (3 ft. 9 in. and 3 ft. 6 in.), 7 ft. 3 in.; and lying across them and the bays are lintels, the largest being 12 ft. 6 in. in length, 3 ft. 9 in. height, and weighing over ten tons.

I wish to know whether in the other parts of the world or Syria, similar economical designs have been found in building where arches are not used. No doubt this method of building may be considered, as far as it goes,

as characteristic of one particular epoch, probably before the arch was in general use; and yet it differs entirely from the massive styles of Egypt and Assyria. East of the pier, on a level with the rock surface, is a pavement which we have examined for about 18 ft.; and on it, lying huddled together just as they fell, are the actual voussoirs of the great viaduct called Robinson's Arch: they lie in lines north and south, and between them one can squeeze with difficulty for some 10 or 15 ft. each way. They are in our way going east, and though they are of *melekeh*, they are so hard that the men cannot break them, and I have had to blast them. It will take us at least a month more thoroughly to examine this pier and all that pertains to it.

At the Kedron, the rock is beginning to rise rapidly, and I shall close the gallery up in a few days. We are now 145 ft. from entrance.

At the Aqueduct below Bir Eyub we are getting on slowly.

Very truly yours,

CHARLES WARREN.

XXIII.

WORKS IN PROGRESS.

JERUSALEM, Jan. 22nd, 1868.

We have made a great discovery this week—viz., a system of vaults, tanks, and aqueducts, in connection with, and to the west of Wilson's Arch: they are apparently of similar age and construction, and are likely to throw considerable light on Jerusalem topography; in fact, it appears to me that this system of vaults is the key to underground Jerusalem, and, if we are not interfered with, we may reasonably hope very soon to have a good knowledge of the great embankment which runs across the Tyropeon Valley.

Makhama.—Wilson's Arch.—Shaft on east of pier continued to a depth of 41 feet; pier below, a depth of 21 ft. 6 in., is composed of rough hewn stones. Hole broken through pier to west for 10 feet in search of another arch. Two holes were made in the chamber A in search of continuation of Wilson's Arch to west; and on Saturday, 18th instant, the hole to the north was found to open on to a space covered by a trimmer arch, running east and west, resting on the arches in continuation of Wilson's Arch. These arches are in two sets, side by side, and make up together the length of Wilson's Arch. The span of the northern set is only 12 to 13 feet, that of the southern from 22 to 23 feet; underneath these arches are others at a lower level, which may have been used as tanks, and in them are some curious troughs or aqueducts. To the west of the upper vaults are passages which the plan must explain; they run in several directions, and are blocked up loosely at the ends. From one of the passages was a hole downwards, and on being lowered into it (chamber B) I was astonished to see a white marble pedestal. I was in great hopes there

might be an inscription on it, but it is quite plain, and may at one time have formed part of a column in support of the roof. In one angle is part of a pilaster, the capital of which has on it a double ram's horn, very similar to that found at Arak el-Emir. (See De Saulcy's work, page 223; French edition.) It has the appearance of great antiquity. I am in hopes we may find other traces of sculpture.

I am so short-handed that I have no time to give you a regular description of this place. I have a great deal more than I can do, and should have a clerk or draftsman to assist me, and also several English miners to superintend and work with the different parties. If you could send me some men out by the next mail, or get them from Malta, Sappers, it would be a great assistance. I took on a Greek a few days ago to assist Sergeant Birtles, but he is worse than useless, for he seems to be getting the men back into their wretched Arab ways.

Robinson's Arch.—We have done little towards the east, for the stones present such difficulties; to the north we have tapped a tank which has been running stones for several days; to-day it is nearly exhausted, and we have got several peeps into a big cavern.

Kedron.—At 160 feet from entrance the air became very impure, but on going a little further a rushing noise was heard, which proved to be a stream of pure air 100 feet below the surface. We have now come to several walls, and the work looks interesting.

Bir Eyub.—At the aqueduct below Bir Eyub we have been retarded by the heavy rains. The floor is being deepened, so that there may be room for a wheelbarrow.

Close to Bir Eyub we have found another aqueduct of masonry, which seems to run to the eastern side of the valley.

Very truly yours,

CHARLES WARREN.

XXIV.

JERUSALEM, *February 2nd*, 1868.

MY DEAR SIR,

Serjeant Birtles has recovered from the accident he met with, and is now about.

Wilson's Arch.—We have made some further interesting discoveries in prolongation of Wilson's Arch. I shall delay sending you a section until we are still further advanced.

We have had some amusing incidents lately on the works. A few days ago, the Cadi, or Judge, sent his servants to the Makhama to order some of our workmen to come to him at once: of course, they refused, and the servants in order to oblige them to come, stole their upper garments, which were lying near

the entrance. I at once bought one of these articles, and then sent to tell the judge that he had my property in his possession, which appeared to perplex him considerably. A day or two afterwards his servants appeared with the garments at the door of the Makhama with orders to leave them there. They were warned off the premises by our interpreter, and I sent to tell the judge that he must either bring the clothing to the hotel, or keep it: it has since been brought to the hotel, and there the matter rests. The Jerusalem Effendis seemed rather pleased to find that the Turkish judge had put himself in such a ridiculous position.

When the overseer and men were lately dismissed from Robinson's Arch for allowing a guide to take some travellers down the shaft without permission, the remaining men were particularly warned not to allow any unauthorized persons to approach the mouth of the pits. On Friday last, the two little sons of the Pacha came into our grounds and wanted to go down. The fellahin began hunting them away, and in spite of the remonstrances of Effendi Abu Seud, whose house looks down upon our works, they drove them out of the grounds—"for," said they, "we could not even let the Pacha himself down without permission." Next day the Pacha went down to Robinson's Arch without saying anything to me about it, and began questioning the men as to where they were excavating: he might just as well have asked the Haram Wall itself what we were doing, for the men gave the vaguest answers, and said, that if he wanted to go down, he must send up to the hotel and get permission. I don't know why the Pacha does business in this way, as he knows that I should be very willing to take him over the works if he would only let me now.

Last week, when at the Makhama, an Engineer officer of the Turks came in in uniform, and passed me without taking any notice, going towards Wilson's Arch. I passed in front of him, blew out my light, pushed over the ladies' ladder, and went down by the rope; hearing a crash, and seeing me suddenly disappear in the darkness below, he probably thought I had fallen, for he rapidly beat his retreat.

The Pacha has again sent up to the Consulate, to say that I must get his permission for every shaft I open, have cavasses on each work, and enter into an engagement not to go to the Haram Wall. I have told the consul that I cannot deviate from my present course of procedure without the consent of my Committee, unless he compels me to do so; that I will enter into no engagement about the Haram Wall, and that, if cavasses are sent on to the works, I shall dismiss my workmen, and throw the responsibility of so doing on the Pacha and the Consulate.

Our Consul has communicated my decision to the Pacha, and the "result of the friendly representation" that he made at the same time is, that I "can go on as I have been doing until further notice."

Effendi Abu Seud who lately wrote to the Pacha to complain that we were digging under his house, has apparently begun to see the error of his ways, for he has been using pretty freely the stones we have been bringing up, and has come very humbly to ask us to show him the position of the tank we have discovered under his grounds, as he would like to use it.

I hope to hear next mail, that some miners are on their way out to assist

me. In another fortnight the fine weather will have set in, and I cannot allow Sergeant Birtles to do as much then as he does at present.

Bir Eyub.—The water “finds exit under an arch about ten feet” below the surface, again “rising out of the ground behind a stone fence, forty yards lower down the valley” (Barclay’s “City of the Great King,” p. 515).

This passage was found choked up with silt, and on clearing it out it was traced to within about ten feet of the well. An abundant stream of water is now rushing out of this archway down the valley.

The aqueduct discovered about five hundred yards below Bir Eyub, is probably the same as Ain ed-Durrage (described p. 516, “City of the Great King”). Dr. Barclay there relates, “A tradition, current amongst the Moslems, declares that there is a flight of steps, &c.” This flight of steps we have discovered, only it leads down into an aqueduct instead of up to the well of Joab. It appears very probable that this aqueduct may have some connection with the well. The aqueduct is now running, with much water, which is forced up to the surface, a height of about thirty-five feet, and overflows into the wady, where it meets the stream from Bir Eyub. The united brook gets lost in a garden about a mile lower down. The stream has been running for ten days, and may probably continue for a month or six weeks. The volume of water is about equal at present to that of Ain Sultan, at Jericho.

Gallery under the Kedron.—This has been abandoned for the present on account of the heavy rains.

Robinson’s Arch.—On working through the cistern found in the north of the arch, a low passage or drain was discovered, leading direct to the Haram Wall: it then branches north and south. To the north we have cleared out about seventy feet, and we can hear very plainly the working of a mill; to the south we have got about thirty-five feet, and find the roof stones are wanting.

This passage is about two feet wide and three feet high, and is of rough masonry, with flat stones laid across to form the roof.

Makhama.—It appears that there cannot be any entrance into the Haram Area similar to Barclay’s Gateway, between Wilson’s Arch and the Wailing Place.

Wilson’s Arch.—We are now driving a gallery across the valley below Wilson’s Arch, through the red (virgin?) soil.

We have got through the first pier at a depth of 21 ft. 6 in., and at four feet to the west, have found an aqueduct which is likely to lead into a tank cut in the rock. The sides of the aqueduct are very nicely cemented.

We have made some very interesting discoveries further in prolongation of Wilson’s Arch: a third and fourth arch of about fourteen feet width each, and after that a long passage running east and west, ten feet wide; we have traced it for about 120 feet, and at this point we are 230 feet from the Haram Wall. The passage is arched with well-cut stones, and would appear to have been used as a secret passage from the Jaffa Gate to the Haram Area. The lower portion may also have been used as an aqueduct. The street Bab es-Silsile, appears to lie immediately over this passage.

I had hoped that I might have been able to give you a fuller account of these vaults, &c.; but it may be some time before we are able to obtain a correct idea of the whole system. As yet there is an indication of there

being a large tank or reservoir to the south-west of Wilson's Arch, which I expect to be cut in the rock. There is a great number of aqueducts, great and small, leading in this direction.

Ophel.— I am commencing six shafts on the hill of Ophel, in order to determine the contours with regard to the continuation of the gully running down by Robinson's Arch.

With reference to the passage running south, leading from the bottom of the deep shaft near the south-west angle of the Haram Area, we have sunk a shaft 350 ft. to the south, and have had the good fortune, at a depth of 60 ft., to drop directly upon our passage. The fellahin were regularly scared when they broke up a stone and found the passage with our well-known broad arrow burnt black on the roof. The passage is now being cleared out to the south.

On carefully examining the hill of Zion (Ordnance Survey Sheet), on the ground, I find there is an indication of a valley dividing the hill into two parts. My attention was first called to this by a French author, who, in order to get over the difficulty about Mount Acra, says there *must* be such a valley; and has actually shown it on his map, calling it the Tyropœon. The suggestion is good, although at present it can be considered little more than an idea. I hope very soon to put it to the test. This valley may perhaps run southerly in the direction of Hârat el-Yahûd.

Very truly yours,

CHARLES WARREN.

XXV.

JERUSALEM, *February 22nd, 1868.*

MY DEAR SIR,

Since the 1st of the month we have had the most miserable weather; on almost every day rain, sleet or snow, until the ground has become thoroughly saturated. I find it necessary to wait for a few days, until the strong winds may have taken up some of the superfluous moisture, and as Sergeant Birtles and I both require a change, I have decided on taking our men down for a fortnight to Jericho, to search those mounds to which you referred some months ago.

Our mail has again been taken on to Beyrout, and we shall not receive it until next Monday.

We had rather a sharp shock of an earthquake on the 19th instant, at about midnight: the motion appeared to be from east to west. It does not appear that any noise was heard at the same time. It was not sufficient to make any apparent cracks in the walls, but since it took place, several houses in Jerusalem have fallen, whether from the heavy rains or earthquake seems uncertain.

Our progress has been moderate: at the Makhama we have driven a gallery along the rock under Wilson's Arch, nearly two thirds of the way. In the lower chamber a shaft is being sunk in search of the rock, to a depth of 22 ft.

through masonry and rubbish. In another chamber, further to the west, we have cleared out a shaft to a depth of 18 ft. and have come upon an aqueduct running east and west, this has not yet been explored. We have still a great deal of work to do about the Makhama, but it will not pay unless we can have some English miners to look after the men; for at this sort of work the Arabs can idle without our being able to detect them.

Robinson's Arch.—The shaft sunk through the pavement 17 ft east of the pier (between the pier and the Haram Wall), has reached a depth of 20 ft. without any signs of rock; the stuff brought up is mostly masonry.

The passage which struck the Haram Wall (see p. 61) has been cleared out to the north for 180 ft. and we must be very nigh to Barclay's Gateway. Outside the Dung Gate, the passage has been cleared out 65 ft. to south, and there is no sign of any change in the direction: the course this passage takes will probably in a great measure settle the direction of the Tyropœon Gully. We shall be able at intervals to sink down from it to the rock, and thus get a good section.

Ophel.—Here five shafts have been commenced, but the wet weather has been a hindrance.

I have found a curious Christian Coat of Arms, emblazoned on a tank at Ophel—apparently of the Knights of St. John; it is 21 in. in diameter, and raised on the plaster wall; I will draw it accurately as soon as the mud will allow me to stand under the spot.

Very truly, yours,

CHARLES WARREN.

P.S.—Feb. 22nd. The passage north of Robinson's Arch has now been cleared out for 190 ft., and we ought to be opposite Barclay's Gateway, or under the level of it.

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XXVI.

JERUSALEM,

May 2nd, 1868.

I enclose some plans and sketches obtained during a visit to Bittir. The place is described in the "Later Researches" of Dr. Robinson; also by Mr. Rowland, in Mr. Williams's "Holy City." He comes to the conclusion that it is the Bæthar of the Septuagint, and not the Bether where the Jews made their last stand under Barchochba, A.D. 176. It is also described in Murray's Handbook (p. 233).

The village and citadel are about three miles S.W. of Jerusalem, and about a mile to the north is a range of hills, on top of which are some curious mounds.

A day was devoted to the examination of the ground about Bittir. (Plan No. 11.)

Twenty men were sent to cut into one of the mounds to the north: it was found to be composed, to a depth of six feet, of stone chippings, but as it stands forty feet high no idea was obtained of its interior; there are many rock-hewn caves about, but no signs of any dwellings; the mound may possibly be simply composed of the chippings brought out when the caves were hewn.

Forty men were taken to break ground at the citadel (Khirbet-el-Jehûd); the sheikh of the village, seeing our irregular troops marching up, conceived the idea that we were come on the part of the Government to squeeze the village, and, coming at once to business, asked what we would compound for. Finding that we had only come to dig, he sent some of his men up to assist us.

The citadel is situated on a projecting spur, cut off from the range of the hill by a deep rock-cut ditch. It is oval in shape, and the sides are

steep and partially scarped. A causeway of loose stones serves at present for a communication across the ditch.

The remains of the old wall are very distinct, though many of the stones have been used for terracing up the sides of the slopes for the vineyards. The summit is nearly flat and covered over with the *débris* of ruined buildings, run over with vines and weeds.

A few of the stones of the walls are roughly squared and levelled, but there are no signs of the present walls having been built by anybody of more consequence than a robber chief.

There are two stones of about ten feet in length, which are finely dressed and "bevelled."

Excavations were made along the walls in search of older foundations, but in all cases they were found to be of the same rough description as the walls themselves, and nothing important was discovered.

Four caves were examined and cleared out; one of them appears to have been hewn for a tomb, the others probably for magazines; one of them is curious; it has a large stone bowl (five feet six inches) cut out of the rock on the floor, and the roof of the cave is so cut that a large piece like a stalactite hangs down nearly into the bowl: it gives the idea of having been used for crushing grapes or olives. In this cave there are also three passages filled with stones, which we had not time to clear out more than a few feet. There are also some well-cut stones lining the wall in one of the passages.

It appears likely that there may be many caves upon the sides of the citadel which are not open at present. The fellahin pointed out to us a place they called "the cave of the Jews," but on digging down we came to solid rock.

Tuleil el Ful (Hill of Beans).—Generally regarded as Gibeah-of-Saul. It is a rounded hill with a mound on the top, through which rough walls appear on east and west. Excavations were made from north to south to determine the nature of these ruins, which were found to consist of the foundations of a rectangular tower (forty-eight feet by fifty-seven) with a berm nine feet wide and a second exterior wall; this latter has to the north a similar batter to that at the Jaffa Gate Tower. The walls are composed of roughly-squared stones and of rubble. In the centre of the town there is a shaft seven feet square with masonry sides, and at the depth of twenty-eight feet a stone with a circular opening in it about eighteen inches in diameter, which is the entrance to a small cavity scooped out of the natural soil (marl); cavity three feet nine inches high, and four feet in diameter. The walls in each case were bared below the foundation, and were found to rest on the marl. Some pieces of hard red wood were found sticking in the walls at a depth of twelve feet. A sketch plan and section is forwarded (No. 11).

WORKS IN PROGRESS, MAY 2.

Makhama.—Following up aqueduct to the south, circling shaft under second arch in search of rock.

Robinson's Arch.—Continuing section under the arch, followed channel to north as far as Barclay's Gateway, where it suddenly ends.

Ophel.—Nine shafts in progress in search of rock. A quantity of broken glass has been found in an aqueduct on a level with the rock, also some lamps.

XXVII.

August 22nd, 1868.

WORKS IN PROGRESS.

Robinson's Arch.—The section under the arch is now completed ; a sketch was forwarded last mail.

Masonry and *débris* were found beneath the pavement, shown in the lithographed sketch (No. 12) to a depth of about twenty feet, when the rock was discovered, smoothed over and horizontal. On pushing on to the Haram Wall a canal was found running north and south, twelve feet deep and about six feet wide, lying over which were large stones, apparently the remains of voussoirs of an older arch.

From the appearance of the remains one would be inclined to suppose that there had been two arches at different times over this part of the valley, and that after the destruction of the first bridge the rubbish was levelled up to the height of the pavement before the building of the second.

The canal at the bottom is not the lowest point of the valley, which at this point appears to be under the Haram area.

The canal is being cleared out to the south : it ends at thirty feet in a pool whose dimensions are not yet ascertained ; it is probably oval, the longest diameter being about twenty feet.

Passage leading from Robinson's Arch (described 2nd Feb., 1868) was cleared out to north until immediately under Barclay's Gateway, which again is under Bab al-Mughâribeh. The roof here was wanting but not broken, and it appeared as though we had arrived at the commencement of a tank or archway. Loose stones and shingle kept pouring in for several days without cessation, and after removing some tons it was considered desirable to desist.

The stones of the Haram Wall are here visible, similar to those above, and are probably about forty feet below the surface of the ground, and thirty feet above the rock foundations.

"*Barclay's Gateway*" would appear to have been approached from the west by a bridge, or by the filling up of the valley and a pavement, it will be desirable to ascertain which.

Passage at bottom of shaft, near south-west angle of Haram Area (described Oct. 11, 1867). This now appears to be the lowest point of the Tyropœon Valley. Along the line of the south front of the Haram Area, and farther south 300 feet, galleries have been driven along the rock east and west. The rock was found to rise on both sides. This passage has

been cleared out for a distance of 600 feet, and it is probably built along the course of the Tyropæon Gully.

South of Bir Eyub.—The rock-cut canal at 'Ain-el-Luz (fountain of the almond) was reopened to north (May 1st) after the overflow from the heavy rains had subsided, when it was found that as far as the excavation had proceeded the current of water had cleared out the silt from the bottom of the passage: the total height of the passage varying from six feet to eight feet six inches.

Night-work was commenced on 19th May, but from the number of men and the length of the passage the air became too much vitiated to allow of the candles burning, and the work could only be continued off and on until July 13th, when a set of zinc air-pipes were laid down, supplied from a smith's bellows placed near the top of the staircase; the progress was now about six feet per diem, until August 17th, when an additional party, for night-work, was put on.

On August 17th, at a little over three hundred feet from the commencement, a branch passage to east was opened out, which proved to be a staircase cut in the rock, leading up towards the surface at an angle of about forty-five degrees. Endeavours to find the outlet on the surface have been unsuccessful, and the work is now proceeding with difficulty up the incline. Large stones have been met with which render the work somewhat dangerous.

When this second staircase is opened out the excavations will be enabled to proceed more rapidly and with less expense.

The canal still varies from six feet to eight feet in height, and from three feet nine to four feet six in width: wheelbarrows are in use.

It may be premature to speculate on the original object of this rock-cut canal, but the fact of its being connected with the surface by staircases within 300 feet of each other, points rather to its having been constructed as a duct for pure water than as a drain for sewage.

Aqueduct near Bir Eyub.—A sketch plan (No. 13) of this is forwarded—the overflow from the well appears to come in at B, at the point where the ancient aqueduct joins the more modern portion; at C the roof had fallen in and the aqueduct could not be traced.

Gallery under the Kedron.—At 175 feet from entrance the work was found to incline upwards at an angle of about thirty degrees, and as the *débris* was composed of loose stones it was found impracticable working straight forward; an attempt was made at going forward by zig-zags, but it had to be given up after a few feet, and the gallery was finally abandoned in February, 1868; the mining frames were got out with some difficulty. The section enclosed gives all the information obtained. (Plan No. 15.)

No water was found at the original bed of the Kedron.

XXVIII.

JERUSALEM,

Sept. 2nd, 1868.

Wilson's Arch.—I enclose herewith a sketch plan of the vaults, &c., discovered this year to west of Wilson's Arch (No. 17). Considerable difficulty has been met with in surveying them, as in many places they are all-but filled up with rubbish, and there are no ready means of getting rid of it. I fear it may be some time before we shall be able to find a continuation of the great passage. We have reached two hundred and fifty feet west of Bab es-Silsile, and are immediately under the street Tarik Bab es-Silsile.

Haram Wall.—The courses of stone in this wall, with marginal drafts, ("bevelled") usually run from three feet six to three feet nine in height, but between the double or Huldah Gate and the Triple Gate there is a course the height of which is from five feet ten inches to six feet one inch: so far this is described in Captain Wilson's notes.* On a recent examination of the south wall I found this large course continued to the south-east angle, and thence running north, along the east wall, for twenty-four feet.

An elevation is enclosed (No. 16) by which it may be seen that the course is unbroken between the Huldah and Triple Gates; thence to the Single Gate there is one stone *in situ*, and from a point seventy feet from S.E. angle to the angle itself, the course again is in a good state of preservation (see Ordnance Survey photograph of S.E. angle).

I do not find that this has been made the subject of remark in any existing work, and as it bears directly upon the question of the unity of the South Haram Wall I add some further particulars.

This course is nearly double the height of the other "bevelled" courses in the Haram Wall. Its base is about one foot above the highest part of the rock of Mount Moriah (where cut by the south front), and consequently it is the first course in this front which can run uninterruptedly from east to west. It exists at present, more or less continuously, for 600 feet west of S.E. angle, but is not seen west of the Huldah Gate.

At the Triple Gate its base is fifteen to thirty inches above what it is at the S.E. angle, the line between these two points being straight or only a very gentle curve; in other words, the course is not horizontal, but has a fall from centre to flank of about thirty inches. It is obvious that on account of the peculiar nature of the ground a considerable rise from flank to centre in the courses would be required in order to avoid offending the eye, and it is interesting to find the courses so placed, whether from accident or design.

The sill of the Triple Gate is level with the base of this course, as are probably also those of the Huldah and Golden Gates. The sill of the Single Gate is at a lower level, but this gate has all the appearance of

* Accompanying the Ordnance Survey of Jerusalem.

being quite a modern construction, the entrance found twenty feet lower and immediately beneath it (see Letter XII. of Oct. 22, 1867), going far to support the idea that this Single Gate itself was not finished until after a considerable amount of the present *débris* in Ophel had accumulated.

At the South-East Angle, the corner stone of this course weighs over one hundred tons, and though not the largest stone is certainly the heaviest visible in the Haram Wall.

The spring of Robinson's Arch is very nearly (within a foot), on a level with one part of the top of this course.

South of Bir Ezyub.—The second rock-cut staircase, described last mail, has now been opened out, and the canal has been cleared to north, for 130 feet. The progress made during the last ten days has been very fair.

Makhama.—Attempts have been made to continue this exploration of the great passage leading west, but unsuccessfully at present.

CHARLES WARREN,

Lieutenant Royal Engineers.

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XXIX.

JERUSALEM, Oct. 2nd, 1868.

Rock-cut passage above Virgin's Fount.

(Discovered 27th October, 1867.)

This has already been described in letter of 1st November, 1867; perhaps another brief description may help to establish it in the minds of those who are interested in the subject. (Plans 18 and 19.)

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 feet, until it becomes lost at the pool of Siloam. Its highest point, near the "Triple Gate," is 300 feet above its foot at the Siloam pool; it is bounded on the east by the Kedron, and on the west and south by the Tyropœon 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 66 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 4½ 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.

We have now commenced the prolongation of the before-mentioned gallery to the south : if we find nothing in particular I shall make steps up to the surface, so that any visitors this year to Jerusalem may go and see these passages without descending a vertical shaft.

The workmen are safe so long as they obey orders, but they are like children and have to be watched continually.

I should have mentioned that the voussoirs of the arch are of *melekeh*, very much decayed and capable of crumbling on the slightest extra pressure.

It is a curious circumstance that the landing at the top of the staircase

is unconnected with any doorway or other means of exit, so that it suggests itself whether there has been a wooden bridge across the vault from the southern to the northern side, as it appears as if this chasm is of great depth, and any very temporary means of getting across would have been disagreeable with such a drop down below.

Should we find that our rock-cut canal below Bir Eyub is unconnected with that well, we may hope that it extends from and forms part of this system of passages at the Virgin's Fount. It will be observed on the plan (No. 19) that the vault comes quite to the S.E. of the canal from Virgin's Fount to Siloam, and may, therefore, very well be connected with other passages.

The work of excavation here has been going on at intervals. In May, under Dr. Chaplin's superintendence, the rock was bared for 30 ft. on the surface down towards the Kedron, and the rubbish in the passages was moved from side to side in search of other branches. The gallery along the surface of the rock had eventually to be abandoned on account of the treacherous nature of the soil. The work was resumed about a fortnight ago.

Excavations at Ophel.

Excavations south of the Haram wall have been going on since February last, principally in search of the Ophel wall. To describe the result at each shaft would only confuse the account, it may therefore suffice to say that shafts 31, 33, 37, 43, 44, 45, 46, and 47 are all in connection with the line of wall which is now found to extend as far as 700 ft. from the first tower in a south-westerly direction along the east ridge of Ophel. (Plan No. 19.)

The wall appears to be nearly in a straight line south-west of first tower, it is from 12 to 14 ft. thick, and its foundations, on the rock, slope from 2292½ at S.E. angle to 2275 at the most southerly point we have yet opened it out. There are portions of the wall which have not yet been traced (shown on the plan No. 20), but it can hardly be doubted that it is the same wall throughout.

Two more towers have been discovered, called at present Nos. 2 and 3. No. 2 is at an interval of 310 ft. from the first tower, projects 6 ft. 3 in. and is 22 ft. long. No. 3 is at an interval of 97 ft. from No. 2, projects 6 ft. 6 in., and is 28 ft. long. It is probable that we may find another tower between the first. Nos. 2 and 3 will then become respectively Nos. 3 and 4.

A striking peculiarity about this wall is that for 20 ft. on an average above the rock it is of rough rubble of moderate dimensions, then there is a plinth of well-cut stones. The plinth sets in about 6 in., and on it is the first well-dressed course of the wall. (Plan No. 21.)

As the plinth is in many places only a few feet below the surface of the ground, the wall above it is naturally only a few courses in height. In some cases there is only one course, in some four or five. These vary from 1 ft. 9 in. to 2 ft. 6 in. in height, the length of the stones averaging 2 ft. to 4 ft. Many of the stones are polished, and that generally at the angles of the towers, reminding one of the "polished corners of the

Temple." It is, however, to be remarked that in the south wall of Jerusalem polished stones are to be met with in a few places, and indeed the Ophel wall in many respects bears a striking resemblance to the present south wall of Jerusalem.

The stones in the south wall are probably not *in situ*; nor, I think, are those of the Ophel wall, that is to say, they appear to be stones used in the building of a previous wall.

There is a point to which I would draw attention. The plinth is about 20 ft. above the rock, and the inference to be drawn is that up to the plinth the wall was covered from view. Now, the wall stands on the edge of the east ridge of Ophel, the rock sloping down steeply to the Kedron, so that in order that these 20 ft. of foundations may have been covered it is necessary that there should have been an outer wall which would retain the earth up to the height of the plinth.

At No. 2 tower we have found at the plinth level the top of a tower projecting 16 ft. beyond No. 2. The stones are of a large description, having a marginal draft or bevel; the stone within the draft being rough hewn, similar to some in the Haram wall. The stones of this extra tower are from 2 to 3 ft. in height, and 4 to 8 ft. long; the face of the tower is 26 ft. It has been examined to a depth of 25 ft., that is, 5 ft. below the rock foundation of the Ophel wall, and it is of one description throughout.

At the S.E. angles of this extra tower we have found another wall going down towards the Kedron, it is 19 ft. long and then takes a turn to the S.W. We have not yet followed it farther. It has been examined to a depth of nearly 40 ft. The stones are well-dressed ashlar; in size about 1 ft. 6 in. to 2 ft. high, and 2 ft. to 3 ft. long. An isometric projection of the extra tower and the projecting wall is enclosed. It can be seen that if the *débris* were to be shovelled into the valley there would still be a scarped wall for Ophel of from 40 to 60 ft. in height, which is only dwarfed by the stupendous height of the Haram wall along side.

The method of exposing these walls is very slow and tedious. We can only get at them by mining; and to examine a wall 50 ft. high by mining it is necessary to have several shafts and galleries. We can at best get but an outline of what there is, leaving the parts of more exceeding interest to be examined minutely subsequently. We are still at work at these Ophel walls and towers. (Plan No. 22.)

No. 2 tower was discovered in May under the superintendence of Dr. Chaplin.

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XXX.

JERUSALEM, November 12th, 1868.

Robinson's Arch.—Reopened 12th November, 1868.

Birket Israel (Pool of Bethesda).—A shaft was sunk in the lower part of this pool. At 21ft. water was reached, strongly impregnated with sewage. As this is the most favourable time for examining the pool there appears to be little chance of the nature of the bottom being ascertained. Last year we only succeeded in getting down 12ft. before we reached water, but at that time the rains had commenced.

Ain el Luz'h.—The passage has been opened up 80ft. beyond N. staircase, and we are now less than 100ft. from Bir Eyub.

Vault above Virgin's Fount.—A new shaft 40ft. to south has been sunk, in order to explore the steps recently discovered. A wall running up and down the hill, west and east (6ft. thick), has been met with. At present it does not appear to be the outer city wall of Ophel.

Ophel.—Below the massive wall of the extra tower the rock is found to be scarped for about 30ft. The details are interesting, and will be given when the shaft is completed.

The wall going down the hill at shaft 47, beyond the extra tower, has been examined. The shaft is 76ft. deep. The wall was met with at 12ft., and, therefore, a height of 64ft. is exposed. This was probably from 90 to 100ft. in height.

It is now a matter of considerable moment to discover whether the rock scarp of Ophel is continued up to the Haram Wall east.

Shaft 44. This work was in order to test the continuity of the wall of Ophel. 37ft. of wall was exposed.

Shaft 49. Tracing wall of Ophel.

Shaft 50. Ditto.

XXXI.

WORKS IN PROGRESS.

JERUSALEM, *November 21st*, 1868.

Robinson's Arch.—A description of the work was given August 23, 1868; circumstances have caused the works to be closed until November. The rock-cut aqueduct has been examined to the south, and a gallery driven round the pool without finding any outlet; a second gallery was then commenced at a higher level in the pool. After a few feet the earth above us gave in and we found ourselves in a rock-cut chamber, nearly circular, diameter 16ft., roof flat; a vacant space, 6ft. in height, the pool being 14ft. 4in. high, and filled in 8ft. 6in. with silt.

The rock forming the roof of the pool appears to be from 2ft. to 3ft. thick.

To the South an outlet was found, nearly filled up, cut in the rock. On creeping through we found ourselves in an arched passage, 11ft. high (when cleared of silt) and 3ft. 9in. wide; the sides being cut in the rock and the roof composed of an arch of six voussoirs, slightly pointed in shape. This passage extends as far as the S.W. angle of the Haram, when it turns to east, and is succeeded by a smaller passage of masonry, also arched with five voussoirs. After running about 40ft. along the base of the south Haram Wall it suddenly turns to south and its character alters into that of a drain about 2ft. wide, roofed over with flat stones. The length of the pier to west of Robinson's Arch has not been ascertained. It is close on 52ft., and the southern end is exactly opposite to that of Robinson's Arch (see Plan No. 25). A gallery is now being driven round the southern end of the pier to examine the fallen arch more thoroughly.

Birket Israel.—A piece of the cement at the bottom has been got up. It is very hard. The water is 3ft. 6in. deep at the bottom of the shaft.

Shafts numbered 45, 47, 52, 53, 50 are still at work examining the Wall of Ophel.

The shafts at Virgin's Fount and Bir Eyub are progressing.

XXXII.

SOUTERRAIN NO. 2, CONVENT OF SISTERS OF SION.

December 2nd, 1868.

An important discovery has been made lately at the Convent of the Sisters of Sion (see plan No. 26).

In extending the buildings to the east a second souterrain was found. Through the kindness of M. Ganneau, the French Vice-Consul, and with the permission and aid of M. l'Abbé, I have made a plan of it. It is to the north-east, and parallel to that which has already been described in Captain Wilson's notes.

We entered from an opening in the crown of the arch, and descending 12ft. found ourselves on the top of a mound of rubbish which had fallen in from above.

At the end, to the north-west, the vault is 20ft. wide, and is filled up

with rubbish nearly to the springing; the end is blocked up with a masonry wall of a later date than the arch itself. The arch appears to be semicircular, and has about thirty-one voussoirs; at 11ft. down on western side is a communication with Souterrain No. 1, 7ft. wide, and the pier or wall between the two is 5ft. 9in. thick. On the eastern side of Souterrain No. 2, at this end, the arch appears to spring from the rock.

This arch in Souterrain No. 2 continues 45ft. to south-east, and the vault then widens, and the succeeding arch is 24ft. span, and the line of springing has a slope to south-east of about one in six; the crown of the arch apparently remaining horizontal as the arch increases in span throughout its length of 36½ft. The vault is now continued by another arch whose crown is about 4ft. 6in. lower, and whose length is 46ft. These two latter arches appear to be very slightly pointed; they are very nearly semicircular. The Souterrain No. 2 is thus 127ft. long, and from 20ft. to 26ft. across. The south-eastern end is cut off by the same line of scarped rock which closes No. 1. Also, I believe that the springing of the arch to east throughout its length is on the rock. For about 75ft. the souterrain is a pool of water about 6ft. deep with a bottom of soft mud, the water coming up to about 2ft. below the springing. We had to construct a raft, floated with inflated goatskins, to enable us to examine this portion of the vault; and I do not feel confidence in some cross measurements taken at the farther end, which I have not given on plan. I purpose going down again and examining the place more minutely. M. l'Abbé has offered every facility for our thoroughly exploring it.

It is desirable to examine the arch to north-west to see if it is continued.

I also visited, with M. Ganneau, the Souterrain No. 1, and found that the passage explored last year, 28th October, was comparatively dry, and we could get to the end on planks, but there was nothing new to be seen. The staircase close to this passage was in some way connected with the latrines of the Serai: it has been blocked up, and consequently the amount of sewage now oozing into the place is very inconsiderable.

A great portion of the side of the Souterrain No. 1 to west is rock, and I hope to be able to ascertain what it is throughout the entire length. At present it appears that the place is a deep fosse cut in the rock about 50ft. wide and 165ft. long.

XXXIII.

WORKS IN PROGRESS.

JERUSALEM, *December 8th, 1868.*

IMPORTANT DISCOVERY NORTH OF THE PLATFORM OF THE DOME OF THE ROCK ("MOSQUE OF OMAR").

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 Omâr " 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 No. 27). It consists of an arched passage of 18ft. span, with bays to the south of 12ft. by 17ft., arched over; the piers between being 3ft. 6in. 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, 3ft. 6in. thick, 12ft. apart, and projecting about 6ft.

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

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

On the northern side of the vault I could see no appearance of rock, except in one place for about 5ft., where there is either rock or a large stone, the top of which is about 10ft. 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 2ft. wide and 6ft. high, which are blocked up after about 8ft.; 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 12ft. from the surface of the ground, or to about 18ft. 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 scarped rock was only visible to a depth of 12ft., but there was no indication of any termination.

XXXIV.

WORKS IN PROGRESS.

December 22nd, 1868.

A shaft was commenced, Nov. 14, 1868, at about 20ft. S.E. of S.E. angle of the Haram Area. The *débris* sunk through is composed principally of stone chippings, alternating with layers of fat earth, and in some places rough stones about a foot wide. On arriving at a depth of 53ft., a gallery was driven in to the Haram Wall, passing through two rough masonry walls running respectively N. and S. and E. and W. The gallery reached the east wall of the Haram Area at about 6ft. north of the S.E. angle, and three letters in red paint were found on one of the stones.

A gallery was then driven to the S.E. angle, and a shaft sunk; another character in red paint was found on the wall while sinking this shaft.

The result of the examination of the wall at this point is as follows:—The rock is about ten feet lower than it was found to be at sixteen feet west of the S.E. angle. It is very soft and much decayed, but it appears to be mezzeh. The corner-stone is apparently let into the rock about two feet. 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 feet in height. The stone in the next course is four feet six inches in height. It has an ordinary marginal draft at

bottom, but at top the draft is only one inch wide. This stone is very roughly dressed within the draft. The next, a third course, is four feet in height, and has at bottom a draft of four inches and a-half, but no draft at top. The character which I enclose lies on that part where the draft should be.

The fourth course is three feet nine inches in height; it has a small draft of nine inches at top. The stone is on this account different to any that are to be seen above ground.

The fifth course is similar in every respect to the best specimens of stones found at the S.E. angle above the surface; the course is three feet eight inches in height, and on the second stone from the angle are the three letters.

These stones are all in the most excellent preservation, as perfect as if they had been cut yesterday. They are very well dressed, but, except in the instances I have mentioned, differ in no wise from the perfect specimens above ground.

The marginal drafts, and about two inches round the projecting surface, have been picked over with an eight-toothed chisel, about eight teeth to the inch; within this, a "point," a single-pointed chisel has been used.

The letters or characters are in red paint, apparently put on with a brush; the larger letters are five inches high. There are a few red splashes here and there as if the paint had dropped from the brush. The general impression resulting from the examination of these marks is that they are the quarry marks, and were made before the stones were placed *in situ*. If this be the case, then the stones must have been dressed previously to their having been brought from the quarries.

The *débris* resting against the wall at this point is composed of stone chippings, intermixed with some black stuff looking like decomposed or charred wood. The layers of the *débris* slope in towards the Haram Wall, instead of away from it.

The colour of the paint is apparently vermillion; it easily rubs off when touched with the wetted finger.

Dr. Petermann (the Prussian Consul) considers the characters to be Phœnician. The Rev. Dr. Barclay considers that we may safely conclude them to be Hebrew.

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.*

XXXV.

JERUSALEM, December 28th, 1868.

Birket Israil.—On 12th November I related to you that in sinking a shaft in this pool we had come upon filthy water, and had been obliged to discontinue the work on account of the foul smell arising. After a few days had elapsed I had this water baled out, and found that the fresh water which streamed in again on all sides was comparatively clean and pure. By feeling with a jumper, the water was found to stand at a height of 3ft. 6in. above the bottom of the pool, and as the *débris* we had to go through was a mass of loose stones, through which the water flowed freely, it was a matter of some difficulty to get a look at the bottom, because it was not possible to get the water out fast enough to enable us to fix in frames one by one; after some trouble, the space between the last shaft frame and the bottom of the pool (about four feet) was cleared out, so far as the stones are concerned, and then a small coffer dam was let down; it consisted of four shaft frames screwed together and rested on the bottom of the pool; clay had been got up for the purpose and was puddled in behind the frames on all sides; the water was then baled out and the bottom of the pool was exposed.

It has a hard smooth surface, evidently for the bottom of a reservoir; on breaking through, we found first a thickness of plaster, 2½in., very hard and compact, composed of cement and broken pottery; then a kind of concrete, consisting of alternate layers of small stones and mortar, to a depth of 1ft. 4½in. The plaster and concrete was exceedingly hard, so much so that only small pieces could be broken off with the jumper; we were obliged therefore to have recourse to blasting, and as the water trickled slowly into the jumper holes, the charges were put in glass bottles and rendered water-tight.

We soon had a hole, about 2ft. square, made through the concrete, and there was exposed a surface of hard stone (mezzeh), either the rock or a large paving-stone, apparently the former; a jumper hole 10in. deep was driven into this stone, but it would have been very difficult to have gone deeper without disturbing a greater surface than our dam covered. I had the shaft partially filled in and drove a gallery from it at a depth of 9ft. to the south wall of the pool. There we found the plaster and lining stones precisely similar to those which are seen above and which are fully described by Salzmann.

Specimens of the plaster and concrete from the bottom of the pool are now ready to be sent home.

The shaft sunk was 20ft. from the south side of the pool, and 158ft. from the eastern end; the top of the shaft was 60ft. below the Haram Area level. At the northern end, the depth of shaft to the bottom of the pool was 24ft. 6in., so that the bottom of the pool is at a level of 2,325ft. above the Mediterranean. As a result of the examination, we find that the bottom of the pool, at least in one point, is (or rather was) in perfect preservation, that the pool is upwards of 80ft. deep, and that there is in it an accumulation of stones, refuse, and sewage averaging a depth of 35ft. Should the city be again rendered wholesome and inhabitable in summer by the enforcement of proper sanitary regulations, it would be necessary to remove the rubbish from this pool, and then the Birket Israil, at the expense of rendering the sides sound, might again serve as a reservoir for water.

The results of the examination with regard to settling the question of the position of the rock about the pool are not satisfactory; at the bottom it appears to be rock; but at the side, where the gallery was driven, it appears that the rock is wanting, otherwise it would not have been necessary to build up the side with large stones.

If the side of the pool to the south is not cut out of the rock, then we have the Haram Area at this point elevated to a height of 100ft.: and the question arises whether this 100ft. is *débris* (and most interesting *débris* it would be), or whether it is composed of substructions similar to those at the south-east angle, and in continuation of those we have lately found at the north end of the Mosque Platform.

Again, on the east side of this pool, we have the Bab Sitti Mariam, generally called St. Stephen's Gate; are we to suppose this gate 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 this latter case, how far does the ravine extend from the S.W.? does it come down from the Damascus Gate and pass south of the Serai, and so join the valley from the north at the site of the pool? These are points to which considerable interest must be attached.

I find that the rock, to the north of the Birket Israil, crops up at the side of the Church of St. Anne, at a level of 2,410ft., and that at the gate leading to this church from the Via Dolorosa, no rock was found at 36ft. from the surface (2,405ft.)

There is a question also with regard to the two arched passages leading from the west of the Birket Israil; the crowns of these arches are on a level with the top of the pool, and it seems hardly probable that the piers will extend to the