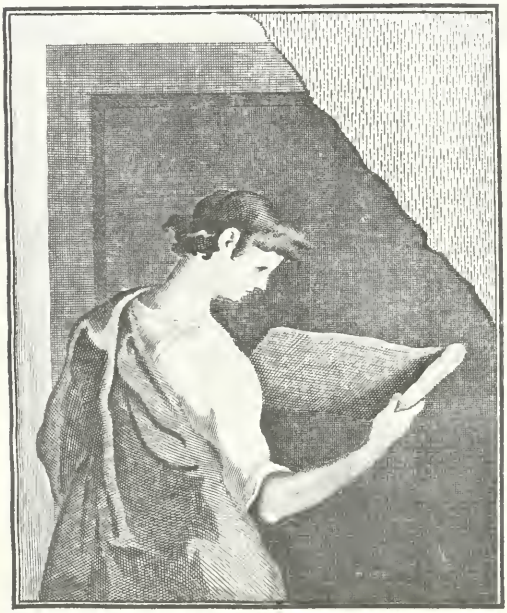

PALESTINE EXPLORATION FUND.

Patron—THE QUEEN.

Quarterly Statement

FOR 1889.

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LIST OF ILLUSTRATIONS.

GENERAL INDEX.

THE PALESTINE EXPLORATION FUND.

LAST YEAR AND THIS.

THE year 1888 has not been fruitful of discoveries. On the other hand, it has been a year of very good work, and one that has enriched the bibliography of Palestine Research with much that is valuable and enduring.

(1) Herr Conrad Schick has followed up and completed his account of the very interesting discoveries made in the Russian property to the east of the Church of the Holy Sepulchre. We have been in communication with the Russian Exploration Society, and have received from them the most gratifying assurances of assistance. It is possible that some of the opinions first advanced by Herr Schick upon this discovery may have to be modified. For example, he thinks that the granite columns found in the street Khan er-Zeit formed part of Constantine's Propylæum. Sir Charles Wilson, however, is of opinion that these columns probably belonged to the main street of Ælia Capitolina, which was decorated with columns as in the case of Samaria and other cities.

(2) The line of the Second Wall has received no further investigation. But Herr Schick was absent on leave during the summer, and it is hoped that he may be able to resume his search during the present year.

(3) As regards the Sidon Sarcophagi, we are still awaiting the promised work of Hamdi Bey upon them.

(4) The great discovery of the year has been that of the Pool of Bethesda, and fully described in the *Quarterly Statement* for July, 1888. There seems to be very little doubt that we have here the ancient Pool itself.

(5) A cave has been found in Jerusalem, at a depth of 49 feet 6 inches below the surface. It lies south-east of the Church of the Holy Sepulchre. The cave is to be cleared out and thoroughly examined.

(6) Russian excavations at Jericho have proved the existence of former extensive builings, on the site capitals, pillars, lintels, weapons, lamps, and jars, rings, &c., have been found.

(7) Herr Schumacher has surveyed and planned the ruins of Abîl, the Abila of the Decapolis, situated on the south bank of the Yarmûk. We shall give this Report to our Subscribers with the April or July number of the *Quarterly Statement*.

(8) The narrative of the Botanical Expedition of Dr. Post to the Trans-Jordanic regions in the year 1886 was published in the October number of the *Quarterly Statement* for last year. The list of plants collected is a most valuable contribution to the Botany of the country.

(9) Herr Schick has discovered a somewhat remarkable ruin on one of the sand dunes on the coast south of Jaffa. It is called Tell Yûnis, and is described in this number.

The Committee are pleased to announce that a sufficient number of names has been received for the three works—Conder's "Eastern Survey," Ganneau's "Archæological Drawings," and Hart's "Flora and Fauna of the Wady Arabah," to justify the commencement of the work. Major Conder's drawings are already executed and a portion of the work has been set up. The volume will probably be ready in March or April. Names should be sent in as soon as possible. No more than 500 will be printed, and the price, after 250 names have been received, will be raised from seven to twelve guineas.

The Committee have added to their list of publications during the year Schumacher's "Survey of Jaulân." Upwards of 150 plans and sketches of the country were made for the work; the map which accompanies it contains 600 names as compared with 150 in the previous maps. The book is full of new and valuable information on the people and the country.

The Committee have also to announce that by arrangement with Messrs. Bentley and Son, the new edition of the "History of Jerusalem," by Walter Besant and E. H. Palmer, can be obtained by subscribers, carriage paid, for 5*s.* 6*d.*, by application to the Head Office only. The whole set (*see* below) of the Society's works, including this book, can be obtained by application to Mr. George Armstrong, for 37*s.* 6*d.*, carriage paid. The "History of Jerusalem," which was originally published in 1871, and has long been completely out of print, covers a period and is compiled from materials not included in any other work, though some of the contents have been plundered by later works on the same subject. It begins with the siege by Titus and continues to the fourteenth century, including the Early Christian period, the Moslem invasion, the Mediæval pilgrims, the Mohammedan pilgrims, the Crusades, the Latin Kingdom, the victorious career of Saladin, the Crusade of Children, and many other little-known episodes in the history of the city and the country.

The books now contained in the Society's publications comprise an amount of information on Palestine, and on the researches conducted in the country, which can be found in no other publications. It must never be forgotten that no single traveller, however well equipped by previous knowledge, can compete with a scientific body of explorers, instructed in the periods required, and provided with all the instruments necessary for carrying out their work. The books are the following:—

By Major Conder, R.E.—

(1) "Tent Work in Palestine."—A popular account of the survey of Western Palestine, freely illustrated by drawings made by the author himself. This is not a dry record of the sepulchres, or a descriptive catalogue of ruins, springs, and valleys, but a continuous narrative full of observations upon the manners and customs of the people, the Biblical associations of the sites, the Holy City and its memories, and is based upon a six years' experience in the country itself. No other modern traveller has enjoyed the same advantages as Major Conder, or has used his opportunities to better purpose.

(2) "Heth and Moab."—Under this title Major Conder provides a narrative, as bright and as full of interest as "Tent Work," of the expedition for the *Survey of Eastern Palestine*. How the party began by a flying visit to North Syria, in order to discover the Holy City—Kadesh—of the children of Heth; how they fared across the Jordan, and what discoveries they made there, will be found in this volume.

(3) Major Conder's "Syrian Stone Lore."—This volume, the least known of Major Conder's works, is, perhaps, the most valuable. It attempts a task never before approached—the reconstruction of Palestine from its monuments. It shows what we should know of Syria if there were no Bible, and it illustrates the Bible from the monuments.

(4) Major Conder's "Altaic Inscriptions."—This book is an attempt to read the Hittite Inscriptions. The author has seen no reason to change his views since the publication of the work.

(5) Professor Hull's "Mount Seir."—This is a popular account of the Geological Expedition conducted by Professor Hull for the Committee of the Palestine Fund. The part which deals with the Valley of Arabah will be found entirely new and interesting.

(6) Herr Schumacher's "Across the Jordan."

(7) Herr Schumacher's "Jaulân."—These two books must be taken in continuation of Major Conder's works issued as instalments of the unpublished "Survey of Eastern Palestine." They are full of drawings, sketches, and plans, and contain many valuable remarks upon manners and customs.

(8) The Memoirs of Twenty-one Years' Work.—A copy of this book is presented to every subscriber to the Fund who applies for it. The work is a popular account of the researches conducted by the Society during the past twenty-one years of its existence. It will be found not only valuable in itself as an interesting work, but also as a book of reference, and especially useful in order to show what has been doing, and is still doing, by this Society.

(9) Herr Schumacher's Kh. Fahil. The ancient Pella (?), the first retreat of the Christians; with map and illustrations.

(10) Names and Places in the Old and New Testament and Apocrypha, with their modern identifications, with reference to Josephus, the Memoirs, and *Quarterly Statements*.

(11) Besant and Palmer's "History of Jerusalem," already described on p. 2.

The Questions for making an inquiry into the manners and customs of the various peoples and tribes in Syria and the Desert, which were carefully prepared three years ago, and sent out to Palestine, have now begun to furnish the expected replies. They were interrupted by the absence of Dr. Post from Beyrout; he has now returned and has begun to send the answers.

The translation, classification, and publication of these will form a great part of the work for the next year.

The publications for the year 1889, besides those already mentioned, will include Schumacher's "Abila" and his "Southern Ajlûn." These will be presented to subscribers.

We also hope to publish in the autumn Mr. Guy le Strange's new book on Palestine according to the Arabic Geographers.

Work at Jerusalem and elsewhere will be continued as opportunity may offer. Should the long-hoped for Firman be granted, the survey of Eastern Palestine will be renewed.

It will be evident from the above that the Society is vigorous and full of work. At no time has the reputation of the Palestine Exploration Fund stood higher: its publications are in demand over the whole world; its achievements in the illustration of the Bible rise beyond comparison with those of any other institution or private traveller; and it has still an immense quantity of work before it. In those lands whose chief treasures are below the surface it is impossible to say what may be discovered, and at any moment. The Committee can only, however, make general plans, subject to alteration, from motives of expediency and necessity. The management of the Society is conducted on the most economical lines possible, and where there is extravagance of expenditure it is in the presentation to subscribers of the results obtained by their money.

The Committee have resolved that Branch Associations of the Bible Society, all Sunday Schools in union with the Sunday School Institute, the Sunday School Union, and the Wesleyan Sunday School Institute, shall be treated as subscribers and be allowed to purchase the books and maps (by application only to the Secretary) at reduced price.

The friends of the Society are earnestly requested to use the "Memoirs of Twenty-one Years' Work" as a means of showing what the work has been, and what remains to be done.

Subscribers are very earnestly asked :—(1) To pay their subscriptions early in the year—say in January. (2) To pay them direct to Coutts and Co. by a banker's order. (3) If they would rather choose their own time, to send up their subscriptions without being reminded. The Clerical Staff of the Society is small; it is most desirable not to increase it; and if these simple requests are attended to a great saving of clerical labour, postage, and stationery is effected. For instance, there are, say, 3,000 subscribers. If every one of these waits to be reminded, and has to have a receipt sent to him, the Society has to spend £25 a year additional in postage, and to write 6,000 letters, merely to ask for and to acknowledge the receipt of the subscriptions.

It has come to the knowledge of the Committee that certain book hawkers are representing themselves as agents of the Society. The Committee have to caution subscribers that they have no book hawkers in their employ, and that none of their works are sold by any itinerant agents.

Mr. Armstrong has prepared a list of the photographs belonging to the Society, arranged alphabetically according to those Bible names which are illustrated by views. This list is now ready. Those who wish for a copy may send in their names.

The income of the Society, from September 19th to December 20th, inclusive, was—from subscriptions and donations, £318 19*s.* 0*d.*; from all sources, £1,011 13*s.* 8*d.* This amount includes a legacy of £500 from the late Mr. Robert Mackay Smith, of 4, Bellvue Crescent, Edinburgh. The expenditure during the same period was £769 6*s.* 6*d.* On December 20th, the balance in the Bank was £460 17*s.* 7*d.*

Subscribers who do not receive the *Quarterly Statement* regularly are asked to send a note to the Secretary. Great care is taken to forward each number to all who are entitled to receive it, but changes of address and other causes give rise occasionally to omissions.

It does not seem generally known that cases for binding the *Quarterly Statement* can be had by subscribers, on application to the office.

The Committee have resolved upon issuing single sheets of the Great Map (Scale, one inch = one mile) at 2*s.* 6*d.* each to Subscribers.

Subscribers are begged to note the following :—

1. Index to the *Quarterly Statement*, 1869–1880.
2. Cases for Herr Schumacher's "Jaulân."
3. Cases for the *Quarterly Statement.*

Each of these can be had by application to the office at 1*s.* each.

Early numbers of the *Quarterly Statement* are very rare. In order to make up complete sets the Committee will be very glad to receive any of the numbers in the following years :—

1869, 1870. These are numbered I to VII.
1871–1876, 1881, 1883, 1885.

Odd numbers are worth little or nothing. Complete sets of the *Quarterly Statement* are priced in second-hand catalogues from £7 to £10 each.

While desiring to give every publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they neither sanction nor adopt them.

The only authorised lecturers for the Society are—

(1) Mr. George St. Clair, F.G.S., Member of the Anthropological Institute and of the Society of Biblical Archæology.

His subjects are :—

(1) *The General Exploration of Palestine.*
(2) *Jerusalem Buried and Recovered.*
(3) *Buried Cities, Egypt and Palestine.*
(4) *Buried Cities of Mesopotamia,* with some account of the Hittites.
(5) *The Moabite Stone and the Pedigree of the English Alphabet.*

Address : Geo. St. Clair, Bristol Road, Birmingham, or at the Office of the Fund.

(2) The Rev. Henry Geary, Vicar of St. Thomas's, Portman Square. His lectures are on the following subjects, and all illustrated by original photographs shown as "dissolving views :"—

The Survey of Western Palestine, as illustrating Bible History.
Palestine East of the Jordan.
The Jerusalem Excavations.
A Restoration of Ancient Jerusalem.

(3) The Rev. James King, Vicar of St. Mary's, Berwick. His subjects are as follows :—

The Survey of Western Palestine.
Jerusalem.
The Hittites.
The Moabite Stone and other monuments.

(4) The Rev. Thomas Harrison, F.R.G.S., Member of the Society of Biblical Archæology, 38, Melrose Gardens, West Kensington Park, W. His subjects are as follows :—

(1) *Research and Discovery in the Holy Land.*
(2) *In the Track of the Israelites from Egypt to Canaan.*
(3) *Bible Scenes in the Light of Modern Science.*

"TELL YUNIS."

The Gardens at Jaffa extend 1½ miles south of the town, where a tract of sand hills begin, 7 miles long and nearly 4 miles broad.

This tract is a blank, bearing only the names of two tribes of wandering Arabs on the large Map of the Palestine Exploration Fund, sheets xiii and xvi.

In making an excursion close to the sea-shore to the south of Jaffa, my attention was arrested by a remarkable knoll named "Tell Yûnis," worthy of insertion in the maps.

In going there one follows the road leading from Jaffa southwards, between the Gardens, having houses on both sides, some of which are old, but the greater number new, to the Saknet el-Jebalîyeh settlement on the hill.

About eight minutes further on, the road descends between sand hills to the sea-shore, and then for 3 miles further along the beach, having on the one side the sea, and on the other steep cliffs about 150 feet high, with a rocky crest in a straight line and uniform height, sometimes broken by small ravines. The road approaches a remarkable hill, having a steep slope in a straight line towards the sea; wide at the basement and narrow at the top, thus forming a regular pyramid. It stands isolated, as north of it is a deep depression, going down nearly to the level of the beach; and on the south there is a regular glen, with a kind of water-course.

As I had no instruments with me I was unable to take regular measurements, but made the notes simply by counting the paces. Its height is about 200 feet, and the top is of comparatively small extent, and is crowned with ruins almost buried in the sand; the line of the walls is, however, still recognisable.

The top was a platform, surrounded by walls of about 70 feet long and nearly 70 feet broad. A building once stood in the middle of it, measuring 45 feet from west to east in length, and 40 feet from north to south in breadth.

This building was divided into three apartments, the middle one being wider than the outer two, and very much resembling a small Basilica. A smaller platform, having ruins also, is in front of the east side of the platform, but on a lower level, which I consider to have been the entrance, having a tower with gate, &c., as from these ruins a kind of road descends through a small ravine, first in a northerly and then in a north-westerly direction to the foot of the hill.

Many fragments of coloured stones—some of which are polished, and of exceedingly white marble—besides many pieces of bricks and pottery, are lying about on the top and round the brow of the hill, giving the impression that the ruins were those of a costly building, and that excavations would give good results.

I hoped to find many interesting things, but did not see any hewn stones of any size, which were, perhaps, already taken away or buried in the sand. Those stones which once belonged to the walls were not hewn like those which are in the neighbourhood of Jaffa, but broken from the cliffs. Behind the hill is a kind of plain, the height of which is not many feet above the beach, and as there are indications that the sea once came nearer to the cliffs, and even to the foot of the hill, it is probable that the plain was a little bay or creek, and that the hill in question was at that time a peninsula.

The question now arises: what site is this, or what stood on the top of this hill? Its name being "Tell Yûnis," Hill of Jonas, reminds one of the Prophet Jonas, who met with his fate in this neighbourhood.

That a temple, church, or any other monument may have been erected to his memory, we cannot say. There are several sites dedicated to this prophet, leaving out the one at the Euphrates. Major Conder, in the Memoirs ("Special Papers," p. 295), speaks of *four* in this country: one in Meshed, where his tomb was shown at an earlier period; one south of Jaffa, on the south bank of the River Sukereir, near the sea, and 13 miles to the south of the hill in question, or 17 miles south of Jaffa (about which Major Conder remarks, "probably the traditional spot where the prophet was left by the whale"); the third at Hŭlhûl, near Hebron; and the fourth at Sarepta, near Tyre. The one now found would be the fifth.

This newly discovered hill is the property of a native at Jaffa, who wishes to sell it. Several Europeans went there, but hitherto no purchase was effected.

C. Schick.

Jerusalem, November 29th, 1888.

IMPROVEMENT OF ROADS IN PALESTINE.

Much zeal on the part of the Government may be observed in the last two or three years for making roads in Palestine.

The existing one, from Jaffa to Jerusalem, has been much improved lately, and the work is still going on.

Not only the line itself is improved, but in many places new and better lines have been made. There are three chief places especially in which such improvements were made:—

1st. The Serpentine line, going down the steep descent into the Kulonieh Valley, west of Jerusalem, was abandoned, and an entirely new line made north of it, on the northern brow of the large valley of "W. Beit Hammîna" and "Kulonieh." The descent now begins at the second watch-tower, and passes near the village of Lifta, in a regular descent of 5 in a 100, along the brow of these barren hills to where it joins the old road, near the new and handsome bridge at Kulonieh. It is

a pity this road was made too narrow, as in the event of two carriages meeting at full speed, collisions would probably ensue.

On this account they are about to widen it, breaking away the rocks, and building parapet walls on the outer edge wherever it is necessary. The distance traversed is somewhat longer, but is proportionally easier.

Some alterations were made on the right side of the valley towards "Kŭstûl," but of minor importance, but at the ridge the bad part will still remain unless a tunnel about 800 feet long is made.

2nd. The second improvement is at Kuryet el-'Enab, where the ascent was always hard work, and driving down it dangerous. It is in some degree longer, but with a gentle descent; also on the other side of the ridge, towards "Saris," it was made better and with more skill even at Saris itself.

3rd. The third is at "Latrôn;" the old line went over the ridge of the Latrôn Hill itself. The new road follows the valley without any rise, and at the same time no longer than the other.

It joins the old road one mile west of the Latrôn Hotel—a misfortune for that establishment—the new road not approaching it. The proprietor must do something to attract travellers.

In the Plain Country several improvements were made, but unhappily the steep ascent at Kubab is still remaining and not improved.

One of the decaying watch-towers near Ramleh was removed and put nearer the road. Through the Gardens at Jaffa the road was made much wider.

The road from Jerusalem to Hebron is finished so that carriages are now going there. At some places the old route was abandoned, and new and better ones made.

The road from Jaffa to Nablus will also be made; some parts being already done.

At Jerusalem the road outside the City, from its north-western corner eastwards along the northern town wall down to the Garden of Gethsemane is now in course of reconstruction, and, when finished, will be carried on to Jericho and the Jordan.

C. Schick.

Jerusalem, December 5th, 1888.

SOME JERUSALEM NOTES.

On the plan of Jerusalem, A.D. 1187, which is given in Professor Hayter Lewis's recent work on the holy places of that city, the "House of the Holy Ghost" is marked. It may not be generally known that a house called by that name still occupies the same position. It is in the western part of the Jewish quarter, and is, or was, inhabited by Jews. The House of Annas appears to be now included in the precincts of the Armenian Convent, and is probably part of the Nunnery and Girls' School known as Deir ez Zeitûny. The Church of St. James is repre-

sented by the magnificent Cathedral of the Armenians, and St. James the Less still exists, in a tolerable state of preservation, in premises adjoining those of the English Church. The Church or Convent of St. Thomas was somewhere near the site now occupied by the Synagogues of the Spanish Jews. I have often searched for Christian remains in that locality under the impression that these buildings, perhaps, occupy an ancient Christian site, but without success, and can only suppose that the chapel or oratory, the apse of which still exists in perfect preservation, in the Street of the Meidan, is part of the establishment of St. Thomas. At the bottom of this street, turning a little to the left, we come to the open space called El Meidan, in which are extensive remains of the ancient Hospice of the German Knights. The ruins of the principal buildings have been turned into dwelling-houses, inhabited by Jews and Moslems, and one part is known as *casa derocada*, the "ruined house." It occupies a prominent and striking position opposite the establishment of the Templars on Mount Moriah, with only the deep central valley (Tyropœon) between. On the western side of the Meidan a well of slightly saline water exists, and there is another two or three hundred yards further west, making three (or four) known to me in the Holy City. The Church of St. Gilles is on this plan placed on the southern side of the street leading to the Temple, but the author of the "Citez de Jerusalem" states that the street of the Germans was on the right-hand side of a person going towards the Temple, and the Monastery of St. Gilles on the left. On the left-hand side of the steep descent leading to the Valley street which comes down from the Damascus Gate is a house belonging to Mohammedans, but now tenanted by Jews, in which are columns and capitals which indicate that a Christian building formerly stood on the spot; and this could be no other than St. Gilles. The Church of St. Ann is well known to everyone under the same name at the present day. St. Magdalen is indicated by the ruins existing to the north-west of St. Ann, in the place called Mamuniyeh, as pointed out by Sir Charles Wilson in his notes to the Ordnance Survey. The Chapel of the Flagellation still remains and is called by its old name, whilst St. Peter ad Vincula, from the situation indicated on the plan, can hardly be other than the Deir el 'Adas now in possession of the Greek Church. The chapel marked to the east of St. Stephen's (Damascus) Gate is apparently that now turned into a mosque under the name Malawiyè. The Church at the south-west corner of the Hospital of St. John still exists, and of course the Church of the Holy Sepulchre, so that the sites of all the ecclesiastical buildings marked in this plan may be readily identified at the present day.

I think it is a mistake to suppose that there are no ancient families of Jews in Jerusalem. Jews were there for centuries before the expulsion from Spain, and some still possess, or did a few years ago possess, hereditary freehold property in the north-east quarter of the city, the ancient Juiverie, which they allege to have come down to them from their remote ancestors. It is hard to make out when the Jews began to dwell beyond the limits of the mediæval Jewry. It is not likely they could have left

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it until after the Mohammedan reoccupation, when many Christian dwellings were already become ruinous and deserted; yet Benjamin of Tudela, *circa* 1165, found two hundred dwelling "in one corner of the city, *under the Tower of David*." Perhaps these were only a portion of the Jewish population, allowed to live in that locality for the convenience of carrying on their occupation of dyeing. The origin of the singular custom of *handing over to the Jews the keys of the city for a few hours on the accession of a new Sultan* is also shrouded in much obscurity. It is said to be connected with the Rabbinic laws relating to the Sabbath boundary עֵרֶב, *Erūb*, and the opinion of the Rabbis of Jerusalem is that it dates from "the time of the Talmud." They affirm that after the Babylonian Captivity (!) the Jews of Jerusalem always endeavoured to obtain the keys of the city gate when a new monarch came to the throne, and to place them in the hands of the Chief Rabbi for a short time, the object being to acquire possession of the city by right of purchase, as it were (for they always had to pay for the privilege), in order that they might legally allow their people to pass and carry objects on the Sabbath from house to house and street to street without infringing the law of Exod. xvi, 29. A friend informs me that on the accession of the present Sultan the Jews applied to the Pasha for the keys and were refused, that they then succeeded in obtaining them from the military authorities who have them in charge, and that the Pasha, who was very angry when he found out what had occurred, was pacified on its being explained that the custom was merely a religious ceremony. Probably the usage arose after the expulsion of the Crusaders, and when the Jews began to spread beyond the limits of their old confined quarter. Modern Eastern Rabbis, like the Rabbis who wrote the Talmud, frequently display a lofty disdain of historical accuracy, and by "after the Babylonian Captivity" we may understand the much later period when Jews of the dispersion began to turn from Babylon westward, and many doubtless took up their residence in Jerusalem.

THOMAS CHAPLIN, M.D.

METEOROLOGICAL OBSERVATIONS.

SARONA 1882.

THE numbers in column 1 of this table show the highest reading of the barometer in each month; of these, the highest are in winter, and the lowest in the summer months. The maximum for the year was in February, viz., 30·249 ins.; in both the years 1880 and 1881 the maximum was in January. In column 2, the lowest in each month are shown; the minimum, 29·545 ins., was in July; in 1880 the minimum was in April, and in 1881 in February; the range of readings in the year was 0·704 inch, being about the same as in the two preceding years. The numbers in the 3rd column show the range of reading in each month; the smallest was in

August, viz., 0·171 inch, and the largest in February, being somewhat more than half an inch, the least and greatest ranges in the two preceding years being about the same values. The numbers in the 4th column show the mean monthly pressure of the atmosphere; the greatest, 30·060 ins., was in January, and the smallest, 29·689 ins. in July; in the years 1880 and 1881 the greatest was in January, as in this year, the smallest in 1880 was in July, and in 1881 in August.

The highest temperature of the air in each month is shown in column 5. The highest in the year was 93°, but which high point was not reached till November 1st; in 1880, the maximum temperature of the year was 103°, on May 23rd, and in 1881 the maximum temperature was 106°, on August 27th. The first day in the year 1882 the temperature exceeded 90° was on the 24th of September, and only on one other day in the month it rose to 90°; in October there were four days when the temperature reached and exceeded 90°; and in November two such days, the highest 93°, took place on the 1st; therefore the temperature reached and exceeded 90° on only eight days in the year; in the year 1880 the temperature exceeded 90° on 36 days, and in 1881 the temperature rose to and exceeded 90° on 27 days.

The numbers in column 6 show the lowest temperature of the air in each month; in January it was as low as 34° on the 30th, and below 40° on eight other nights in the month; in February it was below 40° on four different nights, and in March on one night; therefore the temperature was below 40° on 14 nights in the year; in the year 1880 the temperature was as low as 32° on two nights in January and one in February; and below 40° on 13 other nights, and in 1881 it was below 40° on only two nights; the lowest experienced was 39° on the 6th and 7th of December. The yearly range of temperature was 59°, the range in 1880 was 71°, and in 1881 was 67°. The range of temperature in each month is shown in column 7, and these numbers vary from 25° in August to 47° in November; in 1880 these numbers vary from 25° in August to 53° in both April and May, and in 1881 from 29° in July and September to 51° in May.

The mean of all the highest by day, of the lowest by night, and of the average daily ranges of temperature, are shown in columns 8, 9, and 10, respectively. Of the high day temperature, the lowest was in February, 55°·7; and the highest in September, 87°·2. Of the low night temperature the coldest, 43°·7, took place in January, and the warmest, 68°·7, in August. Both the high day temperature and the low night temperature were very low throughout the year. The mean daily range of temperature in each month are shown in column 10, the smallest was in February, 11°·7, and the largest in October 22°·7.

In column 11, the mean temperature of each month, as found from observations of the maximum and minimum thermometers only are given, the month of the lowest temperature was February, 49°·8; in 1880 the month of the lowest temperature was January, 50°·7; and in 1881 was February, 56°·2. The highest was August, 78°·6; in 1880 and 1881 the months of the highest was also in August, as in this year, and the numbers

were 79° and 80°·1 respectively. The mean temperature for the year was 65°·5, and of the preceding years, viz., 1880 and 1881, were 66°·4 and 66°·7 respectively; the year was cold, and the months of January, February, May, and June were remarkably cold.

The numbers in columns 12 and 13 are the monthly means of a dry and wet bulb-thermometer, taken daily at 9 a.m., and in column 14 the monthly temperature of the dew-point, or that of the temperature at which dew would have been deposited. The elastic force of vapour is shown in column 15, and in column 16 the water present in a cubic foot of air; in January and February this was as small as 3½ grains, whilst in July, August, and September it was as large as 7½ grains. The numbers in column 18 show the degree of humidity, saturation being considered 100; the smallest number in this column was in October, and the largest in February. The weight of a cubic foot of air under its pressure, temperature, and humidity, at 9 a.m., is shown in column 19.

The most prevalent wind in January was S., and the least prevalent winds were N. and W. In February the most prevalent was S., and the least were W. and N.W. The most prevalent in March was S., and the least were N., N.E., and N.W. In April the most prevalent was S.W., and the least prevalent were N.E. and E. In May the most prevalent were S.W., and W., and the least prevalent were N.E. and S.E. In June the most prevalent were S.W. and W., and the least were N.E. and S.E. In July the most prevalent was S.W., and the least were S., S.E., N., and its compounds. In August the most prevalent was W., and the least E. and N.E. In September the most prevalent was S.E., and the least was E. and its compounds. In October the most prevalent was S.W., and the least was N.E. In November the most prevalent was S.W., and the least were N. and N.W., and in December the most prevalent was S.W., and the least were S. and S.W.

The most prevalent wind for the year was S.W., which occurred on 119 times during the year; of which 24 were in July, 15 in November, and 14 in September; and the least prevalent wind for the year was N.E., which occurred on only 12 times during the year, of which 4 were in January, 3 in both February and November, and 2 in December.

The numbers in column 29 show the mean amount of cloud at 9 a.m.; the month with the smallest amount is June, and the largest February. Of the cumulus, or fine weather cloud, there were 81 instances in the year; of these there were 18 in July, 16 in August, and 15 in September, and 3 only both in January and February. Of the nimbus, or rain cloud, there was 90 instances in the year, of which 16 took place in February, 13 in January, and 12 in both May and December, and 4 only from July to October. Of the cirrus, there were 44 instances in the year. Of the stratus there were 40 instances. Of the cirro-cumulus there were 32 instances. Of the cirro-stratus there were 21 instances in the year, and there were 57 instances of cloudless skies, of which 11 were in October, and 8 in both January and June.

The largest fall of rain for the month in the year was in February, 7·22 ins., of which 1·02 inch fell on the 5th, 0·92 inch on the 10th, and 0·89 inch on the 4th. No rain fell from May 25th till October 20th, with the exception of one day, which was August 10th, when 0·35 inch fell, and so making two periods of 76 and 70 consecutive days without rain. In the year 1880, no rain fell from the 2nd of May till the 18th of October, making a period of 168 consecutive days without rain; and in 1881 no rain fell from April 20th to November 6th, making a period of 189 consecutive days without rain. The fall of rain in the year was 22·09 ins., being 6·59 ins. less than in 1880, and 4·60 ins. more than in 1881. The number of days on which rain fell was 62, while in 1880 rain fell on 66 days, and in 1881 on 48 days during the year.

JAMES GLAISHER.

THE HOLY SEPULCHRE AND THE DOME OF THE ROCK.

THE value of the "Palestine Pilgrims' Texts" are already becoming evident in many ways, and the intentions of those who projected their publication are being fully realised. Whoever reads Professor Hayter Lewis' admirable work on "The Holy Places of Jerusalem," will see the advantages to be derived from the material they contain. I wish here to acknowledge my indebtedness to them upon a point of some importance connected with the topography of Jerusalem. As far back as January, 1879, a short article of mine appeared in the *Quarterly Statement* entitled "Transference of Sites." In that article will be found described what seemed to me to be some very marked points of resemblance between the Holy Sepulchre and the Dome of the Rock, and the strong probability that the one structure was copied from the other. In Mukaddasi, an Arabic author, whose date is given as about 985 A.D., lately published by the Palestine Pilgrims' Text Society,[1] I find the following passage. The author is describing the Mosque at Damascus—"Now one day I said, speaking to my father's brother, 'O, my uncle, verily it was not well of the Khalîf al Walîd to expend so much of the wealth of the Muslims on the Mosque at Damascus. Had he expended the same on making roads, or for making caravanserais, or in the restoration of the fortresses, it would have been more fitting and more excellent of him.' But my uncle said to me in answer, 'O, my little son, you have not understanding! Verily Al Walîd was right, and he was prompted to do a worthy work. For he beheld Syria to be a country that had long been occupied by the Christians, and he noted herein the beautiful churches still belonging to them, so enchantingly fair, and so

[1] Translated from the Arabic and annotated by Guy Le Strange.

renowned for their splendour: even as are the Kumâmah[1] [the church of the Holy Sepulchre] and the churches of Lydda and Edessa. So he sought to build for the Muslims a mosque that should prevent their regarding these, and that should be unique and a wonder to the world. And in like manner is it not evident how the Khalif, 'Abd al Malik, *noting the greatness of the Dome of the Kumâmah and its magnificence, was moved lest it should dazzle the minds of the Muslims, and hence erected, above the rock, the Dome which now is seen there.*"[2] The italics in the above are here given to show the words which apply to the case in point.

Mr. Fergusson's theory was that the Dome of Rock was the original Holy Sepulchre, and that its transference to its present site took place in the eleventh century; Mukaddasi writes in the tenth century, and says that the Dome of the Rock was built as a rival to the Holy Sepulchre.

The quotation from Mukaddasi disposes at once of this part of Mr. Fergusson's theory.

Mukaddasi's words do not affirm that the one building was copied from the others, but they permit of that inference. This inference is justified, I think, from the resemblance between the two monuments. Before the marble was built round the Holy Sepulchre, to form the chapel as we see it now, the rock must have stood up under the dome, thus presenting a striking resemblance to the Sakhra. Having realised this identification, it appeared to me, from the arrangement of the pillars supporting the dome of the sepulchre, of which we have the original design still remaining on the western side, that the number was probably twelve, the same as there is under the Dome of the Rock. This was a lucky guess on my part, but I am able now to confirm it by a number of references. The earliest is from Eusebius; he mentions the "rock standing out erect and alone on a level land, and having only one cavern within it;"[3] and also that the dome "was encircled by twelve columns [accord-

[1] Al Kumâmah, literally "The Dunghill." This is a designed corruption on the part of the Muslims of "Al Kayâmah"—"anastasis," the name given to the Church of the Resurrection (the Holy Sepulchre) by the Christian Arabs.

[2] Page 22.

[3] Willibald describes the rock at the time of his visit, A.D. 722: "The rock is now above ground, square at the bottom, but tapering above, with a cross on the summit." Arculf, who is about the same date as Willibald, says that "the whole is covered with choice marble to the very top of the roof, which is adorned with gold, and supports a large golden cross." Arculf may possibly have meant that it was the inside that was covered with marble, otherwise it is difficult to reconcile these two authorities. Antonius Martyr, date 560–570, describes—"The tomb itself, in which the body of Our Lord Jesus Christ was laid, is cut out of the natural rock." These all indicate that the rock was visible in these early days. In the present day the whole tomb outside and inside is so covered with marble that no ordinary pilgrim would be aware of the existence of the rock.

ing to the number of the Apostles of our Saviour], having their capitals embellished with silver bowls of great size, which the Emperor himself presented as a splendid offering to his God." Following this we have Arculf's testimony—"the round church of our Saviour's Resurrection, encompassed with three walls, and supported by twelve columns." In the Palestine Pilgrims' Texts we have now the account by the Abbot Daniel,[1] who visited Jerusalem 1106–7, and he mentions the "twelve monolithic columns." In addition to these authorities we have evidence that these columns still exist; in 1867, while some repairs were being made, the Austrian Consul saw one of them; it was much damaged by the action of fire, which was probably the reason that they were all built up, and now present the form of square piers.

For the present, or at least till better evidence may be found, Mukaddasi's testimony has to be accepted. Still, the knowledge we obtain from him leaves much unexplained. A natural question at once presents itself as to why Abd al Malik, or his architects, selected a tomb as their model for the Dome of the Rock. More than one guess presents itself to the mind, but data is wanting to support them. There is a faint tradition which locates the tomb of Solomon at the spot; this could scarcely have been the motive, because if it had the name of such a celebrity would have in all probability come down to us, in a very prominent form, connected with the building. It might have been that as there was a Sacred Rock to build over, Abd al Malik's architects merely copied the Holy Sepulchre, because it also had a rock. The notion that I feel most inclined to regard as having produced the influence was that, the Holy Sepulchre being looked upon as the "centre of the world," and as the Mohammedans considered the Sakhra as the centre, they constructed a rival dome to eclipse the other. Much might be said in favour of this explanation, and yet, after all that could be brought forward, I confess that it would lead to nothing more than a theory.

The resemblance between the two buildings is most striking; in both cases there is a rock with a cave in each; over this each has a dome, supported by twelve columns. The columns of the Dome of the Rock are said to represent the twelve sons of Jacob; those in the Holy Sepulchre are according to the twelve Apostles. The architecture of the two is very different; it is only in the arrangement of the two buildings that similarity is found. This similarity harmonises with the statement of Mukaddasi. It also confirms one of Mr. Fergusson's conclusions, which he insisted strongly upon—namely, that the Dome of the Rock was a structure in the form of an Oriental tomb. That it was a tomb we have as yet no evidence; no tradition has as yet turned up that anyone has been buried in the cave. The position of Solomon's tomb is not located in the cave, but at a point near to the north doorway.

Dr. Chaplin has called my attention to the Church of the Ascension on the Mount of Olives, which, he points out, is also built on exactly the

[1] "Palestine Pilgrims' Texts."

same plan as the Anastasis.[1] It should also be recalled that the Holy Sepulchre has been the model for a large number of churches in all parts of the Christian world, which are round in form, our Temple Church being one of the well-known examples.

WILLIAM SIMPSON.

THE ALPHABET.

THE derivation of all modern alphabets of Asia and Europe, from the early script of Syria and of Asia Minor, and the derivation of the earliest script from a hieroglyphic system, are facts generally accepted by scholars. That the hieroglyphic system in question was the Egyptian is a very generally received opinion, but objections have been raised to it for several reasons. First, it is urged that the origin of the alphabet should be sought in Asia, where it first appears. Secondly, that the proposed Egyptian equivalents do not resemble the Phœnician or Greek letters, and bear no reference to the names of these letters; and, third, that De Rougè's comparisons are in several cases arbitrary and deficient in principle.

Dr. Isaac Taylor, while developing De Rougè's theory on this subject, has nevertheless stated that a derivation from the so-called Hittite is not perhaps impossible. There is a very strong reason for supposing such a derivation, which briefly is as follows:—The Greek alphabet and the earliest alphabet of Italy contain letters in addition to those of the Phœnician. The Asia Minor alphabets contain even more letters than the Greek. Thus, in Phœnicia, we have only 22 letters, in Greece 27, and among the Carians and Lycians about 30 and 33 letters respectively.

Dr. Sayce has suggested that these additional letters come from the old syllabary, which survived in Cyprus and in Egypt down to the days of Alexander the Great. But, generally speaking, antiquaries do not admit the possibility of a system of writing being made up from different sources. Thus we do not use Hebrew letters interspersed with the Latin, or even running hand with Roman. If then part of the alphabet came from the old syllabary of Asia Minor, it seems most probable that in this syllabary we should seek for the origin of the whole alphabet.

In addition to this consideration there are others which tend to a similar result. The Greeks in the southern islands took, it is true, 20 of the 22 Phœnician letters, and as a rule preserved the Semitic name of the letter and preserved the Semitic order. The Italian tribes, however (Etruscans, Oscans, Umbrians, &c.), did not apparently use these names,

[1] This Church is round, or, to be more exact, it is octagonal, and wants the twelve pillars; but it has a rock, with a footprint on it—said to be that of the Saviour. The Sakhra has also a footprint on it—said to be that of Mohammed's, and made by him when he ascended upwards on his celebrated night journey.

but called the letters *Be*, *Ce*, *De*, &c., and the additional Greek letters in like manner have the names *Chi*, *Phi*, *Psi*, names which suggest a derivation from a syllabary, and from those syllables of the syllabary which had a short vowel sound.

Now, in the Cypriote, although the writing is syllabic, we find that the syllables with a short vowel sound are already beginning to be used as consonants. Thus, in the word Basileus, the final S is represented by *Se*, and in other cases *Ne* stands for N, and so on. Here, then, we see a possible means of evolution for an alphabet, and if the Greek and the Phœnician letters are found to be comparable to the syllables with weak vowel sound used in the Asianic syllabary, we have, I think, the most natural origin possible for the alphabet, and may trace it through the syllabary to the original hieroglyphics of Asia Minor. In this case the larger alphabets of Asia Minor, Greece, and pre-Aryan Italy are to be regarded not as the children but as the sisters of the Phœnician, and we see that the Turanians of Asia Minor (Carians, Caunians, Lycians, &c.) did not abandon their original script, as is now supposed, in favour of Greek letters, but always possessed those letters either as letters or in an earlier stage as syllables.[1]

In the Hittite system (so called) there appear to be two classes of signs, just as in Chinese or as in Cuneiform. The one class is the picture or ideogram (the Chinese *Key* or *Radical*), the other class—apparently represented as a rule by smaller emblems—is the weak root or grammatical compliment (the Chinese phonetic), which is used for its *sound* value and not for its picture value. It is, I think, among these phonetics (which are by far the commonest signs on the Hittite texts) that we must search for the original emblems as a rule, while in the syllabary we must confine our comparisons to those syllables which have a short vowel sound, *ă*, *ĕ*, *ĭ*, and which we find to have been used as letters in the Cypriote.

The attached plate shows the comparison of the Asia Minor, Greek, Italic, and Phœnician letters with the Cypriote syllables of short vowel sound, and in some cases with the original hieroglyphic. It is possible that in some cases the comparison may be improved, but I do not think that the principles here laid down, can be considered unscientific.

The question of the names of the letters is more difficult. The meaning of the Semitic names is, in many cases uncertain. These names were only used within the sphere of the Phœnician influence, yet in several cases it seems to me that the sound belongs to the original hieroglyphic object, although, with the change from a Turanian to a Semitic language, the name has either been changed or the sound has received a new value, as will appear from a detailed examination.

1. *Aleph*. Possibly an ox head (Accad. *av*, "bull").

[1] The Ionian Alphabet which finally survived in Greece was Asiatic, and perhaps used by the Turanians of Phrygia, Caria, Lydia, and Lycia before the Aryans used it. From Lydia also it would have gone to the Pelasgi and the Etruscans.

	HITTITE HIEROGLYPH.	CYPRIOTE SYLLABLE.	CARIAN LETTER.	PHOENICIAN LETTER.	GREEK LETTER.	ETRUSCAN LETTER.	
1		a					a
2		be					b
3		ga					g c
4							d
5		e					e
6		ve					f
7		ze ?					z
8		khe					h
9							t
10		ye					i
11		ke					k
12							l
13		mi					m
14		ne					n
15		si					s
16		ya				ā	o
17		pe					p
18							ts
19							q
20		ra					r
21		se					s
22		te					t
23		u					u
24		ve					ph
25							x
26		se					ps
27							o

LITH. MARTIN

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2. *Beth.* Cypriote *be* is nearest to the early Greek (Melos and Corinth) forms.

3. *Gimel.* Cypriote *ga* ("crook" in Altaic speech).

4. *Daleth.* *See* what is said below.

5. *Heh.* The closed form is the oldest, perhaps from a hieroglyphic representing a house (*E*).

6. *Vau.* The Greek Digamma. Perhaps the Cypriote *ve.* The Cypriote *u* is, however, nearer to the Phœnician form. (*See* No. 27.)

7. *Zain.* Perhaps from a Cypriote *Ze.*

8. *Cheth* appears to be the Cypriote *Che.*

9. *Teth* does not appear to be known as yet in Cypriote.

10. *Yod*, "hand," seems to be the Cypriote *ye*, perhaps from an old hieroglyphic hand (*a*, *ya*, &c., in Altaic speech—"the right hand.") The Greek form is a single stroke. In Altaic speech *a*, *ei*, *yat* are words for "number one." The Greek and Phœnician letters may perhaps have different derivations.

11. *Caph* appears to be the Cypriote *ke.* The word is rendered "hollow of the hand."

12. *Lamed.* *See* what is said below.

13. *Mim.* The Greek and Carian forms suggest a connection with Cypriote *mi* or *me.*

14. *Nun* seems to be a degraded form of the Cypriote *ne.*

15. *Samech.* Apparently the Cypriote *si*, from an emblem for "eye," (*si*, "eye," "see" in Altaic speech). The Pelasgic S would have the same origin.

16. *Ain.* Cypriote *ya*, Carian *a*—a pot in the original hieroglyph (Altaic *a*, *ya*, &c., "water").

17. *Pe.* Perhaps a variation of *Be* (No. 2).

18. *Tsade.* A letter soon lost in the west.

19. *Koph.* *See* what is said below.

20. *Resh.* The Cypriote *Ra* is tolerably close.

21. *Shin.* Some forms of the Cypriote *se* are similar.

22. *Tau.* In some forms recalls the Cypriote *ti.*

23. *Upsilon* appears to be the Cypriote *u.*

24. *Phi.* Apparently the Cypriote *vo* (or *mo*).

25. *Khi.* *See* what is said below.

26. *Psi.* Apparently the Cypriote *se.*

27. *Omega.* The Carian *o.*

In this comparison it will be noted that out of 27 letters 20 can be traced in Cypriote syllables having short vowel sounds. The comparison is not quite complete, but our knowledge of the syllabary is perhaps not yet complete either. In 10 cases, the original hieroglyph may be suggested.

The Cypriote signs compared are the commoner or normal forms. As regards the names of the Phœnician letters it is only in 15 cases that any Semitic meaning is known to attach to the names, and in many of these there is much doubt. Aleph "ox," Beth "door," Gimel "camel," Vau

"hook," Cheth "fence," Yod "hand," Caph "hollow of hand," Mim "water," Ain "eye," Pe "mouth," Resh "hook," Shin "teeth," are Semitic words, but it is only in the cases of Aleph, Gimel, Vau, Cheth, Yod, and Ain, that any resemblance is supposed to exist between the name and the form.

It is certain that the Greeks knew and adopted the 22 Phœnician letters found in the early alphabets of Thera and Melos, with the exception of the Phœnician Samech and Tsadi.

On the other hand the early alphabets of Abu Simbil and of Ionia and Corinth already include the letters ξφχψω about 620 B.C., omitting Samech and Tsadi, and Digamma. A century later the Greek alphabet was complete, having lost Koppa and Digamma. The Italic alphabets retained Digamma as *F*, with Koppa as *Q*, and Samech occurs in Pelasgic. These Italic alphabets never used the Semitic names. The Greek names Alpha, Beta, Delta, &c., seem to be of Aramean, rather than of Phœnician origin.

The Phœnicians wrote only from right to left. In Cypriote, the texts run both from right to left and left to right. The Greeks (and the Pelasgi) wrote Boustrophedon-wise, or in alternate lines, right to left and left to right, just as did the Hittites. Thus the mode of writing as well as the characters connect Greek epigraphy with Hittite hieroglyphics.

It is to be noted that in the cases of *Teth*, *Tsadi*, and *Koph*, there is a good reason for not finding them in Cypriote. They are Semitic letters, which naturally do not represent sounds of the Greek dialect of Cyprus. *Chi* and *Omega* are late additions to the Greek alphabet, and these not unnaturally do not appear in Cypriote. The only two others not accounted for are *Delta*, the δ and τ not being distinguished in Cypriote, and *Lambda*, which may be the Cypriote *le* or *re*.

The present opinion of some antiquaries that the Greek alphabet has a double origin, appears highly unsatisfactory in view of the manner in which the letters may, in so many other cases, be traced in Cypriote, and nothing could be more natural than a Cypriote derivation for Greek letters, since we know that the Greeks used this character about 400 B.C. The fact that Etruscans, Pelasgi, and the Lycians,[1] Carians, and Phrygians, used the same characters with the Greeks is also easily explained by the Turanian and Asiatic origin of the letters.

C. R. CONDER.

[1] The Lycian included five other vowels of doubtful sound not here shown, four of which compare with Cypriote; two of them occur in Carian and one in Phrygian; another vowel, common to Phrygian and Lycian, is to be added, making 33 letters in all. In other respects Lycian is like Carian, though not known to have possessed letters 8, 15, 18, 19, 24, of the table.

THE HEBREW MONTHS.

The calendar used by the Jews after captivity was that of the land of their captivity, but the month names belonging to this calendar are only mentioned in the later books: Ezra i, 7, viii, 19; Neh. i, 1, vi, 15; Esther ii, 16, iii, 7, viii, 9, ix, 26; Zechariah i, 7, viii, 19. Here we find the months—

10.	Tebeth....	....	December January.
11.	Sebat	....	January February.
12.	Adar	....	February March.
1.	Nisan	....	March April.
2.	—	....	April May (Ijar ?).
3.	Sivan	....	May June.
4.	—	....	June July (Tammuz ?).
5.	—	....	July August (Ab ?).
6.	Elul	....	August September.
7.	—	....	September October (Tisri ?).
8.	—	....	October November (Marchesvan ?).
9.	Chisleu	....	November December.

In the cases marked in brackets the month is only mentioned in these books by its number.

In the book of Kings, however, we find the names of three months (1 Kings vi, 1, 38, viii, 2)—

"in the month Zif, which is the second month."
"in the month Bul, which is the eighth month."
"in the month Ethanim, which is the seventh month."

These are the old Hebrew month names which do not occur in the Aramaic calendar, and which already, when the Book of Kings was penned, seem to have required a note to explain when they occurred in the year.

When we turn back to the Pentateuch we find notices of the first month (Exodus xii, 2, xiii, 4, xxiii, 15, xxxiv, 18; Deut. xvi, 1). Hence we learn that up to the time of the Captivity—

Abib	= Nizan	the	first month.
Zif	= Sebat	„	second „
Ethanim	= Tisri	„	seventh „
Bul	= Marchesvan	„	eighth „

But we have no other means of knowing what were the names of the other eight Hebrew months before the Aramaic calendar came into use.

It is usual to suppose that the Aramaic names of the other months

were used by the early Hebrews. This idea arose at a time when the month names had not been recovered in cuneiform records, but were only known from the Bible, and from later Jewish literature. There is not, as far as I can find, a shadow of foundation for this view.

The Assyrian calendar compares with that used after the Captivity, as follows :—

Jewish.	Assyrian.
Nisan.	Nisannu (" beginning ").
Ijar.	Airu (" light ").
Sivan.	Sivanu (" bricks ").
Tammuz.	Dumzu (" sun ").
Ab.	Abu.
Elul.	Ululu.
Tisri.	Tasritu (" beginning ").
Marchesvan.	Arah Samna (" 8th month ").
Chisleu.	Kisilivu (" giant ").
Tebeth.	Tebituv (" rain ").
Sebat.	Sabatu (" storm ").
Adar.	Addaru (" dark ").

These names occur also in the calendars of Palmyra, of Heliopolis, and of the old Sabeans in South Arabia (with certain exceptions), and are said to have been Babylonian in origin ; but none of these calendars include the names Abib, Zif, Ethanim, Bul.

When, however, we turn to the Phœnician monuments we find the following notices of months.

On the coffin of Eshmunazar we read : " In the month Bul, in the fourteenth year . . ."

On a Phœnician text from Larnaca : " In the new moon of Ethanim."

It is clear from these cases that in all probability the Phœnicians and the Hebrews, before the Captivity, used the same calendar, and that this calendar differed from that of the Babylonians. The Phœnicians continued to use this calendar in Persian times, and apparently after the Jews adopted the Assyrian calendar.

As regards the meanings of the names, we are informed by Gesenius that Abib means " green ear of corn," being the month of corn ripening, but the meaning of Zif seems doubtful, as also Ethanim. Bul he renders " showers," which is equivalent to the Aramaic Tebeth, " rain," the later name of the tenth month. October November is the month of " showers " still in Palestine, and November December of " rain."

The reason why special importance attaches to these month names is that they serve to show, to a certain extent, the age of the books in which they occur. Ezra, Nehemiah, Esther, and Zechariah are late books belonging to the period of Persian rule. Here it is natural to find the Aramaic calendar, but if we found this calendar used in the Pentateuch it would be a critical argument in favour of late date. On the contrary,

we find in both Exodus and Deuteronomy not only the old name Abib, but in Kings the old names used with an explanation, as if already archaic terms requiring some explanation—the Book of Kings being later than the Pentateuch.

Whether the Phœnician calendar was throughout the same as the old Hebrew, whether any names of months were common to the Babylonian and Phœnician systems, and whether every month had a name in the earlier calendar, are questions which, as far as my information goes, remain still unanswered. The "third month" is mentioned in Exodus only by its number (xix, 1); Ezekiel (i, 1) speaks only of the "fourth month" (*cf.* 2 Kings xxv, 3); the "fifth month" (2 Kings xxv, 8; Ezek. xx, 1), the "sixth month" (Ezek. viii, 1), the "twelfth month" (2 Kings xxv, 27), are only mentioned by their numbers before the Captivity.

We possess the names of four other Phœnician months on inscriptions as follows.[1] On a text from Larnaca, in Cyprus, we read זבחשמש ירח, "the month of sacrifices of the sun." On another Larnaca text we find ירח מרפא, which was known at Carthage as מרפאם, showing that the Carthagenian calendar was probably the same as that of Cyprus. This word means "healing," "refreshing," "tranquil." There was a Phœnician God called Baal Merafe. On one of the Dali inscriptions we find ירח כרר[], the month of "going in a circle," or "dancing."

We have, therefore, apparently names for eight out of the twelve Phœnician months, though in three cases we do not know which month of the year is intended. The eighth is Faaloth, mentioned on the text from Larnaca, which notices Ethanim, and supposed by Renan to be the sixth month. פעלת means "work," "preparation," and if the sixth month be really intended, the reference would no doubt be to the ploughing, which began in September. The sacrifices of the sun may be supposed to have occurred at the time of the summer solstice, and the dances of the ancients frequently took place at the autumnal equinox, or at the winter solstice. The month of "refreshing" or "healing" may have been a cool month, perhaps February March, which would well bear such a designation in Palestine.

Distinguishing these three months by a query, we obtain the following calendar for Phœnicia from the monuments. It is to be observed that these months are lunar. The word for month is ירח, "moon," and so also at Sidon, on the mutilated inscription of Bodashtoreth, the same word occurs.

Phœnician Calendar.

1. (Abib ?), "green ears." Vernal equinox.
2. (Zif ?).
3.
4. (?) Zebakh Shamash, "sun sacrifice." Solstice.

[1] See Renan, "Corpus of Semitic Inscriptions," I.

5.
6. Faalot, "work."
7. Ethanim. Autumnal equinox.
8. Bul, "showers."
9.
10. (?) Carar, "dance." Solstice.
11.
12. (?) Merpa, "refreshment."

It seems more than probable that this Phœnician calendar may have been that of the Hebrews in the days of Solomon.

In the remarks made by critics like Wellhausen on the calendar, I find no reference to this monumental evidence. He regards the fixation of feasts by phases of the moon as a later alteration. But the Hebrews and the Phœnicians had no word for month save "moon," and only saved their calendar from becoming vague, like that of the Moslems, by the interpolation of an additional month. There is no evidence at all that they ever used a true solar year such as the Egyptians possessed. The latter had 12 months of 30 days, and five epagomenæ, or odd days. Even in the days of Ptolemy Euergetes (Decree of Canopus), no allowance is made for the difference of the solar and sidereal year since the rising of Sirius is said to advance one day in four years, although Dr. Birch believed the fixed year to be as old as the days of Rameses II. There is, however, I believe, no known evidence of the use of a true solar, or of a sidereal year, by Semitic people.

C. R. Conder.

NOTES BY MAJOR CONDER.

I.

MEJARKON.

"The yellow water," Josh. xix, 46, in the territory of Dan, near Rakkon (Tell-er-Rakkeit), I have proposed to identify with the *'Aujeh* river, on account of its turbid waters which wash down sand. I find the following note in Pausanias iv, xxxv.

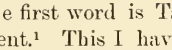
"The country of the Hebrews, too, not far from the city Ioppa, affords a yellow water which is perfectly similar to the colour of blood. This water is near the sea; and they report that Perseus, when he slew the whale to which the daughter of Cepheus was exposed, washed himself from the blood in this fountain."

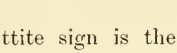
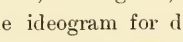
This applies clearly to the 'Aujeh river, near Jaffa, where the story of Perseus was localised.

C. R. C.

II.

TARKU.

On the Hittite bilingual the first word is Tarku  , according to Mr. Pinches' decipherment.[1] This I have already compared with the Turkic *tarkhan* (Uigur), *targan* (Tchuwash), to which I may now add the Mongolian *darga* or *dargo*, "chief," and the Cossack *turughna* having the same meaning.

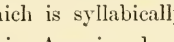
The corresponding Hittite sign is the head of a goat or deer, or similar horned animal, which, it is agreed, should have the same sound. In cuneiform we find the ideogram for deer to be  , originally perhaps a deer's head, which is syllabically represented by , *da-ra* in Akkadian, and in Assyrian by  , *tu-ra-khu*. Probably this word still survives in the Hungarian *zerge*, "antelope," and perhaps it may be connected with the Mongolian *turguñ*, meaning "swift."

I find, however, that Dr. Hommel ("Zeitschrift fur Keilschrift-forschung," 1, 2), gives the sound *daragh*, as well as *dara*, for the Akkadian of the ideogram, and regards the Assyrian *turakhu* as a loan word of Akkadian origin.[2] I find, moreover (1, 4), that he has already, in 1884, compared the Hittite Tarku with the Cossack *turughna*, though he does not mention the Turkic and Mongol words.

I have already mentioned that the same word occurs in the Etruscan Tarquin, known in inscriptions as *Tarchi*, *Tarchu*, *Tarchnas*, *Tarcnal*, in proper names (Dennis, "Etruria," 1st edition, vol. ii, p. 41).

It will surely be allowed that the Akkadian word for deer, *darag*, gives a close approximation to the word for "chief" used in so many Altaic languages, so that the deer's head in Akkadian may stand for "chief."

C. R. C.

[1] Preceded by  , showing it to be a man's name.

[2] The head on the Hittite bilingual is usually taken for a goat. In Greek we have τράγός for "goat," perhaps not an Aryan word, the common Aryan word being represented by the Sanskrit *agá*. It is also worth notice that in Hungarian *Türkölni* and *Türközni* mean "to butt" like a goat (Bizonfy's "Dictionary"). It occurs also in Esthonian *torkan*, "to thrust," *torgin*, "to pierce," Finnic *turkin*, *turkkān*. It seems, therefore, not improbable that the radical meaning of these words is "that which pierces with its horns," hence stag, goat, &c. Mr. Ball has proposed to compare the Greek δορκας, a gazelle.

III.

ASIA MINOR WORDS.

To the words mentioned in the *Quarterly Statement*, July, 1888, a few may be added from the same lists.

Μόσσυν is said to have been a Moschian word for a "wooden house," and Μυσός a Lydian word for the "beech." Compare the old Turkic *Mas*, "tree," "wood" (in Yakut), and Manchu *muk*, "tree." In this case the first word will be *Mos-un*, "tree house," *un* being Turkic for a dwelling (Akkadian *unu*).

Τεγοῦν, Lydian for a "robber," might be compared with the Yakut *Tüokün*, "a cheater;" and the Lydian | β υ, "much," might compare with Turkish هب, "much." The Lydian Κοαλαδεῖν, "king," may compare with the Yakut *Kolobo*, Russian *Koloba*, "chief." Παλμυς, Lydian for "king," may be connected with the Akkadian *Pal*, "chief;" Hungarian *felem*, "to elevate;" Turkish بالا, *Bala*, "high." In Chagatai, a very ancient Turkic language, we have the verb *Bailamak*, "to govern."

C. R. C.

IV.

KING ORRY'S STONE.

Any correction, even of a passing allusion, should be welcome to an author, and I therefore wish to note one which has been pointed out by three Manx gentlemen for "Heth and Moab."

On page 199 I have written—

"In the Isle of Man the laws are read annually by the stone of King Orry, to whom grass is offered."

This is given as one instance of the well-known fact that corn, fruits, and other objects were offered, to a very late period, at holy stones. Cesnola speaks of the practice in Cyprus, and I have gathered other instances. But some inaccuracy seems to have crept into my allusion.

The laws are not, I find, read at King Orry's stone, for the Tynwald mound, near the church of St. John, is on the other side of the island. The stone is shown near Laxey, but the name of King Orry seems much mixed up with controversies, as was evident at the British Association, 1888, when his name, attached to his supposed grave, was stated to represent a quite modern antiquarian joke.

The more correct form of the statement concerning grass appears to be that a mythical earliest King of Man exacted a bundle of meadow grass as tribute on Midsummer Eve, for all the lands of the island. This is stated in a Manx ballad of the 16th century, and is regarded by my correspondents as simply a manorial custom.

In Brown's "Guide to the Isle of Man," p. 200, I find mentioned "the monolith known as King Orry's stone." It is shown on the Ordnance Survey as a "standing stone," near what seems to be popularly known as "King Orry's grave," some 2 miles from Laxey. On p. 315 of the same guide I find mention of Mannanan "as a Paynim and a necromancer, the first who held the enchanted island. . . . The same ballad informs us that the rent paid to this wizard king was a bundle of coarse meadow grass from each landholder yearly at midsummer, brought by some to the top of the mountain of Barrule, and by others deposited with Mannanan himself at Keamool"—Barrule being on the north-east. The same guide book attributes the Tynwald Mount to King Orry, and regards the rushes there strewn at the annual midsummer ceremony of reading the laws, as "in lieu of a rent charge from the small estate of Cronk." My present correspondents regard it as simply the old custom of carpeting the ground with rushes.

This instance shows in an interesting manner that the Palestine Exploration publications are widely known at home, and any correction, even of a sentence which is not directly connected with Palestine matters, is welcome.

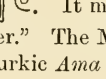
C. R. C.

V.

ESSEBU.

This word appears to connect the Akkadian, in which it is usually rendered "prince," with the Hittite, in the names of the Hittite kings—

Tartisebu,
Akatisebu,

and perhaps occurs in the name of Ispuinis, King of Van. It is interesting in this connection to note that in the language of the Ostiaks of the Narûm, *Essep* still occurs with the meaning "father;" other words in Akkadian and in Turkic speech (such as *Ai*, *Aga*, *Ata*) mean both "father" and "chief." In the dialect of the Ostiaks of Wasynga, we get *Essem* for *Essep* (Klaproth, "Asia Polyglotta"). In the Egyptian the word is spelt  . It may be the near relation of the common Mongolian Esega, "father." The Mongolian *eke*, "mother," occurs in Akkadian, as well as the Turkic *Ama* or *Ana*.

C. R. C.

VI.

JERASH TEXTS.

Having had occasion to refer again to the longest of the texts in hexameter at Jerash (P. E. F. *Quarterly Statement*, 1870, September), it appears to me that the writer refers not to a slaughter house, but to the Pagan temple, beside which the church rose.

As churches were not built before the reign of Constantine (at least not such buildings as that at Jerash), the text is probably not older than the 4th century. I did not see this longer text, but copied the shorter one, also in hexameter, concerning a wrestler named Theodorus, whose body is in earth, and his soul in the wide heaven. The forms of the letters on this latter agree with the Greek cross in giving a date not earlier than 330 A.D. I attach a hexameter translation of the longer text in support of my view as to its meaning.

Wonder and awe together the passer by have encountered
Clouds of error are gone and now in place of the darkness
Which was aforetime here the Grace of God is around me.
And when the sound of the groans of the four-footed victims is silenced
Formerly falling here—and dire was the stench that arose :
So that the way faring man must stop his nostrils in passing
Yea and strive to escape the evil smell on the breezes.
Now on the sweet-smelling plain the wandering travellers journey
Lifting up as they go the palm of the right to their faces
Making the honoured sign of the cross as a deed that is holy.
And if you further would ask this also that you may know it
Æneas[1] to me has given this excellent glory
Æneas the all-wise priest well instructed in worship.

C. R. C.

VII.

THE TELL AMARNA TABLETS.

The recent find of Babylonian Cuneiform tablets between Memphis and Thebes, in Egypt, appears likely to be important in reference to Palestine. The date is believed to be about 1430 B.C., which, according to Usher's "Chronology," would represent the time of Joshua, but perhaps more probably preceded the Hebrew conquest of Palestine. It is not our oldest monumental information, since we have much information about Palestine in the days of Thothmes III, a century and a half earlier, but it is a century

[1] Æneas is a name which occurs in Palestine in the time of Herod as that of a Nabathean ruler in Petra.

before Rameses II. From these tablets it appears that the kings of Mesopotamia were allied to those of Egypt; that trading and political relations existed; that royal intermarriages occurred; that the art work of the East was prized in Egypt; and probably that the Semitic race had occupied Northern Syria, mingling with the Hittite population. We have a notice of Tyre nearly a century earlier than those previously obtained from Egyptian documents; and Cuneiform tablets were sent, we see, to Egypt, though it does not seem certain that the script was there readable, since ambassadors accompanied the letters, who may alone have been able to read them, just as British official letters are not always in the language or character of the recipients, or understood by them.

The city Tunep (*Tennib*) is mentioned in connection with the Hittites, and Tunep appears as a Hittite city in later Egyptian records. Towns called *Gimti* (? Gimzo), near Ashdod, *Kilti*, and *Rabbah*, are mentioned; and *Zumurimma* (*cf.* Zemarites צמר Gen. x, 18, the Simyra of Strabo, xvi, and Zemaraim, Josh. xviii, 22), and *Sardit* (perhaps Sardis): the *Serru*, "at the entrance of the land of Egypt," recall the Shasu tribe called *Saaru*, whose name has been connected with Mount Seir. The city *Abes* recalls *Abez* (Josh. xix, 20, אבץ now probably البيضا *el Beida*, on the north edge of the Plain of Esdraelon); Asi (or Cyprus ?) is also mentioned, and *Tsumura* (Simyra); also the land *Akharra*, "the west" (or Phœnicia).

One of these letters appears to have been sealed in Egypt on arrival with a royal seal. The city *Tsurri* (perhaps Tyre) occurs with *Ziduna*, or Sidon. The land of the *Khatti* or Hittites is also noticed. One letter comes from the king of part of Mesopotamia, east of the Hittite country. This king, who says that his father was at peace with Egypt, asks for an Egyptian princess for his nephew, and sends presents of gold jars, gold plates, and precious stones. In this letter an early notice of the Assyrians as allies is found.

The king of another country, not yet well fixed, but clearly with Semitic rulers, and probably Mesopotamian, sends his ambassador with a letter and with five bronze vessels. These seem not to have been at that time manufactured in Egypt. The Kharu, more than a century before brought such vessels as tribute to Egypt. Trees are also sent; and Thothmes III took trees from Syria as part of his spoils. This monarch also asks the King of Egypt not to make any treaty with the King of the Hittites, or with the King of Shinar. This is an interesting political note, in presence of the fact that Rameses II and his predecessor, as we know from Egyptian records, actually allied themselves with the Hittite Princes.

When we remember how the merchants from Midian took Joseph to Egypt in one of their ordinary trading journeys, these further revelations of the early civilisation of Palestine become highly interesting; and the period appears to be intermediate between the two dates (1600 B.C. and 1340 B.C.) to which our information was formerly confined, when only Egyptian records were known. The existence of a Semitic race in

Phœnicia itself, with rulers from the East, seems to be indicated; thus confirming the traditional view as to the derivation of the Semitic Phœnicians from Chaldea. We hear nothing of the Hebrews, for they were as yet not a power in Palestine, but we hear perhaps of the "Sons of Seir," who were organised under a king when Israel came from Egypt to Edom.

There are other tablets of this series still to be read, which may give us other interesting notes as to Palestine. The find is one of the most important yet made in connection with the monumental history of Syria.

C. R. C.

VIII.

RECENT NOTES ON THE HITTITES.

The recently-published Proceedings, Biblical Archæological Society, contain papers in which some useful notes on the Hittites appear. We should not reproach the author (Rev. C. J. Ball) for his conversion from the belief that the Hittites were Semitic, and in many respects he appears to have profited by recent publications. Armenian, on which he in great measure relies, is not a safe guide, since it is known to be a very mixed language, with a large Turanian vocabulary. Questions of etymology are generally very vexed, but while regarding the Hittites and other tribes as Aryan, he has come to see that some of their names are comparable with Etruscan and other Turanian words. That he does not acknowledge the prior publication of these facts by the Palestine Exploration Fund is of little importance, in view of the furtherance of truth by the acceptance of their work. That he is right in regarding some of the tribes encountered at a late period by the Assyrians as Aryan will probably prove to be the case. This does not touch the question of the Hittite nationality a thousand years earlier. It is to be regretted, however, that he has not treated of words of *known* meaning, such as have been enumerated in the last number of the P. E. F. *Quarterly Statement.*

At the British Association at Bath Prof. Sayce allowed that it was now the general opinion that the Hittites were Mongolic. Dr. Isaac Taylor has published his belief in this view, and I believe I might mention two other authorities who consent. Mr. Ball, however, has not called attention to the existence of some of the words he notices (such as Tarku and Sar) in Turkic and Mongolic dialects. He compares *Tutamu* with Homer's Pelasgian Teutamus ("Iliad," ii, 843), but assumes the Pelasgi to have been Aryans. He discovers the survival of the Hittite name Saplel in a Syriac account of an Armenian King Saplul (as Halevy has previously noted), which is very interesting, but not a safe indication of Aryan origin for the name. He compares Tarku with the Etruscan name Tarcho ("Æn." viii, 506, 603), and Lara with the Etruscan Lar, in both of which remarks he is preceded by my papers in the *Quarterly*

Statement. Etruscan comparisons show, however, a Turanian and not an Aryan affinity. The comparison with the Scythian Targitaus also probably tends in the direction of Turanian origin. The Parthian *torkis*, "king," which he also compares, is, according to Spiegel, not an Iranian (*i.e.*, Aryan) word. *Kamru*, a word he takes to mean house, does not occur in Hittite records.

As regards the inscriptions, he follows "Altaic Hieroglyphs" in comparing the deer's head with *Tar*, *Dara*, and *Darag* (or *Tark*) in Akkadian, but Akkadian is not an Aryan language. He also compares the *Dim* of the bilingual with the Cuneiform *Dim*, as I have previously done in "Altaic Hieroglyphs." He adds an interesting note that the amulet (Hittite, *Ra*) which, as I have noted, was used in Phœnicia and at Carthage, also occurs on Sassanian coins as the emblem of the Fravashi or guardian spirit. He accepts the first emblem of the Hamath stones as meaning "speech," comparing it with the Egyptian determinative, as I have already done in 1883; and he accepts my value *Ve* for the Hittite pronoun emblem. The following principles, which he lays down, are all strictly adhered to in my decipherment, but were, in cases 2 and 3, disregarded by Mr. Ball, when he attempted to read the Hamath stones as Hebrew in 1887.[1]

(1.) The inscriptions are to be read *towards* the faces (meaning from the end, towards which the faces look).

(2.) Symbols placed one above the other are to be read vertically downwards from top to bottom, and this order is invariable. This is true, and is the case in the Akkadian texts of Tel-lo. Mr. Ball formerly read without regard to this law.

(3.) Like the Egyptian the character is partly ideographic, partly phonetic. This has been pointed out clearly in my previous papers, but I think Mr. Ball hardly gives enough attention to the ideographic value.

(4.) The text J. 1 reads A. B. C. D. This is clear when the original is inspected. Prof. Sayce, reading from a photograph, has unfortunately been misled into reading A. C. B. D.

[1] As showing the vague results of etymology from single unknown sounds we may instance Antar. Mr. Ball renders "forest" from Armenian. In Etruscan, antar means "eagle." *Thamima*, "sea," he compares with *Tâmara*. Surely it is as near *Tiamat*, the Akkadian "ocean." If the Aryan *çara* means "head," "leader," so does the Turanian *Tsar*. If *Bag* is to be compared with the Aryan *Bágha*, it equally compares with the Turanian *Bak*. These facts are in some cases explained by the Aryan and Turanian roots being the same, but if exception be taken to comparing Hittite with the earliest languages of Western Asia, which are not Semitic, that objection is tenfold stronger when modern languages of mixed character, like Armenian or Georgian are used. The same applies to comparing Cypriote direct with Cuneiform. Mr. Ball gives twenty-six cases, of which I believe *three* are correct. As to his proposals for translating a few groups on the monuments, the arguments do not appear to be very strong, and further study of the symbols may lead him to see that the proposed values are untenable.

The objections in principle which, it seems to me, will be raised to Mr. Ball's system are, 1st, that he has paid no attention to words of *known* meaning, but relies on etymologies of names which he compares without distinction with Aryan and Turanian languages, and with mixed languages like Armenian. 2nd, that in comparing Cypriote and Cuneiform he compares *late* forms, which are always misleading, and does not adhere to one epoch (which should be the *oldest* known), and places his Cuneiform emblems erect or prostrate, as suits the comparison, instead of adhering to the oldest erect forms. 3rd, that when emblems which differ occur in groups with emblems the same in the groups compared, the different emblems are regarded as equivalent. Prof. Sayce has done the same, but there is no safe ground for such a supposition any more than if we were to find C. A. B. on one text and C. O. B. on another, and should argue that therefore A. is the same as O. There are only about 130 known Hittite emblems, of which about 50 (probably phonetics) are very common. The presumption, therefore, is that these (as in Medic and other syllabaries) had each a distinct sound, and not that two or more had the same sound, and were used as equivalents. 4th, that he has made no exhaustive study of any single emblem as regards its position in the texts; and 5th, which is also a matter of principle, that he reproduces in many cases the work of others without any acknowledgment.

C. R. C.

NOTE ON MR. I. C. RUSSELL'S PAPER ON THE JORDAN ARABAH AND THE DEAD SEA.

By Professor Edward Hull, LL.D., F.R.S.

[Extracted from the *Geol. Mag.* Dec. III. Vol. V. No. 11, 1888.]

I have been very much interested in reading Mr. Russell's two communications published in the "Geological Magazine" for August and September last.[1] The analogy which he draws between the history of the Dead Sea valley and that of some of the lake valleys in the western part of North America is instructive as showing how similar physical features can be accounted for on similar principles of interpretation over all parts of the world. Mr. Russell very properly draws attention to the paper by his colleague Mr. G. K. Gilbert on "The Topographical Features of Lake Shores," in which principles of interpretation of physical phenomena are laid down applicable to lakes both of America and the Jordan-Arabah valley.[2] With some of Mr. Russell's inferences regarding special epochs in the history of this valley I am very much disposed to agree; more particularly in reference to the mode of formation of the Salt Mountain,

[1] "The Jordan-Arabah Depression and the Dead Sea," "Geol. Mag." Aug. and Sept. 1888, pp. 337-344 and 387-395.

[2] Gilbert, Fifth Annual Report U.S. Geological Survey (1883-84).

Jebel Usdum ; or rather, of the salt-rock which forms the lower part of its mass. If this interpretation be correct, it removes the difficulty of understanding why the rock-salt is confined to one small corner of the lake, which, at the time the salt was in course of formation, was vastly more extensive than at present.

The case of the arm of the Caspian known as Kara Bughaz, which Mr. Russell cites, seems remarkably apposite to that of the Southern bay of the Dead Sea ; and I feel obliged to the author for his suggestion. In reference to Mr. Russell's statement that "we ought to look for an unconformity between the upper and lower lake beds due to the erosion of the lower member," I wish to take this opportunity of referring again to the peculiar structure in the rock-salt near the northern end of Jebel Usdum, where the white laminated marls, forming the upper part of this plateau, are seen resting horizontally on a mass of rock-salt, having an oblique structure ; that is, traversed by planes sloping southwards at an angle of about 20°–25°. I made a sketch of this part of the cliff in my note-book, but from inability, through lack of time, to examine into the phenomena with more care than can be done from horseback, I thought it prudent not to refer to the matter in the "Geological Memoir,"[1] further than to notice it.

My special purpose in this communication is to offer some additional information to that already given on the question whether or not the Jordan-Arabah valley originally communicated with the ocean through the Gulf of Akabah. Mr. Russell is not satisfied with the information already before him regarding the nature of the watershed of the Arabah. I have, therefore, referred back to my notes, which are rather full on this very subject, though I did not consider it necessary to give them *in extenso* in the "Geological Memoir," or in "Mount Seir." On referring to the large Map of the Arabah Valley in the "Memoir" (facing p. 137), it will be seen that the watershed (Lat. 30° 10′ N.) is formed partly of a limestone ridge called Er Rishy, and partly of "gravel of the Arabah." This gravel extends for several miles down both slopes of the watershed, and is sometimes overspread by blown sand, or else by alluvium. On the west side it is bounded by the steep, often precipitous, cliff of the rocks forming the eastern border of the Desert of the Tîh (Badiet et Tîh), and on the east by those of the Edomite hills and escarpments ; and at its lowest part rises about 700 feet above the level of the Mediterranean and Red Seas,[2] and therefore nearly 2,000 feet above the present surface of the Dead Sea. On approaching the watershed, or saddle, from the south, it appears as a level line stretching from the northern end of Er Rishy to the foot of the rugged hills of Edom, and about half a mile in length. It is formed of

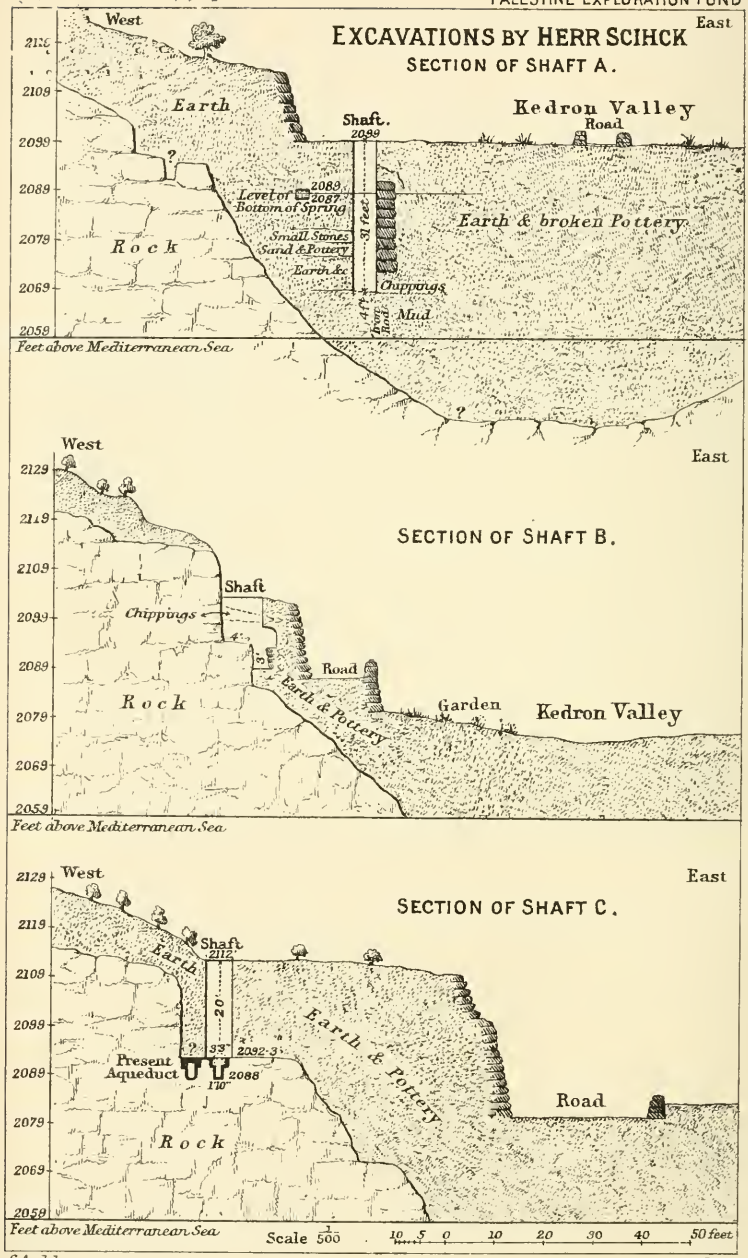
[1] "Memoir on the Physical Geology of Arabia-Petræa and Palestine," p. 84 (1886).

[2] M. Vignes' determination is 787 feet (240 mètres) ; that of Major, now Colonel Kitchener, is 660 feet ; and that of Mr. Reginald Laurence by aneroid 650 feet.

sand and gravel of considerable thickness overlying the limestone which rises from beneath on the eastern side, and which is broken off by the great Jordan-Arabah fault against the granitoid and other crystalline rocks, which here form the base of the Edomite range. This gravel has all the appearance of a fluviatile, or alluvial, deposit, formed by the streams which in flood time descend from the hills to the east; and it is well laid open to view in one of these streams, which ultimately joins the River Jeib. Between this watershed and the first of the terraces which can, with any degree of certainty, be referred to a lacustrine origin, there is a distance of over twenty miles, and a vertical fall of about 700 or 650 feet; and as our party was scattered over the valley, we could not have failed to detect remains of such lacustrine deposits, if any such existed, above the level of those we encountered at our camp of the 12th December, 1883, at Ain Abu Werideh: at a level approximately that of the Mediterranean, and 1,292 feet above that of the Dead Sea.[1] These horizontal beds of white marl with shells, sand, and shingle, was an entirely new feature to us all; and no doubt remains on my mind that they indicate the highest level to which the waters of the ancient Jordan-valley Lake formerly rose.

An admission on my part that the waters of the Jordan valley ever were in connection with those of the outer ocean through the Gulf of Akabah can only be made from the point of view that, during the formation of the Jordan-Arabah line of depression by the displacement of the strata along the great fault, and when the whole region was rising from beneath the waters of the ocean in Miocene times, some such connection existed for a limited period of time; but this epoch in the history of the valley was separated by a long interval from that of the present Dead Sea, even when standing at a level of 1,300 feet above its present surface. From the time that the outer waters of the ocean were dissevered from those of the Jordan-Arabah lake by the up-rise of the land, there is no evidence that there was ever any subsequent connection by means of a stream flowing down from the North into the Gulf of Akabah. The closest approximation which, according to my view, these inner and outer waters ever made towards each other is represented in the sketch-map of that whole region in page 72 of the "Geological Memoir," where a tract of ground of about 40 miles in length, and rising to 700 feet in height, is represented as intervening between their respective borders.

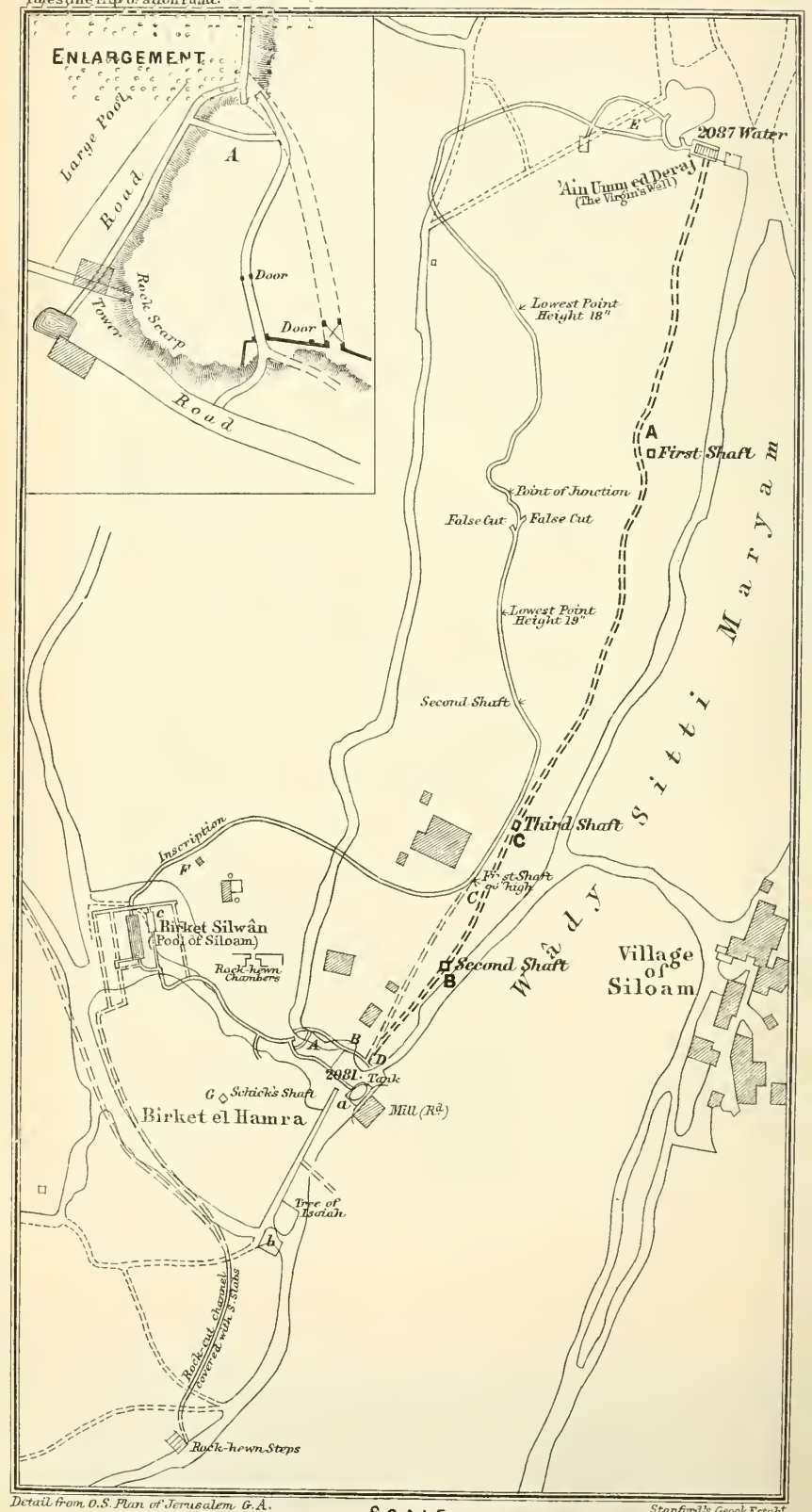
[1] "Mount Seir," p. 99; "Geological Memoir," p. 80.



G.A., del. E. Weller.

PLAN OF THE AQUEDUCTS AND CONNECTIONS
RECENTLY DISCOVERED AND SUPPOSED CONTINUATION OF COURSE.

Palestine Exploration Fund.



Detail from O.S. Plan of Jerusalem G.A.

SCALE

100 Feet 0 100 200 300 400 500

Stanford's Geogl. Estabt.

THE WATERS OF SHILOAH THAT GO SOFTLY.

(Isaiah viii, 6.)

Five years ago, relying upon the topographical and historical accuracy of the Bible, I predicted with the utmost confidence (*Quarterly Statement*, 1884, 70, 76), that a careful search on the eastern side of Ophel would result in the discovery of an aqueduct which, in the time of Ahaz, conveyed water from the Virgin's Fount (Gihon) to the mouth of the Tyropœon valley. I added that it would be "at a level of about 2,087 feet (but on plan about 2,085), probably a foot or two broad, cut in the rock, perhaps 3 feet deep, and covered with slabs of stone;" and, further, that "as possibly the aqueduct might in some places be destroyed, when it fell into disuse on the completion of the Siloam tunnel, if no result (*i.e.*, successful result) attended the first attempt, a second or even a third ought to be made at some other part of its course." Taking Sir Charles Warren's rock-contours as my guide, I also indicated its course on a plan; and on a later plan of March 19, 1886, marked several spots for examination.

The Executive Committee very kindly took up the proposal that a search should be made, put the matter into Mr. Schick's hands, and in *Quarterly Statement*, 1886, 197, printed his report of the complete success of his excavations.

He states that he sunk three shafts. At the first (A on his plan), he found that "at a height of 2,064 feet above the sea there is no rock." The results of the second shaft, B., seem to me ambiguous. He next made a third shaft, C., hoping to strike the well-known aqueduct to Siloam, at some point where he thought the roof was not solid rock, but covered with stones. In this opinion I cannot agree. However, all ended well.

He says (1886, 199): "At 20 feet the rock was found, and to our joy, the rock-hewn channel also (*i.e.*, the conjectural, not the known one). It is 1 foot 10 inches wide, 4 feet 3 inches deep, both sides cut down perpendicularly, and the bottom round, at a level 2,088 feet above the sea. On the top of the sides there were grooves, 7 inches deep and 8½ inches broad, to take the covering slab, which was no longer in its place, and hence the conduit was full of earth."

Even after two years I must own to being extremely pleased at this discovery, especially as I had informed Mr. Besant that if the aqueduct were honestly looked for and not found, I would give up the Jerusalem controversy. This true solution of the Shiloah difficulty has taken much time and trouble. To Vitringa, as Thrupp points out ("Jerusalem," 140), we owe the correct interpretation of Isaiah viii, 6; and besides these and others, Major Conder (1883, 139; 1884, 241, 243); and Professor Sayce (1883, 211; 1884, 174), have assisted by their very objections; for in answering them (1885, 60), I saw the more clearly that I had got hold of the truth, and therefore again pressed for the search to be made.

Let me now dispose of some further objections which the former has thought good to offer, and next point out the value of this discovery.

Major Conder (1887, 104), says: "The investigations of the supposed second aqueduct to the Virgin's Pool do not seem to have led to the proof of its existence, nor do I think it at all likely that a second aqueduct would have been cut, as there could not have been any apparent use for it. . . . . Shaft C. showed a surface channel, of which there used to be many on this hill, but it is not shown to have gone to the Virgin's Pool."

Here I would ask—

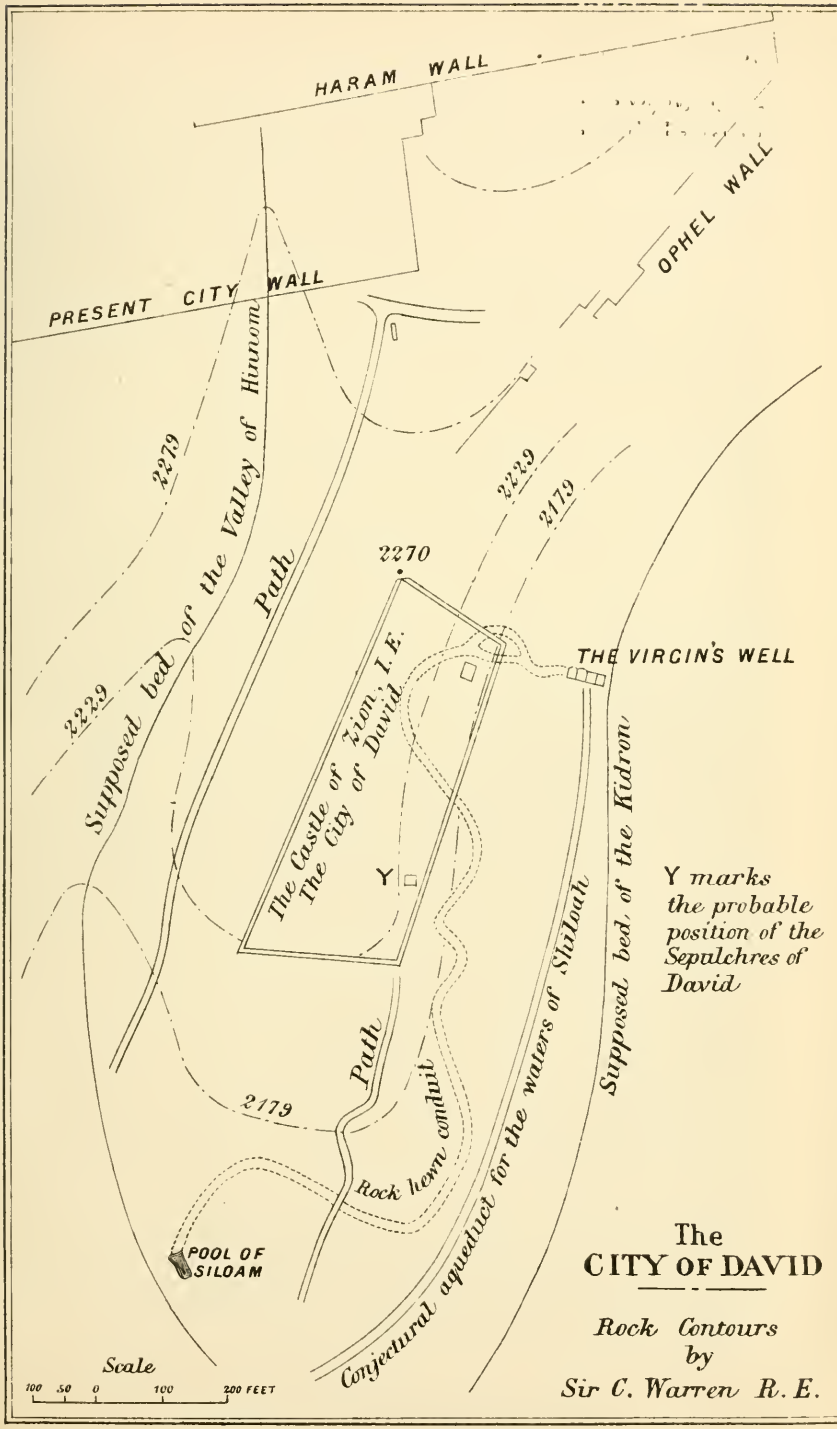
1. If the remains described above do not prove the existence of an aqueduct, what possible remains would?

2. As the present use of the present rock-hewn tunnel is to convey water from the Virgin's Pool to the Tyropœon Valley, so the past use of the newly-found aqueduct was to do the same, *before* the rock-hewn tunnel was made or ever thought of.

3. The next objection about "surface" seems to me more superficial than the aqueduct, which is buried quite 20 feet. If Major Conder means that the channel had not a roof of solid rock, I reply, Of course not, for that is just what was *not* wanted (1884, 76); but if he means it is still so near the surface (only 20 feet below!), that it cannot be as ancient as the time of Ahaz, then I must ask why would he attribute (1887, 106; 1884, 26) to Hezekiah the aqueduct named in *his very next paragraph*, on p. 104, 1887. Is that aqueduct 20 feet below the surface? And if so, how much more depth is required for Ahaz than for Hezekiah. To me, 20 feet seems depth enough of soil for any antiquity in this part of Ophel?

But, before dismissing his aqueduct, I would ask, would it not be absurd in Hezekiah first to stop the upper outlet of Gihon (Virgin's Fount), and to bring the waters, with immense labour, beyond the reach of the enemy, through the Ophel Hill to the Pool of Siloam, and then to convey them onwards, *outside* the walls, and so *not beyond* his reach, in a *surface* channel (his is such as much as mine) covered with slabs, having slits (1882, 130) here and there giving access to the waters—a channel, be it noted, running east and west according to Major Conder's plan (1884, 21), but north and south on Mr. Schick's (1886, 199). In other words, Major Conder makes Hezekiah's object to have been to prevent Sennacherib tasting the waters of Gihon *merely before* they reached Siloam; after that he might drink *ad libitum*. This absurdity inevitably follows his interpretation of 2 Chron. xxxii, 30, in which he makes the city of David to be the Upper City on the south-western hill.

4. While the aqueduct has not been *actually* traced to the Virgin's Fount, it must, like the Siloam tunnel, have led from it, as "there is nothing to lead us to suppose that any other supply of living water existed at a former period" at Jerusalem (Conder's "Handbook," 334). I hope, however, these objections will lead the Committee to trace the conduit to its end in both directions.



LINDSELL & ANDREW, LITH. 87, CHANCERY LANE, W.C.

The discovery of this aqueduct seems to be most valuable, because—

1. It gives us a glimpse of the wonderful accuracy of the sacred records, since a brief notice in Isaiah has enabled us to recover an aqueduct disused for 2,600 years, whose very existence was denied by historical critics.

2. The terms Shiloah, Siloah, and Siloam can now, without any difficulty whatever, be applied to one spot, at the south of Ophel.

3. Once more Ophel, west of the Virgin's Fount, is found to be the site of the city of David, for the waters of Shiloah (*i.e.*, aqueduct) must, as Thrupp pointed out, have flowed from the city of David, and this (Schick's) aqueduct can only have led from the very same source as the Siloam tunnel does at the present day, viz., from the Virgin's Fount, *i.e.*, Gihon (2 Chron. xxxii, 30).

4. There is no longer any room whatever for doubt as to the date of the Siloam tunnel. Every difficulty has been removed. It was certainly Hezekiah's work (1883, 106). The same may also be said of the inscription.

5. In my opinion Schick's aqueduct is to be attributed to Solomon.

6. By this discovery an impetus ought to be given to excavation work at Jerusalem.

We have not now to dig at a venture. Calculations may be made to a nicety beforehand. An unknown quantity, too, has been eliminated from the problem of discovering the sepulchres of David, or, rather, its value has been found. Readers of these pages may remember how uncertainty as to the position of "the Pool of Siloam" (1883, 155) and "the pool that was made" has more than once marred my conjectures as to the approximate position of David's tomb on the part south of the Haram area.

Now, however, a doubtful point *finally settled*, gives another *fixed and known point* from which to make a further advance towards solving the great question of the precise position of the Royal Sepulchres.

Encouraged, therefore, by the successful find of "the waters of Shiloah," I would again put before the Executive Committee of the Palestine Exploration Fund a proposal that a search should be made for the sepulchres of David. I do not ask them to believe me, and I cannot in this matter speak, as in the former case, with "the utmost confidence" of succeeding; but, after two years' reflection, I see no change that I should wish to make in the plan and explanation given in *Quarterly Statement*, 1886, 33. A search (on a line east and west) on the eastern side of Ophel must, in my opinion, reveal traces of the city wall, and a further search based on this would, I believe, be rewarded by most astonishing results, viz., the discovery of ancient tombs which must be royal.

Perseverance, however, and money, too, will probably be needed to recover the sepulchre where David's dust "rests in hope" (if Matt. xxvii, 53, admits of it), the magnificent catacombs where Solomon "lies in his glory," the loculus (bed) of Asa, "filled with divers kinds of spices"—in short, the *one* intact monument of the kings of Judah. I would not for

a moment ignore any proposed *bonâ fide* site for the sepulchres of David, adverse to my own. It is however needless to consider Mr. St. Clair's (1888, 49, 288) site with all the details of his plan, until he draws his southern wall, not on the line of the present wall, but so as (1) to take in the towers discovered by Mr. Maudslay at the south-west corner of the upper city, (2) to pass close to the Virgin's Fount, and (3) to be sufficiently near to the Pool of Siloam as to defend it. According to Mr. St. Clair's plan, the elaborate works connected with the two latter had nothing to do with Jerusalem, and were useless. This is incredible.

W. F. Birch.

October 25*th*, 1888.

THE VALLEYS AND WATERS OF JERUSALEM.

The Hebrew language furnishes a most useful key to the topography of Jerusalem, inasmuch as it possesses different words to describe valleys of different kinds, and also invariably applies the same word to the same valley. The translators of the Bible apparently overlooked this peculiarity; but it is strange that the Revisers should have strayed still further by translating identically the same words in one place "the king's *dale*," and in another "the king's *vale*."

Thus the reader of the English translation, by being deprived of the topographical light which the original contains, is led blindfold among the three valleys of Jerusalem, with two chances to one of his mistaking where he is.

At the suggestion of one of the Executive Committee, I propose to lay before the reader a simple statement as to these valleys and the passages in the Bible where they are named.

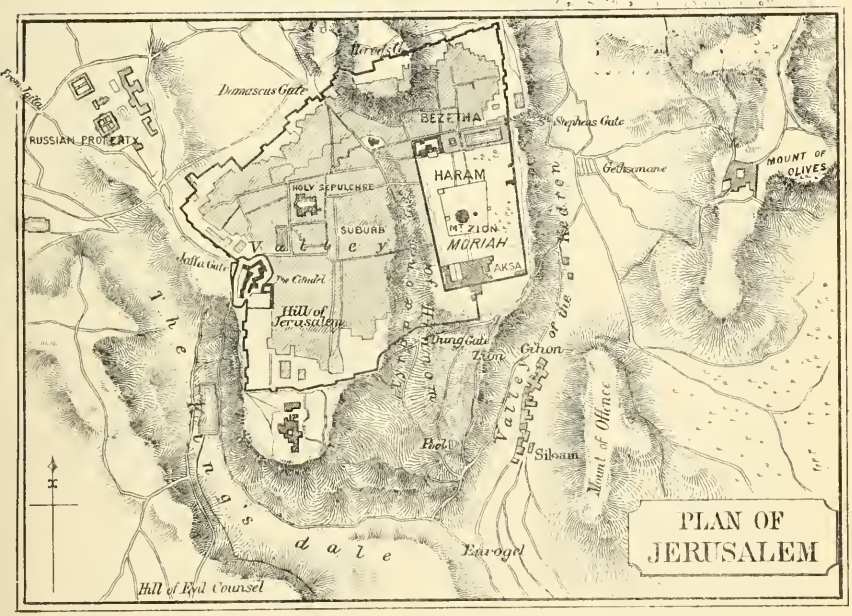
To those who will condescend to use this key instead of their own fancy, Jerusalem topography will lose most of its difficulties, and points which may still escape me may become clear to others.

Jerusalem is bounded on the east by a valley running from north to south. This is universally admitted to be that named in the Bible as the brook Kidron.

On the west and south it is bounded by an L-shaped valley, joining the former at its southern end, whence the two form one valley leading to the Dead Sea.

The space enclosed between these two, forming the site of Jerusalem, is further divided by a central bifurcated or Y-shaped valley, of which the lowest limb joins the point of contact of the two former valleys, while the left branch of the Y runs almost east and west, and the right branch northwards. Further, Jerusalem is divided in such a way that the area to the right of the Y is only about one-quarter of the whole.

The first, or eastern, valley is in Hebrew called *Nachal*, or the brook its full title being the brook Kidron.


Herod's Gate
Damascus Gate
RUSSIAN PROPERTY
BEZETHA
Stephens Gate
Gethsemane
MOUNT OF OLIVES
HARAM
HOLY SEPULCHRE
SUBURB
Mt. ZION
MORIAH
AKSA
Valley
Jaffa Gate
Pool
Hill of Jerusalem
Dung Gate
Zion
Gihon
Valley of the Kidron
Siloam
Mount of Offence
Pool
Tyropœon
Valley
Hinnom
Valley
Hill of Evil Counsel
Enrogel
PLAN OF JERUSALEM

The second, or south-western, valley is called *Emek*, or the Dale, with various additions.

The third valley (*i.e.*, the left and lowest limb of the Y) is called *Ge*, or the valley of Hinnom, the last word, Hinnom, being very seldom omitted.

If the reader asks, as he has a right to ask, "Do all writers on Jerusalem believe all this about the valleys?" then I must reply, "Certainly not."

Theories have been formed and advocated in ignorance of the above-named *key*, and, as General Gordon rightly observed (*Quarterly Statement*, 1885, 81), "A man, under his own name, cannot go right-about-face all at once." My experience is that he will hardly go at all sooner or later. I have explained in *Quarterly Statement* (1878, 178; 1882, 56) how I got into the light, or rather how light got into me, by a mere accident, and how the Jerusalem fog which still envelops so many lifted and the great outlines of Jerusalem burst upon my view in wonderful distinctness, as soon as ever I admitted that Nachal = eastern valley, Ge = central valley, Emek = south-western valley. My faith in this key was confirmed beyond a shadow of a doubt when, by the use of it, I found that Jer. xxi, 13, 14, "I am against thee, O inhabitant of the valley [emek] and of the rock of the plain [mishor], saith the Lord: ye which say who shall come down against us," had *nothing whatever to do with Jerusalem*, as hitherto universally supposed.

The people of Jerusalem did *not* live in the *emek*, and the word *mishor* is technically applied to the upland downs on the *east* side of the Jordan. The very expression used by Rabbath-Ammon in Jer. xlix, 3, 4, "Who shall come unto me," answering so closely to "Who shall come down against us," is enough to show to the unprepossessed reader that the capital of the Ammonites is addressed in Jer. xxi, 13, just as Jerusalem is in the twelfth verse; while Ezek. xxi, 20, throws further light on the question.

Here, again, I must confess with sadness that writers, learned and unlearned alike, still go on in error, preferring to do violence to Hebrew usage rather than to revise what they have once written (1878, 189; 1882, 59). I must also add that I first learned from Mr. Schick (1884, 185) that I had been forestalled by Schwarz in perceiving that the central, *i.e.*, the Tyropœon valley, was the valley (*ge*) of Hinnom. Possibly his discovery was rejected by others because he went on to say that the south-western valley, *emek* (still, I grieve to say, commonly taken to be the *ge*, or valley of Hinnom) was the valley of Rephaim. Anybody could see that it was *not*, and that the Philistines could never have *spread* themselves in such a small place (2 Sam. v, 18, 22; xxiii, 13).

Now as to the valleys.

Nachal, or the Brook Kidron.

2 Sam. xv, 23. The king passed over the brook Kidron.

St. John, xviii, 1. Jesus went forth with his disciples over the brook Kidron.

1 Kings, ii, 37. Passest over the brook Kidron.

1 Kings, xv, 13. Asa burnt her image at the brook Kidron.

2 Kings, xxiii, 4. Josiah burned them without Jerusalem in the fields of Kidron.

2 Kings, xxiii, 6. Unto the brook Kidron and at the brook Kidron.

2 Kings, xxiii, 12. Cast the dust of them into the brook Kidron.

Jer. xxxi, 40. All the fields unto the brook Kidron.

Sometimes Kidron is omitted, and *Nachal* only used.

Nehemiah (ii, 14, 15), after passing the King's pool, says, "Then went I up in the night by the brook."

2 Chron. xxxiii, 14, R. V. After this Manasseh built an outer wall to the city of David on the west side of Gihon, in the valley (*nachal*, *i.e.*, brook).

Here the original contained light, while a vague translation has produced darkness, in which writers on Jerusalem are still groping. This verse by itself showed that Gihon was on the east of Jerusalem, and the city of David close to it, on the west side of Gihon; but because the A. V. gave *valley* instead of *brook* (and the R. V. does just the same), Dr. Robinson was led astray, and Sir Charles Warren triumphantly claims that his north-westerly site for Zion "is the only site which will render intelligible" this verse ("Temple," 35). Put *brook* for *valley*, and the verse is seen at once to be diametrically opposed to his view. He has long admitted that the Book of Nehemiah seems to place the city of David on Ophel, but here we have his favourite passage in Chronicles doing the very same thing. It would have been most unsatisfactory if Nehemiah had not been consistent with Chronicles.

On the invasion of Sennacherib, Hezekiah (2 Chron. xxxii, 4) gathered much people together, and they stopped all the fountains, and *the brook (nachal)* that flowed through the midst of the land, saying, why should the kings of Assyria come and find much water. Here the A. V. is better than the R. V., for the former gives the marginal reading, "overflowed."

What then was *the brook that overflowed?* Heavy rain would make a stream in any valley. But in this case why stop only *one?* Now the Virgin's Fount in the Kidron valley is partly an intermittent spring. It seemed, therefore, to me ten years ago (*Quarterly Statement*, 1878, 181) that this spring was referred to, since it is in the *nachal*, and *overflows* at irregular intervals. The recent discovery of Schick's aqueduct, which carried these waters to the mouth of the Tyropœon valley, showed, however that the waters from Gihon, even in the time of Ahaz, were not allowed to overflow down the Kidron, while the flowing along the aqueduct certainly did not answer to flowing "through the midst of the land."

We (writers) have been for fifty years needlessly indulging in conjectures when all along any ragged urchin at Jerusalem could answer off-hand the question, "Where is the brook that overflows through the midst of the land?" Dr. Robinson thought it flowed down the south-

western valley; Sir C. Warren, writing of the central valley, exclaims ("Underground Jerusalem," 70, 322, 331), "How tantalising to have found the *brook*, but to be debarred pursuing it up to its source!" Nevertheless the brook has been overflowing almost every year. Dr. Robinson notes it and Sir C. Warren saw it, and I also; and yet no one has recognised it. What is more, its periodical flow is actually tabulated in these very pages (*see* 1883, 33), and as no one should overlook it, it is headed "TABLE IX. The overflow of Beer Ayûb." Yet it has taken me ten years to find it out and this while the "Land and Book," 656, etc., and "Jerusalem Recovered," 258, have brought closely together the mention of the brook that overflowed, and the overflow of Joab's well and the long tunnel, so that one ought long ago to have perceived the connection between them.

Major Conder says, "The rising of the waters is held as a feast by the inhabitants of Jerusalem, who may be seen walking beside the water or sitting in the valley in numbers on a bright winter day when the water is flowing. Men, women, and children here picnic all day" ("Memoirs, Jerusalem," 371, and "Land and Book," 658).

After heavy rains the water from the lower strata of rock finds an outlet up the shaft of the well. I do not know the age of the well, and, therefore, do not say it existed in the time of Hezekiah. Sir Charles Warren, however, discovered one entrance to three staircases a little north of the well—one of them leading to a semi-natural cistern in the rock, where a natural cleft was also visible. This staircase had evidently been cut into at a later date, but in its original form it had once been built up by a cross wall, and at the bottom of the wall a hole or duct was left 6⅜ by 4 inches, and on the northern side a stone plug to fit and 12 inches long, was found in it. Why? here is the *very plug* Hezekiah put in (I don't mean with his own hand) when Sennacherib invaded Judah. Talk of the Bible not bearing historical criticism! It is the critic who cannot bear criticism. Afterwards the *plug* was no longer needed, when the 1,800 feet aqueduct from the cistern was made down the Kidron.

It seems to me that the above staircases must have been made by the Jebusites, and that this source of water is to be identified with En-rogel (Josh. xv, 7, xviii, 16), just as in Gen. xxiv, 11, 20, mention is made of a *well* (*beer*), and of Rebekah going *down* to the *spring* (*ain*. 16, 13). What an excellent hiding-place Jonathan and Ahimaaz (2 Sam. xvii, 17) must have had here in these staircases and cleft, the reader may learn for himself from Sir Charles Warren's Letters, pp. 140, 152, and the "Jerusalem Memoirs," 372.

Ge, or the Valley of Hinnom.

Josh. xv, 8 (from En-rogel). The border went up by the valley of the son of Hinnom.

Josh. xviii, 16. The border went down to the uttermost part of the mountain that lieth before the valley of the son of Hinnom, which is in

the vale of Rephaim northward; and it went down to the valley of Hinnom, to the side of the Jebusite southward, and went down to En-rogel.

Neh. xi, 30. From Beersheba unto the valley of Hinnom.

2 Chron. xxviii, 3. Ahaz burnt incense in the valley of the son of Hinnom.

2 Chron. xxxiii, 6. Pass through the fire in the valley of the son of Hinnom.

2 Kings xxiii, 10. Josiah defiled Topheth, which is in the valley of the children of Hinnom.

Jer. xxxii 35. High places of Baal, which are in the valley of the son of Hinnom.

Jer. vii, 31, 32. Topheth, which is in the valley of the son of Hinnom.—Behold the days come, that it shall no more be called Topheth, nor The valley of the son of Hinnom, but The valley of Slaughter, for they shall bury in Topheth till [or because] there shall be no place to bury.

Also xix, 6.

Jer. xix, 2. Go forth unto the valley of the son of Hinnom, which is by the entry of the gate Harsith (Margin, the gate of Potsherds).

The A. V. unfortunately renders Harsith by east. An *east* gate at Jerusalem must lead to the *nachal* (brook Kidron), and as the valley (*ge*) of Hinnom is said to be near the above wrongly styled *east* gate, Sir Charles Warren, taking the *nachal* and *ge* to be one and the same, has in a mistake of the Authorised Version, found support for his wrong position of Zion, the city of David (1870, 344). This is much to be regretted, as it is hard to go right-about-face.

Occasionally the valley of Hinnom is simply described as the valley (*ge*), and serves as a title for a gate near it.

Neh. ii, 13. I went out by night by the valley gate.

Neh. iii, 13. The valley gate repaired Hanun, &c.

2 Chron. xxvi, 9. Uzziah built towers at the valley gate.

From the valley (*ge*) we have in the N. T. the term Gehenna as a place of torment.

The lowest limb of the Y is the Tyropœon valley of Josephus, dividing the upper city on the hill (*gibeah*) of Jerusalem (Is. x, 32, xxxi, 4) on the west from the lower city or Acra on Ophel (so called) on the east. On part of the latter stood Zion, the city of David, while the high part of the hill on the north was called the Mount (*har*) of Zion (Is. x, 32, xxxi, 4), Mount Moriah, and later, the Mount of the House (2 Chron. xxxiii, 15). At times, however, in the Psalms and Prophets, Mount Zion, Zion, and Jerusalem seem to be used as equivalent terms for the whole city.

Emek—The Dale.

Gen. xiv, 17, R. V. The king of Sodom went out to meet him (Abram) at the vale of Shaveh (the same is the King's *Vale*). And Melchizedek, &c.

2 Sam. xviii, 18. Absalom in his lifetime had taken and reared up for himself the pillar which is in the king's *dale*.

This gratuitous variation in R. V. is reprehensible.

Josephus, with better judgment, says that Melchizedek was king of Jerusalem, and that Absalom's pillar was two furlongs from Jerusalem. It seems to me absurd to think either that these two valleys are not identical, or that Absalom had prepared his tomb on the east side of the Jordan, or near Shechem, where some learned people wrongly think Abram met Melchizedek. Abram's natural road was, as at present, past Jerusalem, and that city was the obvious place at which the king of Sodom would meet him.

Jer. xxxi, 40. The whole valley of the dead bodies and of the ashes and all the fields unto the brook Kidron.

The valley thus described has been taken to be the south-western valley, commonly called the valley (*ge*) of Hinnom. When, however, I took the central valley to be the valley (*ge*) of Hinnom, and then came to examine this passage in the Hebrew, and found that as this south-western valley ought not to be called *ge*, so actually it *was not called ge but emek*, I saw how many difficulties ignorance makes for itself, and that while the original is very distinct and precise, the laxity of translations has produced confusion and difficulties which once seemed insuperable.

Joel, iii, 2, 12. I will bring them down into the valley of Jehoshaphat . . . . Come up to the valley of Jehoshaphat (Margin, the Lord judgeth).

If the reference here is to any valley at Jerusalem, it is certainly *not* to the *eastern* valley or *nachal*, commonly but wrongly named the valley of Jehoshaphat. The use of *emek* shows that only the south-western valley can be referred to. Thrupp ("Jerusalem" 214) says, "the allusion in this chapter to the winepresses points to where the king's winepresses stood (south-east of Jerusalem), and the metaphor of the harvest conducts us further westward to the cornfields of the Plain of the Rephaim." Hence he concludes that the ravine of the Kidron cannot be exclusively intended. I may, however, observe that "the winepresses" and "the cornfields" are exactly the eastern and western limits of our *emek*.

Jer. xxi, 13. Has been shown above not to refer to Jerusalem.

Isaiah, xxii, 1-7. Possibly does not refer to Jerusalem ("Spk. Comment."). Our key, however, passes smoothly the two wards "valley (*ge*) of vision," and "thy choicest valleys (*emek*)," *e.g.*, the king's dale and the valley (*emek*) of Rephaim.

In support of the south-western valley being the king's dale (*emek*) I should like to point out that close to its eastern extremity, where it joins the nachal, we have the *king's* winepresses (Zech. xiv, 10), the king's pool (Neh. ii, 14) and the king's garden (Neh. iii, 15; 2 Kings, xxv, 4; Jer. xxxix, 4; lii, 7).

Ain—Spring.

As to the waters of Jerusalem little is here to be said. Evidently on the west there was a spring called in Neh. ii, 13, "the dragon's well" (really spring, *ain*) answering probably to the serpents' pool of Josephus (Wars, v, iii, 2). This *ain* is no longer visible.

The Virgin's Fount is undoubtedly Gihon (1 Kings i, 33, 38, 45; 2 Chron. xxxii, 30; xxxiii, 14). Major Conder has done good service by strenuously maintaining this (1883, 106).

I regret, however, that he feels compelled by M. Ganneau's discovery of the Arabic *Ez Zehwele*, to maintain that En-rogel is identical with Gihon. Enrogel was certainly the same as or near Joab's well. The argument that the last named is a *beer* (well) not an *ain* (spring), hardly proves anything; for Jacob's well in John iv, 6, 11, is called both πηγή and φρέαρ. I have observed already that in Gen. xxiv, in Rebekah's story, *beer* and *ain* are both mentioned twice, and the water supply obtained by means of the staircase near Joab's well would certainly be called an *ain* (spring). Further, it is absurd to suppose (1) that Adonijah would hold his revolutionary feast under the very windows of the royal palace on Ophel, and (2) if he had, that David would ever send Solomon to Gihon, almost into the hands of his enemies (M. Ganneau gives the distance between Zehwele and the Virgin's Fount as about 60 metres = 66 yards, 1870, 252), and (3) that being so near to Gihon, Adonijah and the rest of the conspirators should know nothing of what had gone on (1 Kings i, 41) seventy yards off, until Jonathan rushed in to tell them.

Of Arabic, happily, I am ignorant, and so am unmoved by the merits of *Zehwele;* but I do know that for the *stone* of Zoheleth, the Bible uses *eben*, and I cannot find there a single instance in which it is applied to a *cliff*, such as *Zehwele* is attached to; while I can give many instances in which it means a moveable stone, which *Zehwele* certainly is not. Perhaps some friend of this Arabic word will produce an instance from the Bible, of *eben* meaning a *cliff*.

Lastly, "The Land and the Book," page 659, points out the fittest place and time for Adonijah's conspiracy, viz., near Joab's well, when *the brook* was overflowing, so that the holiday makers there would find themselves entrapped into the rebellion ere they were aware of it, like the two hundred men who went with Absalom to Hebron in their simplicity. (2 Sam. xv, 11).

W. F. Birch.

EN-ROGEL, AND THE BROOK THAT OVERFLOWED.

The Position.

The boundary line between Judah and Benjamin fixes the position of En-rogel somewhere towards the south-east of Jerusalem.

Three sites for it have been proposed, viz. (1) the Virgin's Fount, *i.e.*, Gihon ; (2) the Pool of Siloam ; (3) Joab's Well.

It seems to me that En-rogel cannot be Gihon, because (*a*) two different names can hardly be applied to the same fountain in one story (1 Kings i, 9, 33, 38, 45) ; (*b*) it is incredible, and not consistent with the sacred narrative, that Solomon was anointed within a hundred yards of Adonijah and his supporters—just where David would *not* send him ; (*c*) the *cliff* of Zahweileh certainly does not answer to the *stone* (*eben*, a moveable stone) of Zoheleth. Major Conder, taking the identification to be true, proposes (*Quarterly Statement*, 1885, 20) that En-rogel may mean "the spring of the channel," and would derive the name from "the famous rock-cut channel leading from the back of the cave in which the spring rises." A fatal objection, however, is made by H. B. S. W. (184), who observes "that *all* the passages in which the name occurs, relate to a time antecedent to the earliest date hitherto assigned to the rock-cut channel, and two of them mention the name En-rogel as existing *in the time of Joshua*." I must add that Major Conder himself attributes the famous channel to Hezekiah ("Handbook," 339), so that on this point he is divided against himself ; and though since 1878 (*Quarterly Statement*, 130, 184) I have maintained that the Jebusites made the channel (it is part of the gutter up which Joab climbed—2 Sam. v, 8 ; 1 Chron. xi, 6), I cannot admit this site for En-rogel, even in favour of my theory.

2. H. B. S. W.'s (1885, 59) proposal to identify En-rogel with the pool of Siloam falls before his objection above ; for no one, so far as I know, has assigned the Pool of Siloam to so early a date as the time of Joshua.

3. The great objections made by Major Conder (1885, 20) against identifying En-rogel with (Bîr Eyûb) Joab's Well have been (1) that it is too far from the cliff of Zahweileh, and (2) that it is not a spring (*ain*) at all. I have pointed out above that (1) is really no objection at all ; and (2) is not conclusive, because Jacob's Well at Sychar is called both a spring (πηγή) and a well (φρέαρ) in St. John iv. Further, in Gen. xvi, 7, 14, the fountain (*ain*) in the way to Shur is identical with the well, Beer-lahai-roi. Again, in Gen. xxiv, 11, 13, 16, 20, 43, 45, we have both *ain* and *beer*, applied to the same source of water. Further, the *well* of Sirah (2 Sam. iii, 26) is identified by Major Conder ("Tent Work," vol. ii, 86) with the present *ain* Sârah. Thus, a spring reached by cutting the rock may, apparently, in the Bible, be called either *ain* or *beer*. To me Joab's Well seems undoubtedly to answer to the required position of En-rogel, but yet not itself to be actually En-rogel, and this brings us to a very interesting subject.

The Story.

Eleven years ago I pointed out (1878, 130) that there must have been a very clever man among the ancient Jebusites. Whether he was Melchizedec or not is uncertain ; at any rate, water was his specialty. I have told how, by the contrivance of "the gutter," he secured for his city an unfailing supply of water, and so enabled Zion, the castle of the Jebusites, to bid defiance to all Israel, until Joab's daring, in conjunction with Araunah's treachery, transferred the impregnable fortress into David's hands. Another benefit which this same Jebusite (I believe) conferred upon his country was the making of En-rogel.

It is probable that in pre-historic times water used, after heavy rains, to issue from the ground near Joab's Well, just as it does now by means of the well, and to flow in a voluminous stream down the valley towards the Dead Sea.

When, in after times, but before the Israelite invasion, the Jebusites found the supply from Gihon (Virgin's Fount) insufficient for their wants. this father of civil engineers prospected for water in the valley (*nachal*, or brook) near the present site of Joab's Well. Intending his countrymen to be able in stormy times to conceal from their enemies the spring he had resolved to find, he cut in the rock, about 75 feet north of the well, the entrance to a staircase discovered by Sir Charles Warren, which, after descending 6 feet to the west, divides into a northern and a southern branch. The northern staircase soon divides in two others ; neither of these last two enabled our Jebusite to find water, and therefore were abandoned, it may be, when the southern staircase gave indications that the excavators were reaching water. A grand day, indeed, it must have been for that primitive civil engineer, when he broke into the grotto or subterranean cistern marked west of Joab's Well ; and if nature had never hereabouts forced for its waters an outlet to the surface, tremendous must have been the excitement in "the torpid little town of Jebus," when tidings came that a strong stream of water was pouring forth from En-rogel ; in other words, that "the brook was overflowing in the midst of the land."

Consciously or unconsciously, some 3,400 years ago, or more, our Jebusite had constructed a periodical Artesian well, and thereby (unless he was anticipated by nature) endowed his city in perpetuity with all but an annual treat of a babbling brook in "the prettiest and most fertile spot around Jerusalem."

If it is allowable to give a Hebrew derivation to the name of a Jebusite spring (though possibly the later name is an equivalent for the older one, just as we have *shaveh* and *emek*), then I would interprete En-rogel as meaning *the spring of searching out*, *i.e.*, the spring that was found by searching out, just as Isaac named one of his wells *Esek*, because they contended with him.

Useful, however, as En-rogel proved to the Jebusites, it was very inconvenient for their fair Rebekahs to have to go down for water through

the long dark staircase and passage ; accordingly from the surface of the valley (or, if the grotto is under the hill, from a cave, like a tomb, in its side) a shaft was excavated to the roof of the grotto, through which (shaft) their vessels could be let down by a cord into the cistern below.

Centuries rolled on, and if the water had ever naturally issued from the surface near En-rogel, the fact was wholly forgotton. The only overflow that the Hebrews who now held Jerusalem ever witnessed was the periodical rushing of the waters up the staircase of En-rogel.

The Bible mentions this fountain in connection with two critical events in the life of David. In the rebellion of Absalom, Jonathan and Ahimaaz remained lurking in or near these staircases ; and afterwards, "by the stone of Zoheleth, which is beside En-rogel," the rebellious Adonijah gave his great feast, doubtless during the overflow of the brook.

Joab's Well itself may have been dug in the reign of Solomon, and deepened at a later date. It was certainly made *after* En-rogel. Possibly the age of its construction may be ascertained from the character of its masonry.

On Sennacherib's invasion "much people was gathered together who stopped all the fountains and the brook that overflowed through (or in) the midst of the land." Now, at last, Hezekiah reaped the fruit of the Jebusite's forethought. Covering up the entrance to Gihon he was able himself from within the city of Jerusalem to draw its waters by means of the gutter. Similarly it was easy to conceal all traces of En-rogel ; but to stop "the brook that overflowed" proved in the end to be a work of extreme difficulty and extraordinary magnitude. At first, at a distance of 44 feet from the grotto (or cistern), he blocked up the rock-cut passage by "a masonry wall, 3 feet thick, and composed of cut stones set in a hard black mortar, apparently mixed with oil. At the bottom a hole or duct was left, 6⅜ inches by 4 inches, and on the northern side a stone plug to fit, and 12 inches long, was found in it" (by Sir Charles Warren in 1870 ; *see* Letters, pp. 141, 153).

Probably at the same time Hezekiah closed the shaft in the roof of the grotto with the "white stone," observed by this successful explorer (Letters, p. 141). All this was easy enough ; but when the heavy rains came on, it would seem that the waters still issued from the surface, escaping either through some natural fissure in the rock below the soil, or because the shaft above the grotto or the staircase was not water-tight. The blocking up of the staircase (or rather its continuation to the grotto) by a *second* wall, seems to imply that suspicion lighted on the last-named passage. However this might be, the attempt was of no use. The brook still continued, as of old, to overflow. Yet Hezekiah and his people were not easily to be thwarted. If the brook would flow, it should certainly not *overflow.*

At an immense expenditure of labour a spacious aqueduct (6 feet high and from 3 feet 6 inches to 4 feet broad) was cut under the western

side of the Kidron valley, starting from the grotto (which was practically the source of the waters), and extending at least 1,800 feet down the ravine.

[To follow this to its end is a work worthy of the Fund and its supporters.]

Now, at last, the brook was stopped. Buried, as it was, 40 or 50 feet out of sight, and beyond hearing the Assyrian could never have found it.

A further attempt seems to have been made to continue this tunnel (or aqueduct) on the same scale northwards. Apparently the staircase was used for carrying out the chippings, but why the last 86 feet of it (*i.e.*, of the staircase which here is really a passage with a slight fall) were not utilised in this extension is to me at present unintelligible. Operations were began at a point 86 feet from the grotto, and after lowering the floor about 9 feet, a new tunnel was continued north for 148 feet, generally about 3 feet 7 inches wide, and 6 feet high, and then the work was abandoned.

Still, from the southern end of this 148 feet length, a passage was cut to the grotto, apparently to enable the water trickling through into the 148-foot tunnel to flow into the grotto.

The smaller dimensions ("it is only about 3½ feet high" apparently. Letters, p. 142) and irregular course of this connecting link seem to indicate that it was made without much care. At the point of junction (86 feet from the grotto) the old staircase has partly been cut away by this later work, so that here the roof of the passage is 15 feet high. From this point the *link* runs directly under the older passage, and comes out mto the grotto, 9 feet below the other and 6 feet to the west of it.

If Joab's Well had been already dug, it too must have been stopped by Hezekiah. If it was not already made, then the excavating of the great aqueduct must have deprived the people of Jerusalem of their greatest treat. After Sennacherib's departure, they must have looked back with many regrets to the happy days when they used to disport themselves among the trees by the banks of the overflowing brook. And never afterwards, until the exit from the grotto was blocked up (which the presence of some large stones in the tunnel and at the bottom of the cistern or grotto seems to indicate was done), or until Joab's Well was either made or reopened, did the lower valley of the Kidron again present the bright and festive scene which must probably have been of almost yearly occurrence since Jerusalem was first inhabited, and certainly since the day that the clever Jebusite presented to his city the famous En-rogel.

The Proof.

The more congenial task now awaits me of presenting to the critics the proof that my topographical statements are correct.

In "Jerusalem Recovered," 261, Sir Charles Warren writes :—"This tunnel, as we have now examined it, extends from near Bir Eyûb to a point 1,800 feet down the Kedron Valley. It has been judiciously cut

under one side (the west side) of the valley, so that though it is from 70 to 90 feet under the surface of the rock, yet the staircases being commenced to the east (nearer the bottom of the valley), have not to descend by more than 40 to 50 feet. In the 1,800 feet we have cleared out, seven staircases have been exposed ; they are about 3 feet wide, and descend at an angle of 35°. At the bottom of some of the staircases the aqueduct is deepened a little, so as to form a shallow pool."

As, therefore, work might have been begun at all these staircases at once, the time spent in making the aqueduct need not have been much longer than that required to make the tunnel between the two staircases most distant one from the other. Still, however quickly executed, the undertaking, by its very magnitude, witnesses to the extreme importance attached to it.

Had it been primarily made as a means of egress from and ingress to the city, the work would have been begun from the city so as to be available for use, as far as it was finished. If such could have been its object, then, as we find it, it would be nothing but a monument of wasted industry and unreflecting folly.

It is clear, however, that it was intended for an aqueduct. In proof of this we have "the little pools at the bottom of some of the staircases," and water in old time must obviously have flowed along it, as it is connected both with a cistern holding water at the present day and also with a passage stopped with a plug. Above all, its great size shows that it was made to admit of a large volume of water flowing along it, and such a flow actually takes place along it at the present day.

Its depth below the nearest surface, "40 to 50 feet," shows that the object was to conceal the waters from an enemy outside the city until they could be conveyed to some point where he could not reach them, probably where they would sink into the ground and so disappear.

We know from 2 Chron. xxxii, 3, that Hezekiah "took counsel to stop the waters of the fountains which were without the city, and that much people was gathered together, who stopped all the fountains and *the* brook that overflowed through the midst of the land." Be it observed that *only ONE brook, the* brook, is here mentioned.

With the rock, near Joab's Well, once pierced either by nature or by the shaft of the well, or by the rock-cut staircase north of it, the water after heavy rains would inevitably issue forth in *a great stream.* As it would have been folly in Hezekiah to stop a brook elsewhere and leave this one still overflowing, and as he is only said to have stopped *the* brook (*i.e.*, one, not more), it is obvious that the brook that he stopped must have been the one rising at or near Joab's Well.

That there used to be such an overflow of water *hereabouts in Hezekiah's time* is clear, because (1) En-rogel was already in existence, being mentioned in the time of Joshua ; (2) It was not at Gihon; and because, (3) as the boundary line from En-rogel went *up* the valley of Hinnom En-rogel was obviously towards the south-east of Jerusalem.

We have then the following interesting points established :—

1. The *Ain* (spring) in the word En-rogel proves that at or near this spot there was a source and supply of *living waters.*

2. The *living waters* prove that the rock was (porous or) pierced by nature or art, so that the waters could pass through.

3. The rock having been thus pierced proves that there would be an overflowing brook at times then as now.

4. The great depth and size of the tunnel prove that it was intended to hide and convey away from the enemy a large volume of water.

As Hezekiah is distinctly asserted to have stopped "the overflowing brook," and no one else apparently had both the necessity and ability for doing so, the conclusion is inevitable that Hezekiah made the long aqueduct owing to the invasion of Sennacherib, or, in other words, that 2 Chron. xxxii, 4, must refer to this aqueduct.

The tunnel is continued on the north side of the cistern or grotto on about the same level as it is on the south side, and cuts into a passage leading in one direction up to the surface, and in the opposite direction back to the cistern, which (cistern) the passage named reaches at a level nine feet higher than that of the aqueduct.

As this higher passage is now blocked up by a wall containing *the plug*, which (plug) would be useless when the continuation of the aqueduct had been made to cut into the upper passage (for then the water could flow along the lower passage, and, as it were, take the plug in the rear), it is evident that the wall was plugged :—

(1) Before "the connecting link," or lower passage, was made.

(2) Before the long aqueduct was made ; for then the waters could no longer rise so high as the plug, as this is 12 or 13 feet above the bottom of the outlet aqueduct.

Therefore the staircase (leading down to the plug) being the only outlet to waters flowing along the plugged passage, was also made before the long aqueduct.

But the putting in of the plug could only have been done to prevent the water rising up the staircase. Therefore in the plug we have evidence of an earlier attempt to stop the brook before ever the long aqueduct or tunnel was made.

The presence of a *plug* instead of a wall, perfectly solid throughout, seems to me to show that the object was to keep the brook from overflowing, *only for a time*, as long as it might be desired, and not to *compel* (if the levels required it) the waters when they overflowed, to do so through the shaft in the roof of the grotto. If the top of the shaft is lower than the head of the staircase, of course the waters would issue from the former naturally. Anyhow, it is clear the plug was not put in for any object connected with the shaft.

As the staircase would practically be useless for getting water after Joab's Well was made, I conclude that the staircase was made before the well ; for Joab's Well once made, could never have been both stopped and forgotten and its site lost before Sennacherib's invasion, and at that time it has been shown that the staircase was already in existence.

As previous to Sennacherib's invasion there was apparently no object in stopping the brook, it seems to me correct to attribute the device of the plug, as well as the making of the tunnel, to Hezekiah.

It is, however, a long step back from Hezekiah to Joshua.

A place where waters naturally issued at times from the ground, might justly be called a spring (*ain*). Therefore the fact that in the time of Joshua En-rogel is mentioned, does not, of necessity require us to admit that the staircase had been made in his time.

The fact, however, that instead of a vertical well (the easiest and surest way of reaching water in the valley) we find a staircase hewn out in such a manner that it might easily be covered up, and that one entrance is made to serve for the branches north and south, seems to me to show that the persons who constructed it contemplated the need of at times concealing it. From the time of Joshua to that of Hezekiah there was no call on the part of Israel to form such a contrivance, and after Joshua 's invasion it was too late for the Jebusites to begin to make the staircase. If, therefore, there was no reason whatever for making such a peculiar staircase after Israel's invasion, we must conclude it was made before it, or in other words, it was the work of the Jebusites.

Nor need we think they were not equal to such a work. Centuries before Jacob's deep vertical well had been made near Shechem, and rock-hewn cisterns and tombs were common everywhere. The *gutter*, a still more difficult undertaking, had been already executed in Joshua's time, or soon after ; for its existence is really the only thing which can explain the remarkable circumstance that Jebus alone, of the mountain strongholds, remained untaken till the time of David.

As it would be folly to cover up the staircase and leave Gihon (Virgin's Fount) flowing as usual, it follows either (*a*) that Schick's aqueduct (*see* " Waters of Shiloah ") was made by the Jebusites, as a means of secreting the waters ; or (*b*) that they inhabited Ophel west of Gihon, commanding the latter and having access to it by means of " the gutter," with the corollary that even from David's time Ophel was part of Jerusalem. As (*b*) has been proved beyond fear of refutation (1888, 46), it is superfluous to add 450 years more to the antiquity of the aqueduct by adopting (*a*).

Of two spots—one with nothing specially to mark it, and seldom, if ever, overflowing with water—and the other a living spring with a staircase, and periodically overflowing with water, there can hardly be any question, but that the latter rather than the former would be chosen for a land-mark. Unhesitatingly, then, I assign to the staircase the title of En-rogel.

Therefore I conclude : (1) That the staircase called En-rogel, leading to the grotto, was made by the Jebusites at a date antecedent to Joshua's invasion ; and (2) that Hezekiah, on Sennacherib's invasion, put in the plug, and afterwards made the long aqueduct, thus stopping the brook that overflowed.

What changes take place ! Once the ancient Jebusite, as an Oriental would, used to enjoy himself at Gihon,

"nunc viridi membra sub arbuto
Stratus, nunc ad aquæ lene caput sacræ."

Now-a-days, lower down, Thomson ("Land and Book"), says: "I have seen the water gushing out like a mill-stream, some 15 rods south of the well; and then the whole valley was alive with people bathing (? wading) in it, and indulging in every species of hilarity."

In the future, when the Jews with their money return to the Holy Land, they may spend some of it in "improving" Jerusalem, by making in the Kidron an artificial lake, to fish and boat upon, and illuminated in the evening with the electric light. All that is required is a great dam across the ravine close to "the spring of the fig" (near the end of the aqueduct). An average annual rainfall of 22 inches will do the rest.

In reference to Hezekiah, I have mentioned only Sennacherib and not Sargon, although Professor Sayce, in "Fresh Light from the Ancient Monuments," credits the latter with a capture of Jerusalem, and connects Is. x, 24–32; and xxii with it. But as (1) Sargon does not claim the capture on the monuments; (2) as Sennacherib does not boast of it in 2 Kings xviii, xix; (3) as the Bible says nothing about it; but rather (4) says (Is. x, 24), "Be not afraid of the Assyrian," and promises (xxxviii, 6), "I will deliver thee and this city out of the hand of the King of Assyria; and I will defend this city;" it seems to me that one has no excuse for handing over Jerusalem to the tender mercies of Sargon.

W. F. Birch.

THE PALESTINE EXPLORATION FUND.

NOTES AND NEWS.

THE death of the Rev. J. Leslie Porter, D.D., President of Queen's College, Belfast, removes another of the earliest supporters of this Society, and one of the most distinguished names in Palestine travel. He was born in 1823, and educated at the University of Glasgow first and that of Edinburgh next. In 1849 he went on a mission to Syria, where he remained for five years, taking every opportunity that offered of travelling in the country. On returning to Ireland he was appointed Professor of Biblical Criticism in the Assembly and College, Belfast. He has been since 1879 President of Queen's College, Belfast. Among his works are "Five Years in Damascus," 1855; "A Handbook for Syria," 1858; "The Giant Cities of Bashan," 1865; and many articles in Smith's "Bible Dictionary" and the "Journal of Sacred Literature."

Herr Schick reports some additional discoveries brought to light during the reconstruction of the carriage road north of the city wall, viz., traces of an ancient wall and towers outside and along the present wall (*see* p. 63).

He also describes an important discovery of the foundation of a portion of the ancient city wall, the stones having the Jewish draft and similar to those in the Haram wall, whilst the workmen were clearing the ground in the Latin Patriarch's garden near the north-east corner of the city (*see* plan and sections, p. 65).

Herr Schick continues his report of the cave found last year in the Russian property east of the Church of the Holy Sepulchre; the excavations have been stopped for the time, but will be resumed after Easter (*see* p. 67).

In the present number of the *Quarterly Statement* will also be found an account, with plans and sections, by Herr Schumacher, of the large cave with chambers, cisterns, and tombs, &c., recently discovered under the convent yard of the Sisters of St. Joseph at Nazareth.

Herr Schumacher also describes, with illustrations, some curious remains and antiques that were found at "J'aûni" (near Safed) and at esh-Shejara (on the road between Kefr Kenna and Tiberias).

The Committee have decided to place all their books in the hands of Mr. A. P. Watt, who has been for some years their agent in the "Survey of Western Palestine" and the "Survey of Eastern Palestine." This change, it must be explained, is made solely with a view to the convenience of having everything in the same hands. Subscribers can continue, as heretofore, to take the books from the office. Mr. Watt's address is 2, Paternoster Square.

BALANCE SHEET FOR THE YEAR ENDING 31ST DECEMBER, 1888.

Receipts.	£	s.	d.
January 1, 1888—			
To Balance	215	15	9
December 31, 1888—			
Donations, Subscriptions, and Lectures ..	2,079	13	10
Maps and Memoirs ..	380	2	9
Publications	289	3	11
Photographs	22	1	10
	£2,986	18	1

Expenditure.	£	s.	d.
By Printers and Binders	1,057	1	2
Maps, Illustrations, and Photographs..	408	3	5
Exploration.. ..	283	0	0
Stationery, Advertising, and Sundries	71	12	7½
Postage, Parcels, the *Quarterly Statement*, &c... ..	172	7	0½
Salaries and Wages	260	1	2
Rent..	121	0	0
Paid off Liabilities..	211	3	8
Balance in Bank, 31st December, 1888..	402	9	0
	£2,986	18	1

W. Morrison,
Treasurer.

TREASURER'S STATEMENT.

The year, though by no means barren of discoveries, has been, from the financial point of view, one of printing and publishing results. Our expenditure

shews a total of £452 on Management, £283 on Exploration, £172 on postage; this very heavy item is due to the sending out of publications, &c., from the office; also the postage of the *Quarterly Statement*, which, last year, was included in the printers' account, is this year taken separately: £211 in payment of Liabilities; £1,465 in printing, illustrating, maps, and binding. Reference to the other side of the Balance Sheet will show, however, that half the expenditure in printing and publishing was recovered by the sale of publications. In other words, out of a total expenditure of £2,584 the proportion is as follows:—

Publishing	·409
Management	·239
Postage	·092
Exploration	·149
Liabilities	·111

As regards liabilities, these consist chiefly of printers' bills which vary from £400 to £600, and are constantly paid off and as constantly beginning again.

There is also a debt of £450 which we hope to discharge before the next balance sheet is issued.

W. Morrison,
Treasurer.

For the convenience of subscribers in following out the position of recent discoveries in Jerusalem, a plan of the city, reduced from the Ordnance Survey Plan of Jerusalem by permission, is published with this *Quarterly Statement.*

This plan gives, marked in red, the discoveries made during the last few years. The same plan will be issued in October or January with all modern discoveries marked upon it.

On 26th February, Major Conder read a paper (the same previously read before the Anthropological Section of the British Association at Bath last autumn), on the "Early Races of Western Asia" at the Anthropological Institute of Great Britain and Ireland. The President, Dr. J. Beddoe, F.R.S., occupied the Chair, and in discussion expressed his assent to Major Conder's view as to the Turanian origin of the Hittites. Mr. C. Bertin was present and also gave his assent to the view that the language of the "Hittite" monuments was best studied by comparison with Akkadian. The paper, with illustrations, will appear in the Journal of the Institute.

The First Volume of the Survey of Eastern Palestine, now in the press under Major Conder's editorship, is expected to be ready by the end of April or a little later. The volume will consist of more than 300 pages, quarto, with some 300 illustrations, including 150 drawings of the rudestone monuments.

The edition is limited to 500. The first 250 subscribers pay seven guineas for the three volumes, with an index; subscribers to the "Survey of Western Palestine" are privileged to have the volumes for this sum. The price will be raised, after 250 names are received, to twelve guineas. The Committee *are pledged never to let any copies be subscribed under the sum of seven guineas.* Mr. A. P. Watt, 2, Paternoster Square, is the Sole Agent.

The Committee announce that they have added to their list of publications the new edition of the "History of Jerusalem," by Walter Besant and E. H. Palmer. It can be obtained by subscribers, carriage paid, for 5*s.* 6*d.*, by application to the Head Office only. The whole set (*see* below) of the Society's works, including this book, can be obtained by application to Mr. George Armstrong, for 37*s.* 6*d.*, carriage paid. The "History of Jerusalem," which was originally published in 1871, and has long been completely out of print, covers a period and is compiled from materials not included in any other work, though some of the contents have been plundered by later works on the same subject. It begins with the siege by Titus and continues to the fourteenth century, including the Early Christian period, the Moslem invasion, the Mediæval pilgrims, the Mohammedan pilgrims, the Crusades, the Latin Kingdom, the victorious career of Saladin, the Crusade of Children, and many other little-known episodes in the history of the city and the country.

The books now contained in the Society's publications comprise an amount of information on Palestine, and on the researches conducted in the country, which can be found in no other publications. It must never be forgotten that no single traveller, however well equipped by previous knowledge, can compete with a scientific body of explorers, instructed in the periods required, and provided with all the instruments necessary for carrying out their work. The books are the following:—

By Major Conder, R.E.—

(1) "Tent Work in Palestine."—A popular account of the survey of Western Palestine, freely illustrated by drawings made by the author himself. This is not a dry record of the sepulchres, or a descriptive catalogue of ruins, springs, and valleys, but a continuous narrative full of observations upon the manners and customs of the people, the Biblical associations of the sites, the Holy City and its memories, and is based upon a six years' experience in the country itself. No other modern traveller has enjoyed the same advantages as Major Conder, or has used his opportunities to better purpose.

(2) "Heth and Moab."—Under this title Major Conder provides a narrative, as bright and as full of interest as "Tent Work," of the expedition for the *Survey of Eastern Palestine.* How the party began by a flying visit

to North Syria, in order to discover the Holy City—Kadesh—of the children of Heth; how they fared across the Jordan, and what discoveries they made there, will be found in this volume.

(3) Major Conder's "Syrian Stone Lore."—This volume, the least known of Major Conder's works, is, perhaps, the most valuable. It attempts a task never before approached—the reconstruction of Palestine from its monuments. It shows what we should know of Syria if there were no Bible, and it illustrates the Bible from the monuments.

(4) Major Conder's "Altaic Inscriptions."—This book is an attempt to read the Hittite Inscriptions. The author has seen no reason to change his views since the publication of the work.

(5) Professor Hull's "Mount Seir."—This is a popular account of the Geological Expedition conducted by Professor Hull for the Committee of the Palestine Fund. The part which deals with the Valley of Arabah will be found entirely new and interesting.

(6) Herr Schumacher's "Across the Jordan."

(7) Herr Schumacher's "Jaulân."—These two books must be taken in continuation of Major Conder's works issued as instalments of the unpublished "Survey of Eastern Palestine." They are full of drawings, sketches, and plans, and contain many valuable remarks upon manners and customs.

(8) The Memoirs of Twenty-one Years' Work.—A copy of this book is presented to every subscriber to the Fund who applies for it. The work is a popular account of the researches conducted by the Society during the past twenty-one years of its existence. It will be found not only valuable in itself as an interesting work, but also as a book of reference, and especially useful in order to show what has been doing, and is still doing, by this Society.

(9) Herr Schumacher's Kh. Fahil. The ancient Pella, the first retreat of the Christians; with map and illustrations.

(10) Names and Places in the Old and New Testament and Apocrypha, with their modern identifications, with reference to Josephus, the Memoirs, and *Quarterly Statements*.

(11) Besant and Palmer's "History of Jerusalem," already described.

The publications for the year 1889, besides those already mentioned, include Schumacher's "Abila" and his "Southern Ajlûn." The former will be ready about the end of April.

Mr. Guy le Strange's work on Palestine according to the Arabic Geographers is completed in manuscript, and will be published in the autumn. Particulars as to contents, price, &c., will appear in the next number.

Mr. Harper's important work on the Illustrations of the Bible obtained from modern researches and observation, is also in the printer's hands, and will be out in the autumn. Its contents, &c., will be duly announced.

Work at Jerusalem and elsewhere will be continued as opportunity may offer. Should the long-hoped for Firman be granted, the survey of Eastern Palestine will be renewed.

Branch Associations of the Bible Society, all Sunday Schools in union with the Sunday School Institute, the Sunday School Union, and the Wesleyan Sunday School Institute, will please observe that by a special Resolution of the Committee they will henceforth be treated as subscribers and be allowed to purchase the books and maps (by application only to the Secretary) at reduced price.

The friends of the Society are earnestly requested to use the "Memoirs of Twenty-one Years' Work" as a means of showing what the work has been, and what remains to be done.

The income of the Society, from December 21st to March 20th, inclusive, was—from subscriptions and donations, £550 1*s.* 10*d.*; from all sources, £884 12*s.* 9*d.* The expenditure during the same period was £1,078 9*s.* 10*d.* This amount includes £400 liabilities paid off. On March 23rd, the balance in the Bank was £267 0*s.* 6*d.*

It does not seem generally known that cases for binding the *Quarterly Statement* can be had by subscribers, on application to the office.

Subscribers are begged to note that the following:—

1. Index to the *Quarterly Statement*, 1869–1880;
2. Cases for Herr Schumacher's "Jaulân;"
3. Cases for the *Quarterly Statement*, in green or chocolate—

Can be had by application to the office at 1*s.* each.

Early numbers of the *Quarterly Statement* are very rare. In order to make up complete sets the Committee will be very glad to receive any of the following numbers:—

No. II, 1869; No, VII, 1870; No. III (July) 1871; January and April, 1872; January, 1883, and January, 1886.

It has come to the knowledge of the Committee that certain book hawkers are representing themselves as agents of the Society. The Committee have to caution subscribers that they have no book hawkers in their employ, and that none of their works are sold by any itinerant agents.

While desiring to give every publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they neither sanction nor adopt them.

As many inquiries have been made about transparent slides, a selection will be made from the photographs of the Society for this purpose. Subscribers wishing to have any are requested to communicate with the Assistant Secretary.

Subscribers who do not receive the *Quarterly Statement* regularly are asked to send a note to the Secretary. Great care is taken to forward each number to all who are entitled to receive it, but changes of address and other causes give rise occasionally to omissions.

The only authorised lecturers for the Society are—

(1) Mr. George St. Clair, F.G.S., Member of the Anthropological Institute and of the Society of Biblical Archæology.

His subjects are :—

(1) *The General Exploration of Palestine.*
(2) *Jerusalem Buried and Recovered.*
(3) *Buried Cities, Egypt and Palestine.*
(4) *Buried Cities of Mesopotamia*, with some account of the Hittites.
(5) *The Moabite Stone and the Pedigree of the English Alphabet.*

Address : Geo. St. Clair, Bristol Road, Birmingham, or at the Office of the Fund.

(2) The Rev. Henry Geary, Vicar of St. Thomas's, Portman Square. His lectures are on the following subjects, and all illustrated by original photographs shown as "dissolving views :"—

The Survey of Western Palestine, as illustrating Bible History.
Palestine East of the Jordan.
The Jerusalem Excavations.
A Restoration of Ancient Jerusalem.

(3) The Rev. James King, Vicar of St. Mary's, Berwick. His subjects are as follows :—

The Survey of Western Palestine.
Jerusalem.
The Hittites.
The Moabite Stone and other monuments.

(4) The Rev. Thomas Harrison, F.R.G.S., Member of the Society of Biblical Archæology, 38, Melrose Gardens, West Kensington Park, W. His subjects are as follows :—

(1) *Research and Discovery in the Holy Land.*
(2) *In the Track of the Israelites from Egypt to Canaan.*
(3) *Bible Scenes in the Light of Modern Science.*

"THE HOLY PLACES OF JERUSALEM."

Professor Hayter Lewis has lately published a book, entitled the "Holy Places of Jerusalem,"[1] which may be looked upon as a very distinct evidence of the value of the labours of the Palestine Exploration Fund. Twenty years ago such a work could not have been produced. It has taken many years of exploration to accumulate the data on which this book is based. When the Palestine Exploration Fund began its operations there was great uncertainty about the topography of the Holy City. The writers on the subject before that time had propounded theories, and as these theories were opposed in many cases to each other, it took time to find out which were reliable, and which were not. Progress was made slowly, bit by bit points have been cleared up, and although much yet remains to be done, some of the principal questions have been cleared up, and have ceased to be subjects of controversy. The very names of buildings and places were found to be wrong—such as the "Mosque of Omar," which we now know was built by Abd-el-Malik. To this another example may be added, which has only lately been cleared up. The large hollow at the north end of the Haram has long passed for the "Pool of Bethesda,"—it is so named even in the Ordnance Survey Map. The real Pool of Bethesda has at last been discovered, and a gain to our knowledge has been made. One merit of the book just produced is, that the author has had reliable material to work with. He has also visited Jerusalem more than once to see with his own eyes the places that had been discovered. Add to all this that he has been able to devote many years to the study of the questions connected with the archæology and architecture of the locality, and being both an architect as well as an archæologist, the result is a volume which has many merits, and it will be read with the greatest interest by all, and more particularly by those who have devoted study to the subject.

The largest portion of the work is devoted to the Dome of the Rock, and the other buildings of the Haram area. In this the author gives the latest historical material which has been derived from the publication of the Palestine Pilgrims Texts, such as Mukaddasi, who belonged to an architectural family, this connection giving his details about the structures of Jerusalem a peculiar value; he wrote about the year 985 A.D. This author mentions the existence at that date of both the Dome of the Rock and the Holy Sepulchre—this conjunction being one of the facts which has gone far to disprove Mr. Fergusson's theory. As that theory is now untenable, it may be well to quote the final conclusion that Professor Hayter Lewis has arrived at. He says: "I am satisfied, after the most careful study which, as an architect, I have been able to give to the subject—First, that the Dome of the Rock was not built by Constantine, nor for several centuries after him, inasmuch as it is built up of fragments of too debased a character to have been used in buildings erected

[1] "The Holy Places of Jerusalem." By T. Hayter Lewis, F.S.A., Emeritus Professor of Architecture, University College. John Murray, October, 1888.

and destroyed before his time. Secondly, that there is nothing to show definitely, in plan, construction, or details, that it is Byzantine, and that there is no reason to suppose that any such building would have been erected on a site which was considered by the Christians to be accursed, or which, if erected before the time of Chosroes, would have survived the destruction wrought by the Jews. As regards the suggestion that it was erected by Eudosia (c. 460), the above observations will apply equally well, except that Sir C. Wilson considers that it does not occupy the site of the Jewish Temple.[1] Thirdly, that there is nothing, either in plan, details, or construction, to disprove the distinct statement made in the famous Cufic inscription, that the Dome of the Rock was built by Abd-el-Melik in 691 A.D. Finally, I must express my full belief that the Dome of the Rock was the work of Arabs, designed for them by a Byzantine or Persian architect, and with Persian or Byzantine workmen, before the Arabs had developed any definite style of their own, and that it was built with the capitals, bases, and columns ready to hand, being derived from the remains of churches and other buildings destroyed by Chosroes and other invaders," pp. 71, 72.

The suggestion that the capitals and other fragments which had been utilized by the builders of the Dome of the Rock are too debased to have been produced before the time of Constantine, is, if I mistake not, a new one, and it is, at the same time, of great force.

Professor Hayter Lewis also deals with the Holy Sepulchre; Jeremiah's Grotto, and the late speculations regarding it as the Site of Calvary; and also with Siloam, and the tunnel which brings water to the Pool from the Umm ed Deraj, or Fountain of the Virgin. The book is very full of beautiful plates, maps, and plans, making every point treated upon clear and distinct.

WILLIAM SIMPSON.

NOTES ON THE PLAN OF JERUSALEM.

The parts shown in red are the more important of the recent discoveries, the descriptions of which will be found in the *Quarterly Statement* as noted below.

A. Scarped rock, &c., showing line of ancient wall to the south of the city. *Quarterly Statement*, 1875, pp. 7, 34, 81, 86.

B. Portion of the (supposed) second wall. *Quarterly Statement*, 1886, p. 21; 1887, pp. 23, 218.

C. Ancient wall near house of Latin Patriarch. *Quarterly Statement*, 1889, p. 65.

D D. Old remains outside the north wall of the city. *Quarterly Statement*, 1889, p. 63.

[1] Sir Charles Wilson suggests that possibly the Dome of the Rock was originally the church of St. Sophia, which was erected by Eudosia in the fifth century. Three documents in the sixth century mention this church, and no document before, or after, alludes to it. Sir Charles thinks that Abd-el-Melik either rebuilt this church or repaired it, making additions at the same time.

E. Ancient paved court near the Church of the Holy Sepulchre. *Quarterly Statement*, 1888, pp. 19, 60.

F. Cave to the east of Church of the Holy Sepulchre. *Quarterly Statement*, 1889, p. 67.

G. Rock-cut tomb north of the Church of the Holy Sepulchre. *Quarterly Statement*, 1887, p. 154.

H. Pool of Bethesda. *Quarterly Statement*, 1888, p. 115, and ruins of a church.

RECENT DISCOVERIES IN JERUSALEM.

I.

Remains of Old Wall outside the present Northern Wall of the City.

(*The Nos. indicate the parts from west to east.*)

In the work of reconstructing the carriage road along the outside of the northern wall of the City, as I reported in my last, some earth near the wall was removed for filling up the road in some places, bringing to light some old remains hitherto unknown (*see* plan of Jerusalem).

D 1. Is an old corner of comparatively large hewn stones; on the earth being removed from it, the corner of another wall more ancient is seen behind it.

2. Is a rock-scarp with a rough face of about 8 feet deep, but as the top of it is still covered up with earth the exact height could not be ascertained; between this scarp and the first mentioned corner there is an edge indicating the continuation of the scarp.

3. South of the last is a large stone, originally forming the angle of the scarp or wall.

4. Is a similar rough-faced scarp partly topped with masonry, its depth is unknown, but it appeared to be higher than 2.

5. Is a large hewn stone *in situ*, in the same line as 3 and 4, and 13 feet from the face of the present wall.

6. The ruins of a tower.

D 7. The ruins of a chamber measuring, inside, 40 feet long by 19 feet wide, with walls of small masonry 3 feet thick. The eastern wall is partially destroyed; the northern has an opening in the middle 3 feet wide, originally a window (?), as the door would probably be in the east wall, as I suggest from the fact that opposite, in the western wall, there is a recess forming a bench or seat 10 feet long. The walls are only to be seen from the top. To decide the position of the door and what the chamber has been, the earth would have to be cleared out of the ruin.

8. Are some remains in line with the corner of the present wall, and looks much older.

9. Is certainly more ancient than 10.

11. The stones in this corner are not jointed.

Looking at these remains on the plan, it is quite evident the wall anterior to the present one lay further out.

Medjer ed Din (129) speaks of the "Bab el-Amud," or Damascus Gate, as the *second* gate in this northern wall from west to east, hence a door existed between the Damascus Gate and the north-western corner of the city. And Gumpersberg (444) speaks of a block stone situated in this gate (the Lazarus or Lepers' Gate) so highly polished "that when anyone looks to it, another one standing behind him at some distance, sees him as he would be to the side before him;" through this gate the pilgrims entered. In the time of the Christian kingdom, 1099–1187, there existed, on the north wall west of the Damascus Gate, the gate of Lazarus, also sometimes called Lepers' Gate, for outside of it there was a home for lepers (*see* Tobler I, p. 172).

Subsequently, when the Moslems had conquered the city, they forbade the pilgrims to go in by the regular northern gate (Bab el-Amûd), in order that they should not see the fortifications, but were allowed to enter by the Lazarus Gate, a more shut up way and through the buildings of the Patriarchs, in order that they should see nothing of the city; and thence to the Church of the Sepulchre by a private gate, not through the regular entry in that holy building. It seems that this Lepers' or Lazarus Gate was of an inferior kind, and no traces of it in the wall are now to be seen; at a later restoration of the wall it was either walled up, or is under the surface of the ground.

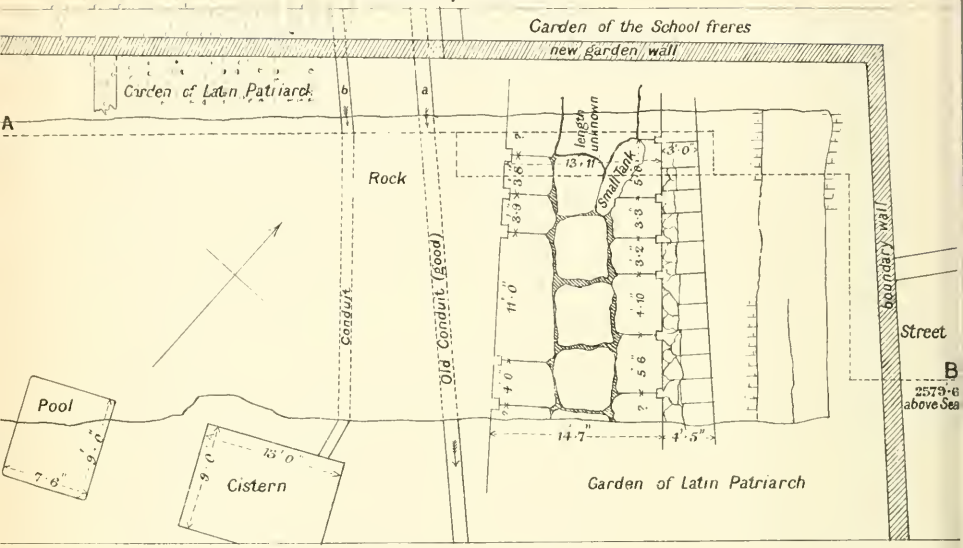
According to Tobler Deutsblätter, p. 414, the Empress Eudoxia built, in the fifth century, a house in which 400 lepers were lodged, and when the Crusaders got possession of Jerusalem (about 1100) they arranged also a hospital for the lepers, which lay outside the town at the Lazarus Gate, between the Damascus and the Jaffa Gate. The house was called the "Maladrerie," in which these poor sick, full of pain and misery, were kept as in a prison, and from everywhere came such poor people to this house. We see from all this that there was once a gate between the Jaffa and Damascus Gate, and one would think that it was somewhere in the neighbourhood of the north-western corner of the town. But according to Medjer ed Din, more likely between that and the Damascus Gate. I fancy that it is very likely to be found at 6, there having been a projecting tower, and in it a gate, forming an angle like all the other city gates of Jerusalem, and connected with a street leading direct to the convents (now in Latin and Greek possession) of the Christians, and so on to the Church of the Holy Sepulchre.

It is probable that this Lepers' Gate was situated even more east, and that the ruins of a former building (No. 7) formed its wash-house, or some building of that kind, and from here pilgrims could have gone on to the church in a nearly straight way, and the same distance.

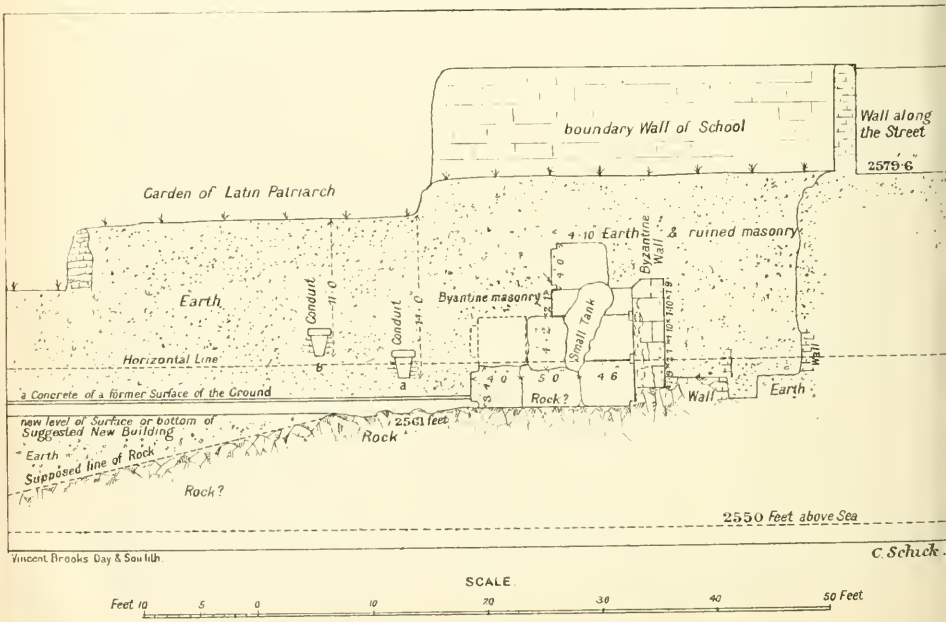
In order to settle these questions, it wants digging close to the wall down unto the rock, at the said points. When looking at the Ordnance Survey Map, $\frac{1}{2500}$ scale, one sees there (at 7) a mound of earth which is now removed, exposing the ruins of a former building.

PLAN OF OLD WALL.

Recently discovered.



SECTION A.B.



II.

Remains of Old Wall near the North-east Corner of the City.

In removing the earth off a space of ground 100 feet long by 100 feet wide and 16 feet deep, in the garden of the Latin Patriarch of Jerusalem, preparatory to enlarging the palace and making other improvements, the workmen found a portion of an old wall (*see* plan of Jerusalem, C), very probably a remnant of the ancient city wall. I had full liberty to examine and measure everything minutely (*see* plan of old wall and section).

The remains are of a wall, on an average 14 feet thick, of large Jewish stones, and laid bare for a length of 26 feet. The stones are, on an average, 4 feet high, like those at the "Haram" wall, and have also the same draft. The stones on both sides of the wall are drafted. On the western—once the outer face—I counted (besides those which are at both ends, and of which I could not take their measurements) four stones, one 4 feet long, the next 11 feet, and the two others 3 feet 9 inches and 3 feet 8 inches, and above 4 feet wide, and nearly the same height. On the east side I counted five stones of the same description, one 5 feet 6 inches, the next 4 feet 10 inches, then two nearly equal, 3 feet 2 inches and 3 feet 3 inches, and the next 5 feet, also nearly 4 feet broad and high.

Between these two rows of stones there are four larger filling stones, not properly cut, simply dressed roughly to a square form, of the same height as the others; they are, on an average, nearly 5 feet broad and 5 feet 6 inches long. Over this layer was a second one, but not so complete; on the western side of the wall several stones were missing, but their size could still be ascertained. They were higher than the first, viz., 4 feet 6 inches—in breadth and more, but the filling stones narrower (*see* section) towards the northern end; a small pool or cistern had been made by widening the joints (which were comparatively wide in the middle of the wall and without any mortar), as shown in the drawings.

On the top of the two courses at the northern end is a very smooth stone of the Byzantine period, measuring 2 feet 1 inch in height, over this is placed a drafted stone both off which pieces were broken to form the cistern or tank.

The overseer of the work told me that they found a similar stone, near to the last-mentioned one, but lying on the earth.

The faces of these large stones are not smooth hewn, but in some degree rough. The bearing of this old wall is 41° N.W. It is curious that the thickness is not all alike—in north something narrower than in south. But what is more curious is an attached wall of quite a different kind, of very smooth hewn stone, on an average of about 2 feet high and a little more long. I counted five layers; between these and the old large stones is a filling with rubble and black mortar. But the top stone has a slanting bevel towards the old wall (*see* section). There is

even more difference in the thickness of this wall than in the old one—at the north end it is 3 feet thick ; at the south end, 4 feet 5 inches. The reason of this cannot yet be explained or understood. It looks exceedingly strange that to a wall of very large stones and 14 feet thick, another wall of smaller stones was put alongside of it, and leaving thus, as the slanting bevel proves, the old wall without. How far northwards this old wall extends I cannot tell, nor is there any hope of finding out now, as the excavations will not be carried on northwards, but probably southwards. Whatever will be found there I will report upon in due time. They think a corner of the old wall will be found. These old remains are certainly in connection with those Dr. Robinson first reported upon (and spoken of in Sir C. Wilson's Notes, page 73), which were broken in pieces, and removed when the school brethren erected their large building —those running exactly due north, and, as it was found out afterwards, forming a right angle. The distance between the two is about 65 feet only. For the situation of the newly discovered wall, *see* plan of Jerusalem (C).

These old remains have been removed, and the large blocks broken up for building stones.

It is remarkable that west of these old remains, for a distance of 64 feet, no old masonry was found, simply earth, and into it built comparatively modern tanks, &c. East of it and everywhere are hewn stones or walls of former buildings, and it would seem that the rock was then partly removed, as on the west side the rock is in its old condition, and following down in a decline 12 or 13 feet in 100 (*see* section).

West of the old wall, 6 feet 8 inches distant, a water conduit was found, the continuation of which was also found by the school brethren west of their new building inside the city, near the northern present town wall, and was also found at several places outside ; most probably it once brought the water from the north-western high ridge into the town and into the pool formed, when the Latin Patriarch built his palace about twenty-five years ago, which was about 50 feet long and 30 feet wide, and about 20 deep. Close to it is another one, but of smaller dimensions, as I am told, for I have not seen it. This conduit is well built —measuring on the bottom 1 foot 2 inches wide, on the top 1 foot 5 inches, and 2 feet high, and covered with flagging stones. Six feet distant from it westwards another one was found, but of lesser importance and inferior work, situated a few feet higher. Its bottom is 11 feet under the surface of the garden, whereas the former is 14 feet. It is recognisable by a hard concrete, lying horizontal over the whole place, as far as it is excavated, towards the west and south. This concrete stops at the old wall on the rock (*see* section), 2,561 feet above the sea.

There were also found two cisterns, one 9 feet long by $7\frac{1}{2}$ wide, and without a roof, the other larger, 9 feet wide by 13 feet long, still in good preservation but full of earth, into which the conduit *b* brought the water. Both cisterns are of no interest, were built simply in the *débris*, and will now be destroyed.

III.

Notes on the Plans and the Cave East of the Church of The Holy Sepulchre.

I reported previously that I wished some excavations should be made on the Russian property, east of the Church of the Holy Sepulchre (*see* plan of Jerusalem); this was not done at the time, when the work of the "Cisterns," a new building, was going on. However, in the beginning of May (1888), there came an order from St. Petersburg to the leaders of this work, that they should make the excavations where I desired. So I pointed out three places desirable where they should excavate. The first was to make a shaft at "B" (*see* plan), and dig down till they found the rock, which was done; but as I left Jerusalem on the last of May, for a journey to Europe, I gave full instructions to one of my men to always note everything that was found, and take all necessary measurements. A few days after I had left they struck the rock, a piece of which was broken off to show it to me. It proved to be the usual Jerusalem "Meleki" rock. The shaft went down through earth and *débris*, and near the rock a sediment of fine earth was found. The rock was found to be 47 feet 6 inches below the surface of the present street, or at a height of 2,326 feet above the sea. My orders were: that when the rock was found, the shaft should be filled up to about the half height, and then strike a gallery eastward. They did so, but 6 feet higher than the middle, and a little below the rock appearing there; the rock is a ledge of about 4 feet thick (*see* Nos. 12 and 11). Under it there was a wall 9 feet 10 inches thick, which they had to break through; it consisted of rough boulders, large and small, without any proper facing, and without a solid foundation, resting simply on *débris*, the piece of wall above the rock had hewn stones, and on the west side of the shaft at B B there were five nicely dressed stones, but only six layers resting on *débris*.

I told the overseers of the Russians, and the architect, that when they went eastward they would find some "cavity," which they did, but full of earth; however, they cleared a gallery for 12 feet eastward, having the rock as a roofing, slanting downwards towards the east, exactly as the roofing in the Cotton Grotto east of the Damascus Gate, opposite Jeremiah's Grotto. For about 12 feet further east, an iron rod could be put between the rock roofing and the earth; fearing that going on further with the work would involve too much expense, they left the clearings, and so the work stands. So I thought it best to report on it now. As the rock is known on four places (*see* the drawings), and everything looks like the large cave or Cotton Grotto already mentioned, one comes to the conclusion that this was also a large cave. In the street above, the rock is very near the surface, in some parts cropping out. I have shown in dotted lines the supposed extent of the cave towards the east. There may be, possibly, a door or outlet in its eastern end. Sufficient excavation has not been made to indicate the size of the cave, but it appears to extend more in the north and south than in the east and west.

I suggested another point (K) for digging a shaft to find out the edge of the rock, and how far the cave extended in that direction.

The third point for excavation would be at C C in No. 11, and find out the continuation of the blocked-up conduit Cx, in No. 11 and No. 12, which I suppose is hewn through the rock. In No. 12 section I have shown in dotted lines what I presume to be the form of the cave in the eastern and western parts. When excavations are resumed at points K and C, &c., I will continue this report.[1]

CONRAD SCHICK.

RECENT DISCOVERIES IN GALILEE.

Nazareth.—Discovery of Large Cave.—At Nazareth, very few ancient remains are found, excepting the "sanctuaries" shown in the convents and in the vicinity of Nazareth, the explorer has few other proofs but those guided by faith and tradition, which are not always reliable ; it is, therefore, welcomed if a discovery as the following is made.

In the convent yard of the "Sœurs de S. Joseph," at Nazareth, a cistern was to be dug, and in the course of the work an ancient cave was discovered, choked up with rubbish and mud which had to be removed at great expense, until the character of the subterranean room was seen. Signs of a well, the dampness of the interior, and the soft humid rocks, from which, even in summer, water was dropping, seemed to suggest the vicinity of a spring, which, according to local tradition, once flowed on the north of the "*beidar*," or threshing-floor of the city, which lies a couple of hundred yards south of the convent and the cave mentioned, and is said to have been in connection with *'Ain Miriam*, the spring on the north of the city which supplies Nazareth with drinking water. The discovery of a fresh spring would be a matter of great importance at Nazareth, as it suffers from the want of water very much during the two hot months of summer. I was, therefore, asked by some priests and the abbess of the convent to examine the interior of the cave, and find out whether any spring was probable or not. I found the mud and rubbish only partly removed, while signs of large rooms adjoining were visible, and consequently recommended the continuation of the excavations. This advice was followed, and in October last I again examined the place, planned the caves, and now give the following account of it (see plan and sections) :—

From the paved convent yard we step down the new-masoned stairs into the actual staircase, the floor of which we reach at a depth of about 20 feet below the surface. The staircase is vaulted, measuring 11 feet each side. The cross vault is carefully built with large soft limestones

[1] When the cave has been thoroughly explored the plans and sections will be published, at present they are in an incomplete state.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(*Nâri*), and well preserved; the top of the vault shows conical fittings;

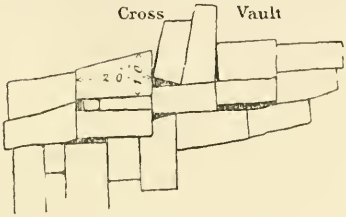

FIG. 1.

the joints are wide, and although once filled with mortar, are now open; at the side of the last six steps is a masoned pit (O plan) about 2 feet 6 inches wide, leading from the surface through the vault; at the end of the stairs near the floor a circular trough is placed on a bench of the bare rock, into which a small aqueduct (*see* plan and section) is led. Thus arrived on the floor we find that the room described is cut out of a soft white limestone rock, which was masoned on every side except the northern, near Cistern D. We step further through a sort of door, the upper part of which, 4 feet 9 inches wide, is cut out of the rock in a round shape, and two steps down arrive at the main room of the subterranean cave, the floor of which is about 30 feet below the surface. This room is rectangular, from 10 to 13 feet high, hewn out of the same soft rock, and is divided into three parts by terraces, the southern of which lies lowest, and the northern highest; in the northern (cistern C of plan) we find on the western wall four rock-cut troughs, at a height of 3 feet 5 inches above the floor, the largest and deepest of which is 4 feet 4 inches long, 1 foot 8 inches wide, and 1 foot deep, or little more, all connected by small channels, to lead the water from the upper small one down to the lowest, the bottom of each being lower than its upper neighbour; their width, 1 foot 8 inches, is the same. I consider these to be either water-troughs or mangers, as they are similar to those so frequently found in the Haurân subterranean stables and rooms; Mdme. the Abbess believes they were troughs used by the ancient Jews for "purifications." Just above them (O plan and section) is a round mouth, 3 feet in diameter, used to draw water from the cistern, the upper part of which, while running through rubbish and earth for 9 feet 6 inches height, is masoned up with hewn stones, while the lower part through rock and clay is bare; arriving at a depth of 19 feet, this pit opens in the form of a funnel to a cistern (C, section L M) irregular in shape; the floor of cistern C is 15 feet 1 inch long, and 11 feet 7 inches wide; from here we go down one step, about a foot high, to the central part, which in its eastern wall shows the first three stones of an arch of an original width of 15 feet, and in the opposite western rock wall one stone (I of map) belonging to the same arch probably; in the floor of this apartment we see three connected rock-cut basins, the principal one of which is a little over 6 feet 3 inches

long, and 1 foot 11 inches wide, and about 2 feet deep. I hold that these basins, in the way they are placed and connected (*see* plan), are deposit beds (*i.e.*, for beds into which the mud deposits settle, as often seen in this country, but the opinion that they were graves could hardly be admitted. These basins are connected with the southern part above mentioned, into which the stairs lead from the exterior. In this room, also, which is separated from the central one by a terrace 9 inches high, we find near the southern wall on the floor two separate basins, the largest of which is 4 feet 5 inches long, 2 feet wide and deep : the fact that they also lie, as the above in the lowest part of the floor, and that they are connected with an unopened apartment (cistern (?) H of plan) convinces me that they were also deposit beds of the cisterns. The walls of these cisterns or rooms described are bare, but there are signs of an original plastering in different parts, and among the rubbish and mud drawn to daylight, piles of a good thick mortar-cover are found, as well as pottery ware ; only the western wall of this southern apartment shows a piece of masoned wall built on the soft clay rock (*see* section LM of plan), evidently a partition wall with three rectangular niches, and a fourth opening which is connected with an adjoining room to the west. This masonry must be of the same period as the vault described ; the stones are also *Nâri*, large and not very carefully worked and fitted. Below this wall is an opening, a door cut through the soft rock, through which we enter by a narrow passage into a room of irregular shape, with a basin or deposit bed in the centre, above which a mouth (O of plan) opens towards the surface. This mouth, as well as the walls of the room, were built up by the convent while excavating, the rock then being in a dangerous, crumbling condition. We return a few steps back through the narrow passage, then turn left hand and crawl through a low door into a low room of irregular shape, which contains the most important remains of this cave, namely, two tombs, or Kokim, of nearly same size. The bearing of these Kokim is 54° N.W. ; the southern one is on one side 6 feet 3 inches long, 2 feet 1 inch wide, and 2 feet 8 inches high (*see* section AB on plan), the other, merely separated by a rock partition wall, may have had the same length, but is now only 4 feet 7 inches long on one side, 2 feet wide, and 2 feet 6½ inches high ; both have rounded ceilings, and are rock-hewn, the rock here being more compact. I consider these tombs, to which a *stone door* of *Nâri* was found lying near, of common form, 3 feet 6 inches long, 2 feet 5 inches wide, and 7 inches thick, to be the few original remains of this cave ; unfortunately we found no ornament or sign whatever, either on the Kokim nor on the stone door. The bearing of the central large room of the cave is 11° N.E.

In the east of the cave (cistern C) is an irregular door, through which we find a cistern (E of plan) of rectangular shape, 10 by 10 feet, rock-hewn, the upper part of which is covered by a round vault somehow different from the cross vault of the staircase, showing a projecting stone (Fig. 2) in the western part with the object of leading rain-water from the surface into the cistern. From here we proceed through

an opening to a large adjoining cistern (D of plan); this cistern measures 16 by 12 feet, is of an oval shape, and has a central deposit bed (*see* section KF of plan); it is connected with the staircase by two openings near its ceiling, and from the unexplored cistern, H, a small aqueduct leads to it, which is interrupted by the door leading to the stairs of entrance (*see* plan). This small aqueduct evidently was built before the staircase was used as such, and had the object to supply cistern D with the surplus of cistern H. The aqueduct is composed of large channeled stones placed on the clay rock, and measures 4 by 6 inches in width. To the north of cistern E another cistern (F of plan) was discovered, but not cleared out yet, also to the north of cistern C a narrow sloping passage leads to a wide room (unexplored cistern G of plan), which yet awaits clearing.

In the yard itself, above the cave described, but evidently in no direct connection with it, the "Sœurs" found three pillars free of common masonry; they are composed of large *Nâri* stone, and to judge from their form and shape, seem to have formed arches; they are situate above the ancient arch of the central room (11 feet 9 inches south of mouth O of cistern C lies the first pillar). The excavations must be continued on the surface, before satisfactory results are obtained.

Among the *débris* found in the cave was a handsome little marble column 3 feet 3 inches long, 5 inches in diameter (Fig. 3), with no base

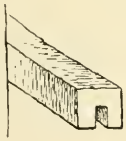

Fig. 2.

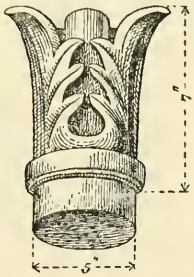

Fig. 3.

but a capital worked to it 7 inches high, which, although defaced, shows careful carved work; another marble column 8 inches in diameter, a pedestal cornice of 'Ajlûn marble, having the following shape (Fig. 4):

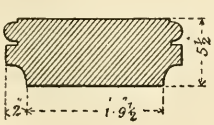

Fig. 4.

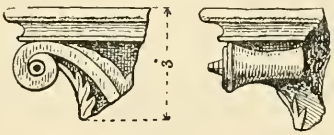

Fig. 5.

Large granite columns were also excavated in lengths of 4 and 5 feet, and an upper diameter of 1 foot 7 inches. A fragment of a beautiful little Ionic capital found shows parts plated with goldleaf (Fig. 5);

also a small statuette 2½ inches high (Fig. 6), of which unfortunately the head and legs are broken, made of a soft limestone, was once plated with gold. This most pretty little work, although much defaced by the damp, shows a rich folded and ornamented dress, the arms holding something like a bunch of flowers, besides a mass of glass lachrimatories, generally broken to pieces; the "Sœurs" gathered heaps of mosaic glass, the pieces varying about an eighth of an inch square, representing every possible colour, and some being nicely gold-plated: also large pieces of dark glass up to $\frac{3}{16}$ of an inch thick, many glass beads (pearls) of different colour and size, and any amount of fragments of pottery ware from jars, pots and plates, some painted with simple black stripes, others red and brown, and a nice collection of well preserved lamps of pottery ware (*see* Fig. 7). None of these lamps

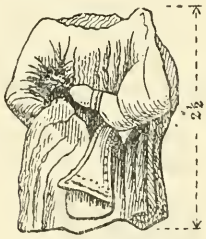

Fig. 6.

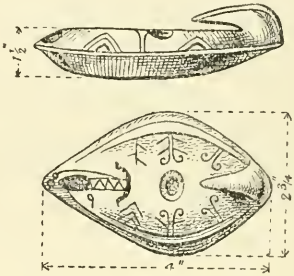

Fig. 7.

showed any inscription—or letters, merely antique ornamentations, as seen from the annexed sketches. I also found among the remains an instrument made of bone, of the following shape and ornamentation, probably used for weaving (Fig. 8):—

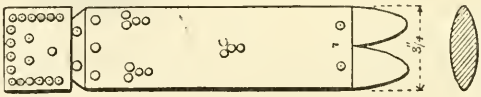

Fig. 8.

Among the coins found I recognised some Arabian, which bore the inscription, الامام المنصور and الله هو العزيز. Some other Roman coins of common appearance; of still greater interest were some Jewish coins, or at least some pieces having old Hebrew characters, much defaced, but worth a special study.

The ground and ruins where the above-described cave is located is called the *Jâma' Abd es-Samad* by the natives. The Nazarenians, as well as the "Sœurs," stated to me that a mosque stood there at a late period. Old men pretended to know that, according to tradition, the Jâma' was

built on and rebuilt out of the stones of an ancient church which stood on the same place.

This is what I gathered on the spot.

The caves were visited during last summer by competent historians; among others, by M. V. Guérin himself, whom I had not the pleasure of speaking to, but who, according to what was stated to me by Mdme. is of the opinion that this cave represents the edifice mentioned by l'Abesse Arculphus, of the seventh century (according to Adamnanus [1]), and the description of which Guérin quotes in his work, "Description de la Palestine," Paris, 1880, Galilee, vol. i, p. 99, as follows :—

"Civitas Nazareth, ut Arculfus, qui in ea hospitatus est, narrat, et ipsa ut Capharnaum murorum ambitum non habet, supra montem posita; grandia tamen lapidea habet ædificia, ibidemque duæ prægrandes habentur constructæ ecclesiæ, una in medio civitatis loco super duos fundata cancros, ubi quondam illa fuerat ædificata domus, in qua noster nutritus est Salvator. Hæc itaque eadem ecclesia duabus, ut superius dictum est, tumulis et interpositis arcubus suffulta habet inferius inter eosdem tumulos lucidissimum fontem conlocatum, quem totus civium frequentat populus, de illo exhauriens aquam, et de latice eodem sursum in ecclesiam superædificatum aqua in vasculis per trochleas subrigitur. Altera vero ecclesia in ea fabricata habetur loco ubi illa fuerat domus constructa, in qua Gabriel archangelus ad beatam Mariam ingressus ibidem eadem hora solam est locutus."

Comparing the above description of the church standing on the place of tradition, where Jesus passed His early youth, with my account given, we find that there may be a possibility of identity if we admit that a second arch, besides the one of which remains still are found, has existed, on which the church was built, and if the expression "tumulos" can be identified with the two rock-cut tombs or Kokim above described, — a comparison which is not adopted by all explorers of the place. However this may be, there is this much to state that the subterranean cave before us had at least two periods of use; the first and ancient period is represented by the two Kokim, which, considering the coins found, may have an ancient Jewish origin, and the cave represented a subterranean burial-place, like many others found throughout Palestine; a second period may have changed and widened the sepulchral cave into a large cistern, or group of cisterns, with a large central room, to which the women decended by the stairs shown, to fill the jars as they now do at the present day; the cisterns lying aside of this room were kept as reservoirs for time of want. This period, with the masonry work remaining, excepting the arch (1), may have had its beginning in the middle ages.

To have an idea of the plan represented by the four pillars found above the cave, excavation work must be done westwards, that is, on the place where the Jâma' Abd es-Samad actually stood; here, doubtless, interesting results would be obtained, and it is very desirable that the

[1] Adamnanus, "De Locis Sanctis," cxi, § 26.

Sœurs de S. Joseph at Nazareth should continue the excavation work at this interesting locality.

Jâ'uni.—At the Jewish colony Rushpina, near Jâ'uni, at one hour's ride eastward from Safed, I lately came across an old ruined Jâma', also known by the name "*Beit el 'Arab,*" بيت العرب "the house of the Bedawin," which, from its plan, must have been something like an ancient bath (Fig. 9).

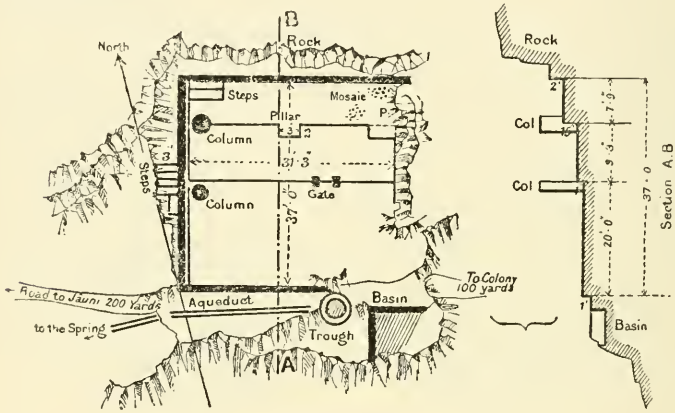

Fig. 9.

Coming from the colony we enter a flat, rectangular space, evidently hewn out of the solid rock, measuring 37 by 31 feet, with steps in terraces, the first of which is 1 foot high and 20 feet broad, the second 9 feet 3 inches wide and 1 foot high, the third 15 inches high and 7 feet 9 inches broad. This latter terrace has three pillars, on one of which a column still stands (Fig. 10); the floor was paved with mosaic, regular

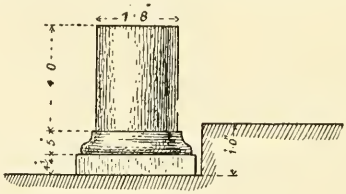

Fig. 10.

Fig. 11.

square pieces of hard limestone placed in good mortar, together ½ inch thick. The mosaic stones had different colours—black, white, and grey. Behind this third terrace there is a wall, formed by the bare limestone rock, about 5 feet high, which also continues round the western side. From the north and west, where the rock overhangs the ruin, rock-hewn steps lead to the interior. On the second terrace a column still stands, 1 foot 8 inches in diameter, and 5 feet in height, with base, and remains of a gate or door are visible.

At the lowest point and southern end of the building we find a large stone trough 4 feet in diameter, and near by it a small ruined aqueduct leading in a south-western direction to the spring of the village; on the other side of the trough there are ruins of a cistern. The road from the village to the colony leads along its southern side.

As before said, the ruin with the aqueduct, as well as the plan of the interior, speaks in favour of a bath ; in this case, the lowest terrace must have been the bathing basin, the second one the room for clothing, and the third one, with mosaic, the room for rest, with a door to the exterior in the north-west corner.

Nearer and towards the colony Rushpina I came across an old cemetery ; among the scattered stones once forming the graves lie parts of a hugh column of hard limestone, measuring 3 feet 2 inches in diameter. The different parts were fastened together by pins, same as seen at *Tabakât Fahil* (" Pella," p. 26) (Fig. 11) ; the pin-holes had the form of a cross, 1 foot long, 1 foot 2 inches broad, and 3 inches deep ; another pin-hole was circular and 4 inches deep. The ground being flattened, although lying on a slope, and having a commanding position over the plain down to the Lake of Merom (*Hûleh*) and vicinity, the columns may have belonged to a temple. The Jewish colony, founded by the generous Baron Ed. de Rothschild with the name of Rushpina, is flourishing. Gardens, vineyards, and about thirty-five buildings, partly with gable roofs, decorate the rocky slopes around *Jâ'uni.*

Esh-Shejara.—While laying out roads I came across a flat rock (Fig. 12), situate on a slope of the vicinity of the village *Esh-Shejara* (between *Lûbieh* and *Tabor*, on the road from *Kefr Kenna* to *Tiberias*), which has the following shape :—

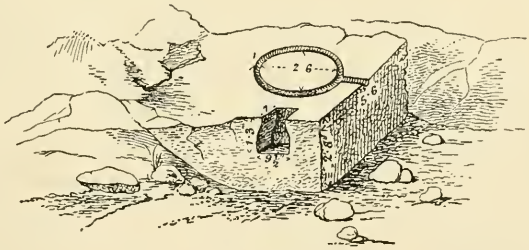

Fig. 12.

It measured about 5 feet 6 inches square, with a height of 2 feet 8 inches, but was evidently higher originally, the fellahîn excavating around the rock, seeking for a *Kenz* (treasure), and thus laid it bare, but covered a part of it up again. The flat surface of the rock has a circular ring 2 feet 6 inches in diameter, forming a groove only 1 inch wide, and about ½ inch deep, with a straight groove of about the same width, leading from the ring to the edge of the rock. On the western vertical side of the rock I found a notch, cup-formed, 9

inches wide below, 6½ inches on the top, 1 foot 3 inches high, and 7 inches deep (*see* sketch). The rock is hard limestone. The level surface was not worked, but seems natural; the sides were evidently shapened with a tool, although no mark or sign is discernible. An old fellah Sheikh, who accompanied me, named this rock *El-Môkadi* الموقدى (probably from قَدَّ "to slice into pieces"), which expression was repeated to me later by others. The people seem to have a hazy superstition as regards this rock, the history of which I hope to gather later. Was it an altar or a press? Further up the hill towards *Lûbieh*, and from here north-westwards down its slope, I found a number of unique coniform cuttings in the surface of the flat rocks, one to one foot and a half deep

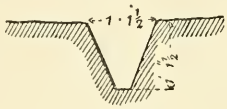

Fig. 13.

and wide, and also less, some only a foot wide and half a foot deep; they are situate at considerable distances from any cistern or well, and spread all over the rocky slopes.

Between the villages *Esh-Shejara* and *Kefr Sabt*, near the *Sultâni* (high) road, leading from the *Sûk el Khân* to Tiberias (*see* Palestine Exploration Fund Map), I found a circle formed by huge, unhewn stones, with a diameter of 50 feet. The stones have a height from 2½ to 3½ feet. This ruin is calle *Rujm el Harâik*, رُجم الحرايق "the mound of the burnings," and is doubtless of great age. The vicinity is called *Daher es-Salîb*, ظهر الصليب "the slope of the cross," as according to the fellahîn, a cross was chiselled on one of the large blocks mentioned, but which I could not discover.

Walking from the village *Esh-Shejara* towards *Khirbet Kaisharân* (*see* Palestine Exploration Fund Map), I found on the slopes passed, near this ruin, some caves, which were quite recently discovered and opened by shepherds. Their interior, which I explored, has a distinct sepulchral character, *i.e.*, rooms from 10 to 15 feet square, with Kokim and loculi worked into the vertical walls, some of which yet contain human bones, but the limestone rock is so soft and crumbling, the interior to such a degree fallen and full of dust and stones, that a plan could not be made. I can merely state that the plan would be very nearly the same as that of the grand cave at *Sheikh Abreik* (on the road from Haifa to Nazareth), smaller of course, but having a number of rooms connected by narrow low passages, only to be entered in a crawling position. Curious enough, the cave, or rather caves, for several were found which may have a connection with each other, have not an entrance from the front, as others, in the

face of the rock, but seem to have been reached by a passage (Fig. 14)

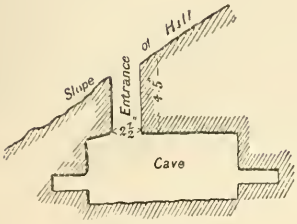

Fig. 14.

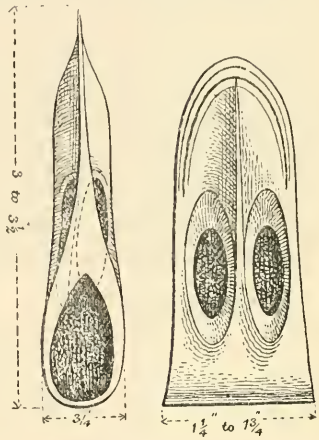

Fig. 15.

through the ceiling, about 2 to 2½ feet wide, as several were found leading into the same cave, but probably among the brushwood of the slopes the general entrance will yet be found.

While crawling about in the interior my companions found two similar copper instruments of the following shape (Fig. 15) :—Each one is from 3 to 3½ inches long, 1¼ to 1¾ inches broad, and ¾ inch thick ; its shape is that of a short spear or hatchet, with a rib on its broad (flat) side separating two oval holes which stand in connection with the ear of the instrument, to fasten its handle in. The flat end, the edge of the instrument, bears some parallel ornamental lines. Perhaps these instruments—for they could hardly be anything else—were given the dead into the grave as one of the favourite weapons. Also a thin bracelet of copper, ⅛ inch thick, much defaced, was found, having at its end something like a snake-head (Fig. 16).

Finally they brought me a copper coin, found among the dust in a grave, which I reproduce in its natural size and stamp (Fig. 17) :—

Fig. 16.

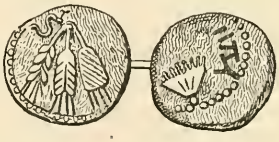

Fig. 17.

On one side there are three ears, tied together with a sling, surrounded by a ring of pearls ; the other side shows a sort of purse with tassels and some letters, which I am unable to decipher.

Modern *Esh-Shejara* is only about fifty years old, but it is built on a ruined site with the name—according to information collected on the spot—of *Deir Hânîn* دير حانين to which also the ruined mosque and church near the spring and village (*see* "Memoirs of the Fund," vol. I) belonged. According to tradition, *Deir Hânîn* was a very important market place, it being situate on the crossing of the two high roads—Damascus to Jerusalem, and 'Acca to Haurân. Both roads are still frequented, but the market was transferred to *Sâk el Khân*, a Karavanserai of old style near the foot of Mount Tabor; even that market was done away with some years since, the people becoming more settled; their wants are supplied from the cities of Nazareth and Tiberias.

G. SCHUMACHER.

Haifa, December, 1888.

THE "*VIA MARIS*"

A REPLY.

IN the July number (1888) of the *Quarterly Statement*, the Rev. Ch. Druitt wishes to have explained "the ground for my identification of the Via Maris of antiquity with the caravan road which bisects Upper Jaulân in the direction of 'Acca and Haifa."

I have to state that I followed the opinion of Ritter, who, in his description of the upper and central Jordan districts ("Erdkunde," xv, a, "Palastina und Syrien" II, a, pp. 269-272) states that the central of the three large (northern, central, and southern) caravan roads which connected Damascus with the lands of the Kanaanites, passed by the fortified Jisr and Khân Benât Y'akûb, and, coming from Damascus or the Euphrates Valley, and crossing the Jordan at this bridge, took a southern course to the Sea of Galilee, to the important custom house Capernaum, and from here to the Mediterranean Sea. Its name, Via Maris or "Road to the Sea," "Sea-Road," may have therefore been derived either from the Sea of Galilee, or the Mediterranean; see also Gesensius ("Comment. zu Jesaias," Th. I, pp. 350-354) for further proofs. That this very important sea road, which during the middle ages was used by caravans from Damascus to Phœnicia, was meant by Quaresmius ("Elucid. Terr. Sctae," T. I, Lib. I, c. 8, fol. 19) when he said "via maris publica quedam via est, qua venitur ex Assyria ad mare mediterraneum," can be proved by a look on the map: the high road I marked as Via Maris on the Jaulân map, leaves Damascus, and follows the level Haurân plateau (or rather Jeidûr) to S'asâ and continues in a straight line to el Kuneitra, and from here as direct as possible through the Jaulân to the Jisr Benât Y'akûb, from here it follows the Jordan course along the slopes forming the western banks of the river until it arrives at the ruined Khân Minyeh (by some supposed to be Capernaum) which lies very near the Sea of Galilee. Here, or at Khân Jubb Yûsef, a ruin a little north of Khân Minyeh, the high road must

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Mean	
Dry Bulb.	
54°·4	
53·4	
62·0	
66·7	
72·0	
79·4	
81·9	
84·6	
83·4	
78·4	
66·4	
56·3	
69·9	

12

have bifurcated, taking in one sense a southern direction to the city of Tiberias, to Beisân (Beth Shean, Scythopolis), &c., and in the other sense a western course to the ports of the Mediterranean, to 'Acca of the Phœnicians, by the way of the plain and the Wady 'Abellîn, or if bifurcating at the Khân Jubb, Yûsef by the way of Râmeh and Mejd el Kerûm (to 'Acca).

At all of these places mentioned, as well as along the course of the road through Jaulân, the different Khâns or Caravanserais, through the Buttauf and W. 'Abellîn, at Rameh and other sites, we find distinct remains of paved Roman roads ; the direction of the road from Damascus to 'Acca is straight, and the nearest route possible ; the regions it crosses are plateaus, plains and level countries, in fact a country which, although now desolated and covered with ruins, is and was designated by nature to be a great commercial highway. Considering all these facts in favour of the opinions given with regard to the Via Maris, and considering that all other roads from Damascus to the Sea, to Tyre and Sidon, &c., have to pass mountainous regions and winding passages, I find no objection of identifying the " Via Maris " in its general features, and in the sense named during the middle ages with the present commercial and caravan road from Damascus to the Jisr Benât Y'akûb or by Khân Miniyeh to 'Acca and Haifa, all the more as we can see from the commerce of the 11th, 12th, and 13th centuries, as given in the excellent work of Heyd, " Die italienischen Handelsclonieen in Palaestina " (I, p. 16, 17 ff.), that the city of 'Acca had a great interest in the Indian commerce, that products of India found their way through the Euphrates Valley to the great Emporium of Damascus, and continuing *by the shortest way* to Beirut and 'Acca, and that the weapons and arms of Damascus manufacturers were exported to Egypt by the port of 'Acca ; on the other side Haifa formed the natural harbour for Tiberias ("Heyd," I, p. 17) which city (Tiberias) " was industrious and had a lively trade by caravans."

G. Schumacher.

METEOROLOGICAL OBSERVATIONS.

Sarona, 1883.

The numbers in column 1 of this table show the highest reading of the barometer in each month ; the maximum for the year was 30·106 ins., in December. In the years 1880 and 1881 the maximum was in January, in 1882 it was in February ; the mean of the three preceding highest pressures was 30·251 ins.

In column 2, the lowest reading in each month is shown ; the minimum for the year was 29·527 ins., in January. In the year 1880 the minimum was in April, in 1881 in February, and in 1882 in July ; the mean for the three preceding years was 29·519 ins.

The range of barometric readings in the year was small, being

0·579 in. only. The numbers in the 3rd column show the range of readings in each month; the smallest, 0·139 inch, was in June, and the largest, 0·561 inch, was in January.

The numbers in the 4th column show the mean monthly pressure of the atmosphere; the greatest, 29·924 ins., occurred both in February and December, and the smallest, 29·689 ins., was in July.

The highest temperature of the air in each month is shown in column 5. The highest in the year was 106°, in September, the next in order was 99° in May, and 97° in March; in the three preceding years, viz., 1880, 1881, and 1882, the highest temperatures were 103°, 106°, and 93° respectively; the first day in the year 1883 the temperature reached 90° was on the 30th of March, and it was 97° on the next day; in April the temperature exceeded 90° on one day; in May on one day; in August it reached or exceeded 90° on six days; in September there were five days when the temperature reached or exceeded 90°; the highest in the year, 106°, took place on the 30th; in October, on the 29th, the temperature reached 94°, and this was the last day in the year that the temperature was as high as 90°; therefore the temperature reached or exceeded 90° on 16 days; in 1880 on 36 days, in 1881 on 27 days, and in 1882 on 8 days in the year.

The numbers in column 6 show the lowest temperature in each month; the lowest temperature in the year was 35° in March, the next in order was 39° in January, and 40° both in April and December; in January there was only one day when the temperature was below 40°, and in March on one day, when it was as low as 35°, on the 17th; it was not below 40° in any other month of the year; therefore the temperature was below 40° on only two nights in the year; in the year 1880 it was below 40° on 16 nights, in 1881 on 2 nights, and in 1882 on 14 nights.

The yearly range of temperature was 71°; the range of temperature in the year 1880 was 71°, 1881 was 67°, and 1882 was 59°.

The range of temperature in each month is shown in column 7, and these numbers vary from 25° in July to 62° in March.

The mean of all the highest temperatures by day, of the lowest by night, and of the average daily ranges of temperature, are shown in columns 8, 9, and 10, respectively. Of the high day temperatures, the lowest appears in February, 62°·8; and the highest in July, 88°·2; that in August is nearly of the same value. Of the low night temperatures the coldest, 45°·6, took place in February; and the warmest, 69°·4, in August. The average daily range of temperature, as shown in column 10, in January 15°·7 is the smallest, and in September 27°·7 is the greatest.

In column 11, the mean temperature of each month, as found from observations of the maximum and minimum thermometers only are shown. The month of the lowest temperature is December, 51°·1; in the year 1880 the month of the lowest temperature was January, 50°·7; and in the years 1881 and 1882 the lowest were in February, viz., 56°·2 and 49°·8 respectively; the mean for the three years being 56°·2. The month of the highest temperature was August, 78°·8; in the years 1880, 1881 and 1882,

the maximum was in August, and were 79°, 80°·1, and 78°·6 respectively. The mean for the three years was 79°·2. The mean temperature for the year was 65°·7, for the three preceding, viz., 1880, 1881, and 1882, were 66°·4, 66°·7, and 65°·5 respectively.

The numbers in columns 12 and 13 are the monthly means of a dry and wet-bulb-thermometer, taken daily at 9 a.m., and those in column 14 are the monthly temperature of the dew-point, or that temperature at which moisture would have been deposited. The elastic force of vapour is shown in column 15; in column 16 is shown the weight of the water present in a cubic foot of air; in January this was as small as four grains, and in August as large as 7½ grains. The numbers in column 18 show the degree of humidity, saturation of the air being considered 100; the smallest number indicating the dryest month, was 57 in September, and the largest 85, in February. The weight of a cubic foot of air under its mean pressure, temperature, and humidity, at 9 a.m., is shown in column 19.

The most prevalent winds in January were S. and S.W., and the least prevalent were E. and N.W. In February the most prevalent were S.E. and S.W., and the least were W. and N.W. In March the most prevalent was S., and the least were N.W., E., and its compounds. From April to September the S.W. winds were most prevalent, and the least prevalent winds generally were N., E., and compounds of E. In October the most prevalent was S., and the least was S.E. In November the most prevalent was S., and the least prevalent were N. and its compounds; and in December the most prevalent winds were S.E. and S., and the least prevalent were N., W., and N.W. The most prevalent wind for the year was S.W., which occurred on 76 times during the year, of which 16 were in July, and 9 in both January and August; and the least prevalent wind for the year was E., which occurred on only 7 times during the year, of which two were in October, and one in each of the months of January, February, June, November, and December.

The numbers in column 29 show the mean amount of cloud at 9 a.m., he month with the smallest amount is June, and the largest January. O the cumulus, or fine weather cloud, there were 119 instances in the year; of these there were 21 in August, 20 in July, and 13 in September, and only 3 in December. Of the nimbus, or rain cloud, there were 63 instances, of which 18 were in January, 12 in February, and 11 in December, and 3 only from April to September. Of the cirrus, there were 22 instances. Of the stratus there were 24 instances. Of the cirro-cumulus there were 39 instances. Of the cirro-stratus 14 instances in the year, and 84 instances of cloudless skies, of which 14 were in June, 13 in May, and 11 in March.

The largest fall of rain for the month was 11·32 ins. in January, of which 1·31 inch fell on the 9th, and 1·30 inch on the 8th; and the next largest fall for the month was 8·14 ins. in November, of which 3·13 ins. fell on the 3rd, and 1·31 inch on the 25th. In 1880 the largest fall in any month was 10·05 ins. in December; in 1881 the largest was 5·09 ins.

in November, and in 1882 the largest was 7·22 ins. in February. No rain fell from April 25th till October 10th, making a period of 167 consecutive days without rain. The fall of rain in the year was 30·06 ins., being 1·38 in., 12·57 ins., and 7·97 ins. larger than the falls in 1880, 1881, and 1882 respectively; and the mean fall of rain for the three preceding years was 22·55 ins. The number of days on which rain fell was 71, in 1880 rain fell on 66 days, in 1881 on 48 days, and in 1882 on 62 days.

JAMES GLAISHER.

NOTES BY MAJOR CONDER, R.E.

I.

PROFESSOR SAYCE ON THE HITTITES.

THE Religious Tract Society have published an interesting little book by Professor Sayce on the Hittites, which will no doubt aid to instruct the general public, though it contains nothing new to scholars. With the greater part of its contents I am fully in accord, but there are occasional statements which should, I think, at once be questioned before they become widely adopted, in the interest of exact archæology; and I hope that these lines may meet Professor Sayce's eye, and induce him to explain or to reconsider the points in question.

When Professor Sayce states that the Hittite monuments are still undeciphered, he, no doubt, expresses his present opinion. In that case he must be supposed to have withdrawn the claim which he made in 1884, to have deciphered and translated several of the texts, as given in a lengthy article in "Wright's Empire of the Hittites." To these translations he makes no reference in his present volume. When, however, he says that "Major Conder's system of decipherment has not yet obtained the adhesion of other scholars," I may be allowed to remark that at least two scholars have informed me that they believed me to be right as to the language, and these scholars perhaps better acquainted with Turanian languages than any others in England. In his last letter one of them says of my recent paper in the *Quarterly Statement* that it "marks a distinct advance, and places the comparisons on a firm foundation."

Professor Sayce makes other statements as below :—

Page 12. "Hamath and Kadesh on Orontes being their most southerly points." He, apparently, is unaware that Sir C. W. Wilson discovered a Hittite monument at Damascus.

Page 15. "The Hittites were a people with yellow skins and Mongoloid features" (repeated p. 101 yet more strongly). This is what I have always urged. Why, then, dispute the probability that their language also may have been Mongolian? It appears, however (p. 134), that "the

Vannic may belong to the same family of speech." Now, as regards Vannic, we have the opinion of a good Akkadian scholar (Bertin, "Languages of the Cuneiform Inscriptions"), that Medic, Vannic, and Akkadian belong to the same family of ancient agglutinative speech. Professor Sayce makes no further allusion to Georgian in his present work, which is perhaps due to the fact that no known Hittite name or word has ever been found comparable with Georgian.[1]

Page 15. The Amorites are described as having "white skins, blue eyes, and reddish hair."[2] Yet, when we turn to Mr. F. Petrie's list, we find the Amaur described as having "red" skins; and the blue eyes are attributed to the Kheta. It is by no means certain that the colours have retained their original hue. The only people marked as "white or yellow" in Mr. Petrie's list are the Shairdana, and the red hair is not attributed to the Amaur. Some Kheta are described as having "green hair"! It is certain that in some cases the colouring is merely decorative, and in others faded.

Mr. Tomkins quotes Mr. Osborn as making the Amorites blue-eyed, but this seems, according to Mr. Petrie's list, to be a mistake. The hair, according to this description, was black ("Times of Abraham," p. 85), and the complexion sallow. My own belief is that the Amorites were a Semitic tribe; but, at all events, the idea of a fair people in Palestine rests on no real foundation.

Page 46. The Patinians are said to have been a people of "Hittite descent." I am not aware of any authority for this.

Page 49. The Assyrians are said to have used the name Hittite "no longer in a correct sense." Yet they only say that the town of Ashdod was Hittite, and there is no historic improbability in the existence of Hittites in this part of Palestine in very late times. Surely the Assyrian scribe knew better than we can know.

Page 6. Professor Sayce adheres to his favourite term, the "Hittite Empire," but has explained it to mean little more than a confederacy such as we know from the monuments did exist between the Kheta and other tribes. The "forgotten Empire," however, is now disappearing, the Lydian and Medic Kingdoms being the real authors of the Asia Minor civilisation, and the Medic and Lydian races being of the same stock with the Kheta. Herodotus probably knew more about Asia Minor than we can hope to learn by theories unsupported by the evidence either of literature or of inscriptions. He knew of non-Semitic Syrians, of Lydians, Carians, and Medes, before the Aryans came from Greece and from Persia; but he knew nothing of a "Hittite Empire," nor do the cuneiform or Egyptian texts mention any Hittites save in Syria.

[1] The sounds for king and country in Hittite appear to have been *Ko* and *Me*. In Georgian, the word for king is *Mephe*, and for country *Obai*, which evidently do not aid us.

[2] Prof. Sayce, in the "Academy," speaks of fair people in Palestine. There is no native stock in Palestine which is fair, but there is a certain admixture of Aryan blood in the country, probably of very recent origin.

Page 78. "The mural crown" is not known on Hittite monuments. The bonnets worn by the goddesses at Boghaz Keui are similar to those now worn by Tartar women.

Page 80. The "double-headed axe" was not peculiar to Hittites. It was used by Carians and by Etruscans.

Page 81. Professor Sayce calls the turned-up boot a snow-shoe, a mocassin (p. 140), and a Turkish shoe—three entirely distinct things. It was known to the Egyptians and Etruscans as well as to the Hittites.

Page 81. The hieroglyph for country represents "two or sometimes three pointed mountains." It only occurs twice, and neither of these cases have three peaks. Professor Sayce considers Hittite and Egyptian quite distinct systems, and states that in the latter animals are represented by whole figures, but in Hittite by heads only. Yet we have already two cases in Hittite of whole figures of animals, while heads of animals are not uncommon in the earlier Egyptian texts. With increased graphic power the whole figure seems to have been attempted, and the distinction is not complete.

Page. 102. The pigtail (first noticed by the late Dr. Birch) convinces Professor Sayce of the Mongol origin of the Kheta, yet he never mentions the Mongol words recoverable of their language.

Page 111. "Tar or Tarku, 'the king,' who is the Zeus of Lucian." Professor Sayce does not give any reason for rendering Tarku "king." The readers of the *Quarterly Statement* will be aware (January, 1889), that this is a Mongol and Turkic word for king.

Page 115. "The art of the Hittites was essentially Babylonian in origin." This is just what I urged when comparing them with the Akkadians.

Page 117. The Sphinxes of Eyuk are compared with the Egyptian Sphinx. But on an Akkadian cylinder we have also two Sphinxes represented, and others in Etruria and Phœnicia.

Page 120. The lions of Mycenæ are called "Hittite." To me it seems more likely that they were Pelasgic, and the Pelasgi must—judging from the word *Tepæ*, said by Varro to mean "mountains"—have been a Turkic people like Medes, Akkadians, Lydians, and Carians.

Page 129. Tarkon is said to be a "distinctive Hittite word." If so, the evidence of comparative vocabularies shows the Hittite language to have been Turkic.

Page 130. The four strokes for *me* on the boss of Tarkutimme are said to represent the "numeral four." We are not told in what language four has the sound *me*. In Georgian the sound is *Othkhi*. I have shown that this sign does not on the Hittite monuments represent a numeral, because it is a suffix. We have a plural suffix *me*, and this, I believe, is the true value of the sign.

Page 130. There is no evidence at all that the Carchemish monuments contain the names of any kings. As to the "King whose name ends -me Tarku," Professor Sayce has stated that Tarku was Jupiter (p. 111).

Page 132. Although Professor Sayce believes the syllabary of Cyprus to be derived from the Hittite, he makes no mention of the recovery of fifty sounds of the language thus made possible. Hence he has made no use of the very method whereby the study of cuneiform was first made possible and the Akkadian language discovered.

Page 135. *Irkhulena*, "the moon god belongs to us," is a funny name for a man. It seems to me more like Turkish *Er*, "man," and *Khulin* "great," *i.e.*, "the hero" or Hercules.

Professor Sayce's volume therefore represents the Hittites minus their language, which language he has not attempted to compare with any other, though we have Carian words like Kos and Taba, Lydian words like Tegoun and Lailas, Etruscan words like Tarquin, &c., &c., comparable with the old Medic and Akkadian, and showing us an early Turkic people in Asia Minor to whom the Hittites were akin.

Curiously enough, Professor Sayce has since written from Egypt ("Academy," 19th January, 1889), to say he has a letter in what he thinks is a Hittite dialect, and that the "verbal forms are Akkadian." Should he adhere to this view he will, perhaps, withdraw his previous statement that "no scholar is likely to admit" a comparison of Hittite and Akkadian. He is also now inclined to believe in more than one "Hittite" language. In Asia Minor, in 500 B.C., I believe four languages were spoken:—(1) Greek; (2) Lycian (akin to Zend); (3) Phrygian (akin to Armenian); (4) Lydian and Carian (akin to Turkish). This is a distinction sanctioned not only by Herodotus, but by relics of these languages. Of these, however, 1, 2, 3 were later in reaching the country than No. 4.

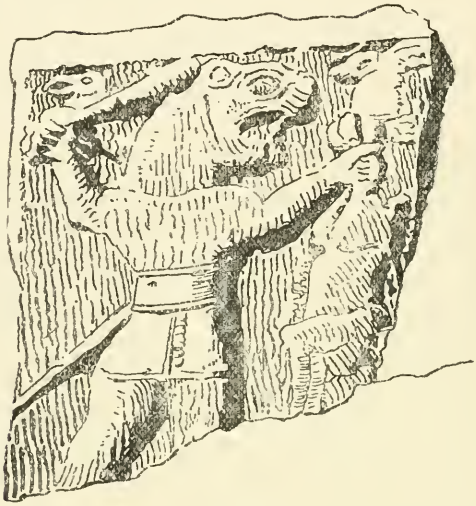
When Professor Sayce claims to have "laid the foundation" of Hittite knowledge, it must not be forgotten that Dr. Wright first broached the idea in connection with the Hamath stones, and that Chabas and other scholars had written at length on the Kheta in 1866, Professor Sayce's first paper being ten years later. No one, however, would wish to dispute the value of Professor Sayce's contributions to the subject in many particulars.

II.

The so-called Hittite Monuments of Keller.

The monuments at Keller, or Sinjirli, west of 'Ain Tab, at the north extremity of Syria, are mentioned in "Altaic Hieroglyphs," and photographs were kindly sent to me by Mrs. Barnes. They are given by Perrot in his "History of Art," in 1886, and have recently been published from the photographs by Professor Sayce; but one slab, of which I here give a copy from the photograph, seems to have escaped notice, and is very important, as it has a hieroglyphic in the corner, which none of the rest have.

The lion-headed deity is here shown in the short tunic common to other Cappadocian bas-reliefs, holding a rabbit (or perhaps a fawn, but



there seem to be no hoofs) by the hind legs. The attitude is just that of a deity represented on a bas-relief at Amrît, in Phœnicia, standing erect on a lion. He is human headed, but holds the small animal in like manner, and waves a sword. The lion-headed god is also twice represented near Pteria, in Cappadocia. He is well known as Nirgal (his Akkadian name, Assyrian *Nirgallu*), in Babylonia, and also found in India (as Yama) and in Egypt.

The hieroglyph in the corner is the head either of a rabbit (as on the Merash lion) or of an ass (as at Pteria, Carchemish, &c.). It is probably the name of the god, and, as I explained in "Altaic Hieroglyphs," both the ass's head and the hare's head are known on the "Hittite" monuments, with the sign of deity above. It appears that the name of the lion-headed deity had the same sound as the word ass; and I have recently described a cylinder, brought home by Mr. Greville Chester, on which a lion is represented (*see* "Altaic Cylinders," in P. E. F. *Quarterly Statement*, 1888) with the head of an ass as a hieroglyph above it. This curious lion-headed god is another link between the Akkadians and the early tribes of Syria and Cappadocia, whom antiquaries call "Hittite," though some bore other names.

The figures in the bas-relief given herewith, from the same site, are of special interest, though there is no writing on the blocks. A prisoner is brought—by his pigtail—by a long-robed, bearded personage. The beard in this case is—as at Ibreez—in the Phœnician fashion, without the heavy moustache of the Assyrians. The outline of the faces is just

that of the Akkadians of Tello, on a bas-relief published by the French explorer De Sarzek.

Both these figures have the *Calceus repandus*, but the next figure to the right wears sandals. This figure is also bearded, but wears a very distinct, well-plaited pigtail, not unlike that worn by some of the Elamites, in the great battle-picture in the British Museum. This group is part of a long subject, including a stag and a doe, at which the bowman shoots, a winged griffon, ramping erect, and a man with a hammer or axe, which appears to have been an Asia Minor weapon. This axe was called *Labros* in Carian and Lydian speech—a word for which I have been as yet unable to find any equivalent.

We are possibly on the verge of further discovery as regards these ancient populations. Meantime I regard it as shown, by the surviving words of their language, that the Lydians, Carians, and Pelasgi, like the Etruscans, were a Turanian people, akin to the Medes and Akkadians. The Phrygians were not—they were Aryans from Europe. The Lycians, who were "modern" in the time of Herodotus, spoke a liquid language akin to Zend and to Persian; but these Aryan tribes were non-existent in Asia Minor, probably in 700 B.C., and the archaic monuments of Cappadocia seem to be the work of the same race that has left monuments in Ionia, and which was no doubt the old Lydian Carian race.

III.

The Tell es Salahîyeh Monument.

Sir C. W. Wilson has kindly allowed me to trace the photograph of the very archaic monument discovered in his excavations at Tell es Salahîyeh, near Damascus. It is one of the rudest and most archaic

known in Syria, and in general character resembles those monuments which antiquaries now call "Hittite."

It should be noted that the cap seems to have the shape which on the Egyptian monuments distinguishes the Pulestha (Philistines) and Takrui (probably Teucrians). It is also to be noted that the beard without moustache is represented as on the Ibreez monument, which has a "Hittite" inscription, and also on the monument of Keller. This fashion of wearing the beard prevailed extensively in Phœnicia and Asia Minôr and among Greeks. The Assyrian sculptures, on the other hand, usually represent a moustache.

This is the most southern of the monuments of this class yet known. There is a remarkable monument at Amrit, in Syria, usually called Phœnician, representing a god standing erect on a lion, which may be of the same class, and the rude and archaic Hercules of Amathus—a gigantic statue now in the porch of the Constantinople Museum—a horned and bearded god, may also be what is called "Hittite." This deity, like the lion-headed god of Keller, is holding up an animal by the hind legs, but the head of the animal is lost. Probably he is represented tearing the animal asunder as fawns were torn in honour of Dionysus—a kind of sacrifice which also existed in China. A very good drawing of this Amathus statue, which should be compared with the present sketch, occurs in Perrot's "Histoire de l'Art," in the Phœnician volume.

IV.

The so-called "Hittite" Hat.

The cone-shaped hat on the monuments of Cappadocia and Ionia approaches in form the high tiara worn by Kheta Sar on an Egyptian bas-relief, and is a fairly distinctive article of costume. The following notes are, therefore, of some interest, perhaps, as indicating the race which wore this hat. Herodotus says (vii, 64) :—

"The Sacæ, who are Scythians, had on their heads caps which came to a point and stood erect."

In Italy, also, the Tutulus is described by Varro (*see* Dennis, "Etruria," i, p. 341) as a high white cap of the shape of a cone (*meta*) worn on the heads of priests. The Flamens wore a wool cap of the same form—perhaps not unlike the Astrakhan hat of the Circassians. An Etruscan goddess is represented in a high cap of this kind, with four wings, and holding a hen (ii, p. 465).

In the travels of Rubuquis in 1255 A.D., in Tartary, we find similar hats described.

"They have an ornament for their heads," says the good monk, describing the nomadic people of South Russia, "which they call *Botta*, which is made of the bark of a tree, or of some such substance as they can find, which by the thickness and roundness thereof cannot be held but in both hands together, and it hath a square sharp spire rising from the top thereof, being almost two feet in length, and shaped like a pinnacle. This Botta they cover all over with a piece of rick silk, and it is hollow within, and upon the midst of this same spire they place a bunch of quills, or slender canes, a foot and a half long or more, and the bunch on the top thereof they beautify with peacocks' feathers, and round about they stick the feathers of a mallard's tail and adorn it with precious stones. Also great ladies wear this kind of ornament on their heads, binding it strongly to a kind of hat or coif which hath a hole in the crown fit for the spire to come through."

A hat of this kind, but edged with fur, is still worn by the dervishes in Turkestan (*see* Schuyler's "Turkestan," frontispiece, vol. ii), but is not more than about a foot in height. The Maulawiyeh dervishes in Syria also wear a somewhat similar hat, but it is a truncated cone made of fine felt, and with the green turban sometimes wound round it. The cone was also worn by the Turks in the 18th century with the Moslem turban wound round it (*see* portrait of Hassan Pasha in the "Modern Traveller, Syria," vol. i, p. 25). Thus the old Scythian headdress of the Cappadocian monuments has been worn in various ages by Turanian peoples, and still survives in our own time.

V

The Stone Zoheleth.

As to whether the word Eben can apply to a rock (a question more than once raised of late), Gesenius may be held to be a respectable authority. In his lexicon he gives, under אֶבֶן (1) "a stone of any kind," (2) a "a gem," (3) "ore," (4) "rock." I think that any person acquainted with Hebrew and Arabic would feel satisfied by M. Clermont-Ganneau's remarkable discovery of Zoheleth.

VI.

House of the Holy Ghost.

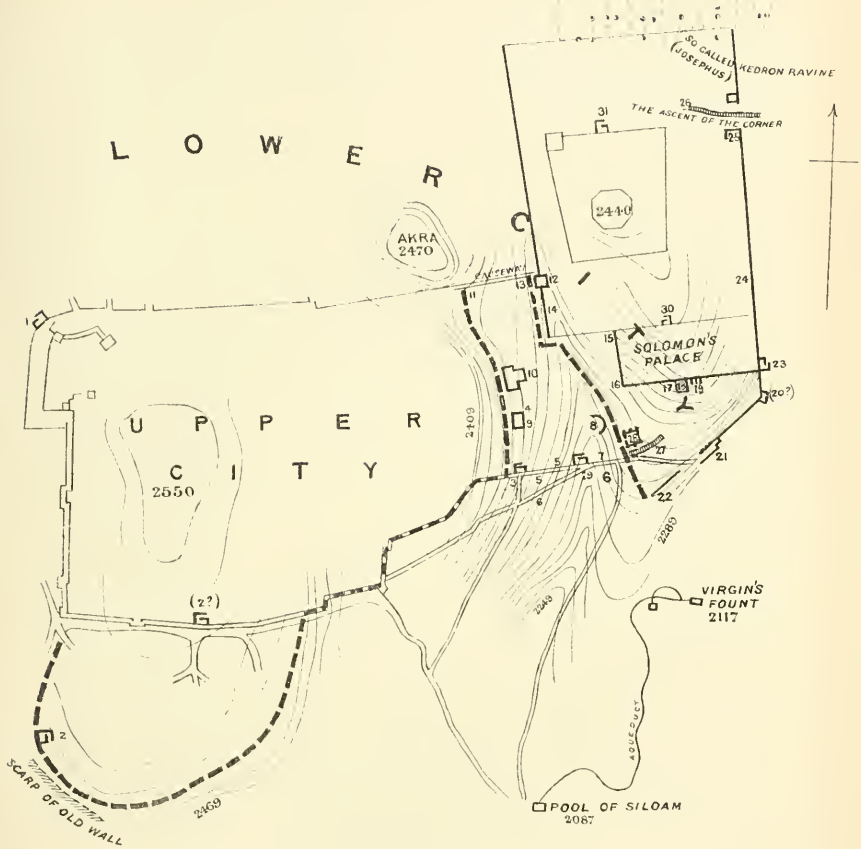
It may be necessary to note that the map mentioned by Dr. Chaplin, bearing this name, is a reduction from one made by me in 1883, and the place in question is marked where he showed me the site so called in 1881. I am afraid, however, it does not occur in any mediæval account of the city, as far as my reading goes.

NEHEMIAH'S SOUTH WALL, AND THE LOCALITY OF THE ROYAL SEPULCHRES.

As the basis of the accompanying plan, I take the ascertained rock contours, issued with the Memoirs of the Survey, and place upon them, to start with, the outlines of ancient structures ascertained by Sir C. Warren. The modern Zion being the Upper City of Josephus, all the lower hills lying about it, so far as they are built upon, will be the Lower City. Accepting Warren's Akra, the Akra becomes part of the Lower City when the Causeway is built and joins it to the eastern hill,[1] and more thoroughly so when the valley north of the causeway is filled up in the days of Simon Maccabæus. The Lower City would thus lie round about the Upper City in crescent form, and we may agree with those who translate Josephus's *'αμφίκυρτος* in that sense (Bell. v, 4, 1). The valley descending from Herod's Gate and entering the Kedron just north of the Golden Gate, is probably Josephus' "valley *called* Kedron," possibly the original Upper Kedron before it was filled up. As it was not filled up till Pompey's time, it was still a valley in Old Testament times, and its existence is implied in Nehemiah iii, 31. The sites of walls and buildings adopted from Warren for the purpose of this paper are (1) the Temple

[1] May not this causeway represent Millo? The word means a causeway or an embankment.

SKETCH PLAN SHEWING NEHEMIAH'S SOUTH WALL.



*** The contour lines represent successive steps of ten feet. The height at the Triple Gate is 2379 feet.

REFERENCE.

Suggested line of wall

1 Valley gate
2 Dung gate
3 Fountain gate
4 King's pool
5 Wall of Pool of Shelah
6 King's gardens
7 Stairs of the City of David
8 Sepulchres of David
9 The Pool that was made
10 House of the mighty
11 Turning of the wall
12 The Armoury
13 Turning of the wall
14 House of Eliashib
15 Turning of the wall
16 The Corner
17 Turning of the wall
18 Tower at King's house (Tower that standeth out)
19 Water gate
20 Tower that lieth out
21 Great tower that lieth out
22 Wall of Ophel
23 Horse gate
24 Houses of priests
25 Gate Miphkad
26 Ascent of the corner
27 Going up of the wall
28 House of David
29 Gate between two walls
30 Gate of the Guard (2 Kings, xi. 19)
31 Gate of the Guard (Neh. xii. 39)

courts, as represented in the plan ; (2) Solomon's palace, south of the Temple, but occupying only two-thirds of the width of the Haram Area ; (3) the wall of Ophel, and its towers, the wall terminating 700 feet from its elbow ; (4) the great causeway, extending westward from Wilson's arch.

The Temple and Palace, as given by Warren, leave a vacant square at the south-western corner of the Haram, where the masonry for 300 feet each way from the corner is different from the rest, and more recent.

With this ascertained nucleus of buildings, and the ascertained contours of hills and valleys, I proceed, first, to trace the south wall of Nehemiah, and afterwards to test its accuracy. Let us bear in mind that Nehemiah repaired only, and did not build *de novo*, so that the lines of wall to be recovered are really older than his time. From the Jaffa Gate we follow the existing line of wall southward, as far as it extends. We might be content to follow it eastward across the ridge of the modern Zion– and might say in defence of that line that later builders found it easier to repair old walls than to build new ones—but the point is not vital to the main contention of this paper, and so the wall may be allowed to go round the brow, and thus take in the rock scarp and the remains of masonry at the south-west shoulder. In either case the wall made a bay up the Tyropœan Valley, as Lewin contends ("Sketch of Jerusalem"), and as Josephus plainly declares (*ὑπὲρ τὴν Σιλωάμ*, Bell. v, 4, 2). By following the eastern brow of modern Zion right northward to the causeway, the wall completed the circuit of the Upper City, which, according to Josephus, had a wall of its own, going all round. Where it joined the causeway it would make a right angle or something near it. On the east side a wall making a similar angle with the causeway would run southward. The primary object of this wall would be to defend the Temple and the Palace and other buildings upon Moriah and Ophel ; in other words, the eastern hill, in the first instance, had its own separate defending wall, the same as the western ; and hence the intermediate "suburbs" came at length to be enclosed in the city. The course of this wall would be influenced partly by the contours of the ground, and partly by the outline of buildings existing on the ground. It would ultimately join the wall of Ophel. An objection may be raised to this line of wall as being partly in a valley. But it is only in the valley where the outline of Temple and Palace force it to be so ; and it cannot be said to be useless, since it is, of course, an obstacle to an enemy. Besides, an *a priori* objection to the wall can have but little weight in the face of Nehemiah's descriptions which appear to require its existence, and which become intelligible for the first time when its existence is allowed.

As dwellings, pools, or gardens would sooner or later be made in the intra-mural suburb, a transverse wall would be built east and west across the valley, to protect them, and such a wall would greatly strengthen the city at the same time. For this cross wall the existing line of wall may be followed, in the absence of historical evidence for placing it elsewhere.

This wall is, of course, in a valley, but it must be remembered that both the Upper City and the Lower are protected without it, and it is of some advantage as an additional defence.

With this arrangement, adopted for good reasons already given, the descriptions in Nehemiah can be understood in detail.

Nehemiah's Night-ride.

In chap. ii, 13, we read—"I went out by the Valley Gate" (this is at or near the Jaffa Gate, the head of the Tyropœan Valley—the *gaia*)—"even before the Dragon Spring and to the Dung Gate." This Dung Gate must be near the south-west corner of the city, to agree with chap. iii, 13. "Then I went on to the Fountain Gate"—a convenient exit from the Upper City for the Fountain of Siloam—"and to the King's Pool (*el-Berekath*)," a pool probably within the enclosed suburb, made by the king, or for the king, and near the king's garden, or the king's house. "But there was no place for the beast that was under me to pass." Why? Because here we have two walls in a narrow space, and the destruction of both of them had filled the valley with *débris*. "Then I went up by the brook (*nachal*, the Kedron) and viewed the wall, and turned, and passed in by the Valley Gate."

The Rebuilding of the Walls and Gates.

We pass over the repairing of the walls from the Sheep Gate, north of the Temple, to the Valley Gate in the west wall.

In verse 13: From the Valley Gate it is "1,000 cubits on the wall to the Dung Gate." This forbids any identification with the present Dung Gate.

In verse 15: Shallun, who repairs the Fountain Gate, repairs also "the wall of the Pool of Shelah by the king's garden." Allow that Shelah is Siloam, yet this need not be a wall running down to Siloam—those who take that line go wrong all the rest of the way—it is the transverse wall in the same valley above. Through a gate in this wall the Fountain of Siloam would be conveniently reached from the suburb; and this would be the "Gate between two walls," through which Zedekiah fled away (2 Kings, xxv, 4; Jer. xxxix, 4; lii, 7). The wall was *by* the King's garden (*le*=by, or near.) Shallun goes on "unto (*ad*) the Stairs (*maaloth*) that go down from the City of David." So the City of David includes Ophel, and the Stairs descend the Ophel slope westward into the bed of the Tyropœan.

Verse 16: "After him repaired Nehemiah, the son of Azbuk, unto the place over against (*neged* = in front of) the sepulchres of David." The wall of the Pool of Shelah was an offshoot or side work, so Nehemiah would take up the repairs by the Fountain Gate and work northward. He comes over against the sepulchres, which are therefore on the Ophel side, a little to the north of the Stairs. The entrance would have to be

low down in the valley bed, to be outside the wall which protects Ophel on the west. But why not? Nehemiah continues working northward "unto the pool that was made" (*berekah*, probably the king's pool of ii, 14), "and unto the house of the mighty men." If this is the house of David's body-guard, it will probably be within easy distance of David's house, while yet Nehemiah's description places it on the west side of the Tyropœan; so we may reasonably locate it as in the plan.

In the remaining short space on this side we have no less than four bands of workers, indicating that the destruction had been very great, as indeed Nehemiah found it to be when there was no possibility of his beast getting along; and the next indication of locality is in—

Verse 19, "the turning" of the wall, "over against the ascent to the armoury." The armoury, therefore, was in or near the north-eastern angle of the suburb.

Verse 20: We are now carried from "the turning" of the wall by the armoury, southward, "unto the door of the house of Eliashib, the high priest;" and we are not surprised to find his house here, for we are close alongside the Temple courts. The workers come *unto* the door of Eliashib's house, which thus seems to project westward, so as to be quite near to the line of wall; but they only come *over against* the less important houses which follow.

Verse 24: The sixth worker down this side comes to "the turning" of the wall and "unto the corner." The turning is not the same as the corner; the Hebrew language uses different words for a re-entering and a salient angle. Each of the two turnings at the causeway (vv. 19, 20) is called a *miqtzoa* (= a re-entering angle); but now, in v. 24, they come to a *miqtzoa* and to a *pinneh* (= a projecting angle). It is to be observed that we should not have such angles at this part but for the vacant square which Warren's examination of the masonry compelled him to leave—the wall for 300 feet each way from the south-west corner of the Haram being more recent than the rest.

The first salient angle is passed over because the worker who begins north of it continues his labours till he comes south of it, and so its mention is not necessary in defining the work done. (In like manner, in vv. 6–8, the Gate of Ephraim is passed by without mention, although, according to xii, 38, 39, it existed between the Broad Wall and the Old Gate.)

Verse 25: The mention now of another re-entering angle might perplex us, only that the same verse speaks of a "tower standing out from the king's upper house," and this may easily afford the angle.

Verse 26: We are now fairly on the hill of Ophel, and accordingly the workers who have been set to labour here are "the Nethinim dwelling in Ophel." There is also mention in v. 31 of a house of the Nethinim near the northern end of the east wall—still outside the Temple precincts.[1]

[1] The Nethinim were but servants of the Levites.

As soon as the Nethinim of Ophel get far enough south to look beyond the projecting tower just mentioned and see the Triple Gate, they are stated to be over against the Water Gate. At the same time they are over against the tower that standeth out. This is not necessarily the tower mentioned in the previous verse, as projecting from the king's house, but may, perhaps, be the one at the south-east angle of the Ophel wall, discovered by Warren.

Verse 27 : Where the Nethinim lay down their work it is taken up by the Tekoites, who presently come "over against the great tower that standeth out," namely, the large tower which Warren found. It is now not far to complete the junction with the Ophel wall, at the point where Warren found that wall to end abruptly ; and Nehemiah tells us that the Tekoites actually did this.

Verse 28 : The Ophel wall, being in good repair, is no more referred to ; and the next thing mentioned is the Horse Gate. As Warren could not find any gate in the Ophel wall, the Horse Gate must have been north of it ; and here it would be at a point convenient for entrance to Solomon's stables, which would, perhaps, be *under* the present vaults known by that name.

"Above the Horse Gate repaired the priests, every one over against his own house." These houses of priests are in a position exactly corresponding with the houses of Eliashib and others on the west side. The expression, "over against," implies that the city wall, which is being repaired, stands removed from the priests' houses, from the Temple courts, and it would be eastward of the present Haram wall. Herr Conrad Schick draws it so. I don't know his view about it, but it may possibly be the wall of Manasseh.

Verse 29 : An East Gate is referred to (*Mizrach*), not to be co - founded with the gate *Harsith*, the so-called east gate of Jer. xix, 2, in the Authorised Version.

When we come over against the Golden Gate—which Nehemiah calls the Gate Miphkad—we are just where Warren's tunnelling work was arrested by a massive masonry barrier—probably a part of the ancient city wall, 50 feet east of the Haram wall. Immediately we are at "the ascent of the corner." There is no corner now immediately north of the Golden Gate, and no ascent from a depth ; but it was just here that Warren discovered the deepest valley of all, and the wall buried 125 feet, so that we obtain just what we want. The stairs or steps would be cut in the rock, and it is not unlikely that they may yet be found.

The Route of the Processionists.

Chapter xii affords striking confirmation of the foregoing positions. At the dedication of the walls two companies start from the Valley Gate, and go opposite ways to meet in the Temple. Presumably the Valley

Gate was chosen to afford journeys of about equal length ; and this is another indication that the wall did not go down to Siloam. The party going south pass the Dung Gate, and reach the Fountain Gate. And now which way will they go ? The wall has been repaired right ahead of them, and also the wall turning north, and they will have to choose between two routes. The Revised Version says they went "by (*ad*) the Fountain Gate and straight before them," and ascended *by* the Stairs of the City of David *at* the going up of the wall (not *by* this time, nor really "at," but *in—ba-maaleth le-chomah*, *i.e.*, *in* the stairway of the wall *by* the Stairs of David—a different flight of stairs from the Stairs of the City of David, which descended into the valley bed).

Their way up these stairs and beyond carried them "above the house of David, even unto the Water Gate." The house of David here is close by the king's garden of iii, 15 ; and its position on the slope of the hill suggests a reason for calling Solomon's palace the king's upper house (or high house, iii, 25). Some say "the house of David" means David's tomb ; but if that be so, it only confirms the position which I am led to assign to the tomb. Observe also that the position required for the Water Gate here is again that of the present Triple Gate, the same as in iii, 26.

It deserves particular attention that the processionists pass quickly from the Stairs of David to the Water Gate, whereas in the re-building these two places are very wide apart, because the bend of the wall is followed. In iii, 15, we have the Sepulchres, the Pool, the House of the Mighty, four more bands of workers, the turning of the wall, the armoury, the house of Eliashib, the turning, the corner, and the outstanding tower—all between the point over against the Stairs of David and the Water Gate ; but none of these things come in the route of the processionists. This is easy to understand if the wall makes a bay up the Tyropœan, for then the short cut in the text corresponds with the short cut in the plan ; but it can hardly be made intelligible on any plan which omits this bay and carries the wall down to Siloam.

A superficial objection may be raised that the detour up the valley and *viâ* the causeway, avoided by the processionists, would be avoided by Nehemiah in repairing the walls, for why should he do more than repair the short transverse wall, when his object was speed ? My reply would be that his object was strength and safety as well as speed. The transverse wall was no sufficient protection by itself, there being an easy approach up the valley, but it was valuable as an addition to the inner walls. Besides, Nehemiah had workers enough to be engaged at all parts at once, so that the completion of the work was not at all delayed by repairing the two north-and-south walls of the bend simultaneously with the cross wall, and indeed with the walls all round the city.

The line of wall being established as above, with the positions of David's House, the gate between two walls, &c., the accuracy of the restoration

may be tested by reading many incidents of the history in the light of it. The chief importance of the restoration lies in the support it gives to the view that the City of David included the Ophel hill, and in the indications afforded of the position of the Sepulchres, the "Gate between two walls," &c.

Incidents of the History.

Taking of Jerusalem by David.—If the walls on Ophel are to stand as above, the question arises whether the Rev. W. F. Birch's ingenious suggestion can be supported, that Joab, by ascending the shafts from the Virgin's Fountain, effected an entrance into the city? Apparently not so, unless a continuation of this series of passages remains to be discovered —which may be the case. On the other hand, David's camp would be near the Virgin's Fount, and his attack would be made on this side; for the above reading of Nehemiah favours the idea that the Zion or Lower City which he first captured was on the Ophel hill. David took the lower city by force, captured the akra afterwards, and joined them together to be one body—perhaps by the building of Millo, the causeway (Josephus, Ant. vii, 3, 1).

David's flight and exile; the Spies.—David's house was on Ophel. This is indicated by the references in Nehemiah, and agrees also with such passages as 1 Kings viii, 1–6, where the ark is *brought up* out of the City of David into the Temple (and 2 Sam. xxiv, 18; 1 Kings ix, 24). When David decided to flee because of the rebellion of Absalom, he would go down the Stairs of the City of David and pass out by the gate between two walls; and then, as we are told, he passed over the Kedron, ascended Olivet, and went down towards Jericho to cross the Jordan.

But he left friends behind him at the palace, and it was arranged that two sons of the priests should act as spies and bring him news (2 Sam. xvii). They waited outside the city, at En-Rogel, and a wench went and told them. If we might assume, with so many, that En-Rogel is the Virgin's Fountain, and might retain the supposition referred to above, that the rock-cut passages from the Fount could be entered from within the city, it would be natural to suppose that the spies descended the steps into the pool, and, when the lowness of the water allowed, passed beyond the pool into the passage, while the maid servant descended the staircases from within the city, taking a bucket to draw water, and so escaping suspicion. The spies then hied away to David with the information. The fact that En-Rogel was chosen as the hiding-place accords well with the view that David's house was on Ophel; for the news would come from the palace, and En-Rogel was certainly somewhere south or south-east of the city.

The death of Athaliah.—This incident affords some indications of locality, in beautiful agreement with Nehemiah. When this Queen-mother

heard that her son, the King, had been killed by Jehu, she snatched at the sovereignty for herself, and her policy was to slay all the seed royal. But one little child escaped, carried off by its nurse, and they were secreted in the Temple by Jehoiada, the High Priest. In the seventh year Jehoiada assembled the chiefs of the people in the Temple, produced the little child Joash, stood him upon the platform appropriated to the kings, and said, This is the rightful heir! The chiefs shouted their joy, when Athaliah heard the noise and rushed into the Temple to learn the cause. That she should hear so readily and find such easy access to the Temple, accords well with the supposition that she was living in Solomon's palace, close adjoining the Temple, as Warren places it. When Athaliah saw the state of things she cried,—"Treason, treason!" But she found no friends there. The priest said, "'Have her forth—slay her not in the house of the Lord!' So they made way for her; and she went to the entry of the Horse Gate to the King's house; and they slew her there" (2 Chron. xviii, 15; 2 Kings xii, 16). It is implied in this narrative that the Horse Gate was not only by the king's house, but that it was also the nearest point which could be considered fairly beyond the sacred precincts; and this is in full agreement with the position which we have assigned it.

In the context of the passages just quoted we find that Joash is carried "by the way of the gate of the guard into the king's house." This gate must, of course, have been on that side of the palace adjoining the Temple courts; it was probably due north of the Water Gate (*i.e.*, the Triple Gate), and it thus again accords with Neh. iii, 25, where the tower standing out from Solomon's house is said to be "by the court of the guard." The court of the guard may very well have extended from the Water Gate without to the Gate of the Guard on the Temple side of the palace. From Neh. xii, 39, it appears that there was a corresponding Gate of the Guard at the corresponding point on the north side of the altar.

The assassination of Joash.—When Joash grew to man's estate he made changes which displeased his people; and the short statement is that the conspirators slew him "on his bed," "at the house of Millo that goeth down to Silla" (2 Kings xii, 20, combined with 2 Chron. xxiv, 25) This is somewhat obscure. Fuerst says that Silla is the present David Street, a highway steeply descending. So far as appears it may just as well be any other descending path; and I fancy it was the "stairway of the wall" of Neh. xii, 37, close by the Stairs of the City of David, and close to the house of David. Joash was slain while going down Silla, not while going down *to* Silla, for there is no preposition here in the Hebrew text. We may suppose that he was living in David's house, and when he heard of the conspiracy he designed to flee down the Stairs and through the gate between two walls; but being a sick man he was being carried on a litter, as Lewin remarks; and on this particular stairway, I imagine, the assassins fell upon him.

Why David's house should be called the house of Millo is the next question, and I can only offer a suggestion. Millo was at first the northern boundary of the roughly-quadrangular "suburb," but it would, perhaps, in course of time, give its name to the whole of the enclosed space, or the whole of the four walls; and then, because David's house adjoined the eastern wall of the four, it was called the house of Millo. After Solomon had built a grander "king's house," there might be a reason for finding some other term for the house in which David had dwelt.

The flight of Zedekiah.—Not to multiply incidents, let us come now to the last King of Judah—Zedekiah. In his day Nebuchadnezzar came up against the city; and when, by a night surprise, he effected an entrance at the middle gate of the north wall, Zedekiah took alarm and fled away at once with his bodyguard. Whether living in Solomon's house or in David's, his way would be down the Stairs of the City of David into the bed of the Tyropœan; and then we are distinctly told that he fled by the way of the king's garden, by the gate betwixt the two walls (2 Kings xxv, 4; Jer. xxxix, 4; lii, 7). His plan was to take the route which David had taken when he fled from Absalom.

Jeremiah's prophecy.—In order to encourage the people during the captivity, Jeremiah predicts that Jerusalem shall be again inhabited and its borders extended. The measuring line is to go forth over against it upon the hill Gareb (east or north of the Temple), and shall compass about to Goath (this seems to be a sweep round the north-western, western, and south-western parts of the city); and the whole valley of the dead bodies and of the ashes (= Topheth, the broad junction of the present Hinnom and Tyropœan valleys), and all the fields (eastward) unto the Brook Kedron (and then northward), unto the corner of the Horse Gate toward the east shall be holy unto the Lord (Jer. xxxi, 38). This reference again confirms the position we have assigned to the Horse Gate.

Zechariah also describes Jerusalem in its length and breadth. It is to be lifted up and inhabited "from Benjamin's Gate (which would seem to be a Temple gate having a north-east position), unto the place of the first gate[1] (the first gate of the city, north-east, but not so much east as the Benjamin Gate of the Temple), unto the Corner Gate (which was at the north-west corner of the city, but is passed over in Neh. iii, because it needs no repair. But see a reference to it in 2 Kings xiv, 13; 2 Chron. xxv, 13). The north and south extremes named by Zechariah are the Tower of Hananel (same position as Antonia) and the king's wine-presses (in the neighbourhood of the king's garden, which we have already seen was near to the gate between two walls).

[1] As the Hebrew language reads from right to left, so when the gates are numbered, the counting takes the same direction, as does also Nehemiah's description of the repair of the gates and walls.

The "Broad Wall" at Jerusalem.

Was the Broad Wall (of Neh. iii, 8, and xii, 38) broad in its own dimensions, or so named for some other reason? It may seem to be only an academical question, but it is really of some importance in our endeavour to restore the plan of the ancient city. Lewin, in his "Sketch of Jerusalem," seeks to identify a certain piece of old wall with the Broad Wall of Scripture, because the piece is a good many feet in thickness (p. 48). But if the Broad Wall was so named for some other reason, this identification fails; and if the true reference of the name can be discovered, it may be a guide to the actual position of the Broad Wall.

The Hebrew words are *chomah rĕchâbâh*. *Râchâb*, with its cognate forms *răchăb*, *rechôb*, &c., convey chiefly the idea of roomy space. In Job xxxvi, 16, we have "Yea, he would have led thee away out of distress into a broad place, where there is no straitness." In Gen. xix, 2, the two angels say to Lot, "We will abide in the street all night," where "street" is the rendering of *rechob*. We have *rechob* again in Neh. viii, 1, "And all the people gathered themselves together as one man into the broad place that was before the Water Gate," as a congregation for Ezra to address. This open space appears to me to have been on the hill of Ophel, south of the Triple Gate. The broad place of Ezra x, 9, may have been the same. Thus the word seems to be used in much the same way as we use the word Square or Platz. We come still nearer to it in the Broad Sanctuary at Westminster.

Now, besides "the Broad" before the Water Gate, there was another Broad in Jerusalem, in which the excited people were assembled discussing the approach of Sennacherib, when Hezekiah went to them and spake comfortably to them (2 Chron. xxxii, 6). This broad place is not said to be before the Water Gate, but at the Gate of the City; and the circumstances favour the idea that it was at the Valley Gate (Jaffa Gate), or some gate of the north-western quarter, seeing that Sennacherib made his approach from the north-west.

The references in Nehemiah require that the Broad Wall should be in this quarter. May it not signify, therefore, the wall by the Broad?

Twin Sacred Mounts at Jerusalem.

In a paper on Kirjath Sepher, in the *Quarterly Statement* for October, 1888, speaking of the two Sipparas—at Abu Hubba and Agadé, on the two sides of a stream—I remarked, "I find reason to think that the duality was symbolical, and was important in the astro-religious system, the two sites standing for the two equinoxes." I said that we might compare with these twin temples or towers the mound of Birs Nimroud

and the Babil mound, in near proximity but on opposite sides of the Euphrates. I would add now, that it may be instructive to compare the summit of Moriah and the knoll of the traditional Calvary covered by the Church of the Holy Sepulchre.

These two mounts at Jerusalem were probably sacred before the Israelitish occupation, and we need not be surprised if some of the traditions which relate to them prove to have come down from heathen sources. The parallel with the sacred mounts of other nations is indicated by the following circumstances :—

The mount was made the site of a temple : on the mount at Borsippa the Temple of Nebo ; at Sippara the Temple of Shamas, the sun-god ; at Moriah (eventually) the Temple of Jehovah.

The temple often was over a well. Mariette describes the pyramid (which was an artificial mount) built of enormous stones *covering the well* as with a massive lid. In the Birs-Nimroud inscription, Nebuchadnezzar says that, when he finished building the Tower of the Seven Planets at Borsippa, which former kings had begun, he found that the water-springs beneath it had not been kept in order.[1] Under the Dome of the Rock at Jerusalem we know there is the sacred and mysterious well—the "well of souls."

The rock or mount was spoken of as a foundation stone of the universe. Nebo is called "the bond of the universe," and his temple at Borsippa was "the house of the seven bonds of heaven and earth." The sun-god of Sippara comes forth from the foundation of the sky.[2] In the temple enclosure of Bel-Merodach was a tower of eight stages, called the house of the foundation stone of heaven and earth. It is pointed out by Lewin ("Sketch of Jerusalem," 15), that the Temple of Solomon stood on the summit of a series of successive terraces, fashioned in imitation of the Assyrian style of architecture, and we know that in Mohammedan tradition the sacred rock of Moriah is "the foundation stone of the world." Compare also the Scripture expressions, "The mountain of the house," "Behold I lay in Zion a foundation stone," "Our Rock is not as their rock," "Upon this rock I will build my church" in place of the temple which occupies the rock at present.[3]

The rock at Borsippa was the symbol of the equinox, as I am led to think. The temple of Nebo was built upon the rock to set forth that the astro-religious system was built upon the equinox as its foundation and starting point. I have collected ample evidence of this, but it is not necessary here to elaborate it.

The system dates from the time when the equinoxes were astronomically connected with the constellations *Taurus* and *Scorpio*, which are of course half a circle apart in the zodiac, as the equinox dates are half a

[1] Mariette, "Mon. Upper Egypt," p. 73, Eng. trans. Gerald Massey, "Natural Genesis," ii, 192.

[2] Sayce, "Hibbert Lectures," 96, 115, 174.

[3] This is a new interpretation of the passage ; but I can substantiate it.

year apart in the calendar. The spring equinox was in the Bull, the autumn equinox in the Scorpion, and the spring equinox as the beginning of the year, and of the cycle, was the foundation. Of course, then, autumn and the Scorpion were opposite the foundation, and almost as important as the foundation itself. Accordingly, in the Accadian year (whence was derived the Assyrian) the month which corresponded to the Semitic Tasrit or Tisri, and our September was called "the month of the illustrious mound;"[1] and the sign Scorpio is said to face the foundation. In the Proceedings Soc. Bib. Arch., Feb. 5th, 1889, Mr. Brown has the following:—"The Akkadian name of the eighth month is connected with 'Foundation,' and Professor Sayce remarks, 'M. Ernest de Bunsen has shown that Scorpio was taken as the starting point of the primitive calendar ('Transactions,' iii, 163); but the name may mean 'Opposite to the Foundation" *vide* Sayce, 'The Babylonian Astronomy,' in 'Monthly Notices' of the Royal Astronomical Society, xi, 3, p. 117), *i.e.*, to the second month and the Bull, as (at one time) Leader of the Signs."

The mounts and temples were connected with oracles and writings. Nebo is called the divine scribe, the author of the oracle, the creator of the written tablet.[2] The royal library at Nineveh stood within the precincts of the Temple of Nineveh. At Sippara, in the temple of the sun-god Mr. Rassam has found thousands of written tablets, besides a great work on astronomy and astrology. In the temple on Mount Moriah were enshrined the ark of the covenant and the Books of the Law. There is even a tradition that these are hidden in the sacred "well of souls."

The mounts and the writings were more or less connected with traditions of the Deluge. Xisuthros, the Chaldean Noah, was the author of writings concerning the antediluvian world, which he buried at Sippara. The Tower of Babel was to have its head above the reach of any future deluge. A story is sometimes told at Jerusalem that the Mount Calvary was called Golgotha, the place of a skull, or the skull-hill, because the skull of Adam was washed up there by the Deluge.

The little mount covered by the Church of the Holy Sepulchre stands by Moriah as a twin sacred mount, not only in natural position, but as a nucleus of similar traditions. Tradition says that Adam is buried there and that Christ was to be buried there, so that the second Adam might be with the first. The twin mounts are diametrically opposed: Adam being buried at Golgotha, Mohammed rises from the Sakhrah into heaven —death and resurrection are symbolically connected with the two mounts. In the *Quarterly Statement*, October, 1888, Mr. Simpson gives us Herr Schick's careful drawings of the particular object which marks, in the Greek Church of the Holy Sepulchre, the Middle of the World, and refers

[1] Sayce, "Hibbert Lectures," 406.

[2] Sayce, 9, 114.

to the legend of Adam's burial there. That the Mohammedans should place Adam and the Middle of the World at Mecca, and not at Jerusalem, is only natural; for representative or symbolical mounts were adopted or reared in many places. The Greek navel of the world was at Delphi, for the like astronomical reason.

Now, if there is any ground for the parallel I have suggested, it may be worth inquiry, what bearing these facts have upon the question of the true site of Calvary. It is clear that the mount which the legends couple with Moriah is that over which the Church of the Holy Sepulchre stands, and not the one at the Grotto of Jeremiah. On the other hand, the immemorial sanctity of the site would hardly be a reason for making it a place for executions, unless to desecrate it, though it might very well be a reason for building temples or churches over it.

GEORGE ST. CLAIR.

ERRATA.

1889.	Page 38,	line 7.	*Omit* as.
,,	41,	,, 7.	*After* as *read* if.
,,	46,	,, 18.	*Omit* present.
,,	46,	,, 23.	*For* in *read* into.
,,	46,	,, 24.	*Before* were *read* both.
,,	46,	,, 28.	*Omit* marked.
,,	50,	,, 18.	*Before* nine *read* of.

THE PALESTINE EXPLORATION FUND.

NOTES AND NEWS.

With this number is issued an account of the Survey of Tell 'Âbil, the "Abila of the Decapolis," by Herr Schumacher; it is printed with large margins, and may be bound up with the Quarterly Statement, or with "Pella." The price of this number to the general public is 3*s.* 6*d.*

Herr Schick has forwarded an elaborate description of the Mount of Olives, together with a report of alterations and excavations recently made there. He mentions that on that part of the Mount called by the Arabs *Kurm es Saïad*, and by the Christians *Viri Galilaæ*, which has for some years been in possession of the Greek Church, an ancient Christian cemetery has been discovered, containing three rows of well built masonry tombs. Not far from the same spot an extensive series of catacombs has been opened, which the Greek Bishop Epiphanius, thinks may be the "peristereon" mentioned by Josephus in describing the wall of circumvallation erected by the Romans during the siege. Some of these tombs were apparently of Jewish origin, afterwards altered and used by the Christians, who added greatly to their number. Herr Schick remarks the frequency with which the *loculi* are found in groups of three, and that there is no uniformity as to their direction. Many crosses were found cut in the rock, but if there were ever any inscriptions they have been defaced. He also notes several small pools or tanks in the midst of these tombs, which he regards as being intended to collect the water coming into the cavern during the rainy season, in order that the *loculi* and the pathway might be kept dry. Many objects of interest were found during the excavations, as a mosaic slab with Greek inscription, Jewish and Greek coins, more than forty Roman tiles bearing a stamp which Herr Schick thinks is that of the Tenth Legion, a number of jars and vases in glass and earthenware, and an iron spear head.

Her Schick also reports the discovery of an ancient church opposite the barracks in the Tarik Bab Sitti Maryam. West of the Chapel of the Flagellation there had for many years been a waste place, containing *débris* covering ruins, and walled up on the side next the street. The Franciscans have recently removed this accumulation of rubbish, and laid bare the walls of a small church and some buildings adjoining it erected round a small courtyard, having the rock for its flooring. The walls of the church are 5 feet or more high. At the eastern end are three apses, in the northern of which an altar is still preserved. The flooring consists of large hard polished stones. It is curious that the south-western corner of the building rests on the eastern of the twin pools, and that a cistern was erected there at a later period.

A report of further discoveries in Galilee has been received from Herr Schumacher. Some workmen were chasing a hare on the road between Haifa and Nazareth, when the animal disappeared into a small opening hidden by a bush. This opening was found to lead into a sepulchral chamber excavated in the rock, and having four *kokim*, containing four sarcophagi of pottery ware, resembling that found at 'Abellin, and described by the late Mr. Lawrence Oliphant in *Quarterly Statement*, 1886, page 80. Mr. Schumacher has examined the caves discovered some time ago at Shefa 'Amr, which are now converted into cisterns, and sends a drawing of the very curious ornamentation over the entrance and on each side of the rock-cut vestibule. He has also visited and examined the famous cave of Jessâs, which, after being nearly forgotten by the Bedawîn and Fellahin of the district, was re-discovered last winter. He found in it a large number of human skulls and other bones. A second cave was also shown to him in which he found human skulls.

The "Answers" to the "Questions" are now beginning to yield results. On p. 120 will be found a report by Major Conder on the first batch received.

The present number contains an important report and plans of the large cistern recently discovered near the Church of the Holy Sepulchre. The cistern has 18 piers, and measures 102 feet long by 34 feet broad (*see* page 111). Some additional notes with sections will be published in the next number.

It is curious to note that the situation of this immense cistern is nearly the same as that of the church of St. Marie Latine, as shown on Plate VIII. of Count de Vogue's "Les Eglises de la Terre Sainte."

Mr. Guy le Strange's long-expected work on the descriptions of Palestine left us by the mediæval Arab geographers and travellers, will be published in the autumn. The book will be called "Palestine under the Moslems." Four

years have been spent in gathering together the materials, and translating (from the Arabic and Persian) the various Moslem accounts of Palestine, which, beginning in the middle of the ninth century, reach in unbroken succession down to the close of the fifteenth century of our era. It is expected that the work will prove one of lasting interest; and it should be noted that nothing of the kind has ever hitherto been attempted by any other Orientalist.

After a general description of the physical features of Syria and Palestine, as noted by the early Moslem writers, followed by an account of the products and commerce of the country in the middle ages, the next succeeding chapters will be devoted to Jerusalem. The many detailed descriptions of the great Aksâ Mosque, and of the Dome of the Rock, prior to the first Crusade, will be given, translated, *in extenso*. The various points raised are next discussed, the descriptions being illustrated by plans of the various buildings, at the different epochs, expressly drawn for the present publication. Next, the history of the many other buildings in the Haram Area will be noticed, and the question of the ancient Gates as much as possible elucidated. Several plans of the Haram Area at the different epochs will help to render these descriptions clear to those who have not visited Jerusalem. In this section of the work a mass of evidence derived from contemporary authorities has now been brought together (nearly the whole of which is taken from texts that have never before been translated into any European language), proving conclusively that the Dome of the Rock was built by the Arabs, and was not a Christian edifice perverted by the Moslems from its original purpose. The late Mr. Fergusson's celebrated theory, therefore, that the Dome of the Rock is the original Church of the Holy Sepulchre, falls to the ground. In the later chapters on Jerusalem the Arab descriptions of the Church of the Holy Sepulchre, the accounts of the descent of the so-called Holy Fire, with notices of many of the other holy places of Jerusalem, found in the works of Moslem writers, will be brought together and discussed.

Damascus and the glories of the Great Mosque (before Timour burnt it to the ground) will form the subject of the succeeding chapter, which will contain the description of the city of the Omayyad Caliphs, given in the diaries of Arab and Persian pilgrims. Next will follow the descriptions of the other great provincial towns of Palestine and Syria, such as Ramleh, Hebron (with translations of the various accounts of visits to the Cave of Machpelah), Acre, Tyre, Sidon, Tiberias, Aleppo, Antioch, and other cities of Northern Syria. In a separate chapter there will be brought together certain curious legends and marvellous accounts of caves, "menhirs," temples and wondrous sights, including descriptions of the Seven Sleepers and their Cave, said to have been visited by many of the early Moslem travellers. The second part of the work will contain, arranged in alphabetical order, all the notices of the minor towns, villages, and places in Palestine and Syria mentioned by the Arab geographers and historians. A full index giving the Arabic transcription of all the names will be a necessary adjunct; the Arabic form of the place-names being often of great importance in the identification of Biblical (Hebrew) sites.

The delay in bringing out the work has been caused by the great quantity of translations from the original Arabic (and Persian) authorities needed in order to set before the reader the descriptions, various as to authors and epochs, left by the Moslem conquerors of the Holy Land. All the translations given have been made, at first hand, by Mr. le Strange, from the original Oriental texts. The work, it is hoped, will prove a mine of information rendered available to those who are unacquainted with Eastern Languages, while those whose knowledge allows them to refer to the originals may verify each statement and the words of the translations, for special care is taken in every case to give the reference to the original authority. The Bible and the Early Christian (Roman and Byzantine) writers give the history of the sites in the Holy Land down to the seventh century, A.D., when the Arabs conquered Syria. The present work completes the Biblical, Classical, and Early Christian accounts, and brings the history of the Holy Places down to the present day. Those who have visited Palestine, or know the country from the works of modern travellers, will be interested to compare their recollections with the descriptions left by the mediæval Arabs, and the reading of the Crusading Chronicles will gain, in many details, by a reference to the Moslem writers, who were the contemporaries of Saladin and Richard Cœur de Lion.

The first volume of the "Survey of Eastern Palestine," by Major Conder, is now ready and being issued to subscribers. It is accompanied by a map of the portion of country surveyed, special plans, and upwards of 350 drawings of ruins, tombs, dolmens, stone circles, inscriptions, &c. The edition is limited to 500. The first 250 subscribers pay seven guineas for the three volumes, with an index; subscribers to the "Survey of Western Palestine" are privileged to have the volumes for this sum. The price will be raised, after 250 names are received, to twelve guineas. The Committee *are pledged never to let any copies be subscribed under the sum of seven guineas.* Mr. A. P. Watt, 2, Paternoster Square, is the Sole Agent. The attention of intending subscribers is directed to the announcement on the inside of the cover of this number.

The books now contained in the Society's publications comprise an amount of information on Palestine, and on the researches conducted in the country, which can be found in no other publications. It must never be forgotten that no single traveller, however well equipped by previous knowledge, can compete with a scientific body of explorers, instructed in the periods required, and provided with all the instruments necessary for carrying out their work. The books are the following (*the whole set can be obtained by application to Mr. George Armstrong, for* 37*s.* 6*d.*, *carriage paid*) :—

By Major Conder, R.E.—

(1) "Tent Work in Palestine."—A popular account of the survey of Western Palestine, freely illustrated by drawings made by the author himself. This is not a dry record of the sepulchres, or a descriptive catalogue of ruins, springs, and valleys, but a continuous narrative full of observations upon the manners and customs of the people, the Biblical associations of the sites, the Holy City and its memories, and is based upon a six years' experience in the country itself. No other modern traveller has enjoyed the same advantages as Major Conder, or has used his opportunities to better purpose.

(2) "Heth and Moab."—Under this title Major Conder provides a narrative, as bright and as full of interest as "Tent Work," of the expedition for the *Survey of Eastern Palestine*. How the party began by a flying visit to North Syria, in order to discover the Holy City—Kadesh—of the children of Heth; how they fared across the Jordan, and what discoveries they made there, will be found in this volume.

(3) Major Conder's "Syrian Stone Lore."—This volume, the least known of Major Conder's works, is, perhaps, the most valuable. It attempts a task never before approached—the reconstruction of Palestine from its monuments. It shows what we should know of Syria if there were no Bible, and it illustrates the Bible from the monuments.

(4) Major Conder's "Altaic Inscriptions."—This book is an attempt to read the Hittite Inscriptions. The author has seen no reason to change his views since the publication of the work.

(5) Professor Hull's "Mount Seir."—This is a popular account of the Geological Expedition conducted by Professor Hull for the Committee of the Palestine Fund. The part which deals with the Valley of Arabah will be found entirely new and interesting.

(6) Herr Schumacher's "Across the Jordan."

(7) Herr Schumacher's "Jaulân."—These two books must be taken in continuation of Major Conder's works issued as instalments of the unpublished "Survey of Eastern Palestine." They are full of drawings, sketches, and plans, and contain many valuable remarks upon manners and customs.

(8) The Memoirs of Twenty-one Years' Work.—A copy of this book is presented to every subscriber to the Fund who applies for it. The work is a popular account of the researches conducted by the Society during the past twenty-one years of its existence. It will be found not only valuable in itself as an interesting work, but also as a book of reference, and especially useful in order to show what has been doing, and is still doing, by this Society.

(9) Herr Schumacher's Kh. Fahil. The ancient Pella, the first retreat of the Christians; with map and illustrations.

(10) Names and Places in the Old and New Testament and Apocrypha, with their modern identifications, with reference to Josephus, the Memoirs, and *Quarterly Statements.*

(11) Besant and Palmer's "History of Jerusalem," already described.

The Committee have added to their list of publications the new edition of the "History of Jerusalem," by Walter Besant and E. H. Palmer (Bentley & Son). It can be obtained by subscribers, carriage paid, for 5*s.* 6*d.*, by application to the Head Office only. The "History of Jerusalem," which was originally published in 1871, and has long been completely out of print, covers a period and is compiled from materials not included in any other work, though some of the contents have been plundered by later works on the same subject. It begins with the siege by Titus and continues to the fourteenth century, including the Early Christian period, the Moslem invasion, the Mediæval pilgrims, the Mohammedan pilgrims, the Crusades, the Latin Kingdom, the victorious career of Saladin, the Crusade of Children, and many other little-known episodes in the history of the city and the country.

The publications for the year 1889, besides those already mentioned, include Schumacher's "Abila" and his "Southern Ajlûn." The former is appended to the present number of the *Quarterly Statement.*

Mr. Harper's important work on the Illustrations of the Bible obtained from modern researches and observation, is also in the printer's hands, and will be out in the autumn. Its contents, &c., will be duly announced.

Branch Associations of the Bible Society, all Sunday Schools in union with the Sunday School Institute, the Sunday School Union, and the Wesleyan Sunday School Institute, will please observe that by a special Resolution of the Committee they will henceforth be treated as subscribers and be allowed to purchase the books and maps (by application only to the Secretary) at reduced price.

The friends of the Society are earnestly requested to use the "Memoirs of Twenty-one Years' Work" as a means of showing what the work has been, and what remains to be done.

The income of the Society, from March 21st to June 17th, inclusive, was—from subscriptions and donations, 299*l.* 0*s.* 11*d.*; from all sources, 523*l.* 1*s.* 10*d.* The expenditure during the same period was 427*l.* 16*s.* 10*d.* On June 17th the balance in the Bank was 362*l.* 11*s.* 11*d.*

It does not seem generally known that cases for binding the *Quarterly Statement* can be had by subscribers on application to the office.

Subscribers are begged to note that the following :—

1. Index to the *Quarterly Statement*, 1869–1880;
2. Cases for Herr Schumacher's "Jaulân;"
3. Cases for the *Quarterly Statement*, in green or chocolate—

Can be had by application to the office at 1*s.* each.

Early numbers of the *Quarterly Statement* are very rare. In order to make up complete sets the Committee will be very glad to receive any of the following numbers :—

No. II, 1869; No. VII, 1870; No. III (July) 1871; January and April, 1872; January, 1883, and January, 1886.

It has come to the knowledge of the Committee that certain book hawkers are representing themselves as agents of the Society. The Committee have to caution subscribers that they have no book hawkers in their employ, and that none of their works are sold by any itinerant agents.

While desiring to give every publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they neither sanction nor adopt them.

As many inquiries have been made about transparent slides, a selection will be made from the photographs of the Society for this purpose. Subscribers wishing to have any are requested to communicate with the Assistant Secretary.

Subscribers who do not receive the *Quarterly Statement* regularly are asked to send a note to the Secretary. Great care is taken to forward each number to all who are entitled to receive it, but changes of address and other causes give rise occasionally to omissions.

The only authorised lecturers for the Society are—

(1) Mr. George St. Clair, F.G.S., Member of the Anthropological Institute and of the Society of Biblical Archæology.

His subjects are :—

(1) *The General Exploration of Palestine.*
(2) *Jerusalem Buried and Recovered.*
(3) *Buried Cities, Egypt and Palestine.*
(4) *Buried Cities of Mesopotamia,* with some account of the Hittites.
(5) *The Moabite Stone and the Pedigree of the English Alphabet.*

Address : Geo. St. Clair, Bristol Road, Birmingham, or at the Office of the Fund.

(2) The Rev. Henry Geary, Vicar of St. Thomas's, Portman Square. His lectures are on the following subjects, and all illustrated by original photographs shown as "dissolving views :"—

The Survey of Western Palestine, as illustrating Bible History.
Palestine East of the Jordan.
The Jerusalem Excavations.
A Restoration of Ancient Jerusalem.

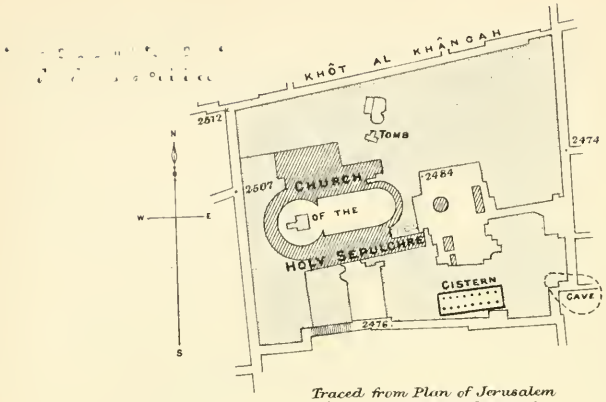
(3) The Rev. James King, Vicar of St. Mary's, Berwick. His subjects are as follows :—

The Survey of Western Palestine.
Jerusalem.
The Hittites.
The Moabite Stone and other monuments.

(4) The Rev. Thomas Harrison, F.R.G.S., Member of the Society of Biblical Archæology, 38, Melrose Gardens, West Kensington Park, W. His subjects are as follows :—

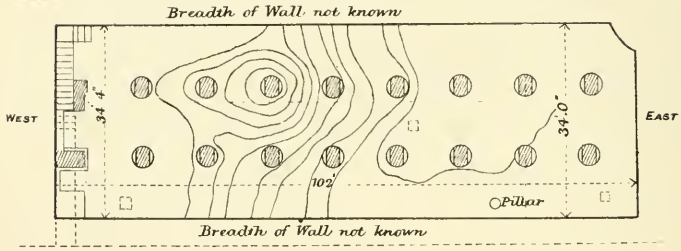
(1) *Research and Discovery in the Holy Land.*
(2) *In the Track of the Israelites from Egypt to Canaan.*
(3) *Bible Scenes in the Light of Modern Science.*

Key Plan Shewing Position of the Large Cistern.

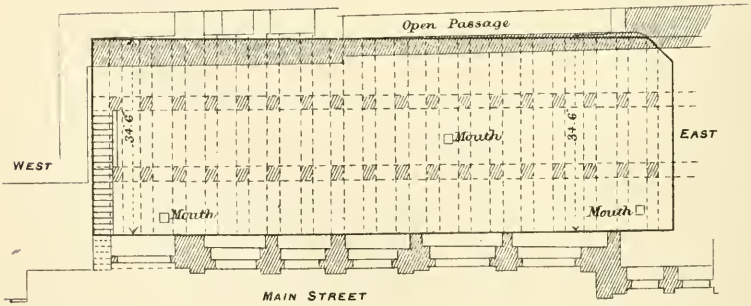


Traced from Plan of Jerusalem in April Quarterly Statement.

Plan of the Large Cistern.



Plan of the Roof of Large Cistern.



Scale

FEET 10 5 0 10 20 30 40 50 60 70 80 90 100 FEET

E. Waller, lith.

Measured and drawn by Herr Conrad Schick

RECENT DISCOVERIES IN JERUSALEM.

I.

Large Cistern under the new Greek Building south-east of the Church of the Holy Sepulchre.

In several of my former reports mention is made of the discovery of a large cistern under the new Greek building erected on the site of the old Byzantine market (*Quarterly Statement*, 1888, pp. 17, 58), south of the Abyssinian Convent and St. Helena's Chapel.

Two of the three mouths of this cistern were known, but the extent and depth of it were unknown and could not be ascertained until the earth and silt, of which it was full, were removed. This was done by the Greek Convent about a year ago, some eight months being occupied in clearing the cistern out, and as the progress of this work went on the enormous construction astonished everyone who had seen it.

I have examined and measured it thoroughly in all its parts; the result I give in the accompanying plans.

1.—Plan of the bottom of the cistern.

2.—Plan of the roof over the double arches.

The cistern was found to be 102 feet long (east to west), and 34 feet 6 inches wide. The depth at the western end (measuring from the flooring of the new shop) is 34 feet, and at the eastern end 50 feet 6 inches; the bottom is all rock and very uneven.

At the west end is a flight of steps, the last four being cut out of the rock; there are 18 piers in two rows at equal distances, two of which are on the steps. The bases of the piers are round, measuring 3 feet in diameter, and composed of one or two stones from 1 foot 6 inches to 5 and 6 feet in height; the upper part of these piers is not round like the bases, but flat on two sides and round at the others.

I am unable to give any reason for this peculiarity in the shape of the upper stones, unless they were part of the remains of a former building, or more probably of the second wall.

The piers are connected at the top by arches, each arch from east to west consisting of seven well cut stones, and from north to south usually of nine stones without the springing stone, the back being filled up with masonry, over which is a layer of flag stones 4 feet 2 inches square, forming a platform on which are erected three rows of square piers, 18 in each row, each pier measuring 2 feet 4 inches by 2 feet 4 inches and 5 feet in height, and a little over 3 feet apart, each alternate pier standing over one of the lower ones. The spaces between them are filled up with earth, and over the whole is another layer of flag stones similar to those below, on which the walls of the new Greek building are erected.

The steps, with the exception of the four large ones, are 1 foot in height and 1 foot 3 to 4 inches in width. They led originally in a straight line to the top, but now the upper and narrower part turns eastwards and leads into the shop. On account of the steps one of the flag stones is placed on the top of another.

From the street a gutter leads the surface water into the cistern, falling on a short pillar erected on the bottom of it to soften the fall and prevent injury to the cement when the water is low.

The cistern has now been entirely repaired, but as some of the old cement was still clinging to the sides of it, I could not ascertain whether the walls were all masonry or not; possibly a portion may be scarped rock, but I doubt it.

The rock surface at the bottom is very uneven, it presented the appearance of stones having been quarried there; it falls greatly towards the east where the cistern is deepest, and rises to a point near the middle to within 10 feet of the springing of the arch from the top of the pier.

It is remarkable that the deepest point of the cistern is about the same level as the rock of the shaft I had sunk on the Russian property. The new cistern sunk in the *débris* by the Russians is about 75 to 80 feet east of it, and I have come to the conclusion that the space between the old and new cisterns is nothing else but *débris* and earth.

At a point in the yard or court in front of the Church of the Holy Sepulchre the rock is only a few feet from the surface, and along the side of the Convent of Abraham there is a kind of cesspool, which I examined and ascertained the form of the rock some years ago.

The question now arises, when and by whom was this enormous cistern constructed? My impression is that it was made when Constantine built the Church of the Holy Sepulchre, as the work of it is clearly neither Jewish, Mohammedan, nor Crusading, and the vaults do not resemble the latter work in the Muristan.

It may also have formed a part of the trench when the second wall ran through this neighbourhood.

The Bordeaux Pilgrim, A.D. 333, visiting Jerusalem when the Church was built, speaks of two cisterns, one to the north and one to the south of the Basilica of Constantine; the south one will be the large cistern described above, and the north one that of "Helena," so called, under the Coptic Convent, which, however, is in the greater part hewn in the rock, as it formed at that time the cistern of the Castle erected there.[1]

[1] Mr. Schick is preparing sections and other drawings showing the details of this important discovery, and these, with further notes on the subject, will appear in the next *Quarterly Statement*.

II.

The Muristan.

A brief history of the Muristan, with plans, is given in *Quarterly Statements*, 1872, p. 100, and 1875, p. 77. Sir Charles Warren, in his "Recovery of Jerusalem," describes the excavations he made there; it is also described in many other books in various languages so that there is no need for me to do it once more, but I would only wish to add that the name by which the place is known is not Arabic, but Persian and Turkish, signifying an institution or hospital for insane people, to which it was devoted by Salah ed Din after it was wrested from the Christian knights.

When the eastern part of the place was handed over in 1869 by the Sultan to the King of Prussia (the late Emperor William), the great accumulation of *débris* was partly removed, exposing the ruins that lay under it. I examined them and made a plan as far as the rubbish had been cleared away (*Quarterly Statement*, 1872, p. 100). Three years later the work proceeded, and I made a second and more extended plan, together with a section showing the surface of the rock, which I gave to Captain Conder, and which was used, together with a section of the lie of the rock, by Sir Charles Warren in his great Portfolio of Plates (No. 59). Since that time excavations have been carried on at intervals exposing more vaults, ruins, &c., which I noted and added to the plan as they appeared. Most unfortunately, in clearing away the *débris* for the foundation of a new building I found, to my great sorrow, that on the old masonry being reached the workmen at once began to lay the stones of the new walls on it, thereby preventing any further examination of the masonry below. The rock was not reached in any one point.

On the west side of the "Church Maria Major" is an underground chamber 17 feet from east to west, and 14 feet wide, covered with a cross vault; the pier is built of large and well-hewn stones, the walls are not so well done. But the interesting part is a rather flat arch just under the vault, 2 feet 6 inches wide and 1 foot 8 inches thick, consisting of about twelve well dressed stones, in which are pierced two holes of about one foot square.

West of this chamber, and on a somewhat higher level, a flight of broad steps was found leading up to a kind of platform or terrace, having near its centre the mouth of a cistern, which, on being cleared of earth, was found to be 26 feet long by 15 feet wide and 30 feet deep, and rock at the bottom. On the west side of this terrace are some steps of well-hewn stones; in the corner is a quarter pillar, and south of it a half projecting pillar; between these was originally an arch and an opening, now walled up. To the west is a vault joining the Gethsemane convent, having a large arched opening in the south wall and three small ones on the north.

Close to the steps is a small chamber with two recesses in the wall,

which I thought would lead to a tomb, but the excavations were not carried far enough to determine this, and the parts were partly built over again according to the new plan.

South of the cistern are some vaults, built of very small stones, with very thick piers, of no great interest, excepting that a door leads from them to a long row of vaults on the same level, and also by some steps to the roof over them. On the top of this roof or terrace, and right over a thick pier, is the base of a circle of twelve pillars, which I suggest to have been a font, as there is no evidence of any counter piers or similar bases. The western side of this terrace has a wall reaching to a higher elevation, having two openings in it for lighting the vaults below. Some steps lead to another terrace higher up, on which once stood a series of very small chambers. The best preserved of them has been apparently an oriental bath, with a beautifully ornamented door.

East of the cistern and vaults already mentioned there appears to have been a narrow lane, partly arched over, of the Crusading period, and near the end of this lane,[1] on the west side, is a block of inferior masonry having five small cemented tanks with a hole in the bottom of each — the two outer ones circular, the other three are 5 feet square and 4 feet deep.

For illustration of the connecting pipes with the cistern found by Sir Charles Warren in the year 1867, *see* large Portfolio, Plate 50, number 36.

Careful examination of the long cistern and some arches in the German part brought me to the conclusion that a street ran through these parts in Jewish times, and had been partly hewn in the rock. I hope that in clearing away the portions necessary for the construction of a new street between the German and Greek properties, some additional information will be obtained.

III.

Crusading Ruins on Mount Scopus.

An Effendi family of Jerusalem have recently built two new houses to the north of the Tombs of the Kings, on the lower slope of Mount Scopus, to the west of and close to the Nablus road, immediately north of the spot where the latter makes a sharp turn to the east and between the numbers 2543 and 2555·8 on the Ordnance Survey Map. Another member of this family is about to build another house, opposite those already erected and to the east of the road. On clearing the ground he discovered a cistern and also a small ruined building with a mosaic floor and a large cross cut in a stone slab. On visiting the spot I found a boundary wall nearly

[1] In a plan published by Count de Vogué, at page 174 of his "Eglises de la Terre Sainte," a lane is marked between the Church of Ste. Marie la Grande and the Muristan.

6 feet thick, enclosing a piece of ground about 130 feet long on the west, 125 feet on the east, a little more than 100 feet on the north, and 142 feet on the south. The wall has been destroyed in some places, only a heap of stones being left. The ground is level from west to east, but rises slightly from south to north. About the middle of it was found a mosaic pavement of coloured stones. Traces of walls are still visible. Apparently they had formed a small room or chapel, measuring about 16 or 17 feet. The entrance was on the south side; the threshold is still *in situ*, with the sockets in it for the door. The doorway was only 3 feet 2 inches broad. Running from it across the interior of the building was a pavement 2 feet 5 inches wide, consisting of seven stone slabs, carefully hewn and smoothed. The first of these had been recently removed, and made into a well mouth. Nothing was found under it. The fifth and sixth slabs are longer than the others, and on the sixth is engraved a cross 3 feet long, with a cross bar of about 2 feet. The cutting is 2 inches deep and about 5 inches wide, but the limbs of the cross are widened at the extremities and the ends cut so as to form sharp angles. The cross is embraced by a round rod or cord, of 1 inch thickness. The bearing is north 17° east. As the floor of the chamber is level, whilst the ground outside rises towards the north, its northern wall is a rock scarp several feet high. The earth on the east was not yet removed. On the western side two layers of stones are seen to remain, and on the south side one. The stones are 1 foot 4 inches long and 1 foot high, not well dressed, and apparently intended to be plastered over on the inner side. It is remarkable that the west wall does not run at a right angle but is slanting, so that at first I thought it to be a later restoration. This, however, does not seem to be the case. To the south-west of this wall is a ruin with thick walls and formerly vaulted. The whole settlement appears to be Crusading, though there may have been some Byzantine buildings at an earlier date, and to these I would ascribe the mosaic flooring and the rock scarp. South of the court is a small rock-hewn cistern. Along the western boundary it is easy to recognise the ancient road; the present road is 60 feet farther to the west.

The question now arises, What was this building? Was it a tomb or a chapel? Or was it a tomb and chapel? It is impossible at present to determine. It may be that under the slab with the cross a tomb may be found. But I doubt it, as in that case a path paved with similar slabs would not have led up to it. To me it seems that where the cross now is an *altar* once stood, and that the enclosure was uncovered, like Joseph's tomb at Nablus, or only roofed with wood, as the walls are not strong enough to support a vault. The other ruin would then be the lodging of the guardian of the place. Perhaps some distinguished knight may have fallen or been buried here.

3. With regard to the Pool Bethesda, I have nothing new to communicate, as very little work has been done since I sent my last report. I am told that after Easter the excavations will be resumed. The same is the case at the Latin Patriarchate.

4. A French congregation has bought a piece of ground on the slope of the hill east of Neby Daûd, half way down, and are now excavating there. I went to the place and inspected what has been found, and am making drawings and a report, which I hope to forward by next mail.

5. The Greek bishop also is excavating on the top of Mount Olivet (the Galilee part). He has invited me to go and see what has been done, promising to show me everything.

C. SCHICK.

IV.

DISCOVERIES NORTH OF DAMASCUS GATE.

THE year before last a rock-cut channel was discovered in the ground belonging to the Dominicans, north-west of the hill above Jeremiah's Grotto, a little to the east of the ruined church described at page 388 of the Jerusalem volume of the "Survey of Western Palestine." Thinking it might prove to be an aqueduct connected with the ancient water supply of the city, Mr. Schick made some excavations on the spot, and discovered that the trench, which is cut 14 feet deep in the rock, runs 44 feet in a northerly direction, then turns at a right angle towards the east, and at a distance of 29 feet makes another turn towards the south, in which course it runs for 44 feet, and then turning westward for 29 feet joins the southern end of the portion first described, thus enclosing a solid mass of rock, measuring some 40 feet by 25 feet. The trench, therefore, is not part of an aqueduct, but, as Mr. Schick now thinks, represents the commencement of the work of excavating a tank or cistern, and is a valuable illustration of the way in which these receptacles for water were made in ancient times. After visiting the place in the month of February of the present year, Mr. Schick writes: "As the ground where I excavated for the supposed aqueduct is now entirely cleared, it is easy to see that when this deep groove was hewn in the rock it was intended to make a tank or pool, and to quarry stone for building at the same time. It is evident that this was done in the Jewish period, and that the Christians afterwards filled up the cutting." Another pool was afterwards discovered by the monks to the south of this incomplete one examined by Mr. Schick, and separated from it by a wall of rock 5 feet thick. This pool is also cut in the rock, but, owing to the shelving of the rock, the south-western corner is formed of a wall of hewn stones, amongst which are two pieces of pillar shafts, which Mr. Schick regards as proof that the pool was in use in Crusading times.

The whole ground was measured, and a plan of the ancient remains sent home by Mr. Schick. He finds remains attributable to five epochs, namely, the Jewish, Byzantine, Crusading, Mohammedan, and modern. To the Jewish period belong, he considers, the rock-cut tombs at the foot

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of the hill over Jeremiah's Grotto, one of which was regarded by the late General Gordon as the tomb of our Lord, also some rock-cuttings, a quarry, and several of the rock-hewn cisterns. To the Byzantine period he attributes the church above alluded to, some walls and thresholds of doors, a group of three tombs partly hewn in the rock, some fragments of pillars and pieces of mosaic pavement, and adds that the flooring of the Crusading buildings lay about 4 feet 6 inches higher than that of the Byzantine structures, so that the rock-hewn channel and mosaic pavements were covered by it. "A characteristic feature of Crusading work," Mr. Schick writes, "is presented in the long vaults, four of which are in great part still standing north of the Byzantine church. They were originally more than 75 feet long and are only 23 feet wide. Such vaults are always found on the settlements of the Crusaders, some larger, some smaller, and either only one or more in number. They get light only from the two ends and from the door and windows over the door. The vaulting is always something more than a semicircle, and more or less pointed. There are a few air-holes, like chimneys, in the roof. They appear to have been used as magazines for various kinds of goods, sleeping places for pilgrims, and even as stables. A long narrow pit, formerly, as it seems, a cistern, or rather channel for rain water, was arched over by the Crusaders and made the main sewer of their establishment." (*See Quarterly Statement*, 1883, p. 241.)

METEOROLOGICAL OBSERVATIONS.

Sarona, 1884.

The numbers in column 1 of this table show the highest reading of the barometer in each month; the maximum for the year was 30·262 ins., in January. In the years 1880 and 1881 the maximum was in January, as in this year, in 1882 in February, and in 1883 in December; the mean of the four preceding highest pressures was 30·215 ins.

In column 2, the lowest reading in each month is shown; the minimum for the year was 29·505 ins., in April. In the year 1880 the minimum was in April, in 1881 in February, in 1882 in July, and in 1883 in January; the mean of the four preceding lowest pressures was 29·521 ins.

The range of barometric readings in the year was 0·757 inch; the mean of the four preceding years being 0·694 inch.

The numbers in the 3rd column show the range of readings in each month; the smallest, 0·219 inch, was in October, and the largest, 0·584 inch, in January.

The numbers in the 4th column show the mean monthly pressure of the atmosphere; the greatest, 30·010 ins., was in January. In the years 1880, 1881, and 1882, the greatest was in January as in this year, and in 1883 was in February; the smallest, 29·707 ins., was in August. In the years 1880, 1882, and 1883, the smallest was in July, and in 1881 in August.

The highest temperature of the air in each month is shown in column 5; the highest in the year was 100°, in October. In the four preceding years, viz., 1880, 1881, 1882, and 1883, the highest temperatures were 103°, 106°, 93°, and 106° respectively. The next in order was 98° in May, and 97° in both April and June. The first day in the year the temperature reached 90° was on April 13, and it exceeded 90° on three other days in this month: in May on one day; in June on four days; in July on one day; in August on one day, and in October it reached or exceeded 90° on three days; the highest in the year, 100°, took place on the 16th; therefore the temperature reached or exceeded 90° on 14 days; in the year 1880 on 36 days; in 1881 on 27 days; in 1882 on 8 days, and in 1883 on 16 days in the year.

The numbers in column 6 show the lowest temperature in each month. The lowest in the year was 32° in January; the next in order was 38° in December, and 41° in February. In January the temperature was as low as 32° on two nights, and below 40° on six other nights in this month, and on one night in December; therefore the temperature was below 40° on 9 nights in the year; in 1880 it was below 40° on 13 nights; in 1881 on 2 nights; in 1882 on 13 nights, and in 1883 on 2 nights.

The yearly range of temperature was 68°; in the four preceding years viz., 1880, 1881, 1882, and 1883 the yearly ranges of temperature were 71°, 67°, 59°, and 71° respectively.

The range of temperature in each month is shown in column 7, and these numbers vary from 24° in February to 51° in March.

The mean of all the highest temperatures by day, of the lowest by night, and of the average daily ranges of temperature are shown in columns 8, 9, and 10 respectively. Of the high day temperature the lowest, 60°·2, is in January, and the highest, 86°, in August; of the low night temperature the coldest, 40°·9, is in January, and the warmest, 68°·9, in August; the average daily range of temperature, as shown in column 10, in February 14°·1 is the smallest, and in April 24°·4 is the largest.

In column 11 the mean temperature of each month is shown, as found from observations of the maximum and minimum thermometers only. The month of the lowest temperature was January, 50°·5, and that of the highest was August, 77°·4. The mean temperature for the year was 65°·7, and of the four preceding years, viz., 1880, 1881, 1882, and 1883 were 66°·4, 66°·7, 65°·5, 65°·7 respectively.

The numbers in columns 12 and 13 are the monthly means of a dry and wet bulb thermometer taken daily at 9 a.m. In column 14 the monthly temperature of the dew point, or that temperature at which dew would have been deposited at the same hour is shown; the elastic force of vapour is shown in column 15. In column 16 the water present in a cubic foot of air is shown; in January it was as small as 3·6 grains, and in August was as large as 7·3 grains. The numbers in column 18 show the degree of humidity, moisture being considered 100; the smallest number is in October, 52, and the largest in November, 90; the weight of a cubic

foot of air under its pressure, temperature, and humidity at 9 a.m., is shown in column 19.

The most prevalent wind in January was S., and the least prevalent was N. In February the most prevalent was S., and the least were E. and S.W. In March the most prevalent was S., and the least were N. and its compounds. In April the most prevalent wind was S.W., and the least was N. In May the most prevalent were S.W. and N.W., and the least were E. and its compounds. In June the most prevalent was W. and the least were E., S.E. and S. In July and August the most prevalent were W. and S.W., and the least were E., S.E., S., N. and its compounds. In September the most prevalent was S.W., and the least were E. and S.E. In October the most prevalent were S. and S.W., and the least were E. and W. In November the most prevalent were S. and S.E., and the least were N.E., E., and S.W. In December the most prevalent wind was N.E., and the least were N., S.W., and W. The most prevalent wind for the year was S.W., which occurred on 72 times during the year, of which 13 were in both August and September, and 11 in July; and the least prevalent wind was E., which occurred on only 8 times during the year, of which three were in April, two in both March and December, and one in January.

The numbers in column 29 show the mean amount of cloud at 9 a.m.; the month with the smallest amount is June, and the largest February. Of the cumulus, or fine weather cloud, there were 143 instances in the year; of these there were 24 in July, 20 in August, 19 in September, and 4 only in December. Of the nimbus, or rain cloud, there were 39 instances, of which 13 were in February, 10 in January, and 5 only from May to October. Of the cirrus there were 39 instances. Of the cirro-stratus there were 17 instances. Of the stratus there were 13 instances, and 74 instances of cloudless skies; of these there were 16 in June, 12 in December, and 11 in November.

The largest fall of rain for the month in the year was 6·69 ins. in January, of which 2·09 ins. fell on the 22nd, 1·56 inch on the 23rd, and 0·74 inch on the 20th. The next largest fall for the month was 6·09 ins. in February, of which 0·76 inch fell on the 25th, 0·66 inch on the 24th, and 0·64 inch on the 16th. No rain fell from June 23rd till the 20th of October, making a period of 118 consecutive days without rain. In 1880 there were 168 consecutive days without rain; in 1881, 189 consecutive days without rain; in 1882 there were two periods of 76 and 70 consecutive days without rain; and in 1883, 167 consecutive days without rain. The fall of rain for the year was 18·73 ins. being 9·95 ins., 3·36 ins., and 11·33 ins. less than 1880, 1882, and 1883 respectively, and 1·24 inch larger than in 1881. The number of days on which rain fell was 65. In 1880 rain fell on 66 days, in 1881 on 48 days, in 1882 on 62 days and in 1883 on 71 days.

JAMES GLAISHER.

REPORT ON ANSWERS TO THE "QUESTIONS."[1]

One of the earliest sets of answers received from Palestine to the questions as to the inhabitants of the country, drawn up for the P. E. F. Committee, has been sent by Mr. Joseph Jibrail, who has personal knowledge of the Druzes, the Metawileh, and other elements of population. Some of the answers are meagre, and, as regards the nomadic Arabs, he appears to know less than the English explorers, who have spent years among them. An abstract of the more interesting points of information thus obtained may, however, serve to show what may be expected from this method of research. Answers to questions as to the Samaritans have already appeared in the *Quarterly Statement.*

The Druzes.

Mr. Jabrail reports that he has been inside the Khalwehs or Chapels of the Druzes when living as a teacher among those on Mount Carmel. The Druzes are intelligent, and allow strangers to eat and drink with them; they desire education for their children, and allow them to learn parts of the Bible by heart. They believe that there are many Druzes in China, and that the religion of Queen Victoria is the Druze religion though its votaries are not known by that name in England.

Note.—This I have before heard stated. The connection of the Druzes with the Buddhists of Central Asia and China is noted in "Syrian Stone Lore," p. 347.

On attempting to enter a Khalweh on Thursday (the usual day of meeting for the Druzes) Mr. Jabrail was attacked by two Druze women standing by the door, and the congregation came out and cursed and stoned him, not recognising him as a former friend.

Note.—The Druze meetings are secret. The women evidently were sentinels such as writers on the Druzes have described as posted outside the Khalwehs during meetings.

The Sheikh objected to the Druze children being taught that the world was made in six days, asserting that God created it all at once. Mr. Jabrail mentions the well-known fact that the Druzes conform outwardly to any creed which suits their purposes for the time.

Note.—Both these observations connect Druze teaching and customs with those of some of the early Gnostic sects of Syria.

Nothing is found in the Khalwehs of Lebanon except a stove. Texts from the Koran are written on the walls. It is generally reported that the "calf" is an image found in the Khalwehs. When asked about it the Druzes cursed it.

Note.—This agrees with the reports of previous writers, who say that the Druses called Derâzeh "the calf" (عجل) instead of "the wise"

[1] See *Quarterly Statement*, 1885, p. 216.

(عانك) and curse him as a heretic because he quarrelled with Hamzeh, although he was the real founder of the sect on Hermon.

They take figs and raisins into the Khalwehs and eat them in company. If a man sins he brings raisins as a sacrifice into the Khalweh. He further says, "I have seen them presenting figs to one another when they met."

Note.—The fig is said by some writers to be a token among the Druzes. Cyril of Jerusalem speaks of the "detestable ceremony of the fig" (Catech. Lect. vi, 23) among the Manicheans of the 4th century in Palestine.

They believe China to be a Holy Land, and that when a Druze dies he will be re-born in China. They say no man can enter China, and when told that many people have done so, say it was not the true China. They believe that Gog and Magog will come from China to destroy Mecca and all Moslems and Christians.

Note.—This seems to be a survival of the old legend of Gog and Magog shut up beyond the wall in the north, which has been fully noticed in the *Quarterly Statement* for 1888.

They meet in numbers in secret, women being present. They then pray, eat figs and raisins, and discuss their affairs. They are divided into two classes— عقّال "wise," and جهّال "ignorant." The 'Akkâls, again, are divided into خاصّة and عامّة or "special" and "ordinary,' who have different degrees of initiation. There is a yet higher initiation —that of the Munazzahîn مُنَزَّهِين or "purified." Some 'Akkâls are celibates. None of them drink intoxicating liquors or smoke. They wear a white turban عمامة ('mâmah), and a cap without a tassel. Women may be 'Akkâlah's, and then wear dark stuff on the head.

Note.—This agrees with what is known of the various degrees of initiation among Druzes. (*See* "Syrian Stone Lore," p. 347.)

They observe the two Moslem feasts, and a third special to themselves in spring time, called "Egg Thursday" خميس البيضات

Note.—Perhaps to be compared with the widespread custom of the Pasch eggs or Easter eggs.

They know the signs of the Zodiac and names of certain stars or planets. They believe that war will occur in any country when a comet appears, and that the country towards which its tail points will have abundance.

The informant also states that the Druzes practice circumcision. He gives some information as to their belief in the reincarnation of Adam, which is already well understood from the works of De Sacy and others. He refers to their feasts at the shrine of *El Khudr* and to the lighting of lamps on tombs. They are not particular as to food, and will eat meat

prepared by Christians or Moslems. Their morality is described as good, few women being unchaste, and very few illegitimate births occurring.

They have sacred trees on which rags are tied; and he mentions a holy spring where the sick are said to be cured in the Lebanon. They have many legends of demons and spirits—one Druze stating that he passed by a spring at night and heard cries and found people dancing, who gave him a drum, but disappeared when he repeated the name of God. Some people they believe can talk with spirits. They fear the Ghoul, whom they imagine a furious beast. They dance in honour of Welys and Nebys (Saints and Prophets), but not for the dead. The women dance in a circle alone. The chorus of one song is given thus—

شيل يا جمّال وشيل شيل ومحمل حرير

"Bring forth, O camel driver, bring forth, bring forth the silk Mahmal" (an allusion, perhaps, to the annual sending of the Mahmal to Mecca, though otherwise explained).

Another song runs thus (freely rendered)—

> See her at the well of Taha and give her good-day,
> And if her father will not give her, take her by night and fly.

The men dance by themselves and sing war songs.

Next follows the curious legend that *Belkîs* (the Queen of Sheba) asked Solomon for a jug of water neither from Heaven nor from Earth. He gave her one filled with the sweat of a horse.[1]

The custom of giving the weight of a child's hair when first cut to the poor is noticed.

Note.—This is noticed by Lane, in "Egypt."

They believe in the Evil Eye and wear charms against it. They believe in men being changed to beasts, &c., by enchantment. They turn their gold and silver in their pockets at the new moon. They consider the crow and owl to presage death. It is unlucky to see an old woman first thing in the morning, or to dream of a camel (an instance is given of the latter). The Sheikhs pray over those supposed to be bewitched by the Jân, and charms are worn against such bewitchment. It is irreligious to steal what is placed in a *Makâm*. Eggs are used as a charm on house walls against the Evil Eye, and charms written over doors against the Jân. They have books for the interpreting of dreams.

[1] This is explained by a story given in Landberg's "Proverbes et Dictons," p. 161. The youth who is to marry the riddle-asking princess asks her how he could have drunk water neither from heaven nor from earth—

و شرب مايه لامن ارض ولا من سما

The answer, which she could not discover, was that in the desert he took the sweat from his horse and licked his hand to moisten his mouth.

Personal property in land is inherited, and the Sheikh has no power over such property. The Carmel Druzes say that they came from Aleppo 150 years ago. Some of the Lebanon Sheikhs claim descent from Arab tribes named ركين (*Rakîn*) and خميس (*Khamîs*). Others say they are of Persian descent. They call themselves بني المعروف (*Beni el M'arûf*) and الموحدون "the Unitarians." The better families are of pure race. They all wear the beard long.

As regards language, several colloquial words are given, but these do not seem interesting or peculiar. They do not distinguish easily the Arab gutturals, which are so carefully pronounced by educated Arab scholars.

They are healthy as a rule, suffering, however, from ague, small pox, and sore eyes and fever. They have native doctors, and use medicines, such as mustard for a purgative, poppy as a sedative, and camomile, and they let blood, and use charms written by the Sheikh, against sickness. The old women are clever in making simples of fruit, vegetables, and herbs. The commonly known poisons are preparations of arsenic and mercury. The sick are regarded as bewitched or suffering from the Evil Eye. Plague and scarlet fever are unknown. The *'Akkâls* use prayers, charms, and medicines against disease.

The rotation of crops is to a certain extent understood, and pruning of trees.

The Druzes do not beg from strangers.

As regards dress, the women of the Druzes in the Lebanon are veiled, but not elsewhere.

Note.—I remarked that the Druze women on Carmel were not veiled.

The women wear sometimes a flat silver plate (قرص) on the head. They use Kohl and Henna, but do not paint or tattoo the face.

They do not shave the hair in sign of mourning.

They cultivate silk and keep bees. The Lebanon and Haurân Druzes serve as soldiers.

They will eat all sorts of food, including cats, hyenas, and jackals.

Note.—I have seen Arabs eating a jackal.

They think thyme is good to eat for making men wise. They drink cinnamon water, and the devotees abstain from coffee, from figs, and from grapes. On Fridays the Druzes eat a peculiar dish of wheat and molasses boiled. They are fond of sweets and raisins. They use rosaries, but are said by the informant to do so only as an amusement.

Note.—This I have also heard said of Moslems.

Among themselves they salute by kissing hands, and bow to others with the hand on the breast. They swear by God, *Shaîb* (Jethro), *el Hâdi* (their expected Messiah), and *el Hokmah* ("wisdom").

They lend to each other without interest. They are rarely artizans, generally farmers. They have pet dogs and cats, and a few rich people

have birds in cages. They give human names to such pets (*e.g.*, *Ferha*, a woman's name, given to a goat).

Note.—Many Moslems object to such names for animals.

A few make pottery and silk, or are silversmiths and brass-workers, gunsmiths and carpenters. None are merchants.

Note.—The informant says no one in Syria makes glass, but this is incorrect, as it is made at Hebron.

The house walls are occasionally painted by the women to represent palm trees, birds, &c.

They play cards and listen to stories of *Antar*, *Zir*, and the *Beni Helâl*. The elders are familar with such tales and with stories about the Jân.

An instance is given of a prince wandering in the desert, who reaches a building full of beautiful girls, daughters of the King of the Jân. The earth swallowed him with them, and he was carried to the city of the Jân.

The formula for the commencement of such tales is given. "Once upon a time, it happened, as we will tell to-day—and to-morrow we will sleep—I will tell of troubles and lamentations; of Dibs esh Shadid, the man of Baalbek. It was in the days of one of the kings of old."

The Druze children are said to play quoits, and ball games, seesaw, and with swings, prisoners' base and dancing, also Mankalah (a sort of draughts).

The men are famous *Jerid* players. They hunt and shoot, and make a hiding-place, تقلوم to await the game, of stones and rushes. They hire gipsy perfomers to amuse them. The showmen have bears, monkeys, goats, and apes, which perform.

Note.—I have seen a showman with a performing bear in Syria.

The showman goes to a village to the Sheikh's house and begins to sing and to dance with his animal. He tells his animal to drink in the Sheikh's honour. The snake charmers sell oil to the people as a preventative against snake bite.

The men also play chess, draughts, and *Deris*—a game which the informant afterwards describes.

At birth the children are rubbed with salt and with a powder of *Rihân;* the child is suckled from six to nineteen months.

The Druzes have only one wife each. Their children inherit equally. The families are small. The men marry about 18 to 22, the women at 14 to 17 years of age. Sisters, nieces, and aunts are forbidden as wives. They beat their wives, and, in case of divorce on the fault of the wife, the dower money is paid back to the husband. At the weddings riddles are asked by certain singers called قوالى

Note.—This illustrates the old custom (Judges xiv).

Presents are given by the guests to the bridegroom. The bride rides on a horse in procession round the village. Rice, corn, raisins, and cakes are thrown after her. When she enters the house the bridegroom holds

a sword over her, while the guests fire off guns and dance with swords and *Jerids*. The women make زغليت or shouts of joy. The girls all weep when the bride enters the house.

The funerals are like those of Moslems. The corpse is perfumed. Swords are carrried before it. The coffin is left in the grave—contrary to Moslem custom : it is of wood, and not inscribed. Professional mourners bewail the dead, but not for payment. They wave cloths and handkerchiefs after the coffin like Christians.

Note.—I have seen Moslems doing so near Beit Jibrîn.

The family mourn from seven to forty days. Sheep are killed, and the guests and poor are fed after a funeral. Cairns are raised over the graves.

Mr. Joseph Jabrail then gives various proverbs, some of which are very pithy and characteristic of the East, but many are to be found in Landberg's "Syrian Proverbs." He repeats some of these as in use among other Syrian nationalities :—

من الدلفة لتحت المزراب

"From the gutter under the spout," *i.e.*, "out of the frying pan into the fire."[1]

نُصّ الدرب ولا كلها

"Half the road and not all," which the informant renders, "Better late than never."[2]

"Does the scribe write himself among the wicked," is suggestive of the East.

كل عنزد تتبع قطيعها

"Every goat belongs to her flock," *i.e.*, "Birds of a feather flock together."

"Ask one who knows, and do not forget the Hakîm."

Our informant remarks that they know special names for very few natural objects, *e.g.*, among birds, only the bee-eater, hoopœ, owl, raven, jackdaw, eagle, and a few others, calling all others عصفور "sparrow," when small, or طَير when large.

[1] "Landberg," No. xxi—

درب من تحت الدلف قعد تحت المزراب

He fled from the gutter and sat under the spout.

[2] "Landberg," No. clxxxiii—

نصف درب ولا كلها

The vulgar pronunciation of *Nusf* is *Nuss*.

Note.—This agrees with my experience; only conspicuous or dangerous animals are distinguished by the Syrian peasantry. The remark has considerable philological importance, considering how the origin of race is commonly sought in the distribution of names for fauna and flora.

Science is confined to علم النجوم or astrology. Eclipses are said to be due to a dragon (تنين) eating a piece of the sun or moon.

Note.—The common Chinese and Mongol explanation of an eclipse.

The Metâwileh.

The answers begin with a legend of 'Aly descending into a well to fight the Jân, which has no great interest, and continue with another about Muhammad kissing Hasan on the mouth and Hosein on the neck to show that one should die by poison, the other by the sword. The informant gives also the well-known story of Muhammad slaying the Monk Buheirah while drunk. The next story told by the Metâwileh is interesting because it comes from the Apocryphal Gospel of the Infancy (in Arabic, chap. xxxvii), which appears to originate in Persia. It relates that Jesus as a boy was apprenticed to a dyer and dyed all the cloth blue, but gave it to each of the colour he desired. Another, which relates of the weaver who refused to come out to meet Sitti Miriam that he was condemned to be hungry for ever has probably a similar source.

The Metâwileh sing, dance and light lamps at their Makâms. They observe the Moslem feasts. Their Imams are called *Fakih* or persons who can repeat the Korân by heart. They refuse to eat with any not of their own sect, and consider anything touched by an unbeliever impure (instance given). They all observe the Moslem practices and hold the cardinal dogmas.

Note.—The Metâwileh inhabit the country east of Sidon and part of Upper Galilee. They are Shi'ah or Persian Moslems, and all that is noted by Mr. Jabrail agrees with the distinctive practices of the Shi'ahs.

The Metâwileh put bread and water as offerings at the tombs of Sheikhs.

Note.—I have seen such bread offerings at the 'Ain Eyûb, near Khan Minieh.

At the annual feasts they kill sheep and give to the poor, and present cakes to their neighbours' children, and place flowers on the tombs.

Mr. Joseph Jabrail states that they gives names to the days of the week, calling them—

Sunday :	Yôm esh Shems	...	....	Day of the Sun.	
Monday :	,, el Kamr	....	....	,,	Moon.
Tuesday :	,, el Marîkh	....	....	,,	Mars.
Wednesday :	,, 'Atârûd	....	....	,,	Mercury.
Thursday :	,, el Moshtari	....	....	,,	Jupiter.
Friday :	,, ez Zohrah	....	....	,,	Venus.
Saturday :	,, Zohal	....	....	,,	Saturn.

They call these planets the سبع كواكب or "seven stars."

Note.—This is peculiar. In Syria, generally, the days of the week have no names.

Astrology, علم الابراج is studied, and the expression محبوب نجمه "his star is lucky," is common. They say each man's star is over his head in heaven. They know the Pleiades and the Morning Star, and judge the time of night by the position of the former. They believe comets to portend war and plague, and meteors to indicate war. They are circumcised, and have no images or pictures, regarding all such things as wicked. They have the common Moslem beliefs as to the future, and curse Omar and Abu Bekr.

The Metâwileh are distinguished by a little hair on the forehead, and by the ears, shaving the rest of the head. They wear the Shusheh, or tuft. They only wipe or sponge themselves before prayers, and do not wash like the Sunnis. In prayer they do not adopt the second attitude of the Sunnis, with the hands behind the ears. They carry with them certain sacred stones and sacred earth, and keep these treasures in their houses, with their money and valuables to secure a blessing.

On the tenth of Muharram they rub charcoal on their faces and hands, and begin to weep, beat themselves, rend their clothes, and bewail Hasan and Hosein. They knew of Hosein's Tomb as being at Kerbela (here spelt Kermela).

They bear a bad reputation, and a proverb says—

مثل المتوالي الف قلبة ولا غلبه

"Like a Metuali, a thousand wriggling and nothing gained." This is the Christian saying.

They are said not to be strict as to conduct, but illegitimate children are rare.

They tie rags to sacred trees when sick and expect to recover. They believe such trees to be haunted by some Neby. They have a rock sacred to Sheikh Hosein, before which lamps are lighted at night—in a village near Sidon. In another village a very large stone is believed to have been carried by Sittna Fatimah, while pregnant.

Note.—A similar legend attaches to the great stone at Baalbek in the quarry.

Another story follows of a Metuâli-boy who saw Sittna Miriam in his dream. She told him where to dig for water. He discovered a spring, to which the sick were afterwards brought to be cured, Christians as well as Metâwileh.

They believe in spirits living in the water and in dark places. A common curse is قرود يضربك "the devil strike you." Other expressions are commonly known, which here follow.

The old women relate stories such as that of Shâtir Hasan, the son of a merchant, who pursued a bird which changed into a girl, and gave her name as Bedr et Temâm, daughter of the King of the Jân. They went to the country of the Jân, where he was recognised as human by his smell, but married the princess.

Note.—A version of the wide-spread story of the swan-maiden.

The Metâwileh dance in honour of their saints, arranging themselves in a circle. Their songs are generally war songs, of which a specimen is given. They have been seen dancing round a tree. They have a story that when the Beni Helâl girls used to dance the circle was as far as from Haifa to the Haurân.

They hang to their necks the خرزة زرقة or "blue bead," as a charm against the evil eye. They have a pond of sacred fish called Birket 'Ain Tûl. They think it unlucky to pay or borrow money in the morning. They hate the owl, but consider serpents lucky.

The observations on land tenure contain nothing new. The Metâwileh say that they came from Kesrwân, a district of Lebanon, but they never lived in cities, being agriculturists.

Generally speaking, they have blue eyes and light hair. They have little hair on their faces, and do not shave the head when young as Sunnis do.

Their language is Arabic, differing somewhat from the Christian dialect. Like other peasants they get confused between the Arabic gutturals, except that they distinguish *Alif* and *'Ain*.

Skin diseases are common among them because of their dirtiness. They trust mainly in their sheikhs to cure disease. They apply camomile externally for rheumatism, and use convolvulus as a purgative.

A charm against fever for a boy called Abdallah is given—

توكلت على الله	اخرمنى يا حمي
ابن حسين	من عبد الله

"I have rested upon God,
Away from me, O fever,
From Abdallah,
Son of Hosein."

This was kept in a leather purse.

They have a few sayings about plants and flowers, as when the *Kadib er Reii* appears the fellah knows winter is coming (it flowers in September). They say that on the leaves of the sycamore is written "he who falls hence shall never get up again." The infusion of لسان الثور ("bull's tongue," a plant), is good for a cough.

Among the Imams some called *Seiyâd* سيّاد who claim descent from 'Ali, wear green turbans; the rest of the Metâwileh wear white. The rosaries of the Metâwileh have some religious words on them. They practice *Kheirah*, or "choice," by dividing the beads and counting whether odd or even to decide their action. (Instance given where the question was as to whether a medicine was likely to do good.)

The women dance and sing, the men play Mankalah and draughts, also the game *Derîs*, which is played by two, each with nine seeds of a colour. The game consists in placing the seeds over numbered places in consecutive rows.

Note.—Like our game called "go-bang."

The dowry among the Metâwileh is not returned when the wife is divorced. They say—

اذ المراد زنت حقها لا يرني

"If the woman has sinned yet her right does not sin." Some marriage customs of interest follow. The friends of the bridegroom after feasting go to demand the bride. Her people bring a large stone, and if his friends can lift it, the bride is allowed to go with them. The bride is pelted as usual, and is carried into the house and a sword held over her. The bridegroom draws a sword or stick over her. Second, and even third or fourth marriages, are said to be allowed.

Note.—I think the question may have been misunderstood.

They wash the dead carefully, pare and clean the nails, dress the body, and place charms upon it. Before burial witnesses are brought, and if they say the man was a good man and charitable, this is written on palm leaves buried in the grave. The corpse is perfumed with henna. The procession halts thrice on its way to the grave. The coffin is not left in the grave. Prayers are written on the shroud.

Mr. J. Jibrail gives a sketch of a tomb with the text, "In the name of God the merciful, the pitiful. Has been carried to the mercy of the Most High Hasan Ibn Aly Ahmad, in the year 1200 of the Muhammedans." The mourners eat bread at the grave, and make a feast for the poor. Flowers are grown in sand on the grave and watered.

Several questions have the same answers as among the Druzes. A few proverbs follow:—

"The grasshopper asked for food of the ant." "What were you doing in the summer said the ant." "I was making verses said the grasshopper."

"He comes with one hand in front and one behind."

من لا يخاف من الله خاف منه

"Fear him who does not fear God."

حبل النفاق قصير

"The rope of hypocrisy is short."

الذى ياكل العصى موش مثل الذى بيعدّها

"He who gets the stick is not like him who counts it."
See for this proverb Landberg No. cxvii.

يلّي ياكل العصي مُش متل يلّي بعدّها

The meaning of one of the others is obscure.

تراب الجورد يطمها

Said to mean "I have enough for use," lit., "the mud in the hollow suffices."

واحد ايده في النارو واحد في مَيّ

"One hand in the fire and one in the water."

The Metâwileh say the world is flat, and no one knows where the sun goes when it sets. The explanation of earthquake is the common Moslem idea of the bull supporting the earth, who trembles when God looks at him. A fish, حوت swallows the sun or moon during an eclipse.

The tambourine, lute, harp, and, according to Mr. Jibrail, the bagpipe, are used by the Metâwileh.

The Seiyids among them claim descent from Hasan and Hosein, and have a right to a tenth of the lands, money, cattle, &c. They own lands also in Paradise and will sell to others. As an instance, a man bought from a Seiyid two yards of Paradise for 500 piastres (£4), but, being poor, wished to have his money back. The Seiyid said the lands of Paradise were not recoverable.

If a woman of the Metâwileh to whom you call, answers *N'am* ("yes") she becomes your wife. The common answer, therefore, is شو بوك "What do you want?" It is sinful for a Metuâli to be without a wife, and he hires one for a month or two if he has none.

Note.—This connects them with Persia where even the Nestorian Christians make temporary marriages.

The story of a dutiful son of the widow who fell short because he failed to get a new husband for his mother follows.

They say if a girl passes under a rainbow she is changed to a boy, and *vice versâ*. This is also given as a saying of the Bedu. They hang blue glass and pieces of bone to the necks of animals as a defence against the evil eye. The women are specially careful not to show their hair.

Note.—Some of these customs approach to those of the Oriental Jews.

The Bedu.

These answers translated by Captain Mantell from the Arabic, contain fewer points of interest, as the informant has evidently not lived among the nomads of the desert, and what he says refer rather to the Fellahin.

A story of Iskander is given. He used to slay the barbers who shaved his head to preserve the secret of his ram's horns. One barber whispered the secret to a well which went on repeating "Iskander has two horns," اسكندر له قرنان

Note.—Compare the story of Midas which is known to the Kirghiz Tartars.

When a man dies his star falls from heaven. The Arab ordeal by hot water is noticed with another ordeal of standing in a circle drawn round an ant hill. The accused say, "By the truth of the stick (العود) and by the Lord worshipped in the circle of Solomon."

The story of change of sex under the rainbow (قوس القزح or قوس السحاب) is repeated.

Several other proverbs are given—

وجه تعرفه ولا وجه تتعرف به

"Know the face and be not known by the face."

رغيف برغيف ولا تخل جارك جوعان

"Loaf for loaf, and do not leave your neighbour hungry."

حبل الكذب قصير

Note.—Landberg gives (cxviii)

الرغيف برغيف ولا ببات جارك جوعان

"The rope of lies is short."

بين الحق والبطل اربع اصابع

"Between truth and error four fingers," said to mean the breadth from the eye to the ear.

The Christians.

The answers are somewhat meagre in this section, yet contain points of interest such as the curious legend of Noah gathering the animals to the ark by the sound of the *nakûs* or wooden board used as a bell, and of the cave covered with inscriptions where Daniel once lived. Relics appear to be used, especially bones of St. Antony. New clothes are bought at Easter (a custom in Antioch in the 4th century according to St. Chrysostom). The Makâm of Seiyida el Muntarah has walis which sweat, and this moisture cures the sick. The crow, owl, camel, and wolf are considered unlucky by the Christians. Blue beads are kept with money for luck. Those supposed to be possessed by the devil are bound and kept in churches. Before Easter a child is taken in a coffin round the village to represent the death of Christ; but the Italian representation of the "manger" at Christmas is unknown. Bonfires are lighted at the time of the feast of Holy Cross.

Some Christians have light hair and eyes, which is popularly ascribed to Crusading lineage (no doubt it represents Aryan blood). The priests are supposed to be able to heal the sick by medicines and by written amulets.

The ancient idea that various kinds of food affect the intellect survives among Christians as well as among Moslems. Plain food is thought to improve the memory. Fish is said to weaken the body.

Glass or pottery jars are placed over the door of a house. The cross is marked on the door. Trees and birds are painted on the walls.

At birth a Christian child is rubbed with salt and with oil, and charms hung to its neck (just as in Antioch in the 4th century). The ring is used as well as the crown in marriage both by Greeks and (apparently) by Maronites. The old custom of fighting for the bride survives, and is said to lead sometimes to serious wounds, and even to death of her relatives. The bridegroom rides round the village, and is pelted by the women with cakes, grain, and scent. The old customs seem to be dying out, but the bride is said still to receive a piece of dough which she sticks on the door of the house.

At a funeral hired mourners are still engaged (as in the middle ages), and cloths are waved after the bier. The relatives rend their clothes at the grave, and visit the grave every day for a week (probably a survival of the old idea that the soul haunted the tomb for some time after death).

The belief in magic survives among the Christians, and their ideas as to astronomy are very ancient. They believe the world to be disc-shaped, and they beat drums and fire guns at the time of an eclipse to frighten the dragon who is swallowing the sun or moon.

This is but a *resumé* of the most remarkable points noted. Much valuable information as to peculiar words and expressions, and articles of dress, furniture, &c., is given, with songs and legends, some of which are

already well known; but there are questions concerning which further explanation is very desirable.

Biblical Illustrations.

The following Biblical questions are illustrated by these replies :—

1. Worship of the calf and of trees.
2. Forbidden food.
3. Rubbing children with salt.
4. Weighing the hair when cut.
5. Riddles asked at weddings.
6. Hired mourners at funerals.
7. Rending the clothes.
8. Certain proverbs mentioned in the Bible.
9. The use of amulets.
10. Crowns worn by brides.
11. "The corner of the field" left unreaped.

These are, in some cases, not well-known customs as survivals in Syria. and it seems probable that many other interesting notes may be collected by the same method. There was nothing in the questions to lead to the recovery of such illustrations of the Bible in the form of leading questions.

C. R. Conder.

NOTES BY MAJOR CONDER, D.C.L., R.E.

I.

Palestine Peasant Language.

In "Tent Work in Palestine" I called attention to the importance of studying the local dialects in Palestine, which preserve much that is archaic and which has been lost in the literary language. A good many further notes have accumulated in my hands since then, and a new and most interesting work has been published by C. Landberg, a Swedish scholar, who has given special study to the subject, and whose first volume appeared at Leyden in 1883.

The words commonly used by the Palestine peasantry, and not found in standard dictionaries (such as those of Lane and Freytag), are in many cases the same words used in the Bible or on the Assyrian monuments. Some of these I have noticed previously, others are pointed out by Landberg in his grammatical study of the dialects. The contempt with which the early Arab authors and grammarians regarded the لسان العامّة or speech of the common people (עמ ה ארץ), has caused such dialects

to be much neglected by scholars of Semitic languages; and the study is indeed impossible for any student unless he has had the opportunity of living for a good many years among the peasantry of the country.

An instance of the way in which dictionaries may mislead is found in Professor Palmer's translation of the name تلّ الحامي قرصه—*Tell el Hâmi Kursch*, "mound of him who defends the loaf." This is correct from a literary point of view, but makes no good sense. The peasants, however, say حامية for "heater" (*see* Landberg, p. 182), and the true meaning appears to be "mound of loaf baker." Words used by the peasantry seem in some cases to have been unknown to Professor Palmer in translating the Survey nomenclature, though he possessed considerable knowledge of the dialect, such as طرش "a herd," درس "an olive mill,' لطّون (for طون) "a kiln," بيارة "a garden with a well," ساري p.n. "affable," بدّ "a millstone," غفر "a village watchman," عراق "cliff" and "cavern," بلوع "a pond," عزبه "a summer hut," عريس "bridegroom" (not "bride"), صرار "pebbles," سيارة "a stone heap," شقيف "a cliff," خشم "a promontory," سمورة a kind of "acacia," كوَا "a gorge," باطن "a knoll" (Palmer renders it quite incorrectly "channel"), خرزة "well parapet," قصر "tower" ("palace," among Arabs), مطبع "a bog," نزله "a settlement" (or hamlet), شام for شمال "north," فِرّد "a quail," بصيل "narcissus," سادة "hill," شقرق "roller" (bird), حرش "a wood," حبس "hermit's cell," حفيرة "water pit," هدهد "hoopoe," ناموس "tomb" (or ناوس more correctly), صنوبر "the pine tree" (not "Cypress"), عرم "a heap of corn," صربوط "a pillar," دمّ (for دم) "blood," صدر "a broad path," قود "a sheep walk," منقوش "speckled," ممات "death," خفّ "dripping." In most of these cases the standard dictionaries give no assistance, and—as also with many other words—no translation can be considered of any value except that which is founded on personal inquiry from natives made on the spot.

Examples of the value of such study are afforded by the peasant names for birds in Palestine, which in some cases serve, I find, to explain the names of birds mentioned in Assyrian monumental lists, which have presented difficulties to scholars (*see* Rev. W. Houghton's valuable paper, "Trans. Soc. Bib. Arch.," viii, 1, published in 1884). In Palestine, Mr. G. Armstrong made an interesting collection of birds (*see* P. E. F. *Quarterly Statement*, October, 1876), including 60 species, and in all cases

where it was possible to obtain certainty I took down the name from the peasantry. Some of these names are the same apparently as those used in Assyrian, in cases where the dictionaries give us no help.

𒁹 𒁹𒁹𒁹 𒄩𒄭𒄭 *za-a* (*khu*) is a "black screaming bird," which Mr. Houghton (p. 109) says he cannot identify. It appears to be the Arabic زاغ (*zâgh*) Pl. زيغان (*zîghân*), which Freytag states to be a Persian word for a "crow." In Palestine, the grey hooded crow is so called as distinguished from قاق (*kâk*), the black crow, which is apparently the Assyrian 𒅗 𒅗 𒁺 *kakanu*. In classic language we find قيق and قاق for crow.

𒁹𒁹 𒄀𒄩𒄩𒄩𒄩 𒄩𒄭𒄭 *Kha-akh* (*khu*) is said by the same authority to be a bluish bird of the crow family (pp. 61 and 82), but not further identified. This seems clearly to indicate the Syrian word قعح (*k'ah*) for the jackdaw, evidently, like the preceding word, taken from its "caw."

𒄩𒄭𒄭 𒄩𒄩𒄩𒄩 𒄩𒄩𒄩 *khu-u-ku*, is the cookoo in Assyrian. In Palestine this bird is called *ku-ku*, قوقو and *wakûk* وقوق.

𒄩𒄩𒄭 𒄩𒄭 𒄩𒄩𒄩𒄩 *ca-ku-u*, or *gu-ku-u* in Assyrian, is the name for a kind of owl, which is otherwise called 𒅗 𒄩𒄩 𒄩𒄩𒄩𒄩 *ka-du-u*. The latter name, as Mr. Houghton points out (p. 67), appears to be the Aramaic קַדְיָא *kadya*, for an owl. The former name is apparently the قوقا *kûka*, of the Palestine peasantry for the little owl (otherwise بومة *bûmeh*), as contrasted with the larger horned owl which is called *Duwa* (دوا).

𒄩𒄩 𒄩𒄩𒄩 𒄩𒄩𒄩 *si-nun-tu*, is an Assyrian name for the swallow, which is the Talmudic סְנוּנִיתָא *senunitha*. In Syria the word سنونو *sinunu*, is still applied to the swallow.

𒁹𒁹 𒄩𒄩𒄩 𒄩𒄩𒄩 𒄩𒄩𒄩𒄩 *kha-tsi-ba-u*, is another Assyrian name for the swallow. This seems to be clearly the Arabic قطّاف *kuttâf*, for the "swallow," which is also used by the Palestine peasantry.

𒄩𒄩 𒅗 𒄩𒄩 𒅗 *la-ka-la-ka*, for the stork, is the Arabic لقلق *lukluk*. This is one of the names of the stork in Palestine, though it is, perhaps, more frequently called *abu-S'aîd*, "Father of Good Luck," because it appears in the spring. I have, however, also heard it called حاج لقلق *Hajj Luglug*, or the "Stork Pilgrim."

In these words the Fellah dialect appears to be nearer to Assyrian than to Hebrew. The Hebrew words in the Bible for owl, stork, swallow, &c., are quite different to those above noted. On the other hand, the name of a species of deer mentioned in the Bible is known both to the

Fellahîn and also to the Arabs beyond Jordan. The יַחְמוּר or *Yakhmor*, of the Bible (Deut. xiv, 5; 1 Kings v, 3) is the English roebuck, as we discovered in 1872. It lives on Carmel, and is called يحمور *yahmûr*, by the peasantry. The Arabs call it حمور *hamûr*.

I have previously pointed out that the geographical nomenclature of Palestine preserves that of the Old Testament (P. E. F., *Quarterly Statement*, July, 1876, p. 132), and retains also Aramaic words, such as טירה (طيرة), for a "fenced city," and בירה (بيرة), for a "fortress" (1 Chron. vi, 39; Neh. i, 1), to which I may add حرش (Hirsh), for a "wood," still applying to the great wood south of *es Salt*, and representing the Hebrew חֹרֶשׁ *choresh*, a "wood." The words سِدّ *sidd*, and سادة *sâdeh*, applied to cliffs, or hill ridges, in Palestine, also represent the Assyrian 𒁹 *sadu*, "mountain."

The Aramaic word דְּדָבָאוֹת "watch-towers," as I have previously pointed out, survives in the Fellah دبدبة applied to ruins of a "watch-tower" on a high hill. The word مطبع for a "bog" also retains the meaning of the Hebrew root טָבַע "to sink," as in mud (Psalm ix, 16; lxix, 3, 15; Jer. xxxviii, 6; Lam. ii, 9). I have mentioned a good many other cases in the Memoir nomenclature, and in these cases Professor Palmer has usually adopted my comparison.

In agricultural terms, as has long since been pointed out, the same archaism is observable, as in جُرن *jurn*, the common peasant word for a "threshing floor," which is the Hebrew גֹּרֶן *goran* (Ruth iii, 2; Judges vi, 37; Num. xviii, 30; Isaiah xxi, 10); in modern Arabic the word is used only for a "trough," and is so understood by townsmen in Syria. The threshing sledge also (نورج *nûrej*, in common Arabic) is called مورج *mûrej*, by the peasantry, thus reproducing the Hebrew מוֹרָג *Morag*, for the same instrument (Isaiah xli, 15; 2 Sam. xxiv, 22).

The same archaism is also sometimes observable in grammatical forms. Thus the peasantry use نحنا *nahna*, instead of نحن *nahn*, in both feminine and masculine, which approaches the Hebrew אנחנו and נחנו, and the Aramaic אנחנא (Dan. iii, 16, 17; Ezra iv, 16). They do not use the old Hebrew אנכי for the singular, however, but the Aramaic אנא (انا)—other common grammatical expressions also approach more closely to the Aramaic than to any other Semitic language, as, for instance, the common word هيك *hayk*, "thus," which may be compared with the Aramaic הֵיךְ *hail*, "how" (Dan. x, 17; 1 Chr. xiii, 12), also in Samaritan הך

which in Hebrew is אֵיךְ. The word ايمتا *aimata*, is also commonly used for "when," being the Aramaic אֵימָתַי.

Some of the common peasant confusions between certain letters, and the peasant pronunciation of others show the same connection. Thus the Galileans in the Talmudic age confused א and ע (Tal Bab Erubin, 53B) as the peasant says قعق for قاق and, again, ע with ח, as the peasant says معها *mahha*, "with her," for معها *m'aha*. The pronunciation of the ذ is hardly ever attempted by the peasants, who say either د or ز. Thus for هذا *hadha*, "this," we find that in various parts of Palestine, and in different grades of society, the pronunciation is *hada*, or *heida*, or *haza*. In words where the Hebrew *Zain* is represented by the Arabic *dhal* the pronunciation appears to be generally a *Z*, as in the older language, *e.g.*, اخذ *akhudh*, pronounced *akhuz*, as in the Hebrew אָחַז "he took."

In the same way ث which, like ذ is not a letter of the early Semitic alphabet, is not pronounced by the peasantry; ثلاثا *thalâtha*, is the proper pronunciation of the word "three," but in Syria it is pronounced either *talâta* or *salâsa*, the latter being close to the Hebrew שָׁלֹשׁ "three." The letter ט which is absent from the Moabite Stone and from the Siloam inscription (though found early in Phœnician) is properly the Arabic ط but the peasantry in Palestine not unfrequently confuse this with ت the Hebrew ת, as for instance, in the words طنّور and تلق The pronunciation is by no means clear in this case, or in the case of ص and س which are similarly confused, not merely in the writing of uneducated natives, but also in actual pronunciation.

The peasantry use the word نحوي *nahwi*, of correct speech (in grammar نحو *nahu*, means "etymology"), and speak of those who speak in correct manner as نحويين *nahwîyîn*. They are themselves innocent of any knowledge of the rules of grammar found in books, being unable to read. Their pronunciation is much broader and more vigorous than that of the literary language, or than that of the townsmen. Thus the vulgar pronunciation of ق as *hamza*, so usual in the towns, is not usual in the country, where the sounds *k* and hard *g* stand for this letter. It must be allowed that what the language of books and of schoolmasters may have gained in elegance it has lost in pith and epigrammatic force, as compared with that of the peasantry.

The literary language was a result of the adoption of the Moslem faith. The Korân language was the Arabic of the Hejâz, just as the early Moslem script, which superseded the Syrian alphabets, was the writing used in the Hejâz. The admiration for their sacred work is expressed by the Arab author in the words—

اشرف اللغات لغة النبيّ

"The best of words is the word of the Prophet," and hence the Korân grammar and vocabulary became the standards, and remain the Moslem standard of language, though Christian grammarians in Syria never fail to point out that the vulgarisms of Arabia were thereby as much disseminated as were the classic words of Arabic.

El Mukaddasi (as quoted by Landberg) in the tenth century, says—

لا احسن لسانا من اهل بغداد ولا اوحش من لسان صيدا

"The people of Baghdad speak the best, and those of Saida (Sidon) the most barbarously."

His standard was the language which the great grammarians of Baghdad had formed during the palmy days of the Abbas dynasty; while the tongue of Sidon, which he so much despised, probably still retained traces of its Phœnician origin, which the modern philologist would regard as highly important.

The peasant dialects differ considerably in different parts of Palestine, and even in every village—as is usually found the case among illiterate populations. The townsman's pronunciation and vocabulary differs from that of the peasant, and the vocabulary and pronunciation of the desert Arab is again so different that townsmen cannot understand him. Nevertheless, many phrases used by these latter are admired by educated natives, because they approach nearer to classical Arabic, and naturally so, because some of the Eastern tribes are descendants of inhabitants of the Hejâz, who, in some cases (*e.g.*, the 'Adwân), only left Arabia some two centuries ago.

The importance of studying the peasant dialects is therefore very great; and much that the student of the literary tongue will not find in even the most celebrated dictionaries, may be studied among Fellahîn, and Arabs of the desert; just as in our own country the philologist traces the survival, among the peasantry, of ancient words and phrases which have long ago passed out of the ordinary English tongue. For this reason the work of Mr. C. Landberg, who has been almost the first to study this question on the spot with adequate grammatical and philological attainments, promises to be of great interest. In 1883 he published the first volume of his "Proverbes et Dictons de la Syrie," including 200 native

proverbs, from the vicinity of Sidon ; and in four more volumes he hopes to treat of all Syria, from Aleppo to Jerusalem, and including the Arab tribes east of Jordan.

The proverbs themselves are of great interest.[1] They show us every side of the peasant character. On the one hand his coarseness, his admiration of the clever liar, his abject submission to tyranny, his hopelessness and cynicism ; but on the other hand also his patience, his wisdom, his compassion for the poor, his high idea of the duties of a neighbour, and his religious faith. The explanations of the proverbs are equally valuable, being in the peasant dialect ; but many of these are taken from Christian sources, and in some cases the real meaning of the proverb itself is not seen.[2] As an instance I would note No. CII—

بوس الايادي ضحك على اللحى

"Kiss the hands laugh at the beards."

The meaning is perceived by Mr. Landberg, but not clearly explained by the native. In Syria it is considered disgraceful to allow the hand to be kissed. Only the Christian priests allow such a reverence, and the natives laugh at them, and at anyone who allows his hand to be kissed, زي الخوري "like the curé," or مثل القسيس "like the priest." Travellers who do not know this, fail to draw away the hand when a native wishes to kiss it, and are consequently laughed at behind their backs—which is the explanation given to Landberg. A Moslem would have reminded him of the ordinary comparison, as to which the Christian was silent.

The confusions between various letters, and the variations of the short vowel sounds, noted by Landberg, are those which the experience of the survey party in collecting nomenclature, and in the daily conversations of six years, made very familiar to me. They are important for comparative purposes, and some have been mentioned already.

[1] They often give words otherwise unknown to scholars of the literary language, *e.g.* (No. C) :—

المداومة تقطع خرزة البير

"Perseverance cuts the well wall." Here the word خرزة is seen to mean the round masonry wall of the well. Prof. Palmer renders it "sewing skins."

[2] Another curious mistake (p. 49) is the translation of *nisnâs* نسناس "monkeys." There are no monkeys in Palestine, but the *nims* نمس or short-legged ichneumon is so called by the peasantry (*Herpestés Ichneumon*).

ا = ع = د
ت = ط = ذ = د
ح = ع
د = ذ = ض = ت
ر = ل
ز = ذ
س = ش = ص = ث

ص = س = ز
ض = ظ = د = ط
ط = ت = ث = ض
ظ = د = ض
غ = ق
ل = ن = ر
م = ن

In addition to which ي is interchangeable at times with و as in جِيعان for جُوعان (*nahwi* جَوعان). The formation of diminutives by inserting *r*, and the quadiliterals formed by inserting *n* or *m* into the root, and the frequent use of the *imâla* or *ei* sound for the *alif* are also interesting features of the peasant dialect.

The language is singularly free from foreign words, considering how numerous are the foreign influences. A few Italian words[1] have been brought by traders, and government terms are often Turkish, as are even some of the names for articles of furniture and the like. Persian words also occur, but more particularly among the upper classes. The Fellah seems stolidly to resist all such innovation.

On the other hand, the peasant words, which Mr. Landberg has so carefully studied, are often comparable with Hebrew, Aramaic, and Syriac, and in some instances serve to explain exactly terms which are used in the Old Testament. The following are examples of some interest. In some cases Mr. Landberg has not given a reference to the older languages.

بيّن *Beiyen* Fellah, "he saw;" Heb. בִּין "he perceived."

لغز *loghz* F., "he murmured;" Heb. לָעַז (Psalm cxv, 1), of a strange language.

نضح *naḍaḥ* F., "it was greasy;" Heb. נֹצֶה "juice," in Isaiah lxiii, 3–6.

ايد *âïd* F., "hand;" Aramaic אִיד "hand."

[1] These Italian words belong to the old Lingua Franca of commerce. *Bordugân* "orange" (Portugallo), and *Manjeria* "food" (mangiare "to eat"), are instances, and the older *Funduk* (*see* "Syrian Stone Lore," p. 451; Landberg (p. 111) derives *suttif* (سطّف) from the Italian *stivare*, meaning to "pile up." These words belong, however, rather to the coast towns than to the country.

فرد *ferd* F., "single, "separate;" Heb. פָּרַד "he separated."

سكّر *sekker* F., "he shut; "Heb. סגר and סָגַר "he shut."

تعنّج *t'annij* F., "he enticed;" Heb. עָנַג "he delighted."

بائرة *bâr-ah* F., "a maiden;" Heb. בָּרָה (Cant. vi, 9, 10).

هتّ *hutt* F., "he worried;" הָתַת (*cf.* Psalm lxii, 3), "How long will ye worry a man?"

مايه *mâya* F., "water;" Heb. מֵאָה

كرز *kiriz* F., "he proclaimed," is said to be an Aryan word. It occurs in Daniel v, 29 כְּרַז, and is used in Syriac.

مخبول *mahbûl* F., "idiot;" Heb. הָבֶל "obscurity" (Eccles. vi, 4; xi, 8), the *mahbûl* is a person of "darkened" intellect.

The work in question contains many interesting statements as to peasant customs, such as that of placing a beetle (خُنفس) in a box round a child's neck to ward off the evil eye—clearly a survival of the old scarabeus charm used by Assyrians, and Phœnicians, and Etruscans, as well as by Egyptians. It is remarkable, however, that only one fairy story is given. Such stories are common in the desert, and are read from books by the Syrian upper classes, but my experience led me to think that few, if any, are current among the Fellahîn. That given by Mr. Landberg is probably of Persian origin, and recalls the European tale of the "travelling companion." There are interesting notes, on the other hand, of the survival of the *Ashera* worship of the Canaanites at Afka and elsewhere in Palestine.

So numerous are the Syrian proverbs that even the 200 given in this volume by no means exhaust them. Many recently received by the P. E. Fund are not enumerated. Proverbs are mentioned in the Old Testament as well as in the New, and some of these have survived among the peasantry. Thus, in Ezekiel xvi, 44, is mentioned a proverb (مَثَل = משל) "the daughter is like her mother," which is now

تِطلع البنت لأمها

"The daughter springs from her mother."

The proverb in Ezek. xviii, 2, Jer. xxxi, 29, "The fathers have eaten sour grapes, and the childrens' teeth are set on edge," also occurs.

البيّات ياكلون حصرم والأولاد يضرسون

The explanation is very remarkable, since it attributes leprosy to neglect of the laws of Levit. xv, 33.

The New Testament maxims, "Judge not," "The mote and the beam," "Measure for measure," also occur in Palestine. This might be thought due to Christian influence, were not such sayings of great antiquity.

The general impression resulting from such study is that the Fellah language is much more a survival of the old Syriac and of the Aramaic spoken in the time of Christ in Palestine, than it is a corruption of the language of the Arabs of Muhammad's days. It is intimately connected with the old speech which we can trace to 1600 B.C. on Egyptian monuments, as spoken in Palestine before the Hebrews arrived with Joshua, and also to the language of Phœnician inscriptions, of the Moabite Stone, and of the Siloam text. Aramaic was still the language of the Rabbis in the 4th century, and Jerome was able before the Moslem Conquest to study in Palestine what he calls "the Canaanite language." (Comm. on Isaiah xix, 18). Cyril also knew it as the common speech of Palestine (*see* "Syrian Stone Lore," p. 314), before the Arabs under Omar arrived.

II.

Phœnician Notes.

Of all the early Semitic peoples, known to us from the monuments, none were nearer to the Hebrews than their immediate neighbours and allies the Phœnicians. It is true that Phœnician population does not appear to have been purely Semitic, for there was, at least among the lower class, an element of population like that usually called Akkadian in Chaldea, and akin to the Hittites in northern Syria; but the kings who have left us religious and funerary texts, wrote in a language closely allied to Hebrew, and in a character closely similar to that of the Moabite Stone, and of the Siloam inscription. I have endeavoured to show (*Quarterly Statement*, January, 1889, p. 21) that the Calendar of Phœnicia was probably the same as the old Hebrew Calendar before the Captivity, which differed from that of the Assyrians; and in many other respects the Phœnician monuments throw light on the social history of the Hebrews, before the conquest of Jerusalem by Nebuchadnezzar.

The Assyrian monuments often present us with notes which show that the differences between the languages of Phœnicia and Chaldea were noted by the writers of Cuneiform. Allusions occur to the "Speech of the western country," and names of gods are given as peculiar to the Phœnicians. Among these *Astaru* is equated with the Akkadian goddess Istar (*see* "Proc. Bib. Arch. Soc.," March, 1889), and gives a form closely approaching the *Astar* of the Moabite Stone, which is not of necessity a masculine noun, because it differs from the Hebrew feminine form

Ashtoreth. Another Phœnician deity, *Dadu*, mentioned in the same list, is perhaps the *Dodo*, who appears, according to Professors Smend and Socin, on the Moabite Stone (line 12):

"I brought back thence (from Ataroth in Moab) the altar of Dodo."

A third Phœnician deity in this Cuneiform list is *Malakhum*, whose name Mr. Pinches compares with that of Milcom (the ח and כ being frequently interchangeable): Milcom, or Moloch, being a god of the Ammonites (1 Kings xi, 5, 33; 2 Kings xxiii, 13), as well as of the Phœnicians.

The monuments of Phœnicia are, as a rule, not of very high antiquity, and the use of alphabetic writing itself shows that they are later than the days when hieroglyphics were used in northern Syria for monumental texts. Perhaps the oldest is the much-decayed tombstone of Jehumelek recovered at Gebal, with a bas-relief representing the king adoring Ashtoreth, and generally supposed to date about the 6th century B.C. It is interesting to note that on this monument the common people are described by the same expression, עם ארץ,[1] which is used in the Bible (Deut. xxviii, 10) of the non-Israelites; and that a brazen altar was dedicated by Jehumelek to Baalath, recalling Solomon's altar of the same metal.

The celebrated sarcophagus of Eshmunazar, King of Sidon, belongs to a somewhat later period, and has even been supposed later than the time of Alexander the Great. At this time Dora Joppa and the plain of Sharon were claimed as recent conquests of the Sidonians, but the text is principally remarkable for its reference to the Phœnician beliefs as to existence after death. The dead monarch curses those who may disturb his bones, and wishes that they may have "no place of rest among the shades."

אל יכו לם משכב את רפאם

The word used (*Repham*) is the same found in the Bible (Isaiah xiv, 10; xxvi, 14, 19) for the *manes*, rendered "deceased," or "shades," in the Revised Version.

The position of women in Phœnicia is illustrated by another text from Cyprus, which was erected by a princess in honour of "her lady Ashtorth," and such votive stones receive on other texts the name מצבה, which is that used in the Bible for the Canaanite "pillars" (of 2 Sam. xviii, 18; 2 Kings iii, 2, &c., &c.); answering to the Arab *Nuṣb*, a menhir erected in honour of a deity. In another text from Cyprus we find the dignity of "Judge" השפט mentioned by the same word used of the Hebrew Judges; and the "Scribes" ספרם are noticed in another, in which also we learn that the Phœnician temples had veils like that of

[1] Also used in the Mishnah (Perki Aboth II, 5) where R. Gamaliel says "No common man can be a saint."

Jerusalem; while the מלבם of a temple text from Larnaca are the same devotees mentioned with abhorrence in Deut. xxiii, 19.

Milcom, the Ammonite deity, was also worshipped in Cyprus, as we learn from the famous Phœnician-Cypriote inscription of Idalia, where his name in Cypriote is spelt *Mi-le-ko-ne*.

The well-known Marseilles tablet shows us how completely the Phœnician priesthood was organised, demanding regulated fees for all its duties, whether of sacrifice, or as diviners or augurs; the payment being in coins of gold and silver not in kind; and similar records of fees have been found at Carthage.

Not only bulls, sheep, and goats were offered, but oil or butter even was accepted from the poor, and boughs of fruit trees were hung in the temples. The names for the coins or weights used are the same which occur in the Bible and in the Mishnah.

The "hand" which appears on the Phœnician tombstones probably explains the meaning of the term "Absolom's hand" (2 Sam. xviii, 18), used for the monument which he is said to have erected during his lifetime as a memorial. These votive stones have been found in great numbers at Carthage, addressed to deities "because they heard my voice and blessed me," as the inscription usually ends. Some were erected by women as well as by men.

Although the evidence of the Phœnician texts does not carry back their civilisation earlier than the age of the Hebrew monarchies, the bas-reliefs of Egypt show us that it existed even as early as 1600 B.C., or before the Exodus.

Palestine, according to these monuments, was occupied by a mixed population, Semitic and Turanian, which lived in cities, cultivated corn, made wine and oil, had war chariots and fortress walls, was rich in gold and silver, used ivory, precious woods, ebony, and bronze. The Akkadian texts carry back the discovery of bronze to an even earlier age, and the picture of Canaanite civilisation, which we find in Joshua, Judges, and Samuel, is most completely in accord with what is related on the monuments of the trade and wealth of Palestine. Nor was this due only to the influence of Mesopotamia, though the Tell Amarna texts show us close relations between Egypt and the East as early as 1450 B.C. It was a native civilisation of the Hittites, Amorites, and Phœnicians, and it had been spread to Athens and Corinth probably by 1200 B.C.

There is, however, another very interesting result of monumental study in Palestine which is worthy of notice, namely the non-appearance in the Holy Land of those remains of idolatry which are discovered in the immediately surrounding regions.

Northern Syria and Phœnicia have yielded rich collections of statues, amulets, and bas-reliefs, which present figures of gods and demons; but none such have been found in Palestine. The most southerly monument of the kind (as yet figured) is that which was unearthed at Damascus by Sir C. W. Wilson, though at Gaza terra cottas have been discovered, and gigantic statues of Greek and Roman times in Philistia. The seals as yet

found, which are undoubtedly of Hebrew origin, bear names only, without figures, and the dolmens and standing stones which are so numerous beyond Jordan are not found in Judea or Samaria. Negative evidence is not, it is true, very strong, but it is remarkable that carved figures on rocks have never been discovered as yet south of Kana, near Tyre; and it may perhaps be inferred that the reason is that the injunctions of the Book of Deuteronomy were carried out, and that the idols of the Canaanites were destroyed by the Kings of Judah, as described in the Book of Kings.

III.

Hittite Monuments.

Near Henâwei, S.E. of Tyre, in Wady el 'Akkâb, there is a group of 15 figures—a deity and 14 worshippers. The men are clothed in short dresses. This monument I have never been able to visit, as I was not in the field when this district was surveyed. It is described by M. Guerin. The fact of the short dress and belts to the figures suggests that it may be of the same class with the so-called "Hittite" processional subjects of Cappadocia. It is said to be much decayed. Exploration might result in the discovery of hieroglyphics.

IV.

The South Wall of Jerusalem.

In the absence of excavation between the south-west scarp and the Ophel wall, every writer has a right to his own opinion as to the line of this wall. One reason, however, why I think that the line proposed by Mr. St. Clair runs too far north is that there was probably no change between the time of Nehemiah and that of Josephus, whose account is deserving of respect. Josephus says (5 Wars, iv, 2): "after that it went southwards (πρὸς νότον), having its bending above (υπερ), the fountain Siloam, where it bends again towards the east (πρὸς ανατολην), at Solomon's Pool, and reaches as far as a certain place which they called Ophlas, where it joined the eastern cloister of the Temple."

I think the line should run therefore not far from Siloam. This passage identifies pretty clearly the south-east corner of Herod's Temple with the south-east angle of the Haram. Solomon's Pool may be Enrogel (the Virgin's Fountain).

V.

Notes on Nomenclature.

It might appear from the "Memoirs" that certain places mentioned by M. Guerin are overlooked by the English surveyors, and the following notes seem necessary in explanation. I have looked into all the cases mentioned in the "Memoirs."

Vol. i, page 353. *Tennameh* of Guerin is the *Tinâny* of the Survey—a name carefully ascertained.

Vol. ii, page 12. *Dreimeh* of Guerin is the *Dreihemeh* of the Survey—the latter is Arabic, the former is not.

Page 12. *Senjem* of Guerin is the Survey *Sinjib* "squirrel." M. Guerin's word is not Arabic.

Page 122. *Tell er Raian.* The name is not omitted on the Survey. I obtained it standing on the Tell.

Tell Bâla appears as *'Ain Bâla* on the Survey Map.

Tell Asâr appears to be the Survey *Tell Sârem.*

Page 126. There is no doubt as to the correct spelling of *Shutta.* It was taken from the Government lists.

Page 171. Both the *Bâka's* are mentioned (*see* page 152) on the Survey.

Page 197. Guerin's *Kafrâr* is the Survey *Jafrân*, *Friâta* is a vulgar pronunciation of *Fer'ata.*

Page 240. Guerin's *Asîr* is the Survey *es Sîr*, but the true name of the site is *es Smeit.*

Page 315. *Deir ed Dham* (Guerin) is the vulgar pronunciation of *Deir en Nidhâm*, as on the Survey (p. 290).

Page 322. Guerin's *Pia* is apparently a printer's error for *Sia*, the name of the site on the Survey. There is no P in the Arabic language.

Page 327. *Iblatah* of Guerin appears to be the Survey *Balâta* (p. 328).

Page 327. *Abu Samâra* of Guerin occupies apparently the site *Mismâr* on the Survey. It is a ruined house (p. 361).

Page 329. *Khurbet Ben Raish* of Guerin seems to be the Survey *Barraish.*

Page 331. *Khurbet Dar Ahmet* is incorrect, as the last word should be *Ahmad*, "Ruin of the House of Ahmad." This is M. Guerin's name for the Survey *Khŭrbet er Râs.*

Page 328. *Khŭrbet Baenna* of Guerin seems to be the site called *Hamîd* on the Survey. The name *Ib'anneh* occurs further north on the Survey (p. 335) in the same district.

Page 357. *Umm el Hummân*, "mother of the bath," is M. Guerin's name for *Umm el Ikba* of the Survey. *Hummân* is apparently a printer's error for *Hummâm.* The building which he calls a church is a Moslem *Mukâm.*

Page 361. *Merda* is mentioned on the Survey, p. 286.

Rummon is described more fully on p. 292.

Page 392. *Wady Amar* of Guerin is the Survey *Wâdy el Hamr*, not *Wâdy Zamûr*. The Survey spelling agrees with that of Robinson and others.

Page 403. *Seirah*, "folds," applies to certain folds which are shown on the Survey.

Page 419. *'Arâk ed Deir* is mentioned in the Survey account of *Deir Dubbân*.

Vol. iii, page 8. The subterranean passage of which Guerin heard at Beit 'Atâb is fully described in the "Memoirs" (pp. 23 and 137) as *Bîr el Hasûta*.

Page 264. *'Arâk el Kharab*, "the ruined cavern," is a general name given to caves at Beit Jibrîn by Guerin. The Survey gives 14 names of these caves (p. 266).

Page 275. *Dikkerin* is the Survey *Dhikkerîn el Boradân* (p. 258).

Page 321. *'Ain edh Dhirweh*. The ruins mentioned by Guerin are fully described with a plan in the "Memoirs," under the head *Kŭsr Islaïyin* (p. 374).

Page 323. *Hallal el Bothmeh*, of Guerin, is the Survey *Khallet el Butmeh* (*see* Map, p. 352). The Survey spelling is correct.

Page 325. *Caphar Barnebo* of Guerin, is a printer's error for *Caphar Barucha*, the old name of *Beni Naim* (*see* p. 304).

Page 352. *Khurbet Beni Dâr*. This is given by Guerin, and is mentioned in the Survey name indexes (p. 398) as another name of *Khŭrbet Yukîn*, which is fully described in the Memoir under that name.

Page 369. Guerin's *Terrâma* is evidently the Survey *el Hadab*, p. 329. It does not seem to be an Arabic word.

Page 369. Guerin's *Umm el Amad* appears to be the Survey *Khoreisa* (p. 356), where a ruined church and inscription were found. The previous name only means "mother of pillars."

Page 395. It is a mistake to suppose that there are seven wells at Beersheba; there are only three. Vandevelde never went to Beersheba. His longitude and account show that he went to *el Meshâsh* and mistook it for Beersheba.

These notes may be useful to those who possess the "Memoirs." They represent, I think, all the discrepancies out of 1750 pp. quarto, with lists of 10,000 names, and refer only to insignificant ruins. The Survey nomenclature was tested in various ways, as mentioned in the Introduction, vol. i, of the "Memoirs," and there is apparently no reason to prefer any of the variants proposed by travellers.

VI.

The Speech of Lycaonia.

In the *Quarterly Statement* I have given already the Carian and Lydian words which appear to be non-Aryan. That Aryan races dwelt in Asia

Minor is, however, shown by the remains of the Lycian and Phrygian languages.

Phrygian.

Bekos, "bread." Persian *baj*, "food."
Kimeros, "chamber." Zend *Kamara*, Armenian *Kamar*.
Bagaios, "god." Slav *bogu*, Old Persian *baga*.
Besides the words for "dog," "fire," "water," which Plato says resembled the Greek.

Lycian.

Keiwe, "king." Zend *Kavi*, Persian *kai*.
Gina, "wife." Armenian *gin*, "wife," Zend *ghena*.
Ysē, "if." Zend *iēze*, "if."
Eveeya, "this." Old Persian *Haura*, "this."
Se, "and." Old Persian *sa*, "and;" Armedian *sd*, "and."
Goru, "tomb." Persian *gur*, "tomb;" Armenian *geyreyz*.
Eveeya, "these." Old Persian *avahaya* (3rd pers. pl.).
Meou, "of me." Old Persian *maiya*, "of me."

Aryan words also occur in the list of words called Lydian by the classic writers, *e.g.* :—

Lydian.

Ankôn, "corner." Armenian *angiun*, "corner."
Brenthion, "myrrh." Armenian *Badrinch*, "balm."
Paramene, "fate" (Feronia). Armenian *veyrin*.
Kapithe, "measure." Armenian *Tchap*, "measure."

What is still more interesting, however, is the discovery, to which a comparison of the Armenian and Vannic languages has led me,[1] viz., that the latter is an Aryan tongue akin to Armenian, and comparable also with the monumental Persian and the Zend. Thus in 850 B.C. there were Aryans round Lake Van (of the same race as the Phrygians, as Herodotus tells us), whose Kings were at war with the Hittites, who advanced East from Carchemish. The latter had thus enemies not only of Semitic, but also of Aryan race.

[1] This comparison with Armenian was, however, first proposed in 1872 by Dr. A. D. Mordtmann. It has been denied on grounds which seem to me insufficient by other scholars.

VII.

Was There a Word *Ko*, "King." ?

Among points denied by Professor Sayce, was my identification of the sound *Ko* as being a Hittite word for "king." Not indeed the only word, for the terms *Sar*, *Essebu*, *Tarkan*, and *Nazi*, all of which are Turanian terms for king, were also used by the Hittites. I referred the matter to Mr. T. G. Pinches, of the British Museum, and to Mr. G. Bertin, both of whom informed me that the words *Ku* and *Uk* stand for "king" in Akkadian.

In June, 1888, Mr. E. A. W. Budge published a tri-lingual text in Persian, Babylonian, and Susian, of the reign of Darius. The Susian language is a dialect of the Akkadian group, and in the Susian version the word for king is read *Ko* by Mr. Budge. The text is syllabic, and not ideographic, so that the evidence is of value.

In more than one Chinese dialect the word *Chu* or *Chue* stands for "lord." In the old Uigur language (a Turkish dialect) it occurs as *ige*, "lord;" and in the dialect of Eastern Turkestan as *ege*. Among the Yakût (a Siberian Turkic people) it becomes *icce*, and in Vigur *oke* means "honour." It is not known as an Aryan word, but in Zend we have the word *Kavi*, "prince," which in Persian becomes *Kai*, and it is believed that in Lycian (a language very like Zend) *Keue* stood for king. Not only so, but in the Bible itself the word occurs as קוֹעַ (*Kóa*), (Ezek. xxiii, 23), according to Gesenius, meaning a prince (as also in the Vulgate, and according to Hebrew interpreters), but it is not a Semitic any more than an Aryan term.

In the Cuneiform syllabaries the sign *Ku* is explained to mean "king" by the Semitic interpreters, and in the Medic inscriptions the same sign occurs with the same meaning. There is, as above shown, abundant evidence that the word *Ko* was a widely spread Tartar word for "king," with the radial meaning "high" or "honourable." The sign is of special importance, because it occurs on the only Hittite bi-lingual as yet published, and is one of the distinctive words which, with *Tark* "deer," *Tarku* "chief," *me* "many," *ma* "country," serve to show the Turanian character of the Hittite language. To suppose that a Tartar people spoke either a Semitic or an Aryan language is practically impossible, yet this is the dilemma in which those scholars are placed who call the Hittites "Mongols," yet hesitate to accept their speech as Turanian.

C. R. C.

THE FORM OF THE MOABITE STONE, AND THE EXTENT OF THE MISSING PARTS.

It is now nearly 21 years since the Moabite Stone was first seen by a European, and the facts connected with its discovery have probably faded from the memory of many. It may be useful to recall them here, in so far as they ought to influence the course of future search.

One is often asked whether the Moabite Stone did not turn out to be a forgery? But those who have watched the course of events know very well that although there was at one time an attempt to palm off upon the world some Moabite pottery, &c., there has never been any serious reason to doubt the genuineness of the Stone of Dhibân, discovered in August, 1868. M. Clermont-Ganneau, in the "Contemporary Review" for August, 1887, very successfully demolished the arguments of an attack which was then recent.

But in the same article M. Ganneau advances the idea that the stone was perhaps twice as large, and the inscription twice as long, as we had supposed it to be, and as the restored form of it shows. On this point it is difficult to agree with him. M. Ganneau has deservedly associated his name with the recovery and the decipherment of the stone; but he did not see it before it was broken to pieces, and he is not the best authority as to the form that it had. The only European who saw the stone before it was shattered was Rev. F. A. Klein, a missionary, who was travelling under the protection of his Arab friend, Zattam, and was taken to see the stone one evening. In the short time at his disposal he made a drawing of the stone, counted 34 lines of writing upon it, endeavoured to collect a perfect alphabet from it, and copied a few words from several lines at random. After this, attempts were made by Dr. Petermann and others to obtain possession of the stone for some European Museum; but the Arabs broke it up, and carried the pieces in different directions, depositing some in their granaries to secure blessings on their corn. Eventually two large pieces were recovered and a number of smaller fragments, making up, as was believed at the time, about seven-tenths of the entire stone. But the absence of the remainder made it difficult to determine the form of the stone in its lower part, for those who sought to do so from the fragments alone, disregarding the sketch made by M. Klein. It was eventually "restored" as a stone rounded at the top but squared at the bottom, and standing on a flat base without a pediment, like a tomb-stone. But M. Klein uttered his protest against this idea. In a letter to the "Academy"[1] he vouches for the perfect correctness of his drawing, since he had made it on the spot. He says, "The stone is, as appears from the accompanying sketch, rounded on *both* sides, not only at the upper end as mentioned by Monsieur Ganneau." And again, "According to my correct measurement on the spot, the stone was

[1] See *Quarterly Statement*, March to June, 1870.

1 mètre 13 centimètres in height, 70 centimètres in breadth, and 35 centimètres in thickness; and according to my calculation had 34 lines, for the two or three upper lines were very much obliterated. The stone itself was in a *most perfect state of preservation*, not one single piece being broken off, and it was only from great age and exposure to the rain and sun that certain parts, especially the upper and the lower lines, had somewhat suffered."

In accordance with M. Klein's sketch and his testimony, Dr. Ginsburg's "Moabite Stone: a Fac-simile of the Original Inscription," &c., published in 1871, represents the stone as rounded both at top and bottom.

Nevertheless, M. Ganneau retained the opinion that the bottom of the stone was squared; he "restored" it so, and in that form it stands in the Louvre, in the British Museum cast, and in the photographs. Yet one would think that there was no room to question M. Klein's testimony, and no appeal from his sketch of the stone, made on the spot, and still to be seen in the office of the Palestine Exploration Fund.

It is not an unimportant point; for intimately connected with the form of the stone is the quantity of writing missing and still to be looked for. M. Ganneau, in the "Contemporary Review," repeats his impression "that the stela must have been of the ordinary shape of Egyptian and Assyrian stelæ—a block, the upper part rounded, the lower part square," and suggests that the primitive stela may have exceeded 2 mètres in height, and may have contained an inscription double or more in length that which has reached us. Search among the ruins of Dibon might bring to light, he thinks, the other half of the stela, and then the two together would constitute a truly imposing text. Of course, if M. Klein is correct, this is a visionary hope. On the other hand, if the stone was rounded at the bottom, it seems to follow that it did not stand on its own base, nor on any low pediment, but was part of a larger monument. As early as 1873, Mr. Alexander Forbes of Aberdeen, wrote a paper,[1] in which he argues that the nature of the monument in question is indicated in the third line of the inscription, where it is said, "I made this high place for Chemosh." "High place" is here *bomoth*, a sacrificial altar (*see* LXX; Numbers xxiii, 1); and Mr. Forbes thinks it was so splendid and conspicuous a monument as to be well known to the people of Judea, against whom and against whose God it was a proud boast. Isaiah and Jeremiah seem to rebuke the boastfulness and exaggerations of the inscription: "We have heard of the pride of Moab; he is very proud: even of his haughtiness and his pride and his wrath: but his lies shall not be so" (Isaiah xvi, 6; Jeremiah xxix, 30). Instead of making Mesha say, "I set up this stone," as the translators have done, Mr. Forbes would render it—I erected this *altar* (βωμὸς). He argues that the stone, being rounded at all its corners, must be regarded as a tablet inserted in a

[1] The paper is printed *in extenso* as an Appendix to W. Pakenham Walsh's "Lectures on the Moabite Stone."

larger building, which building was a βωμὸς; and he suggests that search should be made for the stones which surrounded the tablet.

Is it not further possible that since the altar would stand four-square, like the pediment of the Nelson column, there would be inscribed stones in all the four sides? If so, three more stelæ may await our search.

GEORGE ST. CLAIR.

THE TELL ES SALAHIYEH MONUMENT.

LONG before Professor Sayce published his book on "The Hittites, the Story of a Forgotten Empire," he was looking over some of the Palestine Exploration Fund photographs in my possession, and on coming to the one marked "Tel Salahiyeh, near Damascus, Slab found in the Mound," which is figured on p. 88 of the *Quarterly Statement* for April, he observed, "That is an especially interesting photograph, for it is undoubtedly from a Hittite monument." So that he was then fully aware of the existence of the Hittite monument in question, discovered near Damascus by Sir C. W. Wilson.

A. G. WELD.

I SHOULD like to ask how "the very archaic monument discovered by Sir C. W. Wilson, in his excavations at Tell es Salahîyeh," and supposed by Major Conder to be "Hittite," differs from the one discovered at the same place forty years ago by J. L. Porter, and figured in his 'Five Years in Damascus?' It is there spoken of as "Assyrian." Have two monuments been found in this mound? The two representations (Porter's work just referred to and *Quarterly Statement*, April, page 88) show a striking resemblance to each other.

SELAH MERRILL.

THE "*VIA MARIS*."

THE Rev. Charles Druitt wishes to know "how I explain Elijah's direction to his servant in 1 Kings xviii, 43," and "did Elijah mean that his servant was to look north-east across the Acca Bay?"

The first point to consider is, where was the place where Elijah stood when he said to his servant, "Go up now, look towards the sea," and the Bible (verse 42) states that it was on "the top of Carmel." It is beyond doubt that by "the top of Carmel" that place is meant now called "el Muharka" (or el Mahrakah), the burning place, situate on one of the most conspicuous summits of Mount Carmel, which, from its geographical position just above the Kishon River and the Tell el Kŭssîs (the adopted

(Baal) priest's-hill), with its unique view over the whole surrounding country and the sea, in every point answers the biblical description of the Elijah miracle. From this point, the Mediterranean Sea can be seen in two directions, viz., looking south-west and north, between those two views some near heights and the entire range of Carmel intercept the view.

Now Elijah told his servant "*Go up now*, look towards the sea," which indicates that he went a little forwards on to one of those heights, and considering that all the sudden storms and heavy rains in our neighbourhood come from the west and south-west, I would call the direction whence the rain clouds "arose out of the sea" (as seen from el Mahrakah) the west-south-west.

The monks of Mount Carmel have now widened and rebuilt the Chapel on the Mahrakah summit, which, with its whitewashed roof, shines out conspicuously. The traveller coming from Jaffa or Nablûs, from the east of Jordan or Galilee, from Safed, 'Acca, or Tyre, finds this monument on the top of Mount Carmel a guiding point for his journey.

G. SCHUMACHER.

NOTE ON A COIN ENGRAVED ON P. 77, *QUARTERLY STATEMENT*, 1889.

A CURIOUS mistake has crept into the paper of Herr G. Schumacher, and has been printed in the *Quarterly Statement* of April this year, p. 77. Describing some ancient objects found in tombs in Galilee, Herr Schumacher says: "Finally they brought me a copper coin found among the dust in a grave, which I reproduce in its natural size and stamp (fig. 17). On one side there are three ears (of corn), tied together with a sling, surrounded by a ring of pearls; the other side shows a sort of purse with tassels and some letters, which I am unable to decipher."

On this I have to remark that the "*ring of pearls*" (which is not given in the plate), is altogether imaginary, and that the "*purse*" is an umbrella, a well-known symbol of royal power. The coin in question, which is by no means uncommon, is no doubt one of Herod Agrippa I., A.D. 37–44, and a similar one will be found engraved on p. 103 in Mr. F. N. Madden's "History of Jewish Coinage." London, 1864. Mr. Madden thus correctly describes it: *Obv.* ΒΑϹΙΛΕΩϹ ΑΓΡΙΠΑ, *written round an umbrella, surrounded* with fringes.

Rev. Three ears of corn springing from one stalk.

G. J. CHESTER.

NOTE ON MR. GUY LE STRANGE'S PAPER ON "ANTIOCH IN 1051 A.D.," PAGE 266, *QUARTERLY STATEMENT*, OCTOBER, 1888.

The "shell (sadafah) which screens the altar (in the church) of Al Kusyan" is probably an altar screen inlaid with mother-of-pearl, Sadaf being still the word in common use in Syria for mother-of-pearl. The shells are obtained from the Red Sea, chiefly by Bethlehem traders. Mother-of-pearl has long been used in the inlaid work of Syria. There are some fine specimens of mother-of-pearl and tortoiseshell inlaid work in the church of St. James in the Armenian Convent at Jerusalem, and the inlaid pearl work of Damascus is well known. According to Ibn Butlân, the Haikal or Sanctuary of the Church at Antioch appears to have been at the time of his visit (A.D. 1050) screened off from the nave by an inlaid mother-of-pearl screen surmounted by an iron cross, which had been struck in 1050, as he describes, by lightning during the great storm of April 13th (old style—therefore April 25th new style). This is late in the year for a heavy thunderstorm in Syria. He mentions the splitting off of the shell, *i.e.*, pearl inlaying, from the face of the screen, the melting of the silver chain of the censer, and the throwing down of a silver crown which hung before the table of the altar. (It is worthy of notice that the writer throughout speaks of "the table of the altar.")

It is interesting to compare the arrangements here described with those to be found to this day in the Western Syrian churches in Syria and Mesopotamia, and those of the Eastern Syrians (in the Nestorian Mountains)—all have the Haikal or Sanctuary to the east, with its "altar table." In the churches of the Western Syrians the Sanctuary is separated by a vail or curtain which hangs between two pillars. The Eastern Syrians have in their churches a thick wall separating nave from Sanctuary.

Censers are used by both the Eastern and Western Syrians.

Both still have three small tables (called "stools" in Mr. Guy le Strange's translation) at the top of the nave just before the Sanctuary. The Western Syrians use the one at each side (north and south) for the service books, and the middle one for the book of the Old Testament lessons, while beyond it, within the Sanctuary at the top of the step, is a fourth table for the Book of the Gospels. The Western Syrians have two candles placed on the "altar table," which are lighted if there is not daylight enough. These candles must not be made of animal fat, nor must any book bound in the skin of an animal be laid on the "altar table."

The Rev. Dr. Cutts describes the Church of the Eastern Syrians (Nestorians or Assyrians) at Kochanes, where he saw three small tables in front of and below the chancel screen—that on the south for the anthem books, and a rude chandelier, is called the Altar of Prayers; that on

the north is called the Altar of the Gospels, for the Book of the Gospels and a cross laid upon it, and the middle small one has a cross laid upon it.

Ibn Butlân not only gives his dates in Moslem reckoning (of the Hejrah) but also according to the era of Alexander the Great, and I have found that to this day the Syrian Christians use the Macedonian era of Alexander, whose influence was so greatly felt, as well as that of his successors in the provinces of North and Eastern Syria.

The daughter church of St. Thomas' Christians on the Malabar coast also still use the Macedonian era.

It is highly probable that Ibn Butlân (a native of Bagdad) was a member of the ancient Syrian Church, whose home is still in Mesopotamia. The Syrian Christians hold that their Church was founded by the Apostles Paul and Peter—the latter having been their first Bishop and Patriarch. Antioch has long been in ruins; its glories have departed; its gardens, groves, myrtle-heated baths, its countless churches, ornamented with gold and silver and coloured glass, and floors paved in squares (tesseræ); its hospital for the sick, and its audit office for the church accounts, where ten or more accountants were kept daily busy—all are gone. First, Greek, and then Moslem invaders drove away the Syrian Christians; next came the Latin Crusading armies, and the final triumph of the Moslem power. Antioch fell, and until lately there were no Christians at all to be found there. There are now a few Greek Christians who live among the Moslem inhabitants; but none of the ancient Syrian Church. Still, though driven away eastwards, the Syrian nation and Church have not ceased to exist. They found a refuge among the highlands of Upper Mesopotamia, whither, to the fortress city of Mardin, the Syrian Patriarch of Antioch removed his seat, and where his successors have to this day cared for their sorely oppressed people. Here, far beyond the ken of ordinary travellers, the Syrian people still speak the ancient Aramaic tongue and keep up their primitive usages and the customs of their Church. The Patriarch, Ignatius Peter III, visited England fourteen years ago at the invitation of the late Archbishop Tait, and was accompanied by Mar Gregorius, Syrian Bishop of Jerusalem. The latter is in England now, having again been invited to this country.

From these Prelates we have derived much valuable information as to the past history and present condition of the Syrian, the oldest Gentile Christian Church in the world. By them, probably for the first time in history, has been used in this country in speaking and in writing the ancient Aramaic as a still living language.

E. A. Finn.

THE ROCK (SAKHRAH) FOUNDATION OF SOLOMON'S TEMPLE.

Mr. George St. Clair refers (on p. 100 of the April *Quarterly*, 1889) to the now well known Rock summit of Mount Moriah on which Solomon's temple was built, and which is covered by the Dome es Sakhrah.

The sight of that grand uncarved Rock drew my attention many years ago, when living at Jerusalem, to the symbolic use of the word Rock in the Old and New Testament, and to the symbolic use of the very different word "*stone*."

The living "Rock" is used in both Old and New Testament as the symbol of the Divine Being, also of his relation as Father to His children while the "*stone*" cut out of the Rock is used as a symbol of sonship (*see* Isaiah li, 1, 2). The use of Rock as a symbol of God, the Divine Father, is clear in Deut. xxxii, 4–15, compared with verses 18, 19, 20.

Rock is synonymous with God in 1 Samuel ii, 2 ; 2 Samuel xxii, 3 ; xxiii, 3 ; Psalm xviii, 2 ; xix, 4 ; xxvii, ; lxi, 25 ; lxviii, 35 ; lxxxix, 26 ; xlv, 1 ; Isaiah xvii, 10 ; &c., &c.

That the ancient Hebrews regarded the word "Rock" as a Divine name also appears from the Prayer used during the offering of incense in the Temple (Edersheim's "Temple and its Services," p. 139) : "True it is that Thou, Jehovah, our God and the God of our fathers, our King and the King of our fathers, our Saviour and the Saviour of our fathers, our Maker and the Rock of our salvation, our Helper and our Deliverer, Thy name is from everlasting, and there is no God beside Thee. A new song did they that were delivered sing to Thy name by the sea-shore, together did all praise and own Thee as King, and say, Jehovah shall reign, who saveth Israel."

In order fully to appreciate the force of Deut. xxxii, 18, 19, 20, it is necessary to note the contrast between the Parent Rock צור of verse 18, and the sons, daughters and children of verses 19, 20, for all of which the word בן with its feminine and plural is used ; and to observe the relationship of בן son, and אבן stone with the verb בנה to build. بَنَى in Arabic, in which latter language the noun son commonly retains the initial ا as in the Hebrew אבן, a stone. In Daniel ii, 45, the two words Rock and stone occur. Rock, however, is here in the Chaldee (Aramaic) cognate טור Tûr, so familiar to us as applied to mountains Tor, and in the east Tûr.

This verse of Daniel opens up the deeper meaning and use of the Rock—the Divine Father ; and the Stone, the Son "cut out from the

rock," but not by hands, *i.e.*, without human intervention. We see, in Matthew xvi, that our Lord appropriated to Himself the Rock as the symbol of His Divinity. "Upon this *Rock* will I build my Church," when He accepted the confession of Peter, verse 16. "Thou art the Christ, the Son of the Living God." Peter was a stone אבן—that is, a son בן, but not the Rock צור, the Divine foundation. (*See* 1 Cor. x, 1.)

Observe here, also, the use of the verb build: "Upon this Rock will I build my Church," and the fuller statements in Hebrews iii, 3–6; Galatians iii, 7, and other passages where our Lord the Master builder is set forth as building His heavenly house (temple) or church of living *stones*, *i.e.*, sons. The stone אבן is used of the Messiah in His human nature (Genesis xlix, 24). "The stone, the shepherd of Israel" (Psalm cxviii, 22; Mark xxi, 42). "The stone which the builders rejected." I have, in the above, indicated the points contained in the passages referred to, and now briefly mention the subject in its connection with the building of the Temple at Jerusalem upon the foundations of the sacred living Rock.

Upon that unhewn rock was founded the wondrous superstructure; on it stood the concentric walls and courts, all built of hewn stones, let into, grafted, as it were, back again into the parent Rock; symbols of the Sonship granted to Abraham and all his believing children. There were the great stones—symbols of the Patriarchs and Apostles built around and upon the Rock, while the smaller stones representing the great family of spiritual children were used in building up the mighty enclosure walls. Each stone, great or small, was prepared beforehand—each was perfectly formed and fitted to be silently put in its destined place as part of the great whole, closely joined together without mortar or other intervening substance, and compacted perhaps by the action of water into one splendid whole around the glorious head and centre of the Rock on which they were founded.

On some other occasion I hope to notice in fuller detail the many points of extreme interest and importance connected with the use in Holy Scripture of the words "rock," "stone," "son," "builder," and "building," and the closely-connected subject of the Temple on Mount Moriah as a type of the Church, the Temple of living stones built upon the Divine Rock of foundation, of which the great Temple Rock is so impressive a symbol.

E. A. Finn.

ERRATA.

April "Quarterly Statement."—List of Subscriptions.

For General W. Flatt Noble *read* General W. Hatt Noble.

Bath List.

For Rev. T. P. Methuen *read* Mr. T. Hayes.

On pp. 53 and 65, *for* north-east corner *read* north-west corner.

THE PALESTINE EXPLORATION FUND.

NOTES AND NEWS.

HERR SCHICK'S paper on the Mount of Olives is published in the present number, with plan of the newly-discovered tombs, and sketches of Roman tiles, &c., found during recent excavations.

His account of the ancient Church recently discovered in the street of Sitti Maryam, at Jerusalem, with plan of the same, is also given, and a section of the large cistern near the Church of the Holy Sepulchre, which was described in the July number of the *Quarterly Statement*, will be found facing page 210 of the present number.

Further excavations north of Damascus Gate have resulted in the discovery of rock tombs with stone doors, and of inscriptions. An ancient rock-hewn Church has been discovered at Siloam.

Mr. F. F. Tuckett has forwarded a letter received by him from Père Leon Cré of the Algerian Mission at Jerusalem, containing an account of further discoveries at the Pool of Bethesda. Père Cré writes, "In clearing out the crypt of the church built at the south-east angle of the Pool, in the time of the Crusades, at the north-west corner, close to an opening which permits the water to be seen and drawn up, and surrounding a little door still obstructed, which doubtless affords a way of descent to the middle of the Pool, we found very interesting remains of a mural painting which marvellously confirms the already numerous proofs of the authenticity of the Pool Bethesda. Arab fanaticism has destroyed the heads and hands of the figures, but notwithstanding that, above the little door mentioned above there is visible the beautiful and well preserved *nimbus* of a *winged* figure, which causes the water by which it is surrounded in the picture to be moved and agitated. It is an exact interpretation of the first part of the 4th verse of the 5th chapter of St. John, "An angel went down at a certain season into the Pool and troubled the water *καὶ ἐτάρασσεν τὸ ὕδωρ*." A report of this interesting discovery has also been sent by Herr Schick.

Dr. Torrance, of the Scottish Mission, has kindly undertaken to conduct a series of meteorological observations at Tiberias for the Fund. Should it be found practicable to carry out this difficult undertaking, the observations will, with those made at Sarona, now being published by Mr. Glaisher, and those

made by Dr. Chaplin at Jerusalem, and reported in the *Quarterly Statement* for 1883, place the Society after a few years in the possession of materials for a fairly complete account of the meteorology of Palestine. It will be remembered that Tiberias is 682 feet below the level of the Mediterranean Sea. No regular series of meteorological observations has ever been made in such a depressed situation, and the results will therefore be exceptionally interesting. As the neighbourhood of Jericho is becoming, to some extent, a place of residence for Europeans, it is hoped that opportunity may before long present itself for making meteorological observations there also.

An interesting letter has been received from Mr. W. Lethaby, who has been residing two years in Kerak as a Missionary. He urges the Fund to commence explorations there, and reports the discovery of some stones with sculptured figures, which he thinks are "of the Assyrian type." It is hoped that further information may soon be received from Mr. Lethaby on the subject.

Mr. Henry A. Harper's work, on "The Bible and Modern Discoveries" is nearly ready. It is an endeavour to present in a simple but yet connected form the Biblical results of twenty-two years' work of the Palestine Exploration Fund. The writer has also availed himself of the discoveries made by the American Expeditions and the Egyptian Exploration Fund, as well as discoveries of interest made by independent travellers. The Bible story, from the call of Abraham to the Captivity, is taken, and details given of the light thrown by modern research on the sacred annals. Eastern customs and modes of thought are explained whenever the writer thought they illustrated the text. To the Clergy and Sunday School Teachers, as well as to all those who love the Bible, the writer hopes this work will prove useful. He is personally acquainted with the land, and nearly all the places spoken of he has visited, and most of them he has moreover sketched or painted. The work will be issued in one large, handsome volume of 600 pages. It will be illustrated with a map and many plates. Price to the public, 16*s.*; to subscribers, 10*s.* 6*d.*, carriage included.

Mr. Guy le Strange's important work, "Palestine under the Moslems," which is a description of Palestine according to the mediæval Arab geographers, is also in the press.

The first volume of the "Survey of Eastern Palestine," by Major Conder, has been issued to subscribers. It is accompanied by a map of the portion of country surveyed, special plans, and upwards of 350 drawings of ruins, tombs, dolmens, stone circles, inscriptions, &c. The edition is limited to 500. The first 250 subscribers pay seven guineas for the three volumes, with an index; subscribers to the "Survey of Western Palestine" are privileged to have the volumes for this sum. The price will be raised, after 250 names are received, to twelve guineas. The Committee *are pledged never to let any copies be subscribed under the sum of seven guineas.* Mr. A. P. Watt, 2, Paternoster Square, is the Sole Agent. The attention of intending subscribers is directed to the announcement on the inside of the cover of this number.

Some progress has also been made with the second volume, which consists of M. Lecomte's beautiful drawings, illustrating the Mission of M. Clermont-Ganneau in 1874. The illustrations for the third volume, Mr. Chichester Hart's "Flora and Fauna" of the Wâdy Arabah, are nearly ready.

The Committee have added to their list of publications the new edition of the "History of Jerusalem," by Walter Besant and E. H. Palmer (Bentley & Son). It can be obtained by subscribers, carriage paid, for 5*s.* 6*d.*, by application to the Head Office only. The "History of Jerusalem," which was originally published in 1871, and has long been completely out of print, covers a period and is compiled from materials not included in any other work, though some of the contents have been plundered by later works on the same subject. It begins with the siege by Titus and continues to the fourteenth century, including the Early Christian period, the Moslem invasion, the Mediæval pilgrims, the Mohammedan pilgrims, the Crusades, the Latin Kingdom, the victorious career of Saladin, the Crusade of Children, and many other little-known episodes in the history of the city and the country.

The books now contained in the Society's publications comprise an amount of information on Palestine, and on the researches conducted in the country, which can be found in no other publications. It must never be forgotten that no single traveller, however well equipped by previous knowledge, can compete with a scientific body of explorers, instructed in the periods required, and provided with all the instruments necessary for carrying out their work. The books are the following (*the whole set can be obtained by application to Mr. George Armstrong, for* 37*s.* 6*d.*, *carriage paid*) :—

By Major Conder, R.E.—

(1) "Tent Work in Palestine."—A popular account of the survey of Western Palestine, freely illustrated by drawings made by the author himself. This is not a dry record of the sepulchres, or a descriptive catalogue of ruins, springs, and valleys, but a continuous narrative full of observations upon the manners and customs of the people, the Biblical associations of the sites, the Holy City and its memories, and is based upon a six years' experience in the country itself. No other modern traveller has enjoyed the same advantages as Major Conder, or has used his opportunities to better purpose.

(2) "Heth and Moab."—Under this title Major Conder provides a narrative, as bright and as full of interest as "Tent Work," of the expedition for the *Survey of Eastern Palestine.* How the party began by a flying visit to North Syria, in order to discover the Holy City—Kadesh—of the children of Heth; how they fared across the Jordan, and what discoveries they made there, will be found in this volume.

(3) Major Conder's "Syrian Stone Lore."—This volume, the least known of Major Conder's works, is, perhaps, the most valuable. It attempts a task never before approached—the reconstruction of Palestine from its monuments. It shows what we should know of Syria if there were no Bible, and it illustrates the Bible from the monuments.

(4) Major Conder's "Altaic Inscriptions."—This book is an attempt to read the Hittite Inscriptions. The author has seen no reason to change his views since the publication of the work.

(5) Professor Hull's "Mount Seir."—This is a popular account of the Geological Expedition conducted by Professor Hull for the Committee of the Palestine Fund. The part which deals with the Valley of Arabah will be found entirely new and interesting.

(6) Herr Schumacher's "Across the Jordan."

(7) Herr Schumacher's "Jaulân."—These two books must be taken in continuation of Major Conder's works issued as instalments of the unpublished "Survey of Eastern Palestine." They are full of drawings, sketches, and plans, and contain many valuable remarks upon manners and customs.

(8) The Memoirs of Twenty-one Years' Work.—A copy of this book is presented to every subscriber to the Fund who applies for it. The work is a popular account of the researches conducted by the Society during the past twenty-one years of its existence. It will be found not only valuable in itself as an interesting work, but also as a book of reference, and especially useful in order to show what has been doing, and is still doing, by this Society.

(9) Herr Schumacher's Kh. Fahil. The ancient Pella, the first retreat of the Christians; with map and illustrations.

(10) Names and Places in the Old and New Testament and Apocrypha, with their modern identifications, with reference to Josephus, the Memoirs, and *Quarterly Statements*.

(11) Besant and Palmer's "History of Jerusalem," already described.

For the convenience of subscribers in following out the position of recent discoveries in Jerusalem, a plan of the city, reduced from the Ordnance Survey plan by permission, was issued with the April number of the *Quarterly Statement*, on which the recent discoveries are noted in red.

We regret to record the death of the Rev. Henry Hall-Houghton, a member of our General Committee, and for many years a generous supporter of the Society. Mr. Hall-Houghton had long ceased to take any cure of souls, but greatly furthered the advancement of the study of the New Testament by donations and personal encouragement.

Branch Associations of the Bible Society, all Sunday Schools in union with the Sunday School Institute, the Sunday School Union, and the Wesleyan Sunday School Institute, will please observe that by a special Resolution of the Committee they will henceforth be treated as subscribers and be allowed to purchase the books and maps (by application only to the Secretary) at reduced price.

The friends of the Society are earnestly requested to use the "Memoirs of Twenty-one Years' Work" as a means of showing what the work has been, and what remains to be done.

The income of the Society, from June 18th to September 17th, inclusive, was—from subscriptions and donations, £110 8*s.* 2*d.*; from all sources, £426 9*s.* 5*d.* The expenditure during the same period was £349 18*s.* 5*d.* On September 20th the balance in the Bank was £439 2*s.* 11*d.*

Subscribers are begged to note that the following can be had by application to the office at 1*s.* each :—

1. Index to the *Quarterly Statement*, 1869–1880;
2. Cases for Herr Schumacher's "Jaulân;"
3. Cases for the *Quarterly Statement*, in green or chocolate.

Early numbers of the *Quarterly Statement* are very rare. In order to make up complete sets the Committee will be very glad to receive any of the following numbers :—

No. II, 1869; No. VII, 1870; No. III (July) 1871; January and April, 1872; January, 1883, and January, 1886.

It having again been reported to the Committee that certain book hawkers are representing themselves as agents of the Society, the Committee have to caution subscribers and the public that they have no book hawkers in their employ, and that none of their works are sold by itinerant agents.

While desiring to give every publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they neither sanction nor adopt them.

As many inquiries have been made about transparent slides, a selection will be made from the photographs of the Society for this purpose. Subscribers wishing to have any are requested to communicate with the Assistant Secretary.

Subscribers who do not receive the *Quarterly Statement* regularly are asked to send a note to the Secretary. Great care is taken to forward each number to all who are entitled to receive it, but changes of address and other causes give rise occasionally to omissions.

The only authorised lecturers for the Society are—

(1) Mr. George St. Clair, F.G.S., Member of the Anthropological Institute and of the Society of Biblical Archæology.

His subjects are :—

(1) *Ths Buried City of Jerusalem, and General Exploration of Palestine.*
(2) *Discoveries in Assyria, Chaldea, and Palestine.*
(3) *The Moabite Stone and the Pedigree of the English Alphabet.*
(4) *Jerusalem of David, Nehemiah, and Christ.*
(5) *Sight-seeing in Palestine: a Narrative of Personal Experiences.*
(6) *Israel's Wars and Worship, illustrated by the new Survey.*
(7) *The Gospel History in the light of Palestine Exploration.*

Address: Geo. St. Clair, Bristol Road, Birmingham, or at the Office of the Fund.

(2) The Rev. Henry Geary, Vicar of St. Thomas's, Portman Square. His lectures are on the following subjects, and all illustrated by original photographs shown as "dissolving views:"—

The Survey of Western Palestine, as illustrating Bible History.
Palestine East of the Jordan.
The Jerusalem Excavations.
A Restoration of Ancient Jerusalem.

(3) The Rev. James King, Vicar of St. Mary's, Berwick. His subjects are as follows :—

The Survey of Western Palestine.
Jerusalem.
The Hittites.
The Moabite Stone and other monuments.

(4) The Rev. Thomas Harrison, F.R.G.S., Member of the Society of Biblical Archæology, 38, Melrose Gardens, West Kensington Park, W. His subjects are as follows :—

(1) *Research and Discovery in the Holy Land.*
(2) *In the Track of the Israelites from Egypt to Canaan.*
(3) *Bible Scenes in the Light of Modern Science.*

MEETING OF THE GENERAL COMMITTEE.

The Annual Meeting of the General Committee was held on Tuesday, July 16th, at 4 o'clock, at the Society's Offices, 1, Adam Street.

The Chair was taken by Mr. James Glaisher, F.R.S.

The Chairman informed the Committee that he held in his hand a number of letters from Members regretting inability to attend.

The Honorary Secretary then read the following Report of the Executive Committee for the past year—

My Lords and Gentlemen,

Your Executive Committee elected at the last General Meeting, on July 3rd, 1888, have now, on resigning their office, to render an account of their administration during the past year.

Your Committee have held nineteen meetings during the year.

The work of excavation in Jerusalem, and surveying in various parts on the east of Jordan, goes on quietly from time to time as opportunity permits.

The Committee have hopes of a Firman being granted in the course of a few months, to enable them to begin excavations on new and hitherto unexplored grounds.

Our energetic agent, Herr Conrad Schick, loses no opportunity of reporting and sending plans of discoveries in Jerusalem, which are brought to light either by excavation or during improvements or alterations in various parts of the City. Some of the recent discoveries are as follows:—

1. In reconstructing the carriage road which runs along outside the northern wall of the City, there were found further traces of an ancient wall, and a portion of the walls of a tower, which are probably the remains of the Lepers' Gate, said to have been in the north wall of the City in the time of the Crusaders. *Quarterly Statement*, 1889, p. 63.
2. Whilst some workmen were clearing the ground in the Latin Patriarch's Garden near the north-west corner of the City, they struck the foundation of an ancient wall of massive masonry, some of the stones having the same Jewish draft as those in the Haram Wall. *Quarterly Statement*, 1889, p. 65.
3. In the Russian property near the Church of the Holy Sepulchre, and east of the Byzantine pavement, a very large cave was found. *Quarterly Statement*, 1889, p. 67.
4. Between the Cave and the Church of the Holy Sepulchre an enormous vaulted cistern was discovered, measuring 102 feet long by 34 feet broad, with 18 piers resting on the rock. Over this cistern or tank a new building has been erected. The situation of this

immense tank is nearly the same as that of the Church of St. Marie Latine, as shown on plate viii, of Count de Vogue's "Les Eglises de la Terre Sainte." *Quarterly Statement*, 1889, p. 111.

5. At Jericho, capitals, pillars, lintels, iron weapons, pottery, jars and lamps, bronze or brass trays, candlesticks, rings, &c., have been found. *Quarterly Statement*, 1889, p. 171.
6. The excavations recently conducted at the Pool of Bethesda by the French monks, which were reported on last year, have now been dropped for a while, but will be probably resumed again soon.
7. We have just received further reports from Herr Schick, stating that the ruins of a small Byzantine Church were found opposite the barracks off the street leading to Bab Sitti Maryam. The walls, apses, and a small altar are still preserved; the south-western corner rests on one of the twin pools.
8. On the Mount of Olives a series of catacombs has been opened; the loculi are in groups and all connected together.

   A slab with Greek inscription, some Jewish and Greek coins, and some forty Roman tiles bearing a stamp which Mr. Schick thinks is that of the tenth legion, were found.

Herr Schumacher continues to send us reports on the various discoveries and changes in the north of Palestine. At Caesarea great changes have taken place since the Survey party measured the ruins.

A colony of immigrants from Bosnia have settled there, pulled down the old ruins, built houses and cleared and laid out the ground inside the walls in lots of one-third of an acre. Several other instances could be named where grand old ruins are being torn down for building material since the Survey was completed.

At Nazareth a large cave of several chambers was found under the convent yard of the Sisters of St. Joseph. A wide staircase leads down to the chambers in which are cisterns, troughs, and tombs. *Quarterly Statement*, 1889, p. 68.

A few days ago he sent us notes of another rock-cut tomb discovered at Shefa 'Amr, having some remarkable figures carved on the sides of the entrance.

For the convenience of subscribers in following out the position of recent discoveries in Jerusalem, a plan of the City, reduced from the Ordnance Survey Plan, was issued with the April *Quarterly Statement*, on which the recent discoveries are noted in red.

Dr. Post contributed a valuable report on the Fauna and Flora of Moab, Gilead, and the Hauran, the result of an expedition undertaken in the year 1886. The list of plants collected is a most valuable contribution to the botany of the country. *Quarterly Statement*, 1888, p. 175.

Of the three volumes we announced in our last report as preparing for the press, one is now ready and being issued to subscribers, viz., "The Survey of Eastern Palestine." This volume has been edited by Major Conder, R.E., and is accompanied by a map of the portion of country

surveyed ; there are upwards of 350 illustrations of ruins, tombs, cromlechs, stone circles, menhirs, inscriptions, &c.

Some progress has been made with the second volume, which consists of M. Lecomte's beautiful drawings, illustrating the Mission of M. Clermont-Ganneau in 1874. The illustrations for the third volume, Mr. Chichester Hart's "Flora and Fauna" of the Wâdy Arabah, are nearly ready.

The edition, as already announced by circular, is limited to 500 copies. The first 250 subscribers are entitled to the three volumes for £7 7*s*. On these being exhausted, the price of the second 250 will be raised to £12 12*s*.

Of the Memoirs of the Western Survey, the Committee are pleased to state that the number of sets remaining is now under 20. These sets have now been raised to 25 guineas.

The questions drawn up for the Committee by the Sub-Committee appointed by the Fund, for the purpose of enquiring into the manners and customs of the various peoples and tribes in Syria are now beginning to yield results. A report on the first series of answers[1] received will be found in the July *Statement*, in which Major Conder gives the following Biblical illustrations brought out by the replies, viz. :—

1. Worship of the calf and of trees.
2. Forbidden food.
3. Rubbing children with salt.
4. Weighing the hair when cut.
5. Riddles asked at weddings.
6. Hired mourners at funerals.
7. Rending the clothes.
8. Certain proverbs mentioned in the Bible.
9. The use of amulets.
10. Crowns worn by brides.
11. "The corner of the field" left unreaped.

Quarterly Statement, 1889, p. 120.

The Rev. George E. Post, M.A., M.D., of the American College, Beyrout, who is intrusted by your Committee with the distribution of the sets of questions and collection of replies, returned to Syria after an absence of 18 months in America, and is doing all in his power to promote the object of the Fund.

The Director of the South Kensington Museum having requested the removal of the objects of antiquity belonging to this Society, owing to the increasing want of space for the exhibits, your Committee have resolved upon taking a suite of rooms suitable for offices and museum, and to have the whole collection under their own direction.

Mr. Harper's new work, "The Bible and Modern Discoveries," is now

[1] The answers were translated from the Arabic by Capt. Mantell, R.E.

in the press. It will contain several illustrations. It gives a popular account of what the recent surveys and excavations of the Society have done in throwing light upon many passages of the Bible. This work will be issued early in the autumn.

Mr. Guy le Strange's important work, "Palestine under the Moslems," is now ready for the press. It is a description of Palestine by the mediæval Arab geographers.

Four years have been spent in gathering together the materials, and translating (from the Arabic and Persian) the various Moslem accounts of Palestine, which, beginning in the middle of the ninth century, reach in unbroken succession down to the close of the fifteenth century of our era. It is expected that the work will prove one of lasting interest; and it should be noted that nothing of the kind has ever hitherto been attempted by any other Orientalist.

The following papers have appeared in the *Quarterly Statements*:—

On the Flora and Fauna of Moab, Gilead, and the Hauran. By the Rev. Dr. George E. Post.

On Meteorological Observations. By Mr. James Glaisher.

On the Discovery of an immense Vaulted Cistern near the Church of the Holy Sepulchre; On Crusading Ruins on Mount Scopus; On the Excavations in the Muristan; On the Excavations north of Damascus Gate. By Herr Schick.

On the Discovery of a remarkable Cave at Nazareth, with chamber having cisterns, troughs, and tombs. On other Discoveries in Galilee. By Herr Schumacher.

On Altaic Cylinders; Chinese and Hittites; Speech of Lycaonia; Comparison of Hieroglyphics; Kirjath Jearim; The Alphabet; The Hebrew Months; Professor Sayce and the Hittites; The Hittite Monument at Keller; The Tell es Salahiyeh Monument; The Hittite Hat; The Stone Zoheleth; The House of the Holy Ghost; Report on the Manners and Customs; The Peasant Language of Palestine; Phœnicians; South Wall of Jerusalem, &c. By Major Conder.

On the Conduit near the Pool of Bethesda; The Middle of the World in the Church of the Holy Sepulchre; The Holy Sepulchre and Dome of the Rock. By Mr. William Simpson.

On the Site of Ebenezer. By Dr. Chaplin.

On Antioch in 1051 A.D.; The Muslim Legend on the Cave of the Seven Sleepers; Inscription in the Aksa Mosque. By Mr. Guy le Strange.

On Kirjath Sepher; Nehemiah's Wall and the Royal Sepulchres; The Broad Wall; Twin Sacred Mounts at Jerusalem. By Mr. George St. Clair.

On the Wâdy Arabah and the Dead Sea. By Professor Hull.

On the Waters of Shiloah, and the Valleys and Waters of Jerusalem. By Rev. W. F. Birch.

To all these gentlemen the Committee tender their best thanks.

The following is the Balance-Sheet of the year 1888, which was published in the April *Quarterly Statement*:—

BALANCE SHEET FOR THE YEAR ENDING 31st DECEMBER, 1888.

Receipts.	£	s.	d.
January 1, 1888—			
To Balance	215	15	9
December 31, 1888—			
Donations, Subscriptions, and Lectures ..	2,079	13	10
Maps and Memoirs ..	380	2	9
Publications	289	3	11
Photographs	22	1	10
	£2,986	18	1

Expenditure.	£	s.	d.
By Printers and Binders	1,057	1	2
Maps, Illustrations, and Photographs..	408	3	5
Exploration.. ..	283	0	0
Stationery, Advertising, and Sundries	71	12	7½
Postage, Parcels, the *Quarterly Statement*, &c... ..	172	7	0½
Salaries and Wages	260	1	2
Rent..	121	0	0
Paid off Liabilities..	211	3	8
Balance in Bank, 31st December, 1888..	402	9	0
	£2,986	18	1

W. Morrison,
Treasurer.

The total income for the year from all sources, including a legacy of £500 left by the late Mr. Robert Mackay Smith, of 4, Bellevue Crescent, Edinburgh, was £2,771 2*s.* 4*d.*, or, adding balance in bank at the end of 1887, £2,986 18*s.* 1*d.* Of this amount the Committee spent during the year the sum of £2,584 9*s.* 1*d.*, of which £1,465 4*s.* 7*d.* was expended in printing and publishing results. The postage of letters, books, parcels, and the *Quarterly Statement*, cost £172 7*s.* 0½*d.*; exploration, £283.

The management, including rent, stationery, salaries and wages, £452 13*s.* 9½*d.*, and liabilities paid off, £211 3*s.* 8*d.*

During the year the number of subscribers has increased by 178.

The Committee desire to again record their special thanks to the Honorary Local Secretaries for their continued assistance in helping on the great work of the Society, and to all their donors and subscribers.

We have to announce with regret that our Honorary Secretary, Mr. Walter Besant, has found it necessary, owing to the many and pressing calls on his time, to relinquish the editorship of the *Quarterly Statement.* Dr. Chaplin has kindly consented to act as editor.

The Committee regret to have to record the death of three members of the General Committee since the last General Meeting, viz., the Rev. J. Leslie Porter, D.D., President of Queen's College, Belfast, William Dickson, Esq., F.R.S.E., and Laurence Oliphant, Esq.

The death of Dr. Porter removes another from the list of the earliest supporters of the Society, and one of the most distinguished names in Palestine travel. He was the author of "Five Years in Damascus;"

"A Handbook for Syria;" "The Giant Cities of Bashan;" and many articles in Smith's "Dictionary of the Bible," &c.

Mr. William Dickson was also a steady supporter and old friend of the Society.

The death of Mr. Laurence Oliphant is a severe loss to the Society. Mr. Oliphant took a deep and practical interest in the Holy Land; purchased an estate there, upon which he resided for some years, and devoted his great abilities to the study of the complicated social system and customs of the country, and to antiquarian researches. Important papers by him on Mount Carmel, the Jaulân, &c., appeared in the *Quarterly Statement* and other publications of the Fund.

We have to propose that the following gentlemen be elected members of the General Committee:—

Sir James Douglass, F.R.S.
Sir Wm. Mackinnon, Bart.
General Warren Walker, R.E.
E. T. Wilson, Esq., M.D.
Captain A. M. Mantell, R.E.
Herr B. Khitrovo.
Rev. C. Lloyd Engström.
T. B. Johnston, Esq., F.R.G.S.
Henry Ormerod, Esq.
Surgeon-General R. F. Hutchinson, M.D.

Lord Eustace Cecil.—Mr. Chairman, I have listened with very great pleasure to the Report of the work accomplished during the past year; though the rate of progress is slow, it is gradual and deserving of greater support. Not many societies command greater respect than this one, for the great and standard works it has done. I travelled in Palestine twenty years ago and saw sufficient evidence to convince any one that in those great mounds and ruined sites, which had remained undisturbed for centuries, something of great interest must be contained, and I quite concur in what Mr. Morrison says, that we should select a Jewish site for excavations. I had the pleasure of knowing the late Mr. Laurence Oliphant, who was so deeply interested in all that concerned the Holy Land and the welfare of its people.

I earnestly hope that the Committee will succeed in obtaining a Firman giving permission to excavate. Something may be done in that direction by getting influential people to take the matter up and give their moral support, if not money. I do hope the Society will not relinquish its work; it began, no doubt, with very little, and it now has branches all over the kingdom, and the sympathy with its objects is widely spread. We have a great subject in hand; we have a great responsibility. You who have sat in the chair and given so much of your time for so many years, are aware of that. I have great pleasure in moving the adoption of the Report.

Mr. W. H. Freeland.—Mr. Chairman and Gentlemen, I have been

asked to second the adoption of the Report, and need hardly say that I concur in the noble Lord's remarks.

I am sure that we all deeply regret the death of the late Mr. Laurence Oliphant, and feel his great loss.

With regard to the Firman and selection of a spot for excavation, I think that we may safely leave the matter in the hands of the Executive Committee, who have hitherto directed the work of the Society so successfully, as shown by the growing list of publications, to which has been added very recently the volume on the Eastern Survey, full of illustrations. I have great pleasure in seconding the Report.

The Report was adopted unanimously.

A letter from the Rev. W. F. Birch was read suggesting that excavations be made on Ophel with the view of discovering the sepulchre of David.

The Rev. Dr. Bullinger.—Mr. Chairman, I beg to propose the re-election of the Executive Committee; the burden of the work falls upon them. We have full confidence in them as in former years, and in their wisdom in choosing the place for excavations.

Mr. Basil Woodd Smith.—I have great pleasure in seconding the re-election of the Executive Committee. For economy, the great amount of work and publications for the small expenditure, we are very fortunate in having such a good working Committee. I think that we ought to encourage drawing room meetings a little more. They are particularly suited for the work of such a Society as ours.

The Chairman.—I have to thank the Committee for their attendance. I agree with his Lordship in the remarks that he has made, and I feel confident the money will come in. If we can but get a Firman, the income of the Society will surely increase. When we hear of the many buildings and relics which have been removed since the Survey of Palestine was made, how thankful we ought to be that we have them all faithfully recorded in our publications.

Professor Hayter Lewis.—I beg to propose a vote of thanks to our worthy Chairman for the great work he has done and his constant attention as Chairman. To him we owe a great deal for his continued support of the work, and for those valuable reports in the *Quarterly Statement* on the meteorological observations. At first sight these seem dry, but when examined carefully will be found to be of the deepest interest, and the information to be derived from them invaluable.

The Rev. Dr. Ginsburg.—I have much pleasure in seconding this vote of thanks. The Chairman inspires us all with youth, from the zeal and determination that he throws into the work in order to make it a success.

The Chairman.—My Lord and Gentlemen, as in the past, I will in the future do anything in my power to make the work of the Palestine Exploration Fund a success. I have to thank you all sincerely and individually for the manner you have responded to the vote of thanks so kindly proposed by Professor Lewis and seconded by Dr. Ginsburg.

The Committee then adjourned.

RECENT DISCOVERIES IN JERUSALEM.

An Ancient Church in Tarik Sitti Maryam.

There was until recently east of the Sisters of Zion, and west of the premises of the Church of the Flagellation (*see* Wilson's Plan 33), an empty or waste place—*débris* covering ruins and walled up on the side next the street "Tarîk Bab Sitti Maryam," opposite the stairs leading up into the barracks. Grass was growing there every year, but 51 feet backwards (north) from the street, Mohammedan houses, of comparatively modern date, are standing.

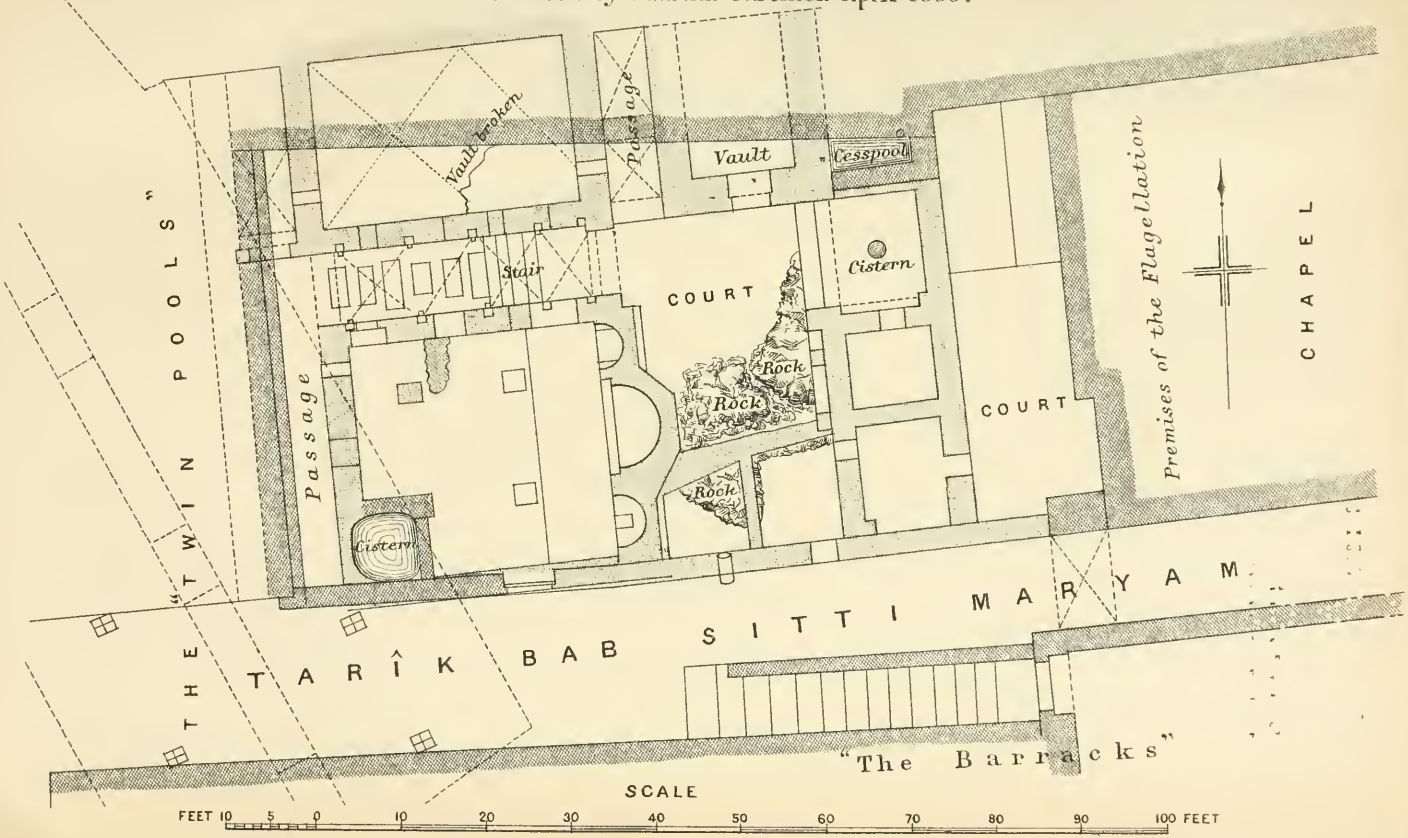
One day in April I was told that in the neighbourhood of the barracks earth was being removed, so I went there, and found that the overseer of the work was a Franciscan monk. Not knowing me, he looked very suspicious at my going over the place, giving no answers to questions in German or Arabic, but asked my guide who I was. So I left the place, and sent my man to the Dragoman of the Latin Convent, requesting him to give me leave to measure and examine thoroughly what was found, as I had seen that it was of some importance. The Dragoman sent me in return his greeting, let me know that he had to ask the *Reis* (the head of the convent), and requested me to apply the next day. We did so, and a German-speaking monk and a cavass were then sent with us that the overseer or workpeople might not create any hindrance, or behave unpleasantly. So I had full leisure to examine and measure everything. The result is as follows :—There were laid open the walls of a small church with adjoining buildings, the latter embracing a small court on which the rock looks out from the bottom. The walls of the church are still standing, 5 feet, and in some places more, high. There were towards the east three apses (as the adjoining plan will show). In the northern an altar is still existing, and the others also had altars formerly. In the southern apse the slabs of the altar are taken away, and only a kind of small cupboard remains. It is curious that the southern apse is something larger than the northern.

Of the four piers I could see only the north-western one, of very fine stones. A piece of the flooring has been uncovered, consisting of large, hard and polished stones ; such are also on the strip of flooring in front of the apses, on a slightly higher level. The rest was still covered with earth, and in the south-western corner of the church is now a round-shaped cistern, its bottom on a level with the flooring of the church. It is apparently Mohammedan work of a much later date. The west wall shows marks of some alterations ; one can observe two different kinds of stone, and so it is with door and windows. All of them were blocked up, but it seems that originally there was a door in the middle, over it a window of some arched-shape, and to the right and left also windows, but small and right-angled. Later on both doors and windows were blocked up, and a larger window made and left.

In front of this western wall was once a street or passage open to the sky. Further north it was covered over, and from the present spring of

PLAN OF OLD CHURCH RECENTLY DISCOVERED IN JERUSALEM

Measured by Baurath C. Schick April 1889.



the arch one can find the breadth of the passage as shown on the plan by a dotted line. The present passage is rather narrow, as the new wall of the building of the Sisters of Zion projects upon it. The north wall of the church has at the north-west corner a door, and it had originally three windows also, but later on was altered. Along the outside of this wall also there was originally an uncovered passage, 8 feet wide, and the opposite wall had door and windows, most of which were subsequently shut up and the passage vaulted over by four small cross vaults, their feet resting on corbel-stones inserted (new) into the wall, as shown in the plan. On account of the former windows in both walls, these corbels or brackets are not always at equal distances or exactly opposite one another, but placed on the masonry already existing.

On the flooring of the passage are lying across, at nearly equal distances from one another, six large stone slabs, which I think are tombstones. I found no inscription or marks on them. In later times this passage was used as a cesspool, so that all was very dirty when I examined it. Towards the east a flight of five steps nearly 2 feet wide leads up to a court where the rock is visible, on a level about 5 feet higher than the general level of the flooring of the church and the passage—so it is clear three or four steps are now missing.

Of the southern wall of the church I could see only a piece at the corner of the southern apse, the door where the donkeys were coming in and going out with their load of earth was there; the earth was not yet removed. Probably a door may be found in it and indications of windows. The latter is more doubtful, as the flooring of the church is only 6 feet 4 inches lower than the present surface of the street; the level of the floorings of the passages in west and north is about 10 inches higher, nearly the same as in the apses.

East of the church adjoining the street are two underground chambers. Their vaults are destroyed, and on their floor the rock rises up. Possibly other rooms may have stood on these underground chambers; but I doubt it, as there is lying in the modern wall the shaft of a pillar and the opening of a former gate, which very likely led immediately from the street to the court inside. East of this and of the court there are two rooms whose vaults have also fallen down, and north of them is an open space (formerly covered) with the mouth of a rock-hewn cistern full of water, further north of which is a modern cesspool for the neighbouring house. East of all this a kind of court has been cleared, and towards the north a great many stones are piled up. Then comes the wall of the premises of the Flagellation Church belonging also to the Franciscan brethren.

North of all this there were two larger rooms, the vaults of which are in great part fallen, but as a passage between is preserved one can measure how far these rooms went northwards, and observe that they are now half under the modern Mohammedan houses.

Although this newly-discovered church is only a very little one, still its existence, situation, and surroundings are of interest in many ways. It is interesting that a church was built so very near to that of the

Flagellation, midway between the latter and the Ecce Homo arch. What event of our Lord's sufferings or deeds may the builders have fixed here? I have no answer! It is also interesting, that this little church stands partly on the eastern of the Twin pools; and that just there was made later on a cistern *over* it, although a mouth of the pool below was near at hand. It is further interesting that now it is confirmed that east of the Twin pools there is no ditch or pool, and that the rock rather rises towards the east.

Several questions may be settled whilst the work of clearing the place is going on. But on the very day when I made the measurements, the 13th April, the work was stopped, and it has not since been resumed.

I had to give a copy of the plan to the Superior of the Convents, and when anything new is discovered he will allow me to examine and measure it, and so improve the plan. This is the reason why I could not send it earlier.

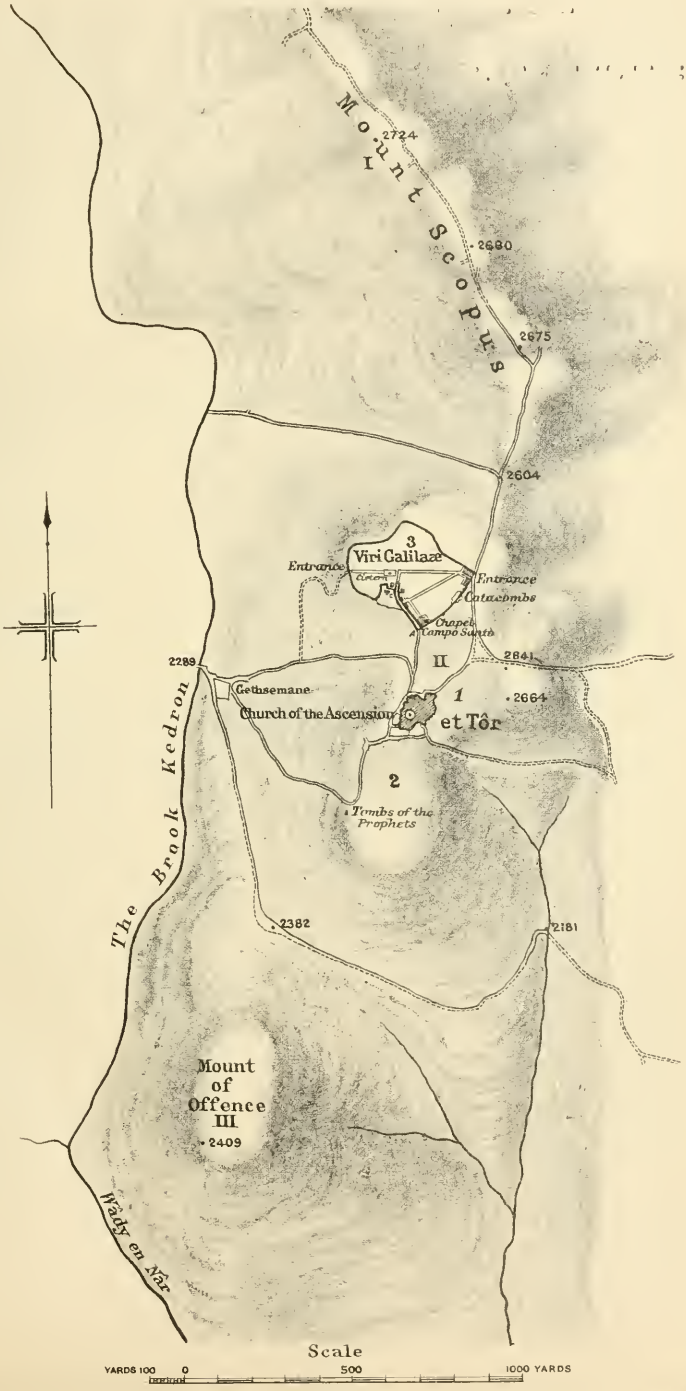
C. Schick.

THE MOUNT OF OLIVES.

Whilst the topography of the Holy City is in so many points doubtful, and a good deal of controversy on the real sites of places, walls, &c., has arisen, "Mount Olivet" alone is an exception. Everyone agrees that the Mount of Olives of Scripture is identical with the present "Jebel Tôr," east of Jerusalem, beyond the Kedron Valley, overlooking the City. The only question that can arise is, whether the whole range of the hills or only a part of them is included under the name? To make this question clearer a plan is appended of the whole ridge, which is commonly understood when the expression "Mount of Olives" is used, because it is *one* mountain.

If one looks to the mountain ridge itself, or examines this plan, it will be observed that the ridge is divided into *three* parts—*a. Mount Scopus*, on the north (I); *b.* The real *Mount of Olives*, in a stricter sense in the middle (II); *c.* The *Mount of Offence*, on the south (III). But the *centre-piece*, marked II, is also divided into *three* heads. The middle one, marked 1, has a double top; the eastern, which is the highest, now bearing a Russian Church and Convent, with a very high belfry, besides a Mohammedan Dome or Wely; and the western top, bearing the Village "Et Tôr" and the Church of the Ascension. The southern head, 2, is occupied by a French lady, who has built the Church of the Credo, a convent, and the "Pater noster," which is a kind of "campo santo," having cloisters surrounding an inner court. The northern top, 3, is called "Kurm es Saiad" = Vineyard of the Hunter, a modern name, but the old traditional name is "Viri Galilaæ." It has been recently bought by the Greek Bishop Epiphanius, who has made some excavations and found things of which I will report in due course. In every age, even from very ancient times, the Mount of Olives was always more or

PLAN OF RIDGE OF MOUNT OLIVET.



less covered with buildings of various kinds, and hence it is not surprising that now things will be found on digging.

Without question the middle part (II) was always most used, being just opposite the city, and the part from which the best prospect is obtained. As to the northern portion, Scopus (I), we know very little of what occurred there during many centuries. On III, or the southern part, we know that Solomon built temples for idols for his strange wives (1 Kings xi, 7), and that it was hence called the "Mount of Corruption." On the slope of this hill there are also a good many rock-cut Jewish tombs, some of which were again used in later times by the Christians.

The Mount of Olives proper.

This is the middle part of the Olivet range, and for the antiquary by far the most important part. It consists, as already mentioned and as shown in the accompanying drawing, of three very distinct heads or tops, the middle of which is the highest and double, and is the most important of all.

It is mentioned in the Old Testament (2 Samuel xv, 30–32) that David took his way over the top on his flight before Absalom, and when they came to the top, "where he worshipped God," Husai came, and so on. From this we learn that even in David's time there was here an old *place of worship*. Later on, in the time of the Temple, the ceremony of burning the red heifer was performed here. It was ordered by the law, 4 Moses xix, 1–10, that the blood of it should be sprinkled seven times *towards the sanctuary*, and according to the Rabbis, the officiating priest, standing on the Mount of Olives, could see over the eastern gate of the Inner Temple into the porch, and through the open gate into the *holy* place of the Temple itself. Further, to this spot, "the glory of the Lord," the Shechinah, or presence of God in the cloud and fire, "went from the City" (*i.e.*, the Holy of Holies of the Temple, where it had been in Solomon's time), "and stood upon the mountain, which is on the east side of the City" (Ezekiel xi, 23; compare also xliii, 2); and according to Zechariah xiv, 4, the feet of the Lord will stand again there at the final judgment. Further, in the account given in Nehemiah xii, 28, of the *singers* being called to the dedication of the restored city wall after the Captivity, those of the villages of Netophathi (the present Lifta), also those from the house of Gilgal, are mentioned. I understand by them, those from the Mount of Olives, as the old worshipping place there was a Gilgal,[1] and the dwellings close to it, *i.e.*, the present village of Tôr = "the house of Gilgal." For after this, the singers north of Mount Olivet, but in its neighbourhood, those of Geba and Asmaveth, are mentioned, and the reason is added: "for the singers had builded them villages round *about Jerusalem;*" towards the *west*, those villages stood on the heights, above and eastwards of Lifta.

[1] Gilgal = round, or circle.

We learn from the old Rabbis, that as the City of Jerusalem itself became too small for all Israelites at the great feasts to be able to eat their offering meals *in* it, as was ordained by the law (the *Camp*, meaning in later times the *City* of Jerusalem), a tract of ground outside the City was *sanctified* and *added* to it, and being regarded as *belonging to the City*, although outside the walls, was in dignity the same, *i.e.*, belonging to the *Camp*. It was on the *east* side of the town that such addition was made, from the wall eastwards to the Valley Kidron, and the slope and top of the Mount of Olives unto Bethany. This means, the *middle part*, marked II on the drawing, leaving out Scopus on the north and the Mount of Offence on the south. Within this holy circle the village Bethphage was situated, and within it took place the Ascension of our Lord.

The feet of our Lord very often stood on Olivet (*see* St. John viii, 1, 2, and Luke xxi, 38); on one of its rocks he sat looking westwards over to the Temple, and spoke of the destruction of Jerusalem, &c. (Matthew xxiv, 3; Mark xiii, 3). Over this part of Olivet he came to his glorious entry into the City as King (Matthew xxi, 1; Mark xi, 1; and Luke xix, 29, 37, 41). At its foot he endured in Gethsemane deep sufferings of soul; from one of its tops, or near to one of them, he ascended triumphantly to heaven (Luke xxiv, 30; Acts of the Apostles i, 9–12).

After these events it is very natural that in Christian times also this Mount of Olives and its sites were kept up and much venerated; so we find there, in course of time, churches, convents, and other similar establishments, and also tombs of various nations. During the Mohammedan occupation nearly all these have gone to ruin, and it is only within the last three decades that much has been built up again, principally by Christians. Thirty years ago, besides the Moslem village, "Et-Tôr" (which has since been greatly enlarged and improved), there were only some olive trees, a few vineyards, and on the highest top the Moslem burial ground with a small dome or Weli, and near to it the threshing floor. Much of the ground has since come, by purchase, into the hands of Christians. The greater part of the middle, or chief top, now belongs to the Russians, who have excavated the ground and found tombs with very fine Mosaics over them and Armenian inscriptions. They also discovered the foundations of a church, which they have built up again on the same place and of the same dimensions and style. They have also built lodging-houses or small convents on old foundations, planted many trees, and above all erected a very high, square-shaped belfry, standing alone, with very many bells of various sizes, amongst which is one very large. The tower bears a gilded cross, which shines very far round about into the country. On the western slope, near Gethsemane, about one-third up the height, the ground has also become Russian property, and there has been built an entirely new church in the pure Muscovite style, with seven towers, surmounted by onion-shaped domes and crosses above them. It is a very costly building, and looks strange in this neighbourhood, where there is nothing else of the kind.

The southern top, marked 2, is occupied by the Roman Catholics. A French lady bought the greater part of it, and two churches are being built, also a convent for nuns of the Carmelite order, some other buildings, and a fine "Campo Santo"—*i.e.*, galleries in which are the Lord's Prayer in 24 languages extending round an inner court, with the tomb of the lady. A boundary wall has been made round the property, and trees planted and gardens laid out. East of this, where the middle top is connected by a narrow pass with another hill more to the east, on the eastern brow of which the village of Bethany is situated, were discovered some years ago some old foundations of a former church, with the celebrated "Bethphage" stone (see *Quarterly Statement*, 1878, page 51, or the "Jerusalem Volume of the Survey of Western Palastine," pages 331 to 340). The property was afterwards bought by the Roman Catholics, and the church is built up again, and a house for a watchman. There are many rock-cut tombs of the Christian time in the neighbourhood, and a little to the north there is a vineyard on the site of a former town or village. In tilling the ground, not only have stones come to light, but also pieces of marble and marble pillars, mosaics, cisterns, and water channels; also two open pools have been discovered. This place should be more systematically excavated. I consider it to be the village from which the disciples brought the ass (Luke xix, 30; Matthew xxi, 1, 2), leading it to the road going towards Jerusalem at the above mentioned pass, where the Bethphage stone now stands; for Jesus himself went not into the village, but only the two disciples, who brought from it the ass. Anyone coming up from Bethany, or leaving Bethany on the right hand, and coming through the vineyards, would have the site of this ancient village or town "over against" him.

The "*Kurm es Saiad*" or "*Viri Galilæ*" is the northern hill of the real Mount of Olives. Two pillars are standing on it in memory of the two men who appeared "in white apparel" to the disciples after the Ascension of our Lord, and said, "Ye men of Galilee, why stand ye gazing up into heaven?" (Acts of the Apostles, i, 9–11). From this (according to the tradition) the name of the mountain originated, but I think the name is still older. As pointed out above, when the people of Israel came together at the great feasts, a good many encamped outside the town, and the Galileans made their camp on this mountain, as those from the other provinces, and from foreign countries, took their places on the middle and southern mountains. After the Resurrection of Christ, mention is made of "Galilee," and of a "mountain" in Galilee, where the disciples were to see Him, and on that mountain in "Galilee," according to Matthew xxviii, 18–20, the last words uttered by our Lord were spoken; they are nearly the same as those recorded in Acts i, 6–8, as having been spoken just before His Ascension on *Mount Olivet*, so that very likely this mountain may be meant, which would not debar His appearing also to His disciples in the *country* of Galilee itself, as we know from John xxi, 1–14, that He did.

The Greek Convent in Jerusalem having long had some share in the

ownership of the vineyard, their Bishop Epiphanias, about ten years ago, bought all the property and enclosed it with a new wall, which is 3,500 feet long. The top of the hill is, to a considerable extent, flat, and slopes off in every direction. The piece of ground is not an exact square, but has crooked boundaries and sides of different lengths. Its shape and position are shown on the plan, which has been reduced from that of the Ordnance Survey.

Except a number of olive and fig trees, a low mound with a cistern beneath, and the two pillars above mentioned, nothing was on the place. The vines had been rather neglected. The pillars were standing in the open field ; they seem to have been *expressly made for the purpose*, not intended to receive a capital or to support anything, simply to fix a spot for remembrance. Their average diameter is 15 inches ; they are round, each with a cross in relief on its side, and at the top are some not very neat or classical mouldings all round ; they are of the native hard reddish stone, and from the present surface of the soil 2 feet 8 inches high. Probably they go down 3 or 4 feet, to the original surface of the ground, having been, when put up, pillars of about 8 or more feet high. It would be interesting to ascertain their real height, and the old *flooring* round about, which, I think, will be found to be paved, or of mosaics, perhaps with inscriptions. When the boundary was made, the mason went straight on, by which the pillars were left *inside*, and in the possession of the Greek Bishop. But the other Christian denominations, especially the Roman Catholics, became irritated, and the Government had to settle the matter. A narrow lane, 10 feet wide was made, so that the pillars are now outside the Greek property, and pilgrims of any denomination may visit them without hindrance if the door is open. The key is kept by a Moslem, who built some houses on his own ground in the neighbourhood of the pillars. These houses are now rented to Russians, and the door is always open.

(*a.*) The Bishop's New Buildings.

Three entrances have been made in the new boundary wall, and inside roads leading to them laid out. The entrance in the west is just opposite the city, and a new road leads up to it, branching off from the old road a little above Gethsemane, and going up in a serpentine line as indicated on the plan ; inside the ground rises as far as the cistern, which is situated at the highest point. The chief entrance is towards the south , not far from the "pillars," in the neighbourhood of an old cistern. It has three gates, a large centre one and a small one on each side ; the large one is opened only on festival days. On each side of this entrance is built a square room, one used at present by the gatekeeper, and the other as a temporary Greek chapel until the permanent one is finished, when it will be used as a museum for the antiquities found on the property. At the north-eastern corner another large entrance has been made, and a small residence for the Bishop and his servants, together

with a stable for animals, &c., also a new cistern. As this point is already on the slope towards the east, it affords a marvellous prospect over many mountains and valleys, the Jordan Valley, and the Trans-Jordanic land. In front of this entrance the main road from the village Et Tôr northwards runs on the top of the hills to Mount Scopus, to the villages 'Aisâwîyeh, 'Anatâ, and others, and to the Sultaneh road to Nablûs.

South of the Bishop's residence a good many rock-cut tombs were found, which may be called *catacombs*. Also near the southern corner, tombs were found, and a new Greek chapel has been erected there, measuring inside only 20 feet by 14 feet, having a door on one side and windows on the other, and covered with a dome. The outside, towards the north, is decorated with a Greek inscription.

Many trees have been planted and terraces made, and in many places old foundations were worked through. It was found that there is now a layer of earth 6 feet, and in parts 7 feet, deep, above the former surface of the ground.

During the progress of these works many discoveries were made which I will now describe.

(*b.*) A "Campo Santo," or Christian Burial Place.

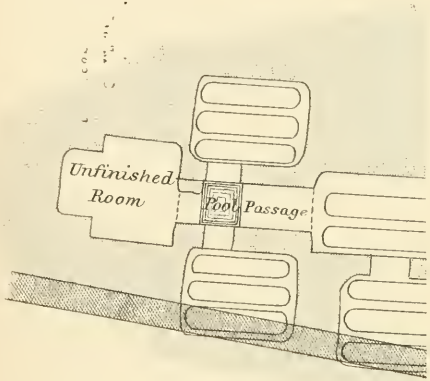
Near the southern corner, 7 feet under the present surface of the ground, were found remains of walls, pillars, shafts, and capitals of the Corinthian order, a base still in its original situation, and near the walls, with which they form an angle, 15 Christian *tombs* of a high class were found in rows of five. There is first a flooring or pavement of stones, under that some *earth*, and then other stone slabs. When the latter were removed, they were found to be the lids or coverings of single graves, built of masonry. In them were found little bottles and similar things, and there were crosses on the covering stones. A good deal of mosaic flooring was also found, where there is no stone pavement, especially under the new chapel. At the south-western corner of the latter a tablet, all in mosaic, was exposed, with a Greek inscription, of which I give a copy one-tenth of its real size (No. 4). I give also drawings of three Christian tombstones; the crosses on them are on one in relief and on two engraved; two have Greek inscriptions,[1] as shown in the drawing. From all this it is clear that in the Byzantine time a Christian burial place existed here, covered (at least partly) with roofing supported by marble pillars of artistic design. The extent, or form, cannot be ascertained until the whole is cleared.

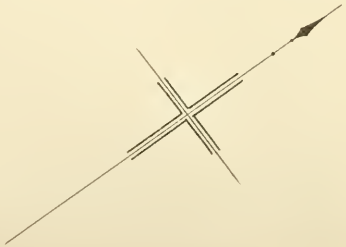
[1] These appear to be early Christian texts, with Greek crosses, as far as can be judged from the copy; the word Μνημα, "Memorial," occurs on 3*a* and 3*b*. The text No. 4 is evidently Byzantine, and seems to be the tomb "of Thy servant Anna."—C. R. C.

(*c.*) Catacombs.

Of these I present a rough plan, and have first to remark, that these excavations are all hewn in the rock, but the rock being of a soft nature, and of a sandy structure, and becoming wet and dry again year after year for many centuries, they have suffered greatly, as small particles are falling off every year. The edges are no longer sharp, and hence measurements and bearings cannot be taken with the exactness one could wish. Further, when the new boundary wall which runs in several places over these excavations was made it wanted foundation, so the excavations were walled up, or some unsafe parts of rock broken away, and new and good masonry put in. Moreover, in thoroughly clearing out the excavations for convenience sake they were made in some places a little wider or higher, so that the workmen might stand, and in consequence of all this, a plan may give a good idea of the whole, but will be far from representing exactly the original state of things. Apparently there were originally three groups of ancient Jewish rock-cut tombs, which later on were partly altered and used again by Christians, and at the same time many new caves and tombs were excavated.

The present entry to these caves is a hole, broken into the roof of a large room, where one has to descend about 15 feet. The old entrance is now walled up, it is in the north; a square hole, 2 feet wide and 2 feet 4 inches high, exactly as all the Jewish rock tombs have. A few steps lead into a Jewish room, 15 feet long and 13 feet wide, and 6½ feet high. In the flooring is a kind of pool 2 feet 8 inches deep, 5 feet wide, and 7 feet long. On the side walls of the room are, towards the west, two ordinary *kokim*; towards the east also two, but very wide ones; towards the south, two of the usual ones, and another originally of the same size, but at a later period (very likely by Christians) enlarged, and its bottom made 3½ feet deeper, so that a second, but small, room, was created. From this on the east, an opening leads into a cave with three Christian tombs, or rather graves. On the south is one loculus, and on the south-east an opening leads to a kind of passage. This was originally a square Jewish chamber 6½ feet wide in each direction. In its flooring are cut three Christian graves, and on the east is a small regular Jewish chamber with two *bench graves*, *i.e.*, a bench on which the corpse was put, one on each side of the passage, which went further eastward, but is now walled up. There is here a hole in the roofing, and consequently some daylight. In the corner of the square room one tomb (*koka*) runs obliquely into the rock. A kind of doorway leads from this chamber to a passage going in a nearly straight line southwards as far as the end of the excavations. On its right side there is a cave, accessible by a kind of doorway, with four Christian tombs, and to the left, first a flight of steps, and then an opening to a cave with three Christian graves parallel with the passage. Going on in the latter there is on the right side an open cave with three Christian graves at right angles to the pathway; then in the flooring of the latter is a pool about 5 feet long, 2 feet wide, and a little more than 2 feet deep. On the


Unfinished
Room
Pool
Passage



right (west) of it is an unfinished cave, and to the left (east) a cave with three Christian graves. Further on there is on the right a square cave with two very wide graves, or troughs, probably Jewish, and to the left a real Jewish chamber with two bench tombs, the passage between them going eastward into another small chamber, which originally had a hole in its roof.

Proceeding along the pathway southwards, there is on the right hand an open cave with three Christian graves, from the northern of which an opening leads to another. On the left side of the road there is first a flight of steps leading up eastward, and from it another stair leading down southward to a number of Christian graves; I counted seven, but the wall towards the west is broken, and when creeping through, one comes to five other Christian graves, and passing over them westward comes up by a few steps into the pathway again. Passing southward through a kind of gate, one comes to a widening of the roadway, and has to step over graves hewn in the bottom; first over one situated across, then over two rows or sets of three each, parallel with the pathway. From the southern row, a wide door opens eastward to a cave with five Christian tombs, placed in the same way as the former. Towards the west there are none, but simply the rock wall.

Then comes again a pool in the flooring of the passage, to the left a flight of broken steps leading to a cave, and to the right (west) of the pool there is a wide opening of a cave with four Christian graves. Going on still, in the passage one has to step again over Christian graves; first over two lying across, and then over two very long ones (the longest in the whole catacombs) parallel with the passage. To the left (east) of them there is a cave with three Christian graves lying in the same direction, and on the right (west) side, only rock. The passage now becomes narrower, and one comes to another pool, a small one, with the usual depth, but under 3 feet wide in each direction. To the right and left of it are openings into caves, each of which has three Christian graves. Then opposite the pool is rather a narrow door leading into a chamber, apparently not finished and without any graves, and here the catacombs come to an end.

From this examination of these remains it appears—

(*a.*) That the tombs are of two distinct kinds, namely, Jewish and Christian. Running through the whole Jewish system there seems to be an idea of singularity, each tomb or grave is for one person, separated from others, and if ever two are found together there is a passage between them, and so no real connection, whereas in the Christian tomb the idea of brotherhood, one belonging to the other, is very striking. Through the whole goes the idea of community.

(*b.*) It is striking to find the number three so often. It seems to have been the rule to put three graves together.

(*c.*) One gets also the impression that they utilised space as much as possible. Straight lines and symmetrical effect they had not at all in view, simply usefulness; of beauty there is none.

(*d.*) One sees also that they were not particular as to the direction in which the corpses had to be laid. It is now the endeavour to put dead bodies in such a way that they may look eastward to the face of Christ, when coming from the east, as the sun rises, the "sun of righteousness" being Christ.

(*e.*) If there were any inscriptions on the walls they have become obliterated. I found none; but in several places crosses were chiselled on the walls.

(*f.*) The "pools," I suppose, were made to gather the water coming down into these caverns or tombs in the wet season, in order that the tombs and the pathway might remain dry.

I have still to add that there is in the large (Jewish) room, along two sides, a trench 2½ feet wide and nearly the same deep, apparently constructed at a later time.

(*g.*) Similar Christian tombs are found elsewhere in the neighbourhood of Jerusalem, especially on the Mount of Olives, but always a single group of three to seven graves. This excavation is the most extensive of the kind, and as the tombs are for the most part Christian, I give them the name of Catacombs.

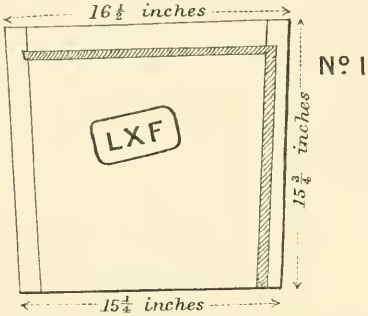
As there were found in this excavation a good number of Roman tiles, of the time of the destruction of Jerusalem by the Romans, the Greek Bishop thinks it may be the "Peristereon" mentioned by Josephus, Bell. v, xii, 2, where he says, in describing the circumvallation of Jerusalem: "From the lower parts of Cenopolis it went along the Valley of Kidron to the Mount of Olives; it then bent to the south, and encompassed the mountain as far as the rock called Peristereon, and that other hill which lies next it, and is over the valley which reaches to Siloam, where it bended again to the west."

Now, as the Greek word "Peristereon" is generally translated in the Latin Columbarium, and the latter word means, in the first place, a pigeon house, and is here spoken of as a rock, some have applied Josephus's expression to the rock at the threshing floor of the village Silwan, just where the village on the north begins. But if applied so, all the rest of the expression becomes unintelligible. "Peristereon" has accordingly been looked for higher up the mountain and more to the north. Dr. Schulz takes it to be the "Tombs of the Prophets," as the word "Columbarium" means not only a pigeon house, but also caves with many excavations for dead bodies, or urns with the ashes of burned ones. But even the tombs of the prophets seems to be situated not high enough or far enough to the north, as near the "Peristereon" the bending of the wall took place from an easterly to a southern direction. On the other hand, everything becomes intelligible if the newly discovered catacombs are taken to be identical with the "Peristereon," for then the whole western slope of Mount Olivet will be embraced, and the wall would come to (or near) the camp of the 10th Legion "six furlongs from the town at the mount called the Mount of Olives" (Bell. v, 2, 3). This camp itself formed part of the circumvallation, and no better place for

ANTIQUITIES FOUND ON MOUNT OLIVET IN THE PART CALLED VIRI GALILAÆ.

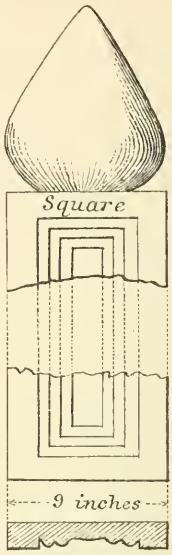
Measured & Drawn by Baurath C. Schick. April 1889.

PLAN OF ROMAN TILES



Nº 1

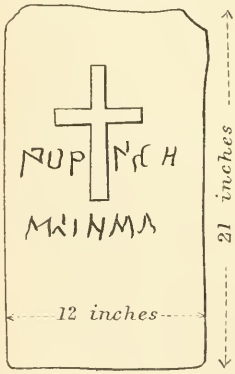
NOTE – *Some have this stamp* LXFRE



Nº 2

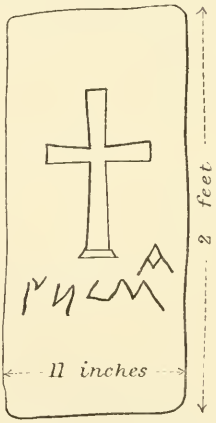
SQUARE PILLAR OF MARBLE (WHITE)

Nº 3a



CROSS CUT IN RELIEF
INSCRIPTION CUT IN STONE

Nº 3b



CROSS AND INSCRIPTION
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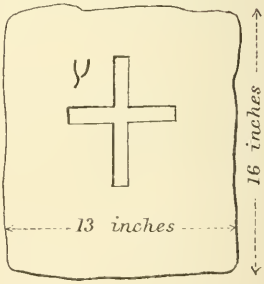
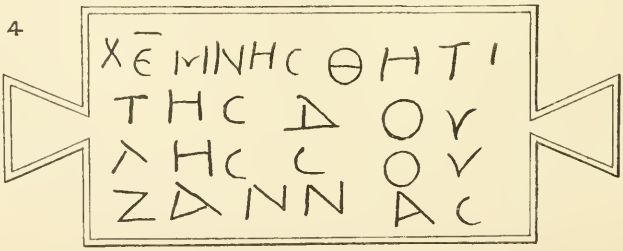


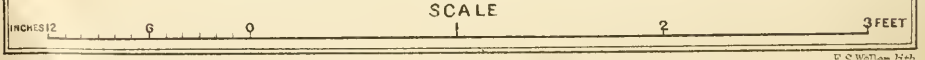
CROSS CUT IN STONE

ON MOSAIC FLOORING AT CAMPO SANTO ON MOUNT OLIVET

Nº 4



SCALE



the camp could be found than the top of "Viri Galilæ" mountain. So the idea of identifying these catacombs with the "Peristereon" has some good ground on which to rest.

It may be objected to this identification, that the catacombs are the greater part Christian, and hence could not have existed at the time of Josephus. But to this it may be answered that there were certainly Jewish excavations before the Christians did anything, and the Christians only modified and enlarged these, which may very well have been done in the 37 years between the Ascension of our Lord and the siege of the City by the Romans. That the Ascension had taken place somewhere on Olivet made this mountain a hallowed place for the Christians, and very likely they got access to and utilised these old Jewish tombs which had already become profaned and polluted by the Roman soldiers, their hated enemies, being buried there.

(*d.*) Antiquities found on "Viri Galilæ."

In clearing the catacombs, digging foundations, planting trees, etc., many old relics were found, of which the Bishop has made a collection. Besides a number of coins with Greek inscriptions, and of late date, there are also some from the Jewish time, amongst them a genuine half shekel. There were also found a great many small stone cubes for mosaics, some small ornaments of silver, iron nails and rings, hooks of copper, &c.; also various vases, capitals, shafts, &c. of marble and other stones, pottery, pieces of tiles, and so on.

Roman tiles (No. 1) were found as coverings of graves in the catacombs, 42 pieces in all. They are, on an average, about 15 inches square, but $1\frac{1}{4}$ inch narrower at one end than the other, so that the narrow end of one can be put into the wider end of the other, they have, like the modern French tiles, raised and curved edges. The most important thing in connection with them is a stamp made in the clay before being burned of the Roman letters L X F, in some instances L X F R E, meaning the tenth legion called Fretensis.

The tiles have a whitish appearance arising from sand having been strewn on them whilst they were still soft, the inside, or clay itself, is more red, and the tiles give a good sound when struck.

No. 2 represents pieces of white marble, belonging to a square post, the middle piece wanting, so that the length (or height) of the post cannot be told. It has on two sides the remarkable mouldings, which are so frequent on such pieces, and which are still found on posts in the Haram Es Sherîf, and on a larger scale on the inside of the so-called Golden Gate. They seem to me a Jewish ornament, and I think such were on the piers or pilasters on the outside of the Temple itself, which the Talmud[1] compares to "waves of the sea."

The posts have in general on one or two sides, grooves into which were

[1] Beth Habbechereh, I, 14.

put stone slabs to form low partition walls. The cone-shaped top or head of these posts must have been a very favourite form with the Jews. As it is found so often, I think it represents in some degree the cap of the high priest, as the Oriental Arabic-speaking Rabbis have even to this day a similar one.

No. 3 shows three tombstones : (*a*) with an inscription in Greek ; it has a cross in relief, as shown in the drawing ; (*b*) is a similar one, but the cross is not in relief but engraved ; (*c*) the same, but bearing only one letter.

C. Schick.

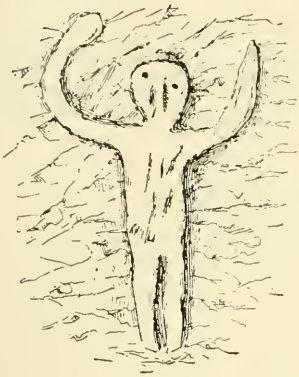
CURIOUS CAVE AT SARIS.

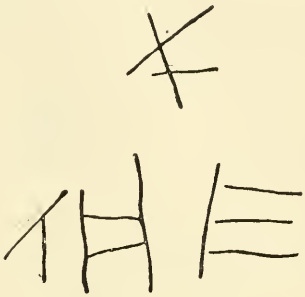
Some time ago M. Henri Baldensperger, of the well-known French bee-keeping firm of Baldensperger Brothers, who own an apiary near Sarîs, called on me, and in the course of conversation told me that some fellahîn of the village of Sarîs had quite recently, whilst cutting firewood, discovered a cave in which were sculptured human figures.

Noticing the interest he had awakened, M. Baldensperger invited me to join him on a visit to the spot. I was yesterday (June 6th, 1889) able to avail myself of this kind invitation, and the following brief notes on the discovery may interest readers of the Palestine Exploration Fund's *Quarterly Statement :—*

On the hill to the south-west of Sarîs is a small pine grove called El Arb'aîn, which, like its sister grove at the shrine of El 'Ajamî, is one of the last relics of the forests which in ancient times covered this part of the country. From El Arb'aîn a bridle-path leads westward, and at about one-third of a mile distant runs along the top of a rock terrace, the edge of which is fringed with bushes. In the face of the low cliff behind these bushes is a hole by which we gain access to an artificial cavern 10 feet square, and at present from 3 to 4 feet high from earth-covered floor to flat ceiling. The entrance is at the eastern end of the north wall, and exactly opposite, in the south-east corner, is a rectangular hole or pit, lying east and west, 5 feet long and 2 feet 10 inches wide. It looks very much like the lower pit in the rock-cut wine-presses which are so frequently met with on our Judean hillsides. The walls of this pit or trough, which is almost full of earth and dried bones, rise from 3 to 4 inches above the floor, and are from 6 to 8 inches thick. In the centre of the north wall there is a channel cut just like those in wine-presses. The fellah who first showed the place to Mons. B. told him that there was writing on the top of these walls, but that a fellah who had dug in the cave in hopes of finding treasure, in his disappointment defaced it, lest it should reveal the exact spot to some more instructed and fortunate seeker. I noticed some marks or characters (?) here, which I copied.

About the centre of the east wall of the cave, which wall, being more exposed to the weather than other parts of the chamber, is much broken, is a rudely carved human figure in relief. The length of the body, in-





cluding the head, is 14 inches; distance between elbows of uplifted arms, 9 inches.

On the northern wall at its western end, near the corner, is another figure, also with uplifted arms. Length of body, seen between present surface of floor and top of head, just 1 foot; between the elbows, 7 inches. The legs, if it has any, must be dug for. We had no digging tools with us.

Excavation may show another trough in this corner. The whole place is dug out of the *nari* rock, which is soft to work, but becomes hardened by exposure to the air. I broke a fragment away from the eastern wall, and found it very hard.

Leaving it to others to fix the age of this cave, I would only remark that, judging from the way in which the figures stand out from the walls, I believe that they were cut at the same time that the cave was hewn out.

We saw no trace of cistern cement in any part of the chamber, nor could we find traces of a wine-press either on the terrace above or on that just outside it. Excavations may reveal more.

J. E. Hanauer.

INSCRIPTION AT BEIT EL KHŬLÎL.

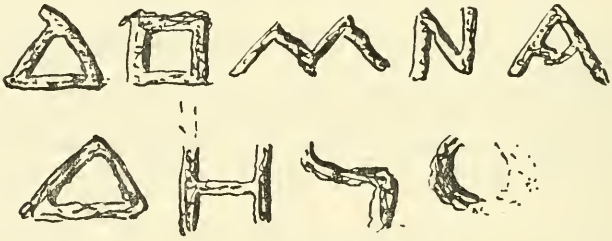
On August 1st, 1889, I for the first time visited the mysterious ruin on the plateau about three miles north-west of Hebron, known as "Ramet el Khŭlîl," or "Beit el Khŭlîl."

It was about 6 p.m. when we entered the place through a gap in the western wall, and watered our horses at the troughs at the north-west corner of the platform that surrounds the beautifully-constructed Roman

well in the angle formed by the southern and western walls, which are the only parts of the building still existing. Whilst doing so my eye fell on a stone in the southern wall. It was lit up by the slanting rays of the declining sun, which revealed traces of an old inscription on it, and on two other stones immediately east of it projecting from the southern wall. I had unfortunately nothing with me with which a squeeze could be taken, but I at once sketched in my pocket-book what could be seen.

The first stone is in a sort of recess close to the south-west corner. On it I could see three letters—

On the westernmost of the two projecting stones it was easy to distinguish the following characters—



On the next stone, immediately to the east, but at a lower level, were the characters—

I pointed out these vestiges of ancient writing to my companion, who saw them very plainly. We again visited the spot on our return journey, but as at that time the stones were in the shade we could not distinguish the inscriptions so easily. When I next go there, which will probably be soon, I hope to take paper and attempt a squeeze. The letters are large, but the stones weather-worn.

J. E. Hanauer.

RECENT DISCOVERIES, NOTES, AND NEWS FROM GALILEE.

Haifa.—Last month some natives working at the new road from Haifa to Nazareth discovered, at a distance of 2,300 metres from the ('Akka) city gate, a cave lying to the south of the road, in a rocky field. They came upon it whilst chasing a hare, which suddenly disappeared in a bush which was found to conceal the small opening of the cave. After having cleared away the earth about the entrance and a heavy stone which still partly closed the doorway, they found a chamber excavated in the soft Nâri rock, 5 feet 6 inches long in its direction from north to south, 7 feet 3 inches across its southern end, and only 5 feet 2 inches across its northern wall, in which is the door.

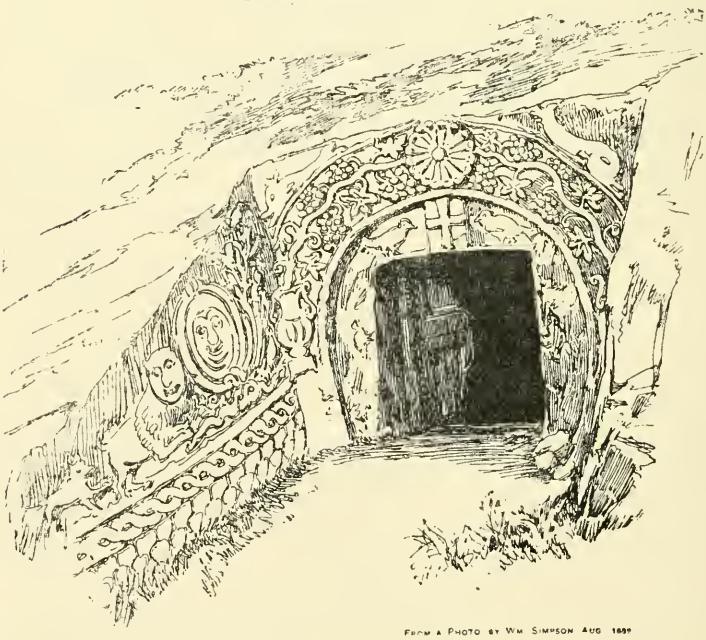
In the southern wall I found two kokim, each 5 feet 6 inches long, 2 feet wide, and 2 feet 6 inches high; in the eastern wall one koka of about the same size, and in the western wall also one koka, 6 feet long, 2 feet wide, and 3 feet high. The height of the room must have been 6 feet originally. There is a slanting vestibule, and the doorway is 2 feet high, 1 foot 6 inches wide on the top, and 2 feet 3 inches at the bottom; the stone which closed it was rectangular with rounded corners. When I visited the cave native curiosity had already rooted up the interior in hope of finding antiquities, and had carried away four sarcophagi which were found in the kokim, but I soon succeeded in finding three of them. They are made of pottery ware, very like that found at 'Abellîn, and described by the late Mr. Laurence Oliphant, *Quarterly Statement*, April, 1886, p. 80. Each one has an interior length of 5 feet 4 inches, a width of 1 foot 2 inches, and a depth of $6\frac{3}{4}$ inches; the projecting upper rims were $2\frac{1}{2}$ inches wide, and about 2 inches thick. The lids were all broken into fragments; they were fitted into the coffin by small grooves, and had a simple line ornamentation on their upper surface. The cement of which the coffins were formed is of a very good compact quality, a mass composed of sand and "humra," or pounded pieces of jars and other earthenware, and lime; no influence of weather or time was discoverable, although the sides and bottom of the mass are but three-quarters of an inch thick. The fourth sarcophagus had, as before said, disappeared, but I happened to find its lid, broken into three parts; it measures only 3 feet 3 inches in length, 6 inches in width at one end, and $6\frac{3}{4}$ inches on the other, with a curved handle on the top, and ornamented with waving lines running parallel to the length of the lid. This coffin evidently was that of a child. Besides these coffins, a gutter of pottery ware, 1 foot 5 inches long and $2\frac{1}{2}$ inches wide, was also found, for what purpose intended I could not make out; also a quantity of fragments of lachrymatories.

Whether any other antiquities worth mentioning were discovered besides those enumerated, the future may show; for the present the

discoverers are put under lock and key by the authorities. The vicinity of this cave seems to me to be an ancient forgotten site, probably the burial-place of *Palmaræa*, for all the rocky cliffs along the slope of Mount Carmel show indubitable signs of artificial caves with oval doors, cisterns and oil presses, quarries, circular holes in the flat rocks, &c.; the terraces of this piece of ground, planted with olives, and called El Khalleh الخلة are bordered by old, strong walls. One of the cisterns shows an upper basin, 10 feet square, connected with a lower one, 7 feet square, by a canal; close beside it the rock shows three steps, and on the flat top a circular hole, 1 foot 5 inches in diameter, and a little over a foot deep, with small channels cut beside it into the rock of the form of the Roman letters, M and K. The zeal of the natives in cultivating this portion of land, in hope of the coming railway to Damascus, may soon bring new discoveries to our knowledge.

Shefa 'Amr.—In a former report I mentioned the discovery of some caves near Shefa 'Amr. I have since come across them again, and although they had been turned into cisterns and were full of rain-water, and therefore could not be planned, I give a sketch of the curious rich ornamentation above the entrance and on both side walls of the rock-cut

TOMB AT SHEFA 'AMR.



FROM A PHOTO BY WM SIMPSON AUG 1889

vestibule. A part of this ornamentation is weather-worn. The cross

above the door lintel proves their Christian origin; also the A and Ω aside of it. The doorway, facing north, is 2 feet 4 inches high and 1 foot 9 inches wide, and closed by a stone gate, still working; a frame around it contains vine leaves and berries, growing out of a pot, and birds. The vestibule in front of the door is cut out in a slanting form from the rock; each of the corners formed between arch and sides are filled out with a fish ornament. The side walls have allegorical figures, a curious human face (probably the sun), to the side of it a lion, followed by a smaller animal, probably a jackal; birds fill up the small empty spaces; next to the pot above mentioned we find a tree with two fruits like pomegranates; a wreath ornament is placed below the human face. These ornamentations are framed by a double cornice at the bottom of the cut, which seems to represent in a primitive manner the egg and arrow-head ornament of the Greeks. Several steps lead from the surface down to the bottom of this rock-cut vestibule, which has a length of 4 feet 10 inches, a height of 3 feet 5 inches at the door, and of 1½ feet near the steps, and a general width of 3 feet 7 inches. As in the other tombs near by, the slant of the face of the rock was used to form the vestibule. In the "Memoirs" of the Palestine Exploration Fund (vol. i, pp. 340, 343) similar caves and ornamentations near Shefa 'Amr are mentioned, and attributed to the Byzantine period.

'Ain es Sufsâfeh.—The heavy rainfalls of last winter washed away the earth around 'Ain es Sufsâfeh, a spring near Nazareth, in the Wâdy M'alûl, and brought to light a broken sarcophagus, built into the wall of the well, at a depth of 3 feet below the former surface of the surrounding ground, where it had doubtless been used before as a trough to water the flocks. The sarcophagus, as far as it can be seen, has a width of 2 feet 3 inches on the outside, and a height of 2 feet 5 inches, it is made of a hard limestone, has simple ornaments on the top and bottom, and a weather-worn wreath ornament on one of the exposed sides.

Mughâret rabâ' Jessâs مغارة رباع جسّاس. This was the name given to a cave supposed to be in the neighbourhood of the Kubr ez Zîr, an ancient tomb about 500 yards north-east of el Harbaj (*see* sheet V of large map) in the Kishon plain. The Zîr زير was, according to local Arab traditions, the head of the mighty Bedawîn tribe called Beni Halâl بنى هلال who lived at or about the time of the Prophet Mohammed, in the country between Nazareth and Haifa; and here and there in Galilee we come across a spot to which his name is attributed, as Kusr ez Zîr, at M'alûl, near Nazareth (Memoirs, vol. i, p. 322); Tell ez Zîr, a mud mound close to the palm groves east of Haifa, &c. The tradition relates that Zîr had a brother named Kleib, كليب and a cousin named Jessâs, جسّاس who was the head of the tribe of the Beni Murra, بنى مرّة and made war upon his cousins, by whom he and his tribe

were entirely destroyed, and that the bodies were buried at the cave mentioned, near the village of Harbaj, which still bears the name of Mughâret rabâ' Jessâs, "the cave of the comrades of Jessâs." Near el Harbaj an ordinary Bedawîn grave, 10 feet long and 3 feet across, surrounded by rude, large stones, is shown as that of ez Zîr himself, and the Bedawîn have used the venerated spot as a general burial place. About 150 yards north of it two beautiful terebinth (*butm*) trees mark the spot which by others is considered to be the real grave of ez Zîr. Below these trees we see a singular rock, in which steps seem to have been hewn, with a flat top about 2 feet square; time and weather have split the soft limestone rock into two pieces. Immediately adjoining it a number of perennial springs rise and form the head of the small Wâdy Harbaj, which joins the Kishon; coloured rags mark the terebinths as holy *fakîri* trees, which point to a period of Arab pagan history, for I do not hesitate to believe that the singular rock, with traces of channels, and holes and steps, once served as an altar for pagan worship. Some 600 yards due east of the Kubr ez Zîr, at the foot of a rocky slope, near where Sheet V of the large Map marks a small ruin called Abtûn, the renowned cave of Jessâs, the site of which had been nearly forgotten by the neighbouring Bedawîn and Fellahîn, was discovered again during last winter. A Bedawy led me to the spot, which I found closed up again by large, unhewn stones; after having moved them away, I crawled on hands and body into the cave, but had to break my way first through heaps of human skulls, with which the cave was partly filled; a quantity of other bones of the human skeleton were lying about in disorder, but it seemed to me not corresponding in number to the 60 skulls which I counted lying in my immediate neighbourhood. The skulls are still in a good state of preservation, only the jaws were mostly fallen off, and the teeth gone. The interior of the cave seems natural; no signs of an ancient tomb, but it may have been widened out of the soft and crumbling rock; it is entirely dry, which fact accounts for the preservation of the human remains for so long a time. Returning towards el Harbaj, the Bedawy guide took me most secretly by the hand, led me round the hill and then a little way up the slope, and just in front of the village, showed me a recently opened second cave, which I entered, and found a large number of human skulls, in about the same condition as those of the cave above described. Near its natural entrance, formerly closed by a single rough slab, I found the skeleton of a Bedawy woman, still partly clothed with the characteristic blue linen wound around her head, like that of a mummy. This skeleton is evidently of a later date. This cave also seems natural. My guide attributed to both of the caves the name of Jessâs. On my second visit I found them closed up again by the Bedawîn. On a stone of the Bedawîn cemetery near the Kubr ez Zîr, I remarked the following ancient *Wasm*, or tribe-sign  , but I could not find out by which tribe it is, or was, used. By this discovery, Arab tradition with regard to the "brave and giant Zîr" is again awakened among the native population of

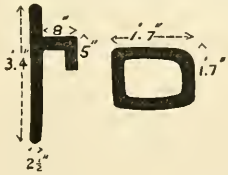
the district, and story-tellers take advantage of the long nights of Ramazan to repeat to breathless listeners the stories connected with the great Bedawy warrior.

'Akka.—A Maronite gentleman of 'Akka brought me lately a fine antique head carved out of the marble-like white limestone of *Jâlis*, near 'Akka. The head, which measures 7 inches in height, has a Greek profile; the chin is partly broken; around the forehead a string of jewels is wound, and held together by a rectangular ornament representing a precious stone, with tassels hanging down to the eyebrows. This jewelry resembles the ornaments now worn by young Arab brides at their wedding. The workmanship of this head, though not peculiarly fine, is nevertheless good. It is said to have been found among the *débris* very near the city gate of 'Akka. The same man showed me three other antiques: a small marble head, with a negro profile and curled hair, partly spoiled, 4 inches high; a little horse, 4 inches long, made of copper, with holes on the sides evidently to fasten the figure of the rider, which is lost; and a small idol, 3 inches long, representing a Salamander on one side, and (probably) a young frog on the other, apparently of Phœnician origin. The stone of which this is worked is very hard, black, and has a shining surface, even a sharp knife makes no scratch on it. These also were found in and near 'Akka.

Tantûra.—Very near the rock-cut passage which connects the shore of Tantûra with the inland plain, due east from the old tower of Tantûra, at a rocky spot in which numerous caves are cut (*see* "Memoirs," II, Sheet VII, p. 11), I discovered an apse cut into the rock. The apse is 1 foot 2 inches, more than semi-circular; the semi-diameter of the interior is 10 feet 3 inches; two steps lead up from the present floor to the surface of the rock, each measuring 1 foot 7 inches in width and 1 foot 3 inches in height, so that the radius of the outer circle is 13 feet 5 inches.

At each end and in the middle of the interior semi-circle I found a square hole, 11½ inches broad, 9½ inches wide, and 6 inches deep, evidently intended for pillars to be built in. The bearing of the main axis is E. 18° S. To the west is a quarry with stones not quite broken out of the rock, and I therefore believe that the work is an unfinished Basilica.

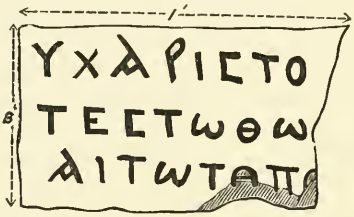
Dustrey.—Near *'Athlît*, on the eastern cliffs of Khurbet Dustrey, a little north of the rock-cut passage, on a nearly inaccessible cliff, I found the following marks engraved in the rock, which I do not find mentioned in the "Memoirs." Is this a gigantic "wasm" of an old Bedawîn tribe, or is it



a mason's mark? The engraving is 2 or 3 inches deep and about 2½ inches

wide, and the length of the principal character is 3 feet 4 inches. These marks very easily escape detection owing to their height from the ground.

Umm el 'Alak near *Bureikeh* (Sheet VIII.).—Here the following Greek inscription on a small marble slab was shown to me, it had been dug out of an old Bedawîn (?) cemetery near :



G. Schumacher.

METEOROLOGICAL OBSERVATIONS.

Sarona, 1885.

The numbers in column 1 of this table show the highest reading of the barometer in each month ; the maximum for the year was 30·162 ins., in December. In the years 1880, 1881, and 1884 the maximum was in January, in 1882 in February, and in 1883 in December, as in this year ; the mean of the five preceding highest pressures was 30·224 ins.

In column 2, the lowest reading in each month is shown ; the minimum for the year was 29·482 ins., in April. In the years 1880 and 1884 the minimum was in April, as in this year, in 1881 in February, in 1882 in July, and in 1883 in January; the mean of the five preceding lowest pressures was 29·518 ins.

The range of barometric readings in the year was 0·680 inch ; the mean of the five preceding years being 0·706 inch.

The numbers in the 3rd column show the range of readings in each month ; the smallest was 0·192 inch, in October, and the largest, 0·710 inch, in September.

The numbers in the 4th column show the mean monthly pressure of the atmosphere ; the greatest, 29·950 ins., was in December. In the years 1880, 1881, 1882, and 1884, the greatest was in January, and in 1883 in February ; the smallest, 29·657 ins., was in August. In the years 1880, 1882, and 1883, the smallest was in July, in 1881 and 1884, in August, as in this year.

The highest temperature of the air in each month is shown in column 5 ; the highest in the year was 103°, in May. In the five preceding years, viz., 1880, 1881, 1882, 1883, and 1884, the highest temperatures were 103°, 106°, 93°, 106°, and 100° respectively. The next in order was 98° in October, and 94° in September. The first day in the

MEDIATELY N

EL. LATITUD

apour, 9 a.m.

	Weight in a Cubic Foot of Air.	Additional Weight required for
	grs.	grs.
J	4·0	1·3
F	4·0	1·3
M	4·5	2·2
A	4·9	2·7
M	6·3	3·7
J	6·8	3·9
J	7·2	4·6
A	7·6	4·7
S	7·1	4·8
	5·4	5·4
	4·6	3·6
	4·3	1·9
	5·6	3·3
	16	17

year the temperature reached 90° was on March 16, in April it reached 90° on one day; in May it reached or exceeded 90° on six days; the highest in the year, 103°, took place on the 23rd of May, and on the 10th of this month the temperature reached 102°; in June it reached 90° on two days; in August on three days; in September on four days; and in October on seven days; therefore the temperature reached or exceeded 90° on 24 days; in the year 1880 on 36 days; in 1881 on 27 days; in 1882 on 8 days, in 1883 on 16 days, and in 1884 on 14 days.

The numbers in column 6 show the lowest temperature in each month. The lowest in the year was 38° on the 19th of March; the next in order was 39° on both the 11th and 20th of March, and in no other month throughout the year was the temperature below 40°, therefore the temperature was below 40° on 3 nights in the year; in 1880 it was below 40° on 13 nights; in 1881 on 2 nights; in 1882 on 13 nights; in 1883 on 2 nights, and in 1884 on 9 nights during the year.

The yearly range of temperature was 65°; in the five preceding years, viz., 1880, 1881, 1882, 1883, and 1884, the yearly ranges were 71°, 67°, 59°, 71°, and 68° respectively.

The range of temperature in each month is shown in column 7, and these numbers vary from 22° in July to 52° in March.

The mean of all the highest temperatures by day, of the lowest by night, and of the average daily ranges of temperature are shown in columns 8, 9, and 10 respectively. Of the high day temperature the lowest, 62°·3, is in January, and the highest, 87°·1, in both August and September; of the low night temperature the coldest, 45°·6, is in February, and the warmest, 68°·8, in July; the average daily range of temperature, as shown in column 10, the smallest, 15°·7, is in January, and the greatest, 23°·4 in May.

In column 11 the mean temperature of each month is shown, as found from observations of the maximum and minimum thermometers only. The month of the lowest temperature was January, 54°·4, and that of the highest was August, 77°·7. The mean temperature for the year was 65°·9, and of the five preceding years, viz., 1880, 1881, 1882, 1883, and 1884 were 66°·4, 66°·7, 65°·5, 65°·7 and 65°·7 respectively.

The numbers in columns 12 and 13 are the monthly means of a dry and wet bulb thermometer taken daily at 9 a.m. In column 14 the monthly temperature of the dew point, or that temperature at which dew would have been deposited at the same hour is shown; the elastic force of vapour is shown in column 15. In column 16 the water present in a cubic foot of air is shown; in January it was as small as 4 grains, and in August as large as 7½ grains. In column 17 the additional weight required for saturation is shown. The numbers in column 18 show the degree of humidity, saturation being considered 100; the smallest number indicating the driest month, is 50 in October, and the largest, 76, both in January and February; the weight of a cubic foot of air in grains under its pressure, temperature, and humidity at 9 a.m., is shown in column 19.

The most prevalent winds in January were N. and N.E., and the least prevalent were S.E. and W. In February the most prevalent were N. and S., and and the least were E. and W. In March and April the most prevalent were W. and S.W., and the least were N.E. and E. In May the most prevalent was W., and the least were N.E., E., and S. In June the most prevalent were W. and S.W., and the least were N. and N.E. In July and August the most prevalent were W. and S.W., and the least were N, E., and compounds of E. In September the most prevalent were W. and S.W., and the least were E. and its compounds. In October the most prevalent was S., and the least were N. and S.W. In November the most prevalent was S., and the least were N. and compounds of N, and in December the most prevalent winds were S. and S.E., and the least were N. and S.W. The most prevalent wind for the year was W., which occurred on 69 times during the year, of which 14 were in July, and 12 both in May and June; and the least prevalent wind was E., which occurred on only 7 times during the year, of which three were in December, two in October, and one in both January and June.

The numbers in column 29 show the mean amount of cloud at 9 a.m.; the month with the smallest is August, and the largest January. Of the cumulus, or fine weather cloud, there were 113 instances in the year; of these there were 16 in April, 13 in June, 12 in both September and December, and only 4 in November. Of the nimbus, or rain cloud, there were 26 instances in the year, of which 10 were in January, 6 in December, and 5 in March, and only 3 from April to November. Of the cirrus there were 51 instances. Of the stratus 24 instances. Of the cirro-cumulus 39 instances. Of the cirro-stratus, 9 instances; and 103 instances of cloudless skies, of which 14 were in November and 13 in August.

The largest fall of rain for the month in the year was 7·89 ins. in January, of which 2·15 ins. fell on the 10th, 1·30 inch on the 31st, and 1·10 inch on the 11th. The next largest fall for the month was in December, 7·29 ins., of which 2·14 ins. fell on the 24th, and 1·68 inch on the 25th. No rain fell from April 11th till the 15th of May, when 0·12 inch fell; then none fell from the 15th of May till the 10th of June, when 0·38 inch fell, next day, the 11th, when 0·18 inch fell; and then there was no rain from this day till the 5th of October, a period of 115 consecutive days without rain. In 1880 there were 168 consecutive days without rain; in 1881, 189 consecutive days without rain; in 1882 there were two periods of 76 and 70 consecutive days without rain; in 1883, 167 consecutive days without rain; and in 1884, 118 days without rain. The fall of rain for the year was 20·06 ins., being 8·62 ins., 2·03 ins., and 10·00 ins. less than in 1880, 1882, and 1883 respectively, and 2·57 ins. and 1·33 ins. more than in 1881 and 1884 respectively. The number of days on which rain fell was 63. In 1880 rain fell on 66 days, in 1881 on 48 days, in 1882 on 62 days, in 1883 on 71 days, and in 1884 on 65 days.

James Glaisher.

NORMAN PALESTINE.

In the last chapter of "Syrian Stone Lore" I have given a general view of the state of Palestine between the years 1099, A.D., and 1291, A.D., during which time the country, in part or altogether, was ruled by the Franks. As regards the geography of Syria, there is no period concerning which we know as much as we do of the mediæval topography of the Frankish kingdom. Even in the later period of the Moslem rule, the accounts of the country are mere sketches compared with the full details obtainable from contemporary documents (the Cartularies, the Chronicles, and the Pilgrim Guides), which have been collected by various scholars, among whom De Vogüé, Rey, and Tobler, are the most distinguished.

In collecting, in index form, the names of places mentioned in the above-noted works, I find that they number between 600 and 700 in all within the limits of the Survey of Western Palestine, which represents the original Kingdom of Jerusalem before the conquests in Moab and Gilead, and in the land of Suhete (N.E. of the Sea of Galilee), and in the land of Shouf (near Sidon), which formed the important fief of the Barony of Sagette. This topography has been carefully collected and arranged by Rey ("Colonies Franques," Paris, 1883), and only a very few place names can be added to his lists. He has also successfully identified a very large proportion of the sites, but as he apparently was not in possession of the Survey map, and as the Survey Memoirs were unpublished at the time, a considerable amount of additional identification becomes possible, and only a very small proportion of these sites are left without location on the map. In some cases I venture to differ from M. Rey, but the value of his work as a whole needs no acknowledgment.

In addition to this work, the sources of information which I have found most valuable include the "Cartulary of the Church of the Holy Sepulchre," the history of King Richard's campaign, by Geoffrey de Vinsauf, the topographical works of John of Wirzburg and of Theodoricus, and the Chronicles in Bongar's "Gesta Dei," which includes Marino Sanuto's account of Palestine. To these may also be added the "Citez de Jherusalem," which I have recently had occasion to study again. The "Cartulary of the Holy Sepulchre Cathedral," contains the names of about sixty villages in Palestine, and the description of property is, in some cases, so detailed as to need a large-scale map, like that of the Palestine Exploration Fund, for its illustration.

The recovery of 600 place names in Western Palestine represents a name for every third mile in distance. We thus possess what amounts almost to a Domesday book of the country, dating nearly as early as our famous English work. It is very interesting to note, that in this nomenclature, taken as a whole, the native language is adopted by the conquerors, though they sometimes gave a second Frankish name to a place, and gave Norman names to their castles. The attempts to reproduce the

Arabic names are on the whole creditable, though without any systematic orthography, and the documents, as a whole, have suffered comparatively little from copyists' errors. We must not forget that distinguished Franks were able both to speak and to write Arabic; and the mediæval topography forms a substantial link between the old Hebrew and the modern Arab nomenclature, and shows us not only that the country is practically unchanged since the 12th century, but that a severe test may be so placed on the character of the Survey work, to which test it answers in a very satisfactory manner.

From the identification of the towns it becomes possible also to trace the borders of the various sub-divisions of the kingdom, including the County of Jaffa and Ascalon, the Seigneuries of Arsur, Cæsarea, Caiffa Nâblus, and Caimont, the possessions of the cathedral of the Abbey of St. Sion, and of the Abbey of Mount Tabor.

After the loss of Jerusalem we find the feudal lords selling their lands to the Templars, the Hospitallers, and the Teutonic knights, but much earlier we find the Church to be growing richer from year to year with lands bequeathed by those who had won them with the sword.

After 1187 we gather little or nothing of the topography of the Judean and Samaritan hills which fell to Saladin with the lands east of Jordan, but in 1191 we have accounts of the topography of Sharon and the Philistine plain, and down to the end of the 13th century the Teutonic knights and the Venetians held nearly the whole of Galilee and the sea coast from Acre to Sidon, and further north.

The Teutonic Order bought out the rights of the earlier nobles and were left undisturbed by agreement made in 1240 A.D. with an upstart Sultan of Damascus.

The common term for a village in the Norman documents is *casale* (or in Latin *casella*) which William of Tyre explains to mean a place of 100 houses or more, paying a tax of one bysant each. This word is, as a rule, however, only applied to places with a Norman name.

As a little problem in exact topography we may take the explanation which is so clearly to be obtained from Sheet VIII of the Survey Map, of the Deed numbered 155 in the Cartulary of the Holy Sepulchre Cathedral (E. de Rosiere's Edition, Paris, 1849). In this Hugh, Lord of Cæsarea Palestina, gives to the Canons :—

"The mountain contiguous to the Garden of Fiesse (otherwise Defiesse), where the fountain springs form a conduit, beginning (on the other side) from the road which comes from Braicæt to the casale of the Holy Sepulchre, and goes east by the cave between two mountains by the torrent, and comes to the little mountain between the said mountain and the Mountain of Broiquet (and other mountains), and by the old limekiln in a straight line to the thorn in the plain dividing the casale of the Holy Sepulchre (Fiesse) from the land of Sabarim of the Hospital." He also gives the Casale Bubalorum.

This property can be traced exactly on the Survey Map. The site of

Defiesse is the ruin *Dufeis*, in the corner of the Sharon plain, under Carmel. The garden is shown on the map north of the ruin, and by it a spring ('Ain Ism'aîn), from which starts the conduit or aqueduct which runs to Cæsarea. The road from Braicæt, which goes east, I take to be the road from the ruin *el Bureij* (about a mile to the west), this passes up a valley, as stated in the text, and there is a cave on the valley side marked on the map. The Mountain of Broiquet is clearly the hill north of this valley on which the little village, *el Bureikeh*, is marked, while the Sabarim of the Hospital is evidently the village of *Subbarin*, rather more than a mile to the north-east in the same valley. Thus within a radius of two miles we can identify every local name mentioned, with the spring, garden, aqueduct, cave, valley, road, and mountains noted. The Casale Bubalorum, given at the same time is, I think, the ruin *Bablûn*, south of *Dufeis*.

The ruins present nothing but a few walls, according to the "Memoirs," but the nomenclature is unchanged.

The results of the Index, which I have now completed, may best be shown on a map, but the cases in which new identifications are possible, which are not mentioned by preceding writers, may be here enumerated.

Achara, a fief of Chateau du Roi (M'alia), in Galilee, is probably the modern village *'Akrîth* (Sheet III).

Amouhde, a casale near Ascalon, is now the ruin *'Amûdeh* (Sheet XX).

Artabee, sold to the Hospitallers in 1135, east of Kalensone, is perhaps the ruin *Yobek*, in the required position (Sheet XI).

Aschar, a casale given in 1115 to St. Mary of Josaphat, apparently in the Seigneurie of Naples, is probably the village *'Askar* (Sychar), near Nâblus (Sheet XI).

Assera, given to the Hospitallers by the Seigneur of Bessan, seems to me to be the village *'Asîreh* (Sheet XI).

Assir or *Serra*, a casale belonging to Ramleh, seems probably to be *Yâzur*, near Jaffa (Sheet XIII).

Mahumeria of Cathara, in Ascalon, called Viridis in Latin (No. 58, Cartulary of Holy Sepulchre). This is interesting. Cathara is evidently *el Khudr*, "the green one," and in Ascalon there still remains a little mosque, so called. Mahumeria or Mahomerie was a crusading word for a mosque. The writer in this case knew Arabic, as shown by his rendering Cathara by Viridis.

Balaton a casale of Chateau du Roi in Galilee, probably *Belatûn*, west of M'alia (Sheet III).

Belhataouahin probably for *Abu et Tawahîn* "father of mills,' was a casale given to the Hospitallers in 1136 by Hugh of St. Abraham (Hebron), to be sought in the Hebron hills, probably *Deir et Tahûneh* (Sheet XVII), which, like many other places held by the religious orders in the 12th century, retains the name *Deir* or "monastery."

Belmont, as I have shown in the "Memoirs" (vol. iii, p. 18). appears to

be *Sôba* (Sheet XVII). M. Rey appears to have come to the same conclusion, though he does not mention the distance and direction noted by Brocardus, which is strongly in favour of this identification. The remains of the Crusading Castle are still visible at Sôba.

Benehabeth, a village belonging to the Holy Sepulchre Cathedral, seems to me to be a copyist's error for *Beni Hârith*.

Bene Hatie, mentioned with the preceding is perhaps the present *Kefr 'Atya* (Sheet XIV).

Betheligel, also noticed in the Cartulary of the Holy Sepulchre, is perhaps *Beit Likia* (Sheet XVII).

Bether, given by Baldwin II to N. Dame de Josaphat is probably *Bittîr* (Sheet XVII).

Bethsurie, Cartulary of Holy Sepulchre, probably *Beit Surik* (Sheet XVII).

Bet Digge, in the same list apparently the present *Beit Dukku* (Sheet XVII).

Beze, a casale belonging to Bethel given by Balian d'Ibelin to the convent of St. Joseph of Arimathæa seems to be *Deir Ibzî'a* near Bethel (Sheet XIV).

Bombrac, or *Bombrae*, in the Jaffa plain (Itin. Ric. iv, 30), is the present *Ibn Ibruk* (Sheet XIII).

Buffles, or Casale Bubalorum, as before noted, seems to be the ruin *Bablûn* (Sheet VIII).

Cala, a place between Ramleh and Mirabel, and *Chole* near Ramleh, with *Gul*, a casale of the Abbey of St. Sion, appear to be the village *Kûleh* (Sheet XIV).

Casracos, near Aschar, in the Seigneurie of Naples, is probably *Kefr Kûs* (Sheet XI).

Cedo, a casale of the Abbey of Mount Sion, near Jerusalem, is perhaps the ruin *Kuriet Saideh* (Sheet XVII), where there is a crusading inscription on a lintel stone, as given in the "Memoirs."

Courcoza, a casale in the Hebron district, is perhaps, the ruin *Kurza* (Sheet XXI).

Dere, a casale of the Church of St. Gilles (Sinjil) is perhaps *Deir es Sudân* ("Monastery of Cassocks") west of Sinjil (Sheet XIV).

Derhassen, a casale of the Holy Sepulchre Cathedral, is the ruin *Deir Hasan* (Sheet XVII).

Der Sabeb, in the same category, is the ruin *Deir esh Shabîb* ("Monastery of Youths" Sheet XVII).

Derxerip, in the same Cartulary, is perhaps the present *Dier Tureif* (Sheet XIV); it is mentioned with the preceding.

Engara, a casale of the Venetians in the region near Acre, probably the ruin *'Ain Haur* (Sheet III).

Farachiem or *el Farachie*, a casale of the Pisans in 1189, possibly Ferâsîn (Sheet VIII).

Feitata or *Beitata*, a casale given to the Hospitallers by Hugh of St. Abraham (Hebron), is the present ruin *Futtâtah* (Sheet XX).

Galafice, from its position seems to be the village *Ikhneifis* (Sheet V).

Galilee, a large fief in the maritime plain, appears to me to be clearly the modern *el Jelîl*, the Chateau des Plaines east of it being the present ruined castle at Kalensaweh.

Gemail, the tithes of which belonged to St. Mary of Josaphat. Perhaps *Umm el Jemâl* near Abu Dîs (Sheet XVII).

Geschale, apparently in the Philistine plain, appears to be the ruin *Kashkalîyeh*, south of Beit Jibrin, which town belonged to the Knights Hospitallers as did four ploughs of land at Geschale (Sheet XX).

Gez, a casale of Chateau du Roi, obtained by the Teutonic Knights in 1289, appears to be *Jett*, south of M'alia (Sheet III).

Heulem, a casale paying tithes to the Abbey of Mount Tabor, clearly the village *'Aulam* (Sheet IX).

Heedix, a casale of Mount Tabor. Perhaps *el Haditheh*, the *x* here, as in a previous case, being a mistake for *t*.

Hubim, a casale of the Holy Sepulchre Cathedral, probably *Hubîn*, a ruin with a good spring of the same name (Sheet XVII).

Huxemia, in Lower Galilee, mentioned in the same Cartulary, seems from its position (see Nos. 124 and 149 of the Cartulary) to be *Iksal* (Sheet VI), "the cave near Casale Huxemia," might be the curious hermit cave called el Mat-hûmeh above Iksal.

Josaphat was a place north of Jerusalem, mentioned by Fetellus and by Marino Sanuto, apparently *Sh'afât* (Sheet XVII).

Jerraz, in or near the Jordan valley, and given in 1115 to St. Mary of Josaphat, seems to be the large ruin of *Yerzeh* (Sheet XII).

Kefreachab, Cartulary of Holy Sepulchre No. 144, and No. 54, is clearly *Kefr 'Akâb* (Sheet XVII).

Lahemedie, a Venetian casale in the country, near Tyre, probably *el Hammedîyeh* (Sheet I).

Lecara, mentioned with Iebul in Lower Galilee, is clearly the ruin *Kâra*, near *Yebla*.

Laremedie, a Venetian casale, seems to be the modern *Rumeidîyeh* (Sheet I).

Maledoin, the name of the castle on the Jericho road (Sheet XVIII), is evidently a corruption of Militum. In the Onomasticon (*see* "Memoirs," vol. iii, p. 172) it is called Castellum Militum.

Mangana, a casale given to the Abbey of Mount Tabor in 1101 A.D. by Tancred, seems to be *Umm Jûnieh*, on the Jordan (Sheet VI).

Migedell, a casale near Caco, in the Maritime plain, appears to be *Mejdel Yâba* (Sheet XIV).

Meimes, given to the Hospitallers by Hugh of St. Abraham, is no doubt the ruin *Mâmâs* (Sheet XXI).

Melius, a casale near Ascalon, given to the Knights Hospitallers in 1111 A.D., is perhaps the ruin *Melîta* (Sheet XX).

Mirabel, the celebrated castle, is, I believe, to be found in the Castle of Râs el 'Ain (Sheet XIII). The name may survive at *el Mirr*, close by.

Moitana, given to the Hospitallers in 1110 A.D., is perhaps the ruin *Muteiyen* (Sheet XIV).

Montgisard, near Ramleh, and south of Mirabel, mentioned by William of Tyre, xxi, 23, appears to me to be the Mound of Gezer, *Tell Jezar* (Sheet XVI).

Quefrenebit, belonging to John d'Ibelin, near Acre. The name probably survives in *Bîr Kefr Nebîd* (Sheet III).

Roma, a casale of the Cathedral of the Holy Sepulchre, apparently in the centre of the country near Ragaba (*Rujîb*), appears to be the ruin *el 'Ormeh* (Sheet XIV).

Saarethe, a casale given to the hospital by John d'Ibelin in 1256, seems perhaps to be the ruin *S'aîreh* (Sheet XVII); it ought to be towards the plain where Ibelin (Yebna) stood.

Sabahiet, a casale of the Holy Sepulchre Cathedral, is perhaps *'Ain Sabieh* (Sheet XVII).

Saka, between the Kishon and Caphar Mada (Kefr Menda), is perhaps the ruin *S'as'a* (Sheet V).

St. Elie. In this case M. Rey seems to me in error. The place appears to be the present *Mar Elias*, which is mentioned in the "Citez de Jherusalem" as south of the City (*see* p. 41 of the Palestine Text Society's translation).

Samarita, or *Samaritano*, a casale of Cæsarea. M. Rey suggests Zummarin, but perhaps the place intended is the old Castrum Samaritorum, now *Kefr es Samîr* (Sheet V).

Saphe, belonging to N. Dame de Josaphat in 1130, in the territory of Nâblus, seems to be *Suffa* (Sheet XVII).

Sapharoria, Cartulary of Holy Sepulchre, No. 133, seems to be the ruin of *Kefr Urieh* (Sheet XVII).

Terfalsa, a casale of the Royal domain near Tyre, is evidently *Teir Filsieh* (Sheet II).

Turbasaim, Cartulary of Holy Sepulchre, Nos. 41, 142, near St. Gilles, seems to be the ancient Thormasia, now *Turmus 'Aya* (Sheet XIV).

Zenum, Cartulary of Holy Sepulchre, Nos. 29, 53, 54, 144, seems to be *Deir Yestn* (Sheet XVII).

Considering how thoroughly this nomenclature has been examined by various scholars, the above list of more than sixty places is a substantial addition in the total of six hundred. Except in the cases here noticed, Rey's identifications appear to be satisfactory, and the places are found on the Survey map. In the present paper I have only noticed new identifications, with one or two exceptions, and have not repeated the identifications which are already discussed in the "Memoirs."

If each of the these 600 casales contained 100 houses, as mentioned by William of Tyre, the population of a village in crusading days would have averaged about 500 souls, which is about the average of a modern Palestine village. This would give a population of 300,000 souls, which is about half the present population of Palestine, but although the various Cartularies give us many names in Galilee and west of the water-

shed, the regions further east and south are unnoticed, and the property described is that of public bodies not of the original fief-holding knights. The army alone is calculated to have consisted of some 20,000 to 25,000 men in all (*see* "Syrian Stone Lore," p. 428), and the population was probably at least equal to that of our own times.

It should be noticed that crusading ruins are mentioned in the "Memoirs" at a great many of the sites, which are included in the above-named lists.

C. R. C.

THE NORMAN FIEFS IN PALESTINE.

By identification of the various towns in Palestine mentioned in Norman documents, it becomes possible to define the limits of the fiefs, and these I have now laid down on the Survey Map. The fief of Sagette (Sidon), including the Land of Schouf—now *Jebel Shûf*—lay beyond the limits of the Survey on the north, being bounded on the south by the Kasimîyeh gorge, but including the Merj 'Ayûn and the important castle of Belfort. South of this line the following were the divisions :—

(1.) *The Seigneurie of Tyre*, from the Kasimîyeh on the north to the Ladder of Tyre on the south, including the lower hills on the east to *Zubkîn*, *Reshkananîn*, *Baflei*, and *Nîha*.

(2.) *The Seigneurie of Toron*, held by the Courtney family, east of the last, and extending in a southern direction to *Harfeish*.

(3.) *The Seigneurie of Renier of Marun*, including *Marûn er Râs* on the south-west, and the towns Mees (*Meis*), Belide (*Belîdeh*), Cades (*Kades*), and Chateau Neuf (*Hunîn*). It appears to have reached to the Jordan Valley.

(4.) *The Seigneurie of Montfort*, between (1) and (2), extended from Aithire (*Y'ater*) on the north to Jeth (*Jett*) on the south. On the west it included Judyn (*Kul'at Jiddîn*), Zoenite (*Zueinîta*), and Tabaria (*Tibria*) reaching to the plains of Acre.

(5.) *The Seigneurie of St. George of Labeyne*, from *Beit Jenn* on the east to Gelon (*Jallûn*) on the west, and from Bucaël (*el Bukei'ah*) on the north to *Wâdy Halzûn* on the south. St. George of Labeyne was the present *El B'aneh*, near which is the shrine of *El Khudr* (St. George).

(6.) *The Territory of Acre*, from the Ladder of Tyre to the Kishon, and extending from the sea to the mountains west of Caphar Mada and Zekanin (*Kefr Menda* and *Sukhnîn*).

(7.) *The Seigneurie of Cayphas* included Carmel and the sea shore almost to Chateau Pelerin.

(8.) *The Seigneurie of Caymont*, a small fief round Tell Keimûn.

(9.) *The Prince of Galilee* occupied the rest of Upper Galilee and all the plain of Esdraelon to Petit Gerin (*Jenîn*). On the south-east the border ran from Le Grand Gerin (*Zer'in*) by Lecara (*Kâra*), Hubelet

(*Yebla*), and Gebul (*Jabbûl*), having the Valley of Jezreel in the next fief. The borders of the Seigneur of Tiberias in this fief I am not able to define.

(10.) *The Seigneurie of Bessan* included the Jezreel Valley and Jordan Valley, perhaps as far as *Tell er Ridhghah*, where the Beisan plain ends.

(11.) *The Seigneurie of Cæsarea* included the Sharon plain to the River of Roche Taillie (*Nahr el Fâlik*). On the east it ran to the low hills including Hatil (*'Attîl*) and Allar (*Ellâr*), Caphet (*Keffa*), Pharaon (*Fer'on*), and Phardesie (*Furdisia*).

(12.) *The Seigneurie of Arsur*, south of the last, and as far south as the Arsur river (*Nahr el 'Auja*); extended on the east to include Largieous (*Jeiyûs*).

(13.) *The Seigneurie of Naples* included the Samaritan hills as far south as Kafarhone (*Kefr 'Ana*) and Val de Curs (*'Ain Sinia*).

(14.) *The Seigneurie of Jaffa and Ascalon* belonged to the famous Seigneurs of Ibelin (*Yebna*). It extended south from the River of Arsur to Gaza, and on the east to Betenoble (*Beit Nûba*), Huldres (*Khuldah*), Blanche Garde (*Tell es Sâfi*), Zeite (*Zeita*), and Agelin (*'Ajlân*).

(15.) *The Seigneurie of Darum*, round *Deir el Belah*.

(16.) *The Seigneurie of St. Abraham* included the Hebron hills from *Beit Jibrîn* eastward. On the north it seems to have extended to Jamavara (*Jemrûrah*) and Meimes (*Mâmâs*).

(17.) *The Royal Domain* was between St. Abraham and Naples, including the Jerusalem hills and Jericho Valley. A large proportion of the villages in this region were given by successive kings to the Church of the Holy Sepulchre.

(18.) *Oultre Jourdain*, the great fief of Renaud of Chatillon, included Gilead and Moab.

(19.) *The Land of Suhete* was the Jaulân up to Bânias.

A few notes may be added.

There were three bridges over Jordan in the 12th century, viz. :—

(1) The bridge of Chastelet = *Jisr Benât Y'akûb*.

(2) The bridge of Sennabra = *Jisr es Sûd*, just south of the Sea of Galilee, where the ruins of Sinnabris (*Sin-en-nâbra*) still exist.

(3) The bridge of Judaire = *Jisr el Mujâmi'a*.

The *Jisr ed Dâmieh* is also probably a Crusading structure, but I do not know its Crusading name.

The *Lake of Castorie* was in the plain near Arsuf. It seems clearly to be the present *Bahret Katurieh* of the Survey.

M. Rey, in 1883, promised a Crusading map of Palestine. I do not know if this has yet appeared. If so, the fiefs will probably be shown much as above, since many of the towns noticed in this paper were identified by him.

C. R. Conder

THE VANNIC LANGUAGE.

SEVERAL writers, following Dr. Sayce, have supposed that the language of the Vannic inscriptions in Armenia would be found to be the same as that of the Hittites. This seems to me unlikely, because the Vannic is an inflected tongue, whereas the Hittite is generally allowed to have been probably agglutinative.

Dr. Mordtmann supposes the Vannic to be an Aryan language, resembling Armenian, in which case it would not have any bearing on the Hittite. It appears to me probable that he is right, because out of the very few words of known sound as yet settled in Vannic a good proportion are similar to Armenian. Armenian is not a language in which phonetic decay has proceeded very far, as may be seen on comparing Armenian with other early Aryan languages. The Vannic also compares not only with Armenian, but with the monumental Persian, the Zend, and the Sanskrit, and the comparisons extend to pronouns and other parts of speech which are, as a rule, more constant than nouns and verbs. The following instances may be of value as showing what is meant, especially as regards terminations :—

Vannic—

-si, nominative ; old Persian *-sa*.
-i, genitive, sing. ; Armenian *-i*.
-n, accusative, sing. ; Armenian *-n*.
-naue, possessive ; Armenian *-an*.
-pari, locative ; old Persian *-para*, "towards."
-ki, participle ; the common Aryan *-ka*, adjectival.
-li, gerund ; Armenian *-li*, gerund.
-ni, third person pl. ; Armenian *-n*, third person pl.
-n, for ordinals ; Armenian *-n*, ordinal.

Pronouns and particles seem to show the same :—
Vannic—

ies, "I" ; Armenian *Ês*, "I."
ini, "this" ; Armenian *ain*.
isti, "this" ; Armenian *asti* ; Latin *Iste*.
para, "out of" ; old Persian *para*, "away."
eha, "this" ; old Persian *hauva*, "this."
uda, "that" ; old Persian *aita ;* Armenian *ta*.
ui, "and" ; Armenian *yev*, "and."
ali, "and" ; Armenian *aylyev*, "or."

The pronouns being among the most unvarying parts of speech, the comparison is of some value, but nouns and verbs may also be compared :—

Vannic—

are, "men"; Armenian *ayr*, "man."
alkhe, "inhabitants"; Armenian *elk*, "race."
Ardis, "light"; Aryan √AR, "burn"; Armenian *aryev*, "sun.
a, "sacrifice"; old Persian *aya*, "sacrifice."
asis, "house"; Sanskrit *vesas*, "house."
asi, "cavalry"; Sanskrit *asva*, "horse."
ehuri, "Lord"; Zend *ahura*; old Persian *aur*, "Lord."
esi, "Law"; Sanskrit *yos*; Latin *jus*, "Law."
ip, "inundation"; Sanskrit *ap*; old Persian *api*, "water."
kha, "to possess"; Aryan √GI, "to gain."
khar, "to cut"; Sanskrit *kri*; Greek *keiro*, "cut."
khin, "son"; Ayrian √GAN, "to beget"; whence English *kin*.
Sal, "year"; Persian *Sal*, "year."
tumeni, "village"; old Persian *tauma*, "house"; Armenian *down*.
paru, "to carry off"; Aryan √BHAR, "to carry."
Zadu, "to build"; Zend *Zad*, "a building."

The names of the Vannic kings do not, as has been asserted, present comparisons with Hittite names. On the contrary, in some cases they seem to be of an Aryan type—*e.g.*, Argestis. The thirty-three instances above given, together with the inflectional character of the Vannic, and the use of at least one preposition, *pari* (Greek *para*), seem to me to support Dr. Mordtmann's views as to the Vannic, and to agree with the statement of Herodotus, that the Armenians were of Phrygian origin—the Phrygians being pretty clearly Aryan. The Vannic texts, however. are not older than the 9th century, B.C., whereas the Hittite texts are older than perhaps the 17th century, B.C., or at least than the 14th century.

C. R. C.

NOTE ON THE HOLY SEPULCHRE.

THE description of a Jewish tomb near the site of Calvary, published in 1881, seems to have been misunderstood. The Bishop of Cashel last year published a small pamphlet pointing to a tomb under the Rock of Jeremiah's Grotto as being that which was intended, and was told by a a Greek that General Gordon believed this to be the true site. As far as I have heard, General Gordon had no special view on the subject, though he accepted the site which I proposed for Calvary in 1878.

The tomb to which the Bishop refers I visited when first partially excavated in 1873. It is fully described in the Jerusalem volume of the "Memoirs." I found on the east wall a Latin cross with A and Ω, one either side. I feel little doubt that it is a Crusading tomb connected with the adjoining Asnerie, which I then identified. The only Jewish tomb

as yet known in the vicinity is further west, on the other side of the road, as described in the same Memoir. I fear, from what I hear, that visitors are being misled by natives, who point to antiquities on their property as the places mentioned by explorers.

C. R. C.

NOTE ON "THE REMAINS OF OLD WALL OUTSIDE THE PRESENT NORTH WALL OF JERUSALEM."

Herr Schick (in the *Quarterly Statement* for April, 1889, p. 63) describes remains of an ancient wall discovered beneath the surface along the line of the city wall north of Jerusalem, and west of the Damascus Gate, outside the present wall.

During the earlier years (from 1846 to about 1854) of our residence in Jerusalem, there was, exactly on the line traced by Herr Schick, a row of ancient stones above ground, not quite continuous, but at very short intervals, which we held to indicate the line of the ancient wall (probably the second of Josephus, perhaps at the part broken in Manasseh's reign). Some of these stones were large—about 3½ feet high by 4 to 5 feet long. (I have not any measurements and write from memory.)

All were of the kind found in the older masonry of the city walls. Several had a shallow marginal draft, the margin of the largest blocks was deep and bold. Two or three very fine corner-stones lay at the west angle in the wall, marked red by Herr Schick. These stones were of hard, compact white limestone, without polish, but not much weathered. When Jerusalem became more visited, and when foreigners settled and began to erect large buildings, these venerable stones gradually disappeared, they were taken to be cut up and sold for use in modern buildings. The same fate befell the line of similar stones to the left of the path leading from the north-west corner of Jerusalem, in the direction of the ash-heaps north of the olive grove. We also were sorrowful witnesses of the gradual destruction of the beautiful sarcophagus (without lid) which lay outside the city wall, a little to the west of Herod's Gate. which the then authorities refused to have removed to a place of safety. This sarcophagus was carved out of a block of very hard white limestone, and was ornamented on its sides with wreaths of flowers in high relief. Bit by bit it disappeared, broken by idle lads in sheer mischief, and by relic hunters. It was of small size.

At the time of which I speak there were also fragments of ancient building-stones on either side, north and south, outside of the Damascus Gate (before the rubbish heaps there were made), which led us to think that here might be found two towers, perhaps the "Women's Towers" of Josephus.

Our then Prussian Consul, the learned Dr. G. E. Schultz, probably marked some of these remains on the map accompanying his "Vorlesung," but of this I cannot be sure, not having by me a copy thereof.

E. A. Finn.

NEHEMIAH'S WALL.

In his paper in the April *Quarterly Statement*, Mr. St. Clair comes to the conclusion that the sepulchres of David were on the western side of Ophel (so-called), north of the Virgin's Fount. To me it seems clear that really they were on its eastern side, south of that Fount. Indeed, I cannot see the slightest ground for doubt on this point. Yet, as these contrary opinions perplex some readers of the *Quarterly Statement* who are interested in Jerusalem topography, it is desirable at once to test the accuracy of Mr. St. Clair's theory.

The basis he takes is unfortunately unsound. He accepts as correct Sir Charles Warren's site for Akra on the northern side of the Upper City, without attempting to meet even one of the ten or rather twelve points in Josephus, which both require Akra to be on Ophel, east of the Upper City, and render impossible any northern site (*Quarterly Statement*, 1886, 26; 1888, 108). Mr. St. Clair next contradicts himself in first stating that the causeway joined Akra to the eastern hill, and then on his plan making it join the Upper City to that hill. It cannot have joined both, since a valley separated (Jos. Wars, v, iv, 1) the Upper City from Akra. The plan is right, agreeing with Josephus, who makes the causeway part of the first wall. Lastly, Mr. St. Clair, in making his Lower City to be of a *crescent form*, agrees, not with Josephus, but only with his mistranslators, since whatever ἀμφίκυρτος may mean, it certainly does not mean crescent-shaped (Wars, *id.*).

I have pointed out these errors by way of preface in order that the reader may be the more convinced that Mr. St. Clair's theory is not to be accepted without a sifting examination, and that he may not be carried away by the high-handed manner in which the theory in question is developed in spite of Josephus, existing remains, and Biblical evidence.

Mr. St. Clair seems willing to allow that Nehemiah's Wall may have included the towers at the south-west corner, discovered by Mr. Maudslay. It *must* have done so if we accept the statement of Josephus (Wars, v, iv, 2), that the first wall was built by the kings; and Mr. St. Clair would hardly, I imagine, dispute its doing so, if he had to admit that the city wall came near to the Pool of Siloam. As to this point we learn from Josephus (*id.*) that (1) "The wall bending above the Fountain of Siloam, *thence* again," &c. This *thence* must mean *from Siloam*, since it can only refer to the words immediately preceding it. Therefore the wall went near to the Pool of Siloam. (2) Simon (Wars, v, vi, 1) "held as much of the old wall as bent from Siloam . . . . also that fountain" (Siloam). Thus, obviously, the fountain was, if not within, yet commanded by the wall. Be it noted that Whiston's *inaccurate* translation in Wars, v, ix, 4 ("Siloam, as well as all the *other* springs without the city"), by arbitrarily inserting *other* has given rise to the common error that the Romans had access to the fountain of Siloam, and that therefore it was without the city. Thrupp

points out that the words of Josephus do not imply any such thing. (3) "The Romans drove the Jews out of the Lower City and set all on fire as far as Siloam" (vi, vii, 2). If Mr. St. Clair desires to appeal to Josephus (as he does on page 91), these passages afford evidence enough to show that the wall went near to the Pool of Siloam. The Jewish historian, however, often errs. Therefore, I will not press his evidence in support of my two main objections (page 38), that the wall passed close to the Virgin's Fount, and sufficiently near to the Pool of Siloam to defend it.

Unconsciously Mr. St. Clair gives on his plan the strongest possible refutation of his own theory, inasmuch as it shows (1) the winding aqueduct cut through Ophel from the Virgin's Fount to the Pool of Siloam, and (2) the secret passage above that Fount discovered by Sir Charles Warren.

But some one will ask, how do these remains refute the theory in question? The simple answer is that by leaving the Fount 500 feet and the Pool 1,200 feet outside Jerusalem, Mr. St. Clair makes both the aqueduct and the passage to be but mere exhibitions of the folly not only of the original constructors, but also of those who used the passage as well as of those who executed the famous inscription found in the aqueduct. For who with immense labour would hew a tunnel 1,700 feet long, through a rocky hill, to convey water from one point to another, when it could more readily be conducted along the side of the hill, and already was so conducted, as Mr. Schick's discovery proves (*Quarterly Statement*, 1889, 35), at the very time the tunnel was made? Who, again, without a reason, would cut through rock an underground staircase, with a shaft forming a draw-well; and who, further, after the contrivance was finished, would care to use it, when it was easier and far more pleasant to go down the hill under the open sky and draw the water direct from the fountain itself? Who, lastly, would care to sit in a cramped position in order to engrave on the rock an account of a perfectly useless undertaking? Yet one and all of these incredible suppositions must be admitted if Mr. St. Clair's novel line for the wall is to be adopted.

It is far better to suppose that the ancients acted with a reason than without one, though it may need some thought to decide what that reason was.

Happily Dr. Robinson's penetration discerned the object of the aqueduct, long before the discovery of the staircase confirmed the correctness of his conjecture. He says it seems to have been "important to carry the water from one point to the other, in such a way that it could not be cut off by a besieging army. This purpose would have been futile had either of these points lain without the fortification," or been undefended.

This judicious remark was supported by Sir Charles Warren's discovery of a staircase (opening southwards on Ophel), by which those within the city would have access to the waters of the Virgin's Fount

without going outside the fortifications (*see* "Recovery of Jerusalem," 238).

There is hardly need to say more against the proposed line of wall; yet the clearest proof has still to be adduced, namely the *direct* Biblical evidence of the aqueduct being made, and the indirect evidence of the staircase being used, though for a purpose very different from what its authors ever intended.

Patient research has proved Gihon to be the Virgin's Fount. We learn from 2 Chron. xxxiii., 14, that Manasseh built an outer wall to the city of David on the west side of Gihon. Surely here we have a wall built on Ophel close to the Virgin's Fount. Previously (xxxii, 30) Hezekiah had "stopped the upper spring of the waters of Gihon and brought them straight down (or by an underground way—Variorum Bible) on the west side (or to the west side) of the city of David." Why! Here the very construction of the aqueduct is recorded, while the reason of Hezekiah's great water-works is given in verse 4. "They stopped all the fountains, saying—why should the kings of Assyria come and find much water?"

I have pointed out (1878, 129, 184) that the staircase or secret passage proved invaluable to the Jebusites, until Joab climbing the shaft with the help or connivance of Aramah, got up through the *Tzinnor* or gutter (as the passage in whole or part is called in 2 Saml. v, 8) and so captured the castle of Zion. That the *gutter* was this shaft, seemed (1884, 175) as absurd to Prof. Sayce, as that it was a *waterfall* still seems to me. No addition indeed to Jerusalem could possibly be more picturesque than a cataract feathered with maidenhair fern, but criticism must interpose, Where is the waterfall now, and whence flowed the water then?

On the other hand, in defence of my *shaft* (or *passage*) I can urge that Kennicott thus explained the Hebrew word a hundred years ago, and that Sir Charles Warren discovered the passage ten years before it was proved that the castle of the Jebusites was on Ophel so called. That this was its site is a fact; that a passage was made to the spring gives the reason for the fact. A strong prejudice exists against Kennicott's solution, but without the least reason. A similar passage is mentioned by Polybius as existing at Rabboth Ammon (1878, 190) in B.C. 218, and is probably alluded to by Josephus (Ant. vii, vii, 8) as existing in David's time. In *Quarterly Statement*, 1881, 256, mention is made of a like contrivance at Gibeon. If further refutation of Mr. St. Clair's theory is desired, let me briefly show how it falls to pieces under the weight of its own inconsistencies.

1. It is maintained that the four turnings and one corner named in Neh. iii, 19-25, coincide with those along his line of wall. To attain this harmony, the one and same turning in verses 19-20 has to count as two (p. 93). Again the first salient angle (a very prominent corner on his plan) south of the causeway has nothing to correspond to it in Neh. iii. As a plea for its absence it is urged that the Ephraim Gate is not named in Neh, iii, 6-8, but I have pointed out (1879, 177) that "the throne of

the governor" (justice being administered at the gate) marks the required spot. Lastly, while Binnui (v. 24) repaired *unto* the turning *of the wall* and *unto* the corner," Mr. St. Clair's wall on his plan passes *over against* (in sight of, in front of, *see* 16), and does not come *to* (*i.e.*, unto) either the turning or the corner.

2. The frequent expression *after him* in Neh. iii seems to me to mean that where the previous builder left off, the next began his work, as in verses 20, 21. But Nehemiah (v. 16) who repaired *after* Shallun instead of beginning where Shallun left off, actually begins where Shallun, himself had begun. This predicament arises from Mr. St. Clair's predetermination to have a loop line of wall.

3. The Pool of Siloam (p. 92) is made to lend its name to the transverse wall 1,500 feet away from it. Why was not the wall rather billeted on the King's Pool, *alias* the Pool that was made (but can the two be identical ?) on Mr. St. Clair's plan only 300 feet distant, instead of having to beg its name from Siloam.

4. Finally the loop line of wall, the chief characteristic of the theory, is utterly inadmissible. Surely, among the thousands of Jews at Jerusalem who had no superfluous taste for heavy burdens (Neh. iv, 10), some one at least must have been intelligent and sharp enough to perceive that it was only frittering away their strength to fortify an inner loop wall, four times as long as the transverse wall, and requiring all the workers from v. 16 to the prison in v. 25, instead of concentrating their combined energies on making the latter as strong as possible. Mr. St. Clair says (p. 95) : "That the transverse wall was no protection by itself, there being an easy approach up the valley." But if a wall across the bed of a valley must necessarily be weak, much more weak must the loop wall have been, since Mr. St. Clair is by his theory (p. 91) forced to draw it in one part actually *along the valley-bed.* Could any other line possibly be weaker ? On the position of a wall a workman's wit is a safer guide than literary talent. An unnecessary wall along the bottom of a valley exposes the unsoundness of Mr. St. Clair's theory (who rightly takes the south-west hill (*gibeah*) to be part of Jerusalem), just as much as the notion of a wall at the foot of a hill (1883, 215, plan) being a defence against besiegers on that hill, exposes the weakness of Prof. Sayce's theory that the south-west hill was no part of Jerusalem, and that consequently the hill (*gibeah*) of Jerusalem was the same as the Mount (*har*) of Zion. What fun the Chaldæans would have had in rolling big stones downhill against a wall so remarkably illplaced.

W. F. Birch.

THE ACCADIAN WORD FOR KING.

I SEE that in the last number of the *Quarterly Statement*, Major Conder repeats the erroneous statement that *ku* in Accado-Sumerian signified "king." Let me once more assure him that it did nothing of the kind, and that he must have misunderstood Mr. Pinches and Mr. Bertin if he believes that they think otherwise. There is, it is true, a character which may be read *uk*, and which denotes "king," but the reading is probably something quite different, and *uk* is not *ku*.

Mr. Budge does not profess to know Amardian, or "Medic," and in the passage to which Major Conder alludes he was merely reproducing Morris's "makeshift" reading of the word for "king." The correct reading is *anin* or *unan;* the word *ko* does not exist.

After this I hope we shall hear no more of a *ku* or *ko* "king."

A. H. SAYCE.

THE TELL ES-SALAHIYEH MONUMENT.

THIS monument was first noticed by the late Rev. J. L. Porter, D.D., and described by him in his "Five Years in Damascus." It afterwards disappeared, and, when I went out to Palestine in 1865, I was instructed by the Committee to search for it and make excavations in the Tell. The excavations resulted in the re-discovery of the slab, which was afterwards sent to England by the late Mr. Rogers, then H.M. Consul at Damascus, and is now with the exhibit of the Palestine Exploration Fund in the South Kensington Museum. The circumstances are detailed in my report to the Committee, printed in 1866.

C. W. W

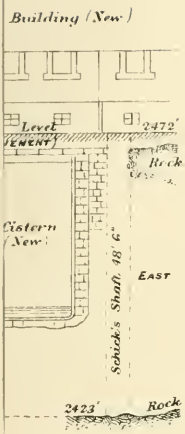
HARRISON AND SONS, PRINTERS, ST. MARTIN'S LANE, LONDON, W.

Plans and Sections of the Large Cistern

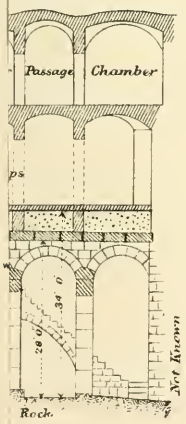
Southeast of the Church of the Holy Sepulchre,

See Quarterly Statement, July 1889.

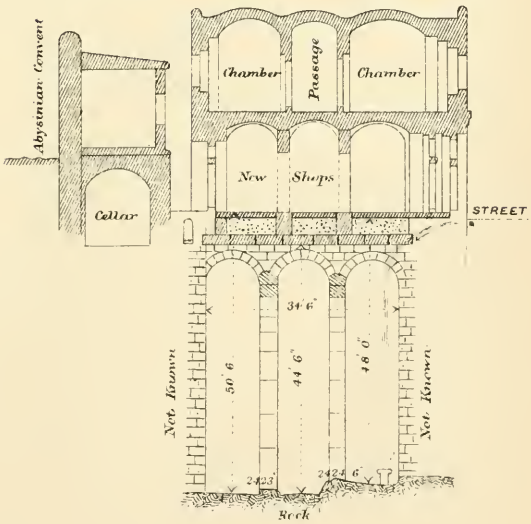
Measured and Drawn by Baurath C. Schick.



F. of Western End Cistern.



Section C. D. of Eastern End of Cistern.



200 Feet

PALESTINE EXPLORATION FUND.

Patron—THE QUEEN.

Quarterly Statement

FOR 1890.

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LIST OF ILLUSTRATIONS.

GENERAL INDEX.

THE PALESTINE EXPLORATION FUND.

THE YEAR 1889.

Although no expedition for exploring or excavating has been organised during the past year, a great deal of useful work has been accomplished, and a distinct advance has been made in our knowledge respecting several very interesting topics of enquiry.

1. The clearance work at the Pool of Bethesda having been proceeded with, Herr Schick has been able to supply further important information. The discovery of a fresco on the wall of the crypt of the church over the Pool, representing an angel troubling the water, is of great value as proving conclusively that in crusading times the spot was regarded as the site of Bethesda.

2. Further portions of the ancient wall of Jerusalem have been exposed on the northern side and at the north-western corner.

3. A very large cistern has been discovered near the church of the Holy Sepulchre, apparently under the spot where the mediæval church of Santa Maria Latina stood; and outside the Damascus Gate, between the city wall and the hill in which "Jeremiah's Grotto" is situated, two ancient cisterns, one of which is believed by Herr Schick to be of Canaanite origin, have been found.

4. The remains of a church have been discovered in the street of Sitti Maryam, opposite the barracks, and close to the chapel of the Flagellation.

5. An extremely interesting subterranean rock-hewn church has been found at the village of Silwân. From a Greek inscription in the apse it appears to have been dedicated to the memory of the prophet Isaiah. Indications of another rock-hewn church have been seen and described by Mr. Schumacher near Athlît.

6. Excavations on the Dominican property north of Damascus Gate have brought to light certain remains which are believed to indicate the former existence of a large church near that discovered in this locality a few years ago. Herr Schick suggests that it may be the original church of St. Stephen. It will be remembered that the church built by the Empress Eudocia in the years 439–60, was so large that in 518 A.D. St. Sabbas and his numerous disciples assembled in it, "the cathedral church of the Resurrection being incapable of receiving so vast a multitude." It is said to have been capable of holding 10,000 people. An account by Sir Charles Wilson of the various churches of St. Stephen will be found in an

Appendix to the Pilgrim's Text Society's translation of the Abbot Daniel. In the same neighbourhood tombs with *rolling stone doors* were found, also some Greek inscriptions.

7. Excavations on property belonging to a French gentleman on the eastern slope of Zion have revealed a number of rock-hewn chambers, which appear to have been used in ancient times partly as dwellings and partly as storehouses. In describing them Herr Schick remarks that nearly all the ground covered by the city of Jerusalem is found on examination to be honeycombed with these rock-hewn chambers. It is not improbable that the Jebusites were to some extent troglodytes. In the Apocryphal Acts of the Apostles mention is made of a cave at Cyprus "where the race of the Jebusites formerly dwelt."

8. On the Mount of Olives very interesting discoveries have been made, including a Christian burial place, an extensive series of "catacombs," which had been made use of by Roman soldiers of the tenth legion, a number of Roman tiles, and other antiquities of various periods.

9. In a cave at Sarîs have been found human figures sculptured on the walls, resembling the "Proto-Phœnician" rock-sculptures near Tyre, and an inscription, believed by Professor Sayce to be evidently old Phœnician. An inscription which had escaped the observation of previous travellers has been noted by Mr. Hanauer at Beit el Khûlîl.

10. From Galilee Herr Schumacher has reported the discovery of a large cave at Nazareth; ancient and elaborate rock tombs at Haifa and Shefa 'Amr; exploration of the caves of Jessâs; discovery of various inscriptions, and of the rock-hewn apse of a church alluded to above.

11. The meteorological observations made under the auspices of the Fund which extend over many years are still being carried on, and the results are being published by Mr. Glaisher in successive numbers of the *Quarterly Statement.*

NOTES AND NEWS.

The Rev. J. Fallscher, of Nâblus, has forwarded drawings of several sculptured capitals and other stones found at Sebŭstieh (Samaria) by M. Ali, the Government engineer there. One of these bears a bull's head with horns, and two others have human figures. They are apparently of Christian origin.

Herr Schick reports the discovery of an obelisk at Cæsarea and sends a drawing of it, which is given at p. 23. The top of the obelisk has not been found. It is believed that this is the first obelisk ever discovered in the Holy Land.

The present number contains an account of further observations of the rock levels of the city of Jerusalem confirming the supposition that east of the Church of the Holy Sepulchre there is a rock terrace surrounded, or nearly surrounded, by scarps of considerable height.

A letter from Jerusalem, published in the *Northern Christian Advocate*, Syracuse, New York, November 7th, 1889, has the following:—"There are strange rumours afloat about an inscription found at St. Stephens (north of Damascus Gate). It is said that the Romanists are anxious to hush up the discovery, as it would damage the credit of the Church of the Sepulchre. A person who professes to have seen and read it informs me that its contents are somewhat to the following effect: 'I, Eusebius, have desired to be buried in this spot, which I believe to be close to the place where the body of my Lord lay.'" Herr Schick has been asked to report to the Fund what he knows of this curious story.

The *Figaro* of October 22nd has an interesting and suggestive article headed "The Russians in Palestine." "Russia," it states, "proceeds in a manner peculiar to herself; she labours without noise, but this does not prevent her making great advances. Other nations who desire to extend their influence in Palestine proceed with the sound of the trumpet, and achieve only a minimum of success. Russia labours in silence, and obtains surprising results. It seems that Russians have undertaken to *Russify* Palestine, and they are doing it. Money does not fail her. There exists in Russia a great society bearing the title of "the Orthodox Society of Palestine," which supplies the Russian missionaries with the funds necessary for the creation and support of educational and benevolent establishments. The Panslavist Committees, and rich private individuals, also come to the aid of this politico-religious campaign, and the Russian pilgrims, who stream by thousands every year to Jerusalem, contribute morally and materially to the success of the work."

"At Nazareth there are two Russian schools for boys and one for girls. These schools, although founded only three years ago, already number more than five hundred pupils. At Beyrût a school for girls was established in 1887. Two hundred young women there receive Russian instruction. The schools of Beit Jâla, and many other localities, work to the satisfaction of their founders, and reckon from 80 to 100 pupils each. At Nazareth, and in other towns, there are hospitals and dispensaries. At Jerusalem and in its environs Russian establishments may be counted by the dozen. A million has been expended in the construction of two large hospices, where pilgrims from Russia may be cheaply supplied with all the comforts possible. It is easy to conceive that all this money spent in the country benefits the population and attaches it more and more to the Russian cause."

"We ought to note," the writer continues, "that the instruction given in the schools is absolutely *Russian*. Only Arabic and Russian are taught; every other language is rigorously excluded. Thus in a few years the Arabs will know nothing but what their Russian instructors have taught them, and will be impregnated only with Russian ideas! A congress of Russian professors recently met at Jerusalem 'to discuss and adopt a uniform system of instruction in Russian schools in Palestine, and to suggest measures for promoting and confirming Russian influence in the country.' The Czarewitch was present officially."

"A relation of a voyage to Tadmor begun ye 29th Sept., 1691," from the original manuscript in the possession of Albert Hartshorne, Esq., F.S.A., and presented by him to the Fund, will shortly be published.

An important essay by Frederick J. Bliss, Esq., B.A., of Beyrût, on Ma'lula and its dialect, will be published in the *Quarterly Statement* during the year. Ma'lula lies north-east of Damascus. The author of the paper remarks that:—"Its situation and surrounding scenery are unique. Its cave-dwellings and rock-tombs give evidence of an ancient but active existence, while in its dialect is found a certain strange survival of the Aramaic which Christ spoke not 150 miles away."

Mr. Henry A. Harper's work, on "The Bible and Modern Discoveries" was published in December. It is an endeavour to present in a simple but yet connected form the Biblical results of twenty-two years' work of the Palestine Exploration Fund. The writer has also availed himself of the discoveries made by the American Expeditions and the Egyptian Exploration Fund, as well as discoveries of interest made by independent travellers. The Bible story, from the call of Abraham to the Captivity, is taken, and details given of the light thrown by modern research on the sacred annals. Eastern customs and modes of thought are explained whenever the writer thought they illustrated the text. To the Clergy and Sunday School Teachers, as well as to all those who love the Bible, the writer hopes this work will prove useful. He is personally acquainted with the land, and nearly all the places spoken of he has visited, and most of them he has moreover sketched or painted. The work is in one large, handsome volume of 600 pages. It is illustrated with many plates, and a map showing the route of the Israelites and the sites of the principal places mentioned in the sacred narratives. Price to the public, 16*s.*; to subscribers to the Palestine Exploration Fund, 10*s.* 6*d.*, carriage included.

The work has had so far a very gratifying reception. The whole of the First Edition has gone, and a considerable number of the Second Edition were ordered before it could be got ready. This is the more satisfactory as hardly any press notices have yet been received. The number of subscribers to the Palestine Exploration Fund who have taken advantage of the reduced terms has been about 500. It should be noted that the book is admirably adapted for the school or village library.

Mr. Guy le Strange's important work, "Palestine under the Moslems," which is a description of Palestine according to the mediæval Arab geographers, is also in the press.

The report of Herr Schumacher's Survey of Northern 'Ajlûn will shortly be published in separate form. It contains a map, plans and drawings of the important ruins of Gadara (Umm Keis), Capitolias (Beit Ras), and Arbela (Irbid), none of which had ever before been surveyed, also of the Temple at el-Kabu and numerous tombs, sarcophagi, inscriptions, dolmens, &c. The price to the public will be 3*s.* 6*d.*, to subscribers to the Fund, 1*s.* 6*d.*

The first volume of the "Survey of Eastern Palestine," by Major Conder, has been issued to subscribers. It is accompanied by a map of the portion of country surveyed, special plans, and upwards of 350 drawings of ruins, tombs, dolmens, stone circles, inscriptions, &c. The edition is limited to 500. The first 250 subscribers pay seven guineas for the three volumes, with an index; subscribers to the "Survey of Western Palestine" are privileged to have the volumes for this sum. The price will be raised, after 250 names are received, to twelve guineas. The Committee *are pledged never to let any copies be subscribed under the sum of seven guineas.* Mr. A. P. Watt, 2, Paternoster Square, is the Sole Agent. The attention of intending subscribers is directed to the announcement on the inside of the cover of this number.

Considerable progress has also been made with the second volume, which consists of M. Lecomte's beautiful drawings, illustrating the Mission of M. Clermont-Ganneau in 1874. The illustrations for the third volume, Mr. Chichester Hart's "Flora and Fauna" of the Wâdy Arabah, are nearly ready.

The Committee have added to their list of publications the new edition of the "History of Jerusalem," by Walter Besant and E. H. Palmer (Bentley & Son). It can be obtained by subscribers, carriage paid, for 5*s.* 6*d.*, by application to the Head Office only. The "History of Jerusalem," which was originally published in 1871, and has long been completely out of print, covers a period and is compiled from materials not included in any other work, though some of the contents have been plundered by later works on the same subject. It begins with the siege by Titus and continues to the fourteenth century, including the Early Christian period, the Moslem invasion, the Mediæval pilgrims, the Mohammedan pilgrims, the Crusades, the Latin Kingdom, the victorious career of Saladin, the Crusade of Children, and many other little-known episodes in the history of the city and the country.

The books now contained in the Society's publications comprise an amount of information on Palestine, and on the researches conducted in the country, which can be found in no other publications. It must never be forgotten that no single traveller, however well equipped by previous knowledge, can compete with a scientific body of explorers, instructed in the periods required, and provided with all the instruments necessary for carrying out their work. The books are the following (*the whole set can be obtained by application to Mr. George Armstrong, for* 37*s.* 6*d.*, *carriage paid*) :—

By Major Conder, R.E.—

(1) "Tent Work in Palestine."—A popular account of the survey of Western Palestine, freely illustrated by drawings made by the author himself. This is not a dry record of the sepulchres, or a descriptive catalogue of

ruins, springs, and valleys, but a continuous narrative full of observations upon the manners and customs of the people, the Biblical associations of the sites, the Holy City and its memories, and is based upon a six years' experience in the country itself. No other modern traveller has enjoyed the same advantages as Major Conder, or has used his opportunities to better purpose.

(2) "Heth and Moab."—Under this title Major Conder provides a narrative, as bright and as full of interest as "Tent Work," of the expedition for the *Survey of Eastern Palestine.* How the party began by a flying visit to North Syria, in order to discover the Holy City—Kadesh—of the children of Heth; how they fared across the Jordan, and what discoveries they made there, will be found in this volume.

(3) Major Conder's "Syrian Stone Lore."—This volume, the least known of Major Conder's works, is, perhaps, the most valuable. It attempts a task never before approached—the reconstruction of Palestine from its monuments. It shows what we should know of Syria if there were no Bible, and it illustrates the Bible from the monuments.

(4) Major Conder's "Altaic Inscriptions."—This book is an attempt to read the Hittite Inscriptions. The author has seen no reason to change his views since the publication of the work.

(5) Professor Hull's "Mount Seir."—This is a popular account of the Geological Expedition conducted by Professor Hull for the Committee of the Palestine Fund. The part which deals with the Valley of Arabah will be found entirely new and interesting.

(6) Herr Schumacher's "Across the Jordan."

(7) Herr Schumacher's "Jaulân."—These two books must be taken in continuation of Major Conder's works issued as instalments of the unpublished "Survey of Eastern Palestine." They are full of drawings, sketches, and plans, and contain many valuable remarks upon manners and customs.

(8) "The Memoirs of Twenty-one Years' Work."—A copy of this book is presented to every subscriber to the Fund who applies for it. The work is a popular account of the researches conducted by the Society during the past twenty-one years of its existence. It will be found not only valuable in itself as an interesting work, but also as a book of reference, and especially useful in order to show what has been doing, and is still doing, by this Society.

(9) Herr Schumacher's "Kh. Fahil." The ancient Pella, the first retreat of the Christians; with map and illustrations.

(10) Names and Places in the Old and New Testament and Apocrypha, with their modern identifications, with reference to Josephus, the Memoirs, and *Quarterly Statements.*

(11) Besant and Palmer's "History of Jerusalem," already described.

Branch Associations of the Bible Society, all Sunday Schools in union with the Sunday School Institute, the Sunday School Union, and the Wesleyan Sunday School Institute, will please observe that by a special Resolution of the Committee they will henceforth be treated as subscribers and be allowed to purchase the books and maps (by application only to the Secretary) at reduced price.

The income of the Society, from September 19th to December 19th inclusive, was—from subscriptions and donations, £426 15*s.* 10*d.*; from all sources, £653 19*s.* 4*d.* The expenditure during the same period was £740 5*s.* 1*d.* On December 21st, the balance in the Bank was £369 2*s.* 1*d.*

Subscribers are begged to note that the following can be had by application to the office, at 1*s.* each:—

1. Index to the *Quarterly Statement*, 1869–1880;
2. Cases for Herr Schumacher's "Jaulân;"
3. Cases for the *Quarterly Statement*, in green or chocolate.

Early numbers of the *Quarterly Statement* are very rare. In order to make up complete sets, the Committee will be very glad to receive any of the following numbers:—

No. II, 1869; No. VII, 1870; No. III (July) 1871; January and April, 1872; January, 1883, and January, 1886.

It having again been reported to the Committee that certain book hawkers are representing themselves as agents of the Society, the Committee have to caution subscribers and the public that they have no book hawkers in their employ, and that none of their works are sold by itinerant agents.

While desiring to give every publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they neither sanction nor adopt them.

Subscribers who do not receive the *Quarterly Statement* regularly are asked to send a note to the Secretary. Great care is taken to forward each number to all who are entitled to receive it, but changes of address and other causes give rise occasionally to omissions.

The only authorised lecturers for the Society are—

(1) Mr. George St. Clair, F.G.S., Member of the Anthropological Institute and of the Society of Biblical Archæology.

His subjects are :—

(1) *The Buried City of Jerusalem, and General Exploration of Palestine.*
(2) *Discoveries in Assyria, Chaldea, and Palestine.*
(3) *The Moabite Stone and the Pedigree of the English Alphabet.*
(4) *Jerusalem of David, Nehemiah, and Christ.*
(5) *Sight-seeing in Palestine: a Narrative of Personal Experiences.*
(6) *Israel's Wars and Worship, illustrated by the new Survey.*
(7) *The Gospel History in the light of Palestine Exploration.*

Address: Geo. St. Clair, Bristol Road, Birmingham, or at the Office of the Fund.

(2) The Rev. Henry Geary, Vicar of St. Thomas's, Portman Square. His lectures are on the following subjects, and all illustrated by original photographs shown as "dissolving views:"—

The Survey of Western Palestine, as illustrating Bible History.
Palestine East of the Jordan.
The Jerusalem Excavations.
A Restoration of Ancient Jerusalem.

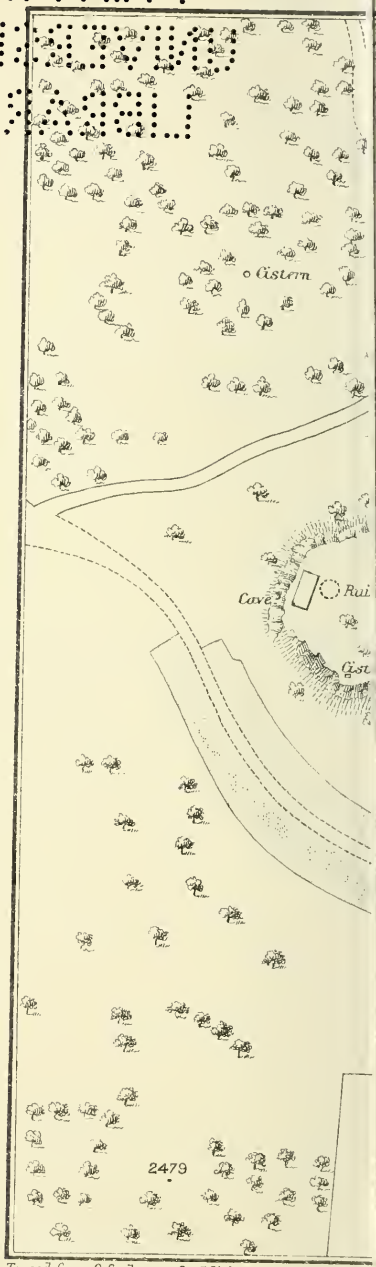
(3) The Rev. James King, Vicar of St. Mary's, Berwick. His subjects are as follows :—

The Survey of Western Palestine.
Jerusalem.
The Hittites.
The Moabite Stone and other monuments.

(4) The Rev. Thomas Harrison, F.R.G.S., Member of the Society of Biblical Archæology, 38, Melrose Gardens, West Kensington Park, W. His subjects are as follows :—

(1) *Research and Discovery in the Holy Land.*
(2) *In the Track of the Israelites from Egypt to Canaan.*
(3) *Bible Scenes in the Light of Modern Science.*

PLAN SH



Traced from O.S. plan, and additions made by G.A.

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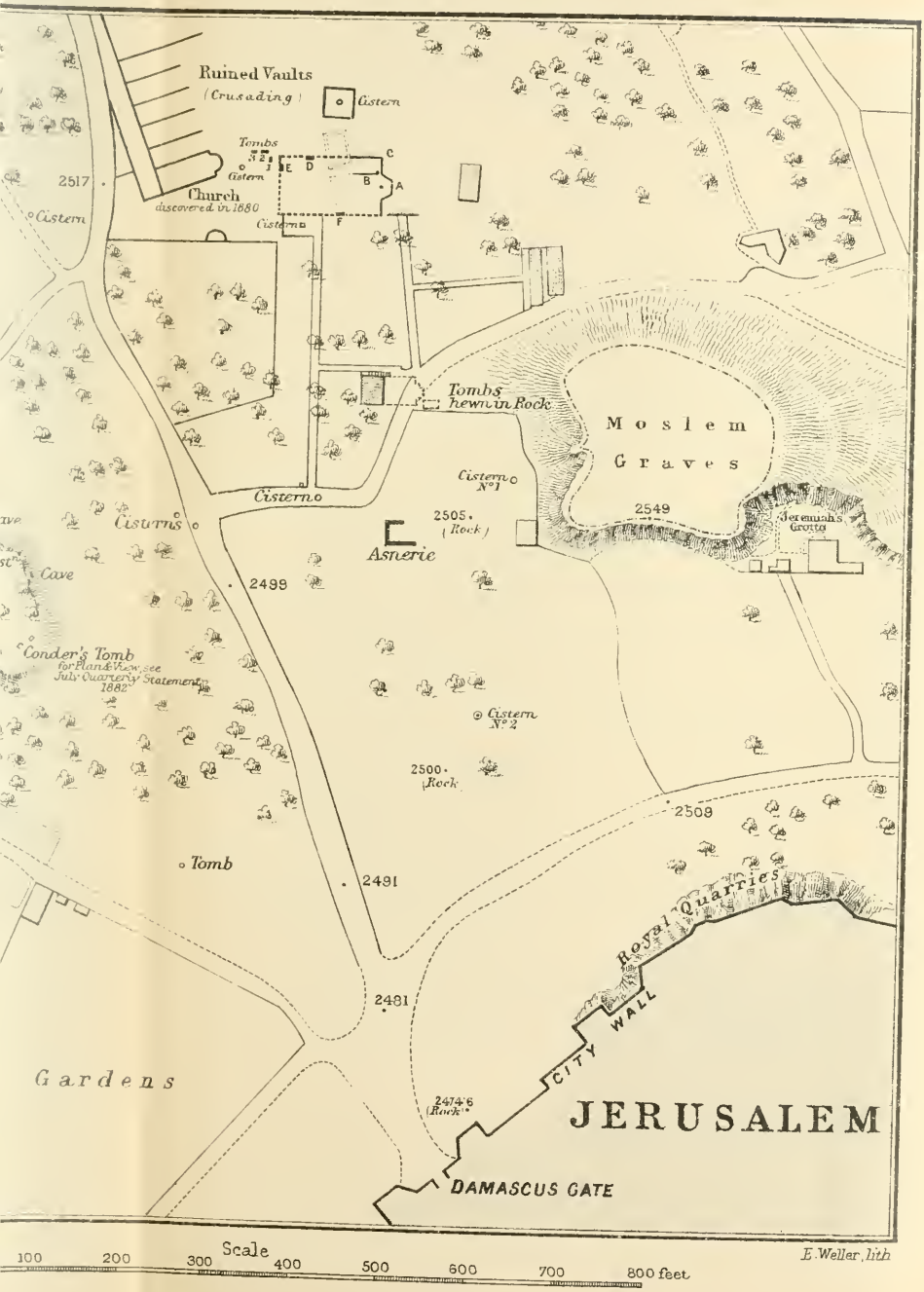
ING POSITION OF THE TWO CHURCHES N. OF DAMASCUS GATE.




M
eller, lith

DISCOVERIES NORTH OF DAMASCUS GATE.

Some time ago Mr. Schick reported a further examination of the Dominican ground north-west of Jeremiah's Grotto, and believes that indications of a second church—older, and also larger, than that previously known—have been discovered. He wrote: "The diameter of the pieces of the shaft of a column, which were found built into the wall of the pool formerly described (*Quarterly Statement*, 1889, p. 116), is considerably over 4 feet. They may have once stood on the pedestal now standing in the centre of what I consider to be the apse of a former church (*see* Plan, A). This pedestal is formed of one stone of hard 'mizzeh,' roughly dressed, and was certainly intended to be under the flooring of the church and not seen. It is probably *in situ*, as the measurements from its centre in all directions indicate. Round this pedestal, especially towards the east, many good hewn stones were lying; westward, on a higher level, some Crusading masonry was found, especially a strong wall running north and south, resting on the rock of the eastern side of the pool. North of it was a kind of thin wall of polished stones, forming two steps (B); and further to the north, on a lower level, a flooring of well executed mosaic, forming geometrical figures in different colours, but with no inscriptions or figures of plants or animals. The shaft of a pillar of white marble, a foot in diameter, was also found here, and the pedestal of masonry on which it had once stood. Still farther in the same direction, 16 feet from the long steps and parallel with them, is a rock scarp (C). As this scarp is exactly in a line with the Byzantine remains—namely, a pedestal and threshold—shown on the plan (D) it is clear that these once formed part of the northern wall of a large church. Further west, a Byzantine threshold of a door (E) is situated exactly at a right angle to the said wall, and appears to have been a door in the western wall of the church. To the south of the pool, and of a Crusading wall which exists there, a kind of Byzantine threshold (F) was found, situated exactly parallel with the long steps and the northern wall of the church, and this appears to have been a point in the southern wall. As further east there is mosaic in the flooring and a piece of thick plaster standing at right angles to this threshold, and as to the north of it similar plaster, about three-quarters of an inch thick and 4 or 5 feet high, was found standing in the rubbish (the stones on which it had rested having been taken away), and forming a line as shown on the plan (A), it is quite clear we have the *apse of a Byzantine church*. The impression of the stones can still be seen on the plaster, by which it appears that the plaster had been put on the outside of the wall, probably with the object of preventing wet coming through, the ground outside being higher than the flooring of the church. It seems that the walls of this church were only 3 feet thick, so that it must have been covered with a wooden roof, and not arched. Further clearance of the ground may bring more to light. At present we may conclude that there was here a *basilica*, with a

wide nave and narrow side aisles. The monks hope one day to find *the tomb of St. Stephen*, but hitherto nothing of the kind has been discovered.

"It appears to me quite clear that the rock cuttings (*Quarterly Statement*, 1889, p. 116) are the oldest work, and belong to the Jewish period; that in the Byzantine period the pool, &c., were filled up and a church built, about 130 feet long by 73 feet wide, outside measurement, very nearly the same size as the Church of St. Anne; that this original St. Stephen's Church was destroyed by the Mohammedans, and that subsequently, when the Crusaders came into possession of the place, they used the stones for their new buildings, and erected the smaller church which was found some years ago and described in the Jerusalem Volume of the Survey. As there are mosaic pavements in the eastern part of the two side aisles of the church last discovered, and (on the northern side) two steps go up to the nave, it is clear that the flooring of the latter, at least at the eastern end, was on a higher level than the rest of the church. Perhaps under it St. Stephen's tomb may be found."

In a subsequent letter Mr. Schick reported that "without entirely clearing the site of the church, the ground had been converted into a garden. In the church they found the places where the pillars had stood, always a large square stone, but nothing else of much interest," and at a later date he wrote as follows:—

"Having been told that the Dominicans are going on with the work on their property I went there, and they willingly showed me everything. All the earth and remains of Crusading buildings are now removed, and the rock and the flooring of the former Church laid bare. Only in two places one may see that once a pillar stood there—so it seems the church had not many pillars. They found some pieces of hewn stone, and two more rock-hewn tombs, similar to those discovered several years ago. In the pavement was a very large flag-stone, with a Greek inscription. Whilst being raised it fell into many pieces, which they put together again so that the inscription could be copied. I could not myself copy it as they keep the stone in a dark place. They, however, have copied and will soon publish it.

"Under the large slab there were steps, and a perpendicular stone door, which can still be turned on its pivots (*see* Drawing, Tomb No. 2); below, the pivot goes in a hole cut in the rock; on the top it is kept by an iron ring fastened to the rock; it can easily be shut and opened, as it is only 4 inches thick, 3 feet long, and 2 feet 4 inches wide. When opened it can be laid back in a recess cut in the rock, so that the door is flush with the rock-wall of the entrance at the steps. Four high steps lead down to it. The door had formerly an iron lock, cruciform in shape, but this has rusted away, together with the nails by which it was fixed. The keyhole in the stone is well preserved. Just over the door is a Greek inscription, cut in the rock, of which I give a copy. A person entering through the opening (when the door is open and put back into the recess) has to go three steps more downwards, and

PLAN

ECTION

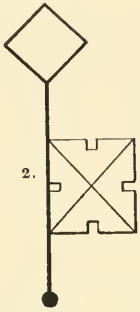
C. Schick.

MASONS MARKS.

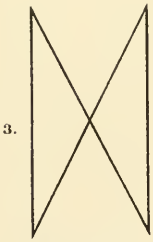
HALF REAL SIZE.

Found in the little Church.

1. On a loose hewn Stone



2. On flooring of Apse of little Church



3. On Wall of rooms at little Church.

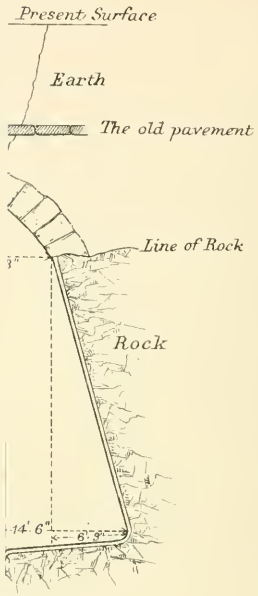
+ ΘΗΥΙΖΙΑΦΕΡΘΣΑ
ΕΥΘΥΜΙΘΔΚΥΠΙΝ
ΔΓΡΗ+ ,

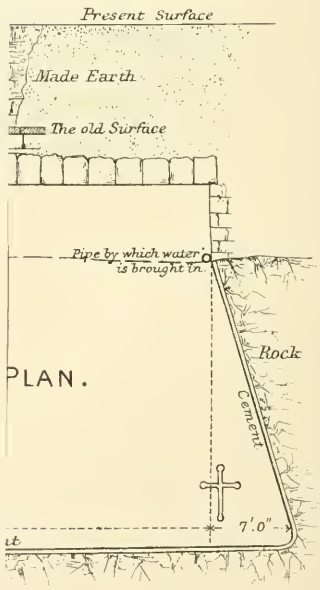
Inscription found in the Caves of the many tombs partly under the road which leads up to the top of the Hill above Jeremiah's Grotto.

N.B. This Inscription, the Monks told me is already published.

F.S. Weller, Ath

OF PLAN.





PLAN.

60 70 Feet

then comes into a kind of passage or empty place less than 6 feet high, to the right and left of which are *loculi*, in which are bones and mould. Each *loculus* was covered with three slabs, nicely smoothed, on one of which is an inscription, which I copied (*see* Drawing), but the Monks removed all the slabs, liking to see the mould and bones.

"A little west of this tomb was found a similar one, but without any inscription, and instead of a door it had *a round stone to be rolled before the opening* (*see* Drawing, Tomb No. 3). It was like that at the Tombs of the Kings, only this stone was somewhat thinner and smaller. The stone was not in its place, but in the rock a narrow and long recess is excavated, into which the stone might be rolled, and so the tomb opened. The adjoining drawings will explain all this ; and the exact situation of these newly discovered tombs may be seen on the plan marked 1, 2, 3.

"I give a drawing of three masons' marks, of forms new to me, found at the place.

"The stone forming the well-mouth of the cistern in the yard east of the little church, and south of the recently discovered rock-cut tombs, is octagonal externally, and a curious feature of it is that on four of the eight sides, half-way up, there is a step, on which one might put his foot when drawing water. I think it was originally not intended for a well-mouth, but for a baptismal font. Short people, as boys, might, at this solemn act, have stood on this kind of step. I have never seen anything of the kind before."

C. Schick.

TWO CISTERNS NEAR JEREMIAH'S GROTTO.

I had the opportunity of examining two cisterns near Jeremiah's Grotto, and found both interesting. The situation of these cisterns is shown on the tracing from the Ordnance Survey Plan of Jerusalem $\frac{1}{2500}$ (p. 9), where they are marked 1 and 2.

No. 1 (*see* Plan) is rather a large cistern, the greater part cut in the rock, with its four sides inclining, not perpendicular, so that the space which had to be arched over is much smaller than the bottom of the cistern. The roof is not rock, but a curious tunnel arching, very much pointed, and with sides nearly straight, made of hewn stones. The present surface of the ground is, according to the Ordnance Survey, about 2,515 feet above the sea. The former surface is shown in the shaft of the mouth of this cistern to be 10 feet lower, or 2,505 feet. As the cistern is about 45 feet deep, its bottom is therefore 2,460 feet above the sea. It is damaged and requires some new cementing. The last repairs were done by Christians, as there are on the eastern side, some feet above the bottom, and near both ends, crosses 4 feet 6 inches high and 3 feet wide, made in plaster, of the form shown in the section. In the bottom there is, just under the mouth, a round bowl-shaped pit, 4 feet deep and 10 feet 6 inches in diameter. The cistern is covered with a pavement of

large flagstones. Fourteen feet north of the mouth is a second one, covered with a large stone, having two iron rings on its upper surface; but this mouth had no shaft up to the present surface of the ground. That represented in the drawing has been made recently. The cistern is 65 feet 9 inches long in the middle at the bottom, and 29 feet 6 inches wide; it has rounded corners. It may take water up to 25 feet, a quantity equal to about 20,000 skins.

Its northern end comes to within a few feet of the rock scarp, in which are rock-cut tombs, thought by General Gordon to be the Sepulchre of Christ. This remarkable cistern is certainly not of Mohammedan or Christian origin, but apparently Canaanitic, its form being like so many made by Canaanites in the rock; but I have never before seen one so large. The arching and the slab with two iron rings is very likely Crusading.

Cistern No. 2 is 250 feet south of the former, towards the Damascus Gate. It is very much smaller than the former, but may contain 3,000 skins of water. It is entirely hewn in the rock, and before it was made into a cistern was rock-cut Jewish tombs. In the rock ceiling is a square, 13 feet by 13 feet, very nicely worked, with a kind of cornice round it, exactly as in the Tombs of the Kings. The floor below this is smooth, but the rest of the flooring is rough, just as it was left when the tombs were broken away to get more room. As it is plastered all round, the door to the former square chamber cannot be ascertained, but it is supposed to have been in the north-western wall. For the same reason it cannot be ascertained whether the pillar or support is of living rock or masonry. Near it the rock at the bottom is left rough, and now forms two long steps. The mouth is over a kind of recess, and goes up through the rock, over which a square shaft is built. The cistern is nearly square, about 24 feet in each direction, and has an average height of 15 feet. The ceiling is very uneven, except that of the former tomb-chamber.

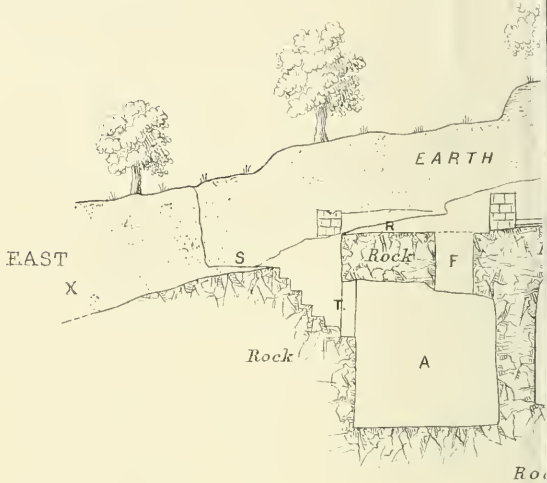
There was an idea that between the present town wall and the scarp of Jeremiah's Grotto on the north, there was nothing else than a quarry; but this cistern proves that there were rock-cut tombs, as in the Jeremiah's Grotto hill itself. In regard to the rock levels I will add that recently in digging outside the Damascus Gate, 26 feet north of the north-east corner of the eastern tower of that gate, the rock was found at a level of 2,474½ feet; 6 feet 2 inches higher than the sill of Damascus Gate.

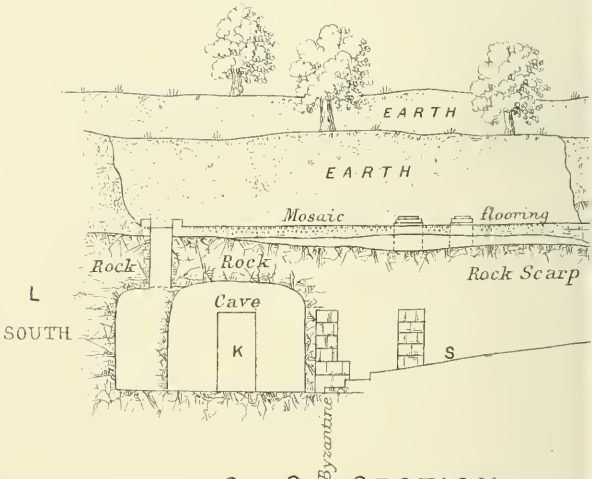
C. Schick.

EXCAVATIONS ON THE EASTERN BROW OF "ZION."

A few years ago a French gentleman, Count Piello, bought a piece of ground on the eastern slope of the western hill of Jerusalem, generally called Zion, about half way down between the buildings of Neby Dâûd and the Pool of Siloam. A little watch-house was then built, and a

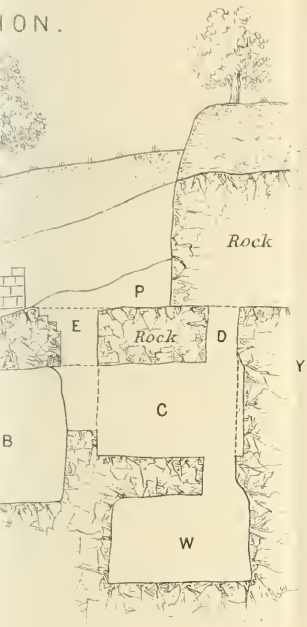
Nº 3 SE





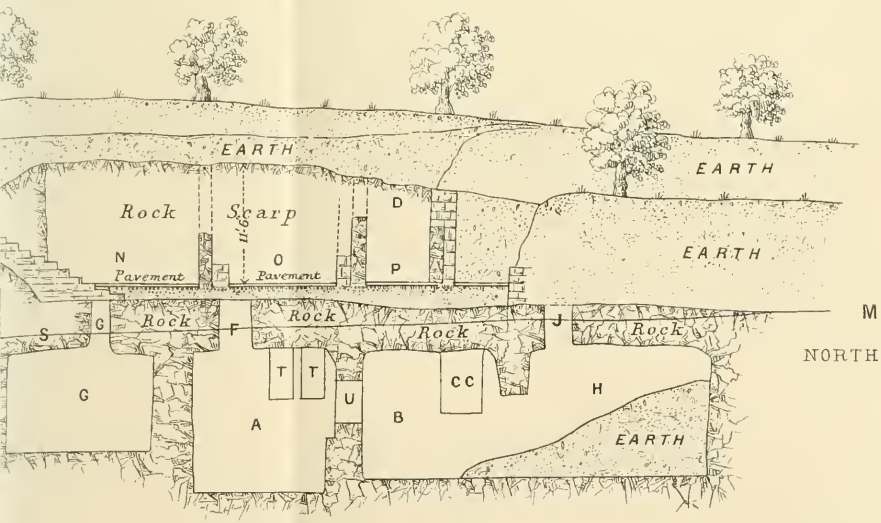
Nº 2 SECTION.

Feet 10 5 0 10 20



Sections of EXCAVATIONS ON EAST SLOPE OF ZION, immediately North of the Cistern midway between David's Tomb and Pool of Siloam.

See Plan of Jerusalem, April Quarterly Statement 1889.



Scale

30 40 50 60 70 80 90 Feet

C. Schick.

F.S.Weller, lith.

black man put in as guardian. About six months ago a priest came and began to excavate there; the work is going on slowly, and many things have been found, of which I will now report.

The overseer of the work, a Roman Catholic monk, speaks English, and must have been once in England. He showed me everything; the owner of the property required that I should give him a copy of any drawings or plans I might make, which I promised to do.

There is first a layer of earth from 5 to 8 feet thick, on which olive trees are growing, then are appearing masonry, rockscarps, well-mouths, and many hewn and sculptured stones; also pavements, mosaics, &c., were found.

I give a plan of walls, caves, cisterns, rockscarps, holes, earth, trees, &c.; also a Section and elevation from north to south (No. 2), and a Section and elevation from west to east (No. 3). In the drawings the same letter (capitals) shows always the same thing. It is found here, as in so many other places, both inside and outside the city, that *there were in ancient times caves and dwellings excavated in the rock*, which excavations were in later times converted into cisterns. Here, as the sections will show, are nearly throughout two stories of excavations; the upper ones certainly were originally used for human dwellings, or as cellars, magazines, stables, &c. The walls are everywhere cut nearly perpendicular, the floorings horizontal, and the top or covering (of rock) has always a thickness of 4 feet, whereas the walls were sometimes rather thinner, and in the upper storey very thin, only 12 inches as shown in Section No. 2. On Ophel, and in the city, I found such rock partition walls also cut thicker, and sometimes there are windows in them as here (T T). Further, there is nearly always a smaller or larger rounded hole in the roofing as here (D E F G J). In February, 1869, Sir Charles Warren found similar caves 200 feet south of the Triple Gate, and I am fully convinced that wherever one will dig deep enough in the ground formerly occupied by ancient Jerusalem, he will find such excavations. These newly-discovered ones I will now describe more fully.

The monks first made a trench or kind of road from south towards north, and from it branches eastwards towards the hillside, and they found the following:—In the south (or to the left-hand of the Section No. 2, a cave (K) entirely hewn in the rock, with an opening towards the east, 8 feet wide and 9 feet high, so that people could go in from the court (or rather what was at that time the road or street of the city) on level ground. This was a cave to be inhabited, as it is now again. Inside there is a round niche towards the south, with a round opening in the roof; this, I think, had been originally a round cistern, and in later time the thin rock wall between it and the cave was broken away. Opposite this cave (K) are found two similar holes, from which the earth has not been removed. In the large opening is now put a new wall with a door, and the overseer uses the place to keep things; it is also his office and dining-room. If one goes now from the front of the cave northwards, there is a thin wall, of very inferior workmanship, but towards the west the remains are higher and better, and, as it seems to

me, Byzantine. After 5 feet one has to cross another and a stronger wall, which stands at right angles to a wall put up in front of a rock-scarp, going from south towards north, and so covering the rock face for 24 feet, and forming a terrace about 12 feet high. On this terrace, which is horizontal and smooth, is a large piece of mosaic flooring; west of it are three basements of pillars, the largest one *in situ*. Whether the two others are *in situ* or not I cannot speak positively. From this terrace a flight of steps leads northward 7 feet down to a level flooring in which are two round openings (G and F) like well-mouths; the cave (G) is still full of earth, but (A) is cleared out so that I could measure it; but before going down we will first examine what is above. West of this flooring (R, No. 3) a wall runs from south towards north, 1 foot 10 inches thick. This wall had a few doors which led westwards to another flooring a little more elevated (Q), with a good pavement. Toward the west is another and thicker wall. This flooring (Q) is only 6 feet wide, and was once the corridor or passage between rooms on the east and west. On the west two of these rooms are preserved (N and O, No. 2). Their west wall was a rock scarp, which also extended further south, and between them there was originally a thin rock wall, which afterwards was strengthened by adding masonry to it, as shown in Section No. 2.

The flooring is also rock, and in it (in O) is a large oval-shaped hole (E), with some steps in it downward hewn in the rock. North of these two rooms the earth has not been cleared away enough, and I could only see a recess with a hole on the bottom; but eastward, where the place has been more cleared, there are the traces of a room (R) made of masonry, the flooring of which is on a level with the trench or road. A little to the south one comes to a flight of steps hewn in the rock, going down westwards to a couple of windows (TT). The wall between is also rock, and the narrower window to the right hand had evidently been used as a door, as it has a further step which the other has not. A little lower, I think, was once a flooring of wood, and so a habitable room, and under it a magazine; from this supposed flooring a door (U) went northwards into other chambers (BH). A wall of masonry, which is still standing, was very likely put in when the rooms over it were built; also towards the south between the rock walls, there is masonry, and in it a square window (CC) forms an opening to another excavation (C) under the room (O), which has on its further side a hole leading down into a cistern (W) (*see* Section No. 3). From (B) an opening northward, leads to a long cave (H), which is not yet fully cleared out, but has two round holes (J) in the roofing—one the light-and-airhole for the cave, the other, very likely, is over the mouth of a well or cistern situated under the cave (H). All this will be found out later on.

The height of these caves can be seen from the sections; it is from 8 feet to 12 feet 6 inches. If some were originally intended for dwellings, stables, magazines, or cellars, in later times, when walled houses were erected over them, they were converted into cisterns, especially, as it seems, in the period when Jerusalem became a Christian city, as

there are many crosses found. In the hole (F), for instance, are three crosses hewn in the rock—one towards the south, one towards the north, and one towards the west. The latter is a double one, thus ‡. On the east side there is none. That the chambers were used at this period for cisterns is proved by the cement, which in many places is still firm. If all the rubbish, buildings, &c., could be removed wherever the old city extended, the site would then present a marvellous appearance; all would appear honey-combed, so that one would need great care in walking about not to fall down through a hole or over a scarp.

It is not yet seen what the monks intend to erect here, but certainly some sanctuary in commemoration of some event in the life of our Lord or his Apostles. As far as I understand, they were in hopes of finding the traces of a church once erected over the spot where Peter wept bitterly (Matt. xxvi. 75). When the mosaic and the bases of pillars were discovered, they thought they had found what they looked for, but hitherto no proof of there having once been a church here has been brought to light. To me it seems as if the Crusaders have not done much here, but that the ruins are Jewish, and from the earliest Christian time; the caves and excavations are certainly Jewish. South of the ground on which these remains are, and south of the road, a Moslem has a large piece of ground, where he found the same state of things; and I hope in future to get opportunity to examine and measure there also.

We know that in this neighbourhood was a church of St. Peter called "The Cry of the Cock." Bernard, A.D. 865, tells us that this church was towards the east from the Church of Simeon on Mount Zion, at the place of Peter's denial of Christ.

Fifty years later this was repeated, but the word "church" used perhaps meant simply "sanctuary." In 1450 the place was called Galilee. It had a deep cave in the rock, and was 170 paces east of the house of Caiaphas (Neby Dâûd). If one pace is taken to equal 3 feet, this will be 510 feet east of Neby Dâûd, which brings us to a little building on the Ordnance Survey Plan, which I knew very well, but which was taken away within the last ten years, the stones being used for building new houses near Neby Dâûd, but not to the recently excavated place, which is 350 feet further east.

In 1483 the church had almost totally disappeared, only some walls being visible; but the Pilgrims went to a cave, and in the 16th century a high rock with a deep cistern was said to be the place where Peter denied Christ. It was situated about 150 paces from the tower of the town wall, as one went down from Zion into the Kidron Valley, not far from the Dung Gate and the Bethlehem Aqueduct.

In 1674 we are told that the cave was walled up. In later times the real place was lost, and sought for in this neighbourhood, as is the case now, but hitherto not with the desired result. This ancient church may be found some day in this neighbourhood, and I should think a little higher up the hill, nearer the aqueduct.

C. Schick.

DISCOVERY OF ROCK-HEWN CHAPELS AT SILWÂN.

Having heard that in the village of Silwân a church had been discovered and a very remarkable inscription which no one could read, I went down with my assistants and people who could point out the place. The proprietor of the ground showed us the things, but would not allow me to take copies and measurements until after a long talk, in which I pointed out to him that my measuring and reporting on the matter would be to his interest, he said, "Do what you like, but you must know that I do not want plans or drawings, but wish to sell the place, in order to get money with which to build another home." I hear the Russians offered him 60 Napoleons, but he asks 200.

The village of Silwân is divided into two parts, namely, the "upper" and the "lower" village. The place of which I speak is between the two, but belongs to the upper village. It is opposite the Virgin's Well, but somewhat more south, opposite the letter *a* in the word "valley" on the Ordnance Survey Plan of Jerusalem, scale $\frac{1}{2500}$.

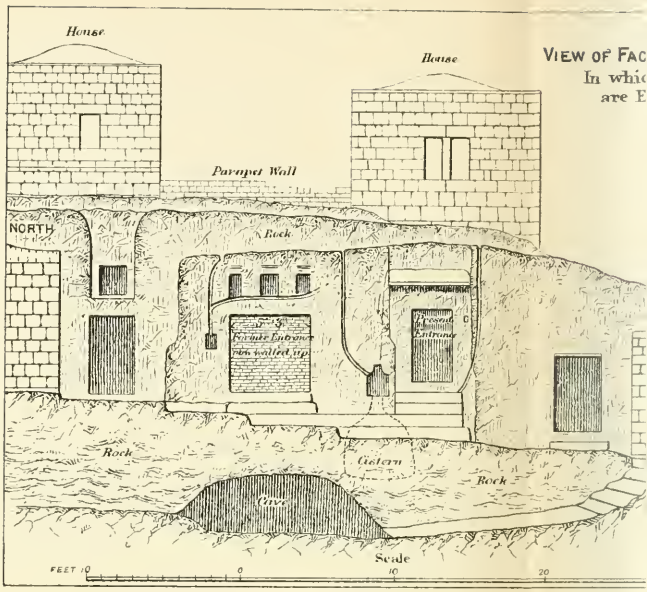
When I visited the place I followed the road in the valley southwards as far as a road which turns at a right angle to the lower village, near the "old pool," and then I had to go northwards up a steep ascent till I came to the spot.

An ordinary door on the south leads into a kind of court, sloping upwards towards the north, formed by a terrace on the rocky side of the hill. The floor, steps, the cliff on the east, and even the parapet on the west are rock. In the face of the cliff are many artificial openings, four doors, and several holes, looking like windows. The large central door is closed by masonry; the northern and southern I found locked up, but that between the central and southern doors was open. Some rock-cut steps lead up to it, and close by there is a round, bottle-shaped cistern cut in the rock. As there was *tibn* in this cistern I could not ascertain its exact size, and accordingly it is shown with dotted lines in the section. On the surface of the cliff I observed several narrow gutters cut in the rock for conducting the rain-water into the cistern.

The present entrance to the chapel is in a projecting part of the cliff, as shown in the Plan, and over the door the rock projects 1 foot more, forming a kind of roof, over which the rain-water is turned aside, so as not to fall into the doorway.

This door leads into a room, 5 feet deep and 7 feet 4 inches wide, very exactly and nicely excavated, with a straight ceiling of rock, the flooring being also rock. The room is nearly 8 feet high. The east wall of this room was originally pierced with three openings, leading into an adjoining room, 7 feet 4 inches wide by 6 feet 8 inches deep, which has along the south wall a rock bench, 1 foot 4 inches high, adapted for sitting on. The north wall was originally pierced by a doorway, the rock sides of which are now broken off. Towards the east there is a regular apse, 5 feet 4 inches wide and 2 feet 8 inches deep, in a half circle, but on the top made like a Mohammedan "mihrab." There are four round

no
NORTH
Room



VIEW OF FAC
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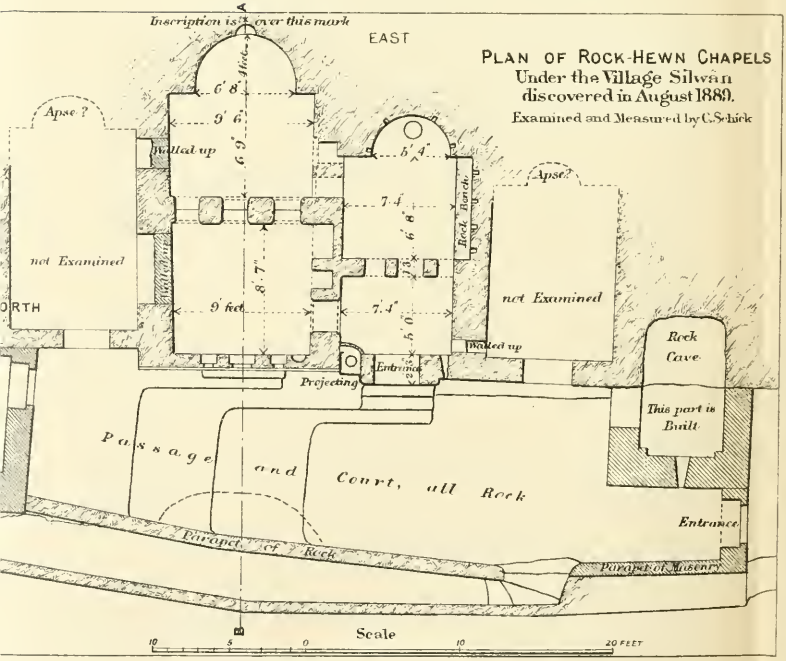
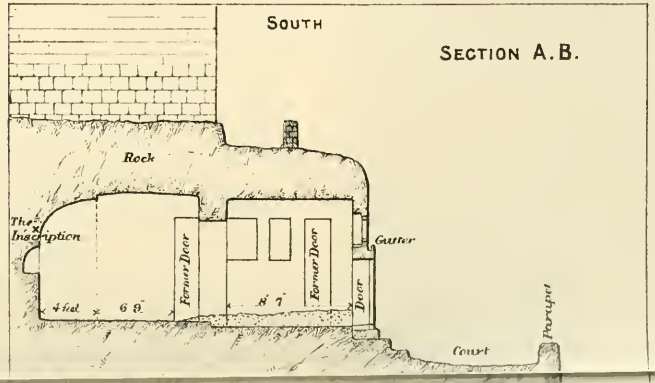


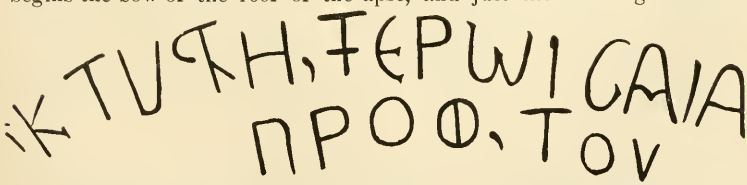


F.S. Walter, lith.

holes in the rock, as if at one time something had been fixed there ; lower down, about 3 feet from the flooring, are again four such holes ; they are round, 2 inches in diameter, and 4 inches deep.

On the south wall, some feet above the stone bench, is a row of similar holes. On the flooring there is a round hole or pit, 13½ inches in diameter, cut down perpendicularly for several feet ; the exact measurement I cannot give, as the hole is filled with earth. I supposed it to be a well-mouth, but the proprietor of the place said that this is not the case. On the top of the apse there had once been a cross made of plaster, but the Moslems have broken it off. This room is also nearly 8 feet high, and the ceiling is exceedingly smooth, exactly hewn, as in the tombs of the Kings.

North of this double room is another and larger double room or chapel. The entrance in the west wall (*see* Drawing), which is now built up, has over it three windows, the middle one somewhat wider than the others ; they are surrounded by rock ledges, so that wooden shutters may exactly close the openings. The outer room is 9 feet wide by 8 feet 7 inches deep. In the south wall were once two cupboard niches, and a door now so much broken away that all is like one room ; on the north was a doorway, 4 feet 8 inches wide, and 5 feet 4 inches high, now closed by masonry. The wall towards the east is pierced by three openings as in the adjoining southern double room. The work is very nicely done, all the edges having a ½-inch draft all round the openings. These openings never had doors. In the middle of the thickness of the wall there is a step in the flooring, so that the floor of the inner room is about 10 inches higher than that of the outer (*see* Plan). The inner room is 9 feet 6 inches wide, and 6 feet 9 inches deep, or 1 foot 8 inches less than the outer room. In the adjoining southern double room the outer was shorter and the inner longer ; here, on the contrary, the outer is longer and the inner shorter, but within 1 inch exactly as long as the southern inner room. This northern inner room has in the walls on the south and north openings or doorways, but that on the north is blocked up with masonry. On the east there is also an apse, much larger than that in the other room, and somewhat more than the half circle, 6 feet 8 inches wide by 4 feet deep (*see* Plan). This apse has also the form of a mihrab, as will be seen in the section. At the height of 3 feet from the floor there is a recess in the rock wall of the apse, about 1 foot deep, 1 foot 4 inches wide, and 1 foot 4 inches high. At its top begins the bow of the roof of the apse, and just there is engraved the



Greek inscription above alluded to. Of this inscription I give an exact facsimile, made by help of a squeeze.

That Isaiah is here mentioned is rather unexpected. The place where the prophet was killed, under Manasseh, is shown more to the south, and on the opposite side of the valley. His tomb for a time was shown in the same neighbourhood; but the ancient pilgrims speak in such a manner that it is difficult to comprehend where they mean; so, after all, Isaiah's tomb may be somewhere in the village of Silwân, and perhaps under this his chapel. As will be seen in the drawings, there is a cave under the rocky court containing much earth. I hope that by digging there an entrance to rock-cut tombs may be found.

The proprietor of the place tells me, that the adjoining rooms, on the north and south of these chapels, have each such an apse, and also that the rooms, &c., are hewn in the rock, like those belonging to him. They belong to neighbours who were not at home, so that I could not measure or examine them.

That these rock-cut chambers were once used by Christians as chapels is beyond all question; and as the rooms are double, I think some anchorite lived in the outer ones, the inner ones forming the chapels, and the wall between them, with its three openings, representing the wall in front of the choir or altar of Greek churches.

Dr. Papadopoulos thinks the form of the letters of the inscription supports the suggestion that it belongs to the eighth century. But one may doubt whether Christians under Mohammedan rule were in a condition to cut out such rock chambers, and I should think they were made before the invasion of the Arabs. Probably they were Jewish rock-cut tombs before the Christian era, which afterwards were modified by the Christians, and used again for their purposes. According to Matthew, xxiii, 29, and Luke, i, 47, the Jews made monumental tombs for the Prophets, who were killed by their fathers. So we may suppose that these rooms were made by the Jews in the time of Christ, and that afterwards the Christians made apses in them, converting them into chapels. However, more learned men may judge on this matter; my duty is simply to report on them.

C. Schick.

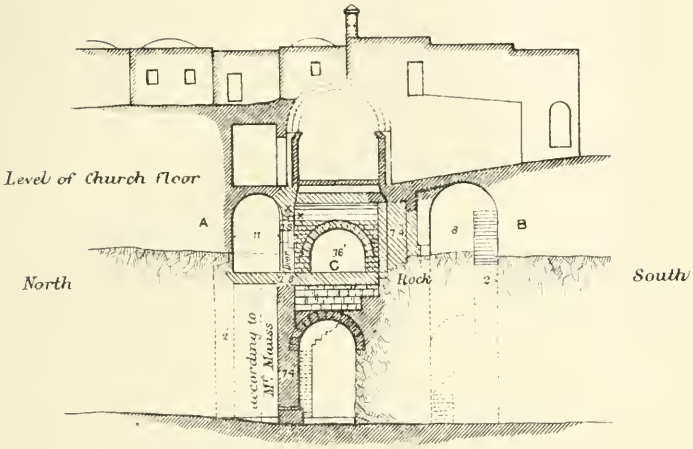
FURTHER REPORT ON THE POOL OF BETHESDA.

The Reis, or Head, of the Algerian Mission Brethren at St. Anne, has returned from his journey, so I called upon him, and was received very kindly. He showed me everything on the establishment, including their collections for a museum. Besides lamps and other pottery they have not much, but a good number of coins, Roman, Greek, Arabic, and Jewish.

With regard to excavations and clearing the place, I found they have removed all the earth down to the top of the pool, by which it was discovered that the five little rooms, or porches, just over the pool were

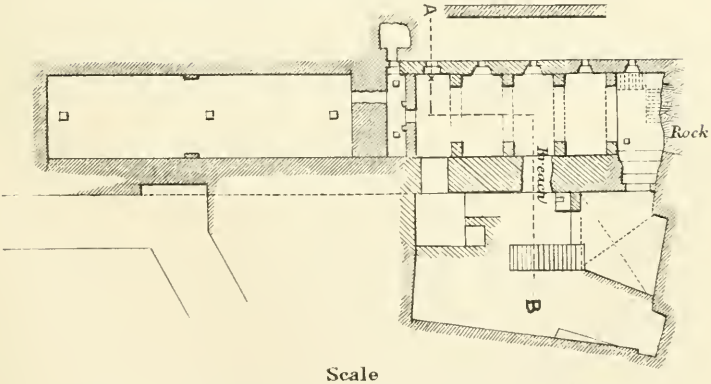
SECTION ON LINE A.B OF PLAN

Dark Shading represents old discoveries
Light " " new "



PLAN SHOWING
NEW DISCOVERIES AT THE POOL OF BETHESDA

Dark Shading represents old discoveries
Light " " new "
x Place of the fresco
See Quarterly Statement 1888 P 123.



Scale

10 5 0 10 20 30 40 50 60 70 80 90 100

all connected one with the other by an open arch, as I endeavour to show in the enclosed drawings. It is easy to see that these arches, and the five rooms or porches, did not belong to the original building, but were put in afterwards, and very likely the Reis is quite right in suggesting that as the original five porches were destroyed, the Crusaders, in order again to have some sort of porches, made these five *liwans*, or open rooms, as a special storey over the pool, as the accumulation of *debris* was great, and the surface of the ground already at their time at a much higher level.

It is now quite clear that the old (or original) church stood immediately on the pool, *i.e.*, the top of the latter formed the flooring of the church ; the northern wall of it still stands to a good height, and has four windows (which I mentioned in a former letter, see *Quarterly Statement*, 1888, p. 119). At the north-west corner is a door, and over it the wall is not pierced by a window, but is flat, and on it was painted the now celebrated *fresco*. The picture I found just as it is described by Professor Harris in the " British Weekly," No. 142, p. 192, very indistinct. One can only recognise parts of the wings, the nimbus round the head, which latter has been expressly destroyed. Of a hand I could see nothing, but round about the figure, which is without legs, or at least with none that are visible, the waves of the water, given with a brown colour, and not blue, as one would expect. But as these brown lines are at some distance one from the other, it may be that the finer colour of the water has disappeared, and now only parts of the waves remain, which, as, according to our old writers, the water was reddish, would also have that colour.

According to what can still be seen, the figure was the size of a young man, not a child. In a few other places are also little pieces of fresco visible. So it seems the old church, before these five arches, or " crypts," were built, had everywhere on the walls fresco paintings.

Opposite the fresco of the Angel there is, in the southern wall of the church, a wide opening leading into a chamber, which had formerly towards the east, some more rooms, which are now destroyed. The church wall is very thick, and a hole is broken through it. Outside of it are the remains of a strong square pier, and the Reis expressed the opinion that once a pillar may have stood on it, parts of such a pillar, especially the capital, having been found. South of this pier a flight of steps was found but it is not easy to decide whether they were old or of later, perhaps Mohammedan, work. One would think the latter, but the steps are so much trodden as to prove that they had been for a long time in use. My first idea was that this is the upper branch of the regular stairs leading down to the water, but as northwards of it the rock rises even higher it cannot be, and very likely it is the stair to another similar pool south of the other, which further excavations will prove. In the enclosed section (No. 3) I explain this in dotted lines.

To the large tank or cistern on the west, which I reported on last year (*Quarterly Statement*, p. 123), nothing more has since been done, but the

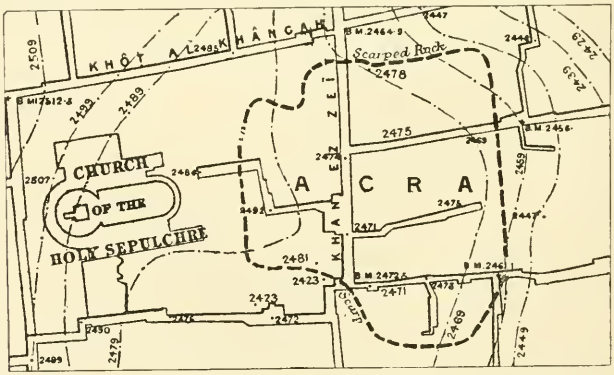
Reis told me that they have now bought all the little houses as far as this tank extends and north of the pool, and will, in course of time, thoroughly examine the locality.

In case there should be found a similar pool to the south, then the rock wall between the two would be thick enough (about 15 feet) to have carried the middle (or fifth) porch, and this would explain how different kinds of water could be in two pools so near together; the one would get water simply from the rain falling on the top and the roofs round about; the other would be fed by conduits bringing rain water from a distance. Such water from outside the town always becomes reddish when it first falls, and afterwards becomes clear.

C. Schick.

ROCK LEVELS IN JERUSALEM.

The better paving of the streets is still going on, although very slowly. It is not in every street that anything of interest is found, but in some this is the case, as I have reported from time to time. To-day I have to say that the so-called "Akkabat al Takiyeh" (going eastward from the Church of the Sepulchre) was recently done. Now, in the Ordnance Survey Plan, scale $\frac{1}{2500}$, stands in about the middle of its length, on the south side, a bench mark, a few feet above the ground, with the height 2,456 feet above the Mediterranean; 45 feet west of this, near the arch going over the street, the scarp of the rock was found, going south and north, facing east, the height or top of the rock there being 2,462 feet above the sea, *i.e.*, 6 feet higher than the bench mark, so that when grading the surface they had to cut the road through the rock.



West of it, about 190 feet distant, the rock crops out from the ground to a height of 2,477 feet.

This new discovery proves that I was right in stating in one of my reports in 1887 that here, east of the Church of the Sepulchre, is a rock terrace, which is surrounded, or nearly surrounded, by scarps to a con-

siderable height. Further north, 68 feet south of the Tarik es Serai, it is known for a long distance. To the south it was found and reported upon last year, on the Russian ground, and now we find it on the east. Opposite the bench mark mentioned, where the letter T stands, the house had tumbled down, and was recently rebuilt, its foundation being laid 20 feet below the surface, and still no rock found, so that the scarp here must have a height of at least 30 feet, and I am convinced it is 40, or even more. The word "ACRA" is on the Ordnance Survey Plan put too far east. The place where C R A stands belonged already to the "Makdesh" (Zephaniah i, 11). All this I have endeavoured to explain by the accompanying plan, in which I show the probable extent and form of the Acra terrace with dotted lines.

C. SCHICK.

REMAINS OF THE OLD CITY WALL.

AT the beginning of this year I reported on remains of an ancient and very strong wall found near the north-western corner of the present city, at the Latin Patriarch's palace, and my report was published, together with the drawings illustrating it, in *Quarterly Statement*, 1889, p. 65, where I (p. 66) promised to report whatever further may be found. I have now to fulfil this promise.

Northwards, as I hinted in my last, nothing has been done since, but southwards it was found that the wall existed only for 8 feet further south, with large stones on both sides and the middle filled up, but that beyond this such stones were only scattered here and there, most of them *in situ*, for a short distance ; those not *in situ* being turned over or broken. The priest who had the direction of the work told me that a few such stones were found when the palace was built a dozen years ago and that it seems the wall had an angle just where in the Ordnance Survey Plan, scale $\frac{1}{2500}$, stands the letter R of the work, "Tarik." But this is merely a suggestion, and not proved, as he said the supposed angle of the wall gave to the latter an easterly direction, which would bring it into connection with the remains found some years ago, and reported in *Quarterly Statement*, 1886, p. 23, and afterwards ; and this seems to me the reason why a corner is suggested, which very likely did not exist. I suppose the wall went straight on, very probably to the tower found when shops were built outside the present wall, in front of the present third tower, north of Jaffa Gate, and that here was thus a kind of corner, not a right angle, but an obtuse one.

At the little chapel north of the barracks in Tarîk Sitti Maryam the work is going on again, but nothing more of interest has been found. They have cleared away all the walls, &c., towards the east, and thrown the site of this chapel and the premises of the Chapel of the Flagellation into one.

C. SCHICK.

A SUPPOSED DRUIDICAL STONE.

THERE are on the plain, south of Jerusalem, near the village Beit Sŭfâfa on the large map, some points with the name "Es Seba Rujum," and in the "Memoirs," Vol. III, page 157, it is said: "Large stone heaps, apparently formed by clearing the surrounding land of stones for cultivation." This is the first and general impression one gets when seeing them, but looking closer there are several remarkable points, which lead to the supposition that these heaps may have had some other origin. These are, first, their largeness; second, their regular situation; and third, their number seven.

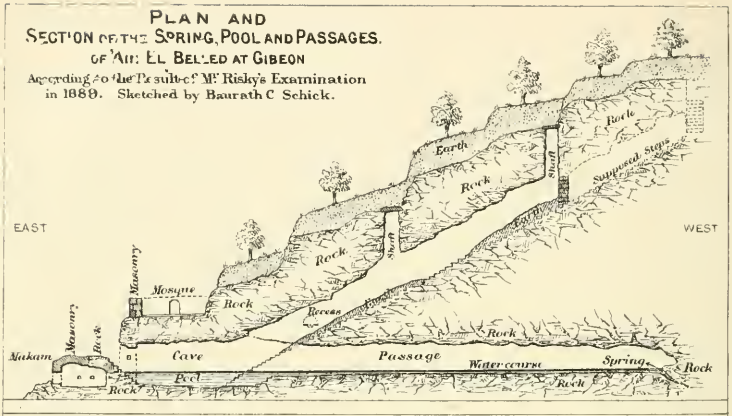
Everywhere in the mountain may be seen heaps of stones, made by clearing the land, but in general they are not so large as these nor similar in form, and may be of any number. On many parts of this plain there are at present not more stones in the field than on that part surrounding these mounds, and there are no other such heaps, only smaller ones of irregular form, spread over the land without any plan—here there is a regular plan on which the heaps are arranged. Excavation might lead to some result, and throw light on their origin. Besides the seven large heaps, there are several others of much smaller size, and irregularly situated. They seem to have once been buildings, now entirely fallen into shapeless ruins, and I should think are of a later period than the large heaps.

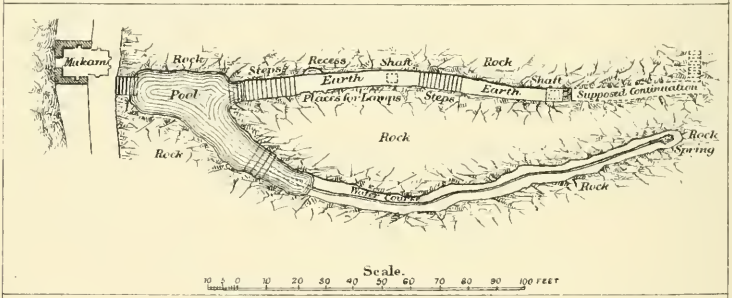
From one or two of these smaller heaps stones were recently taken away for the Bethlehem road or new buildings. One day I heard that a marvellous stone had been found, so I went there, and found a stone still standing exactly upright, so that I judged it may be *in situ*, and by closer examination became convinced it had been once a Druidical stone. I send plan and view of its four sides. It is 2 feet 6 inches wide, and on an average 13 inches thick, and crops out 3 feet from the ground. The top surface slants a little towards the sides, especially towards the west, where there is in the middle a shallow depression. The north and south sides are nearly straight, but not very smooth, and each has a hole going in for 9 and 9½ inches, the outer opening having the figure of a human mouth, 5 to 6 inches wide, and about 1 inch high in the middle, so that one can put his hand a few inches into it. Towards the interior these holes are gradually narrowed to a kind of point. That on the south side is a little higher than the other, and goes a little downwards; the northern one, which is somewhat lower, goes a little upwards. One might think these holes to be natural clefts in the stone, but they are, especially at the lower part, smoothed and polished by frequent handling. On the eastern side there is a round hole at the same height, also going in 9 inches. This eastern side has another peculiarity, viz., at the same level as the holes above-mentioned, a projecting ledge, so cut that one-half of the breadth of the projection is about 5 inches higher than the other half.

The opposite or western side of the stone is still more remarkable.

PLAN AND SECTION OF THE SPRING, POOL AND PASSAGES, OF 'AIN EL BELLED AT GIBEON

According to the Results of Mr Risky's Examination in 1889. Sketched by Baurath C Schick.

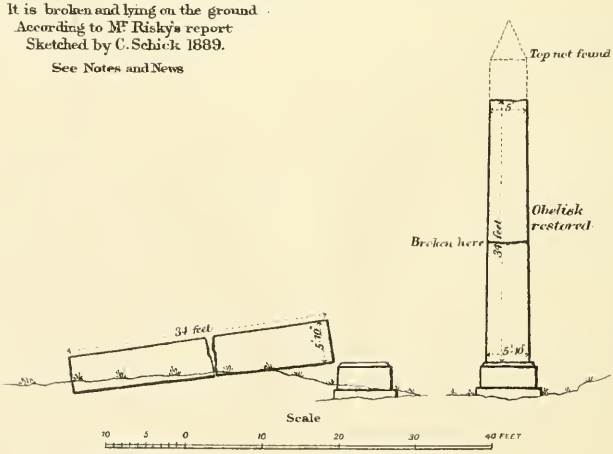




OBELISK, FOUND IN THEATRE CÆSAREA

It is broken and lying on the ground
According to Mr Risky's report
Sketched by C. Schick 1889.

See Notes and News



F.S Weller lith.

At first sight it appears to be covered with cracks, which on examination are found to be regular grooves, each about $\frac{1}{4}$ to $\frac{1}{2}$-inch deep and about $\frac{1}{4}$-inch wide, made by a tool of that breadth, as its marks can still be recognised. These furrows run obliquely downwards towards the centre of the stone. About half-way down is a natural curved cleft *across;* the others, or at least the greater part, are artificial. On another day I excavated the spot and found that the stone ended about 20 inches below, and that it stands on a layer of roughly-hewn stones, and is not *in situ.* It was used as a door-post to a room which was built here, the threshold of which is still on the ground, and a stone found against it in a slanting situation appears to have been the lintel. The bearings of the stone were north 33° west, the line just going to the Minaret on the Neby Dâûd buildings; but of course as the stone is no more *in situ* the bearings are of no value.

After reading Captain Conder's report on these old stone monuments (*Quarterly Statement*, 1882, p. 69), I became the more convinced that we have here a stone, belonging once to a Canaanitic altar of offerings, which may perhaps have stood in connection with the Seba Rujum, or seven large stone heaps.

C. Schick.

THE WATERS OF GIBEON.

I send drawings, plan, and section of the well or spring at El Jîb, the ancient Gibeon. Respecting this the Memoir to the Survey, vol. iii., p. 94, says:—"There are eight springs, which issue from the sides of the hill, the most important being 'Ain el Belled ("Spring of the Village"). This is on the south-east, at the foot of the steep hill-side, and issues in a rock chamber, about 30 feet long, 7 feet wide, and 7 feet high. The water is clear and abundant in a pool within the cave, said to be 3 or 4 feet deep. On the right, at the back, a passage is said to exist, and on the left steps leading to the surface of the hill above. These cannot now be seen, and the passage is blocked up. . . . The cave is reached by a descent of several steps. . . . There is a recess at the mouth of the cave, as if for a bar, probably showing that the spring was once closed with a door, when it could no doubt be reached from above within the city (as at Jerusalem)." A few months ago a Russian gentleman carefully examined the localtity, and according to the statements and descriptions which he gave me I have made these drawings. He went up the steps and incline until he came to a place where the passage is walled up. He found two shafts, the openings of which are covered with flat stones. He also went to the source of the spring, taking off his garments and walking through the water, and measured the length of the passage. The measurements may be right, but I doubt the correctness of the bearings. These observations are important. The arrangement resembles that of the Siloah spring at Jerusalem.

C. Schick.

NOTES FROM GALILEE.

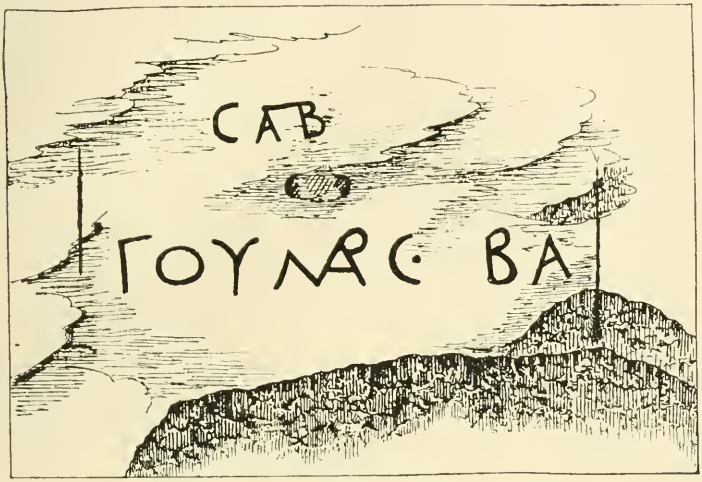
Shefa 'Amr.—In my report of May, 1889, I gave a sketch of a richly ornamented tomb found south of Shefa 'Amr (see *Quarterly Statement*, 1889, p. 188), and I am now able to send a photograph of the same. I have also made a plan of the interior, which was then filled with rain water. The latter has not yet entirely disappeared, and the bottom is full of mud as well as the interior of the loculi. The tomb does not contain *kokim* as was told me by natives, but three very carefully worked *loculi* with arcosolia, each in one of the three walls of the cave. The entrance facing north, with its rich and curious ornamentation, has been described before. By the low door we go down two steps to the bottom of the cave into a rectangular room measuring 5 feet 3 inches each side by a height of 5 feet 6 inches from the floor to the nicely worked flat ceiling. As before said, the east, south, and west walls contain each a *loculus* 5 feet 7 inches long, 1 foot 10½ inches to 1 foot 8 inches wide, and 1 foot 8 inches deep, covered by an arcosolium without ornamentation. Although the interior is very well preserved and the corners as sharp as if worked recently, there is no sign of any ornamentation visible, contrary to the neighbouring tombs mentioned in the "Memoirs," vol. i, pp. 340, 341, which show a rich ornamentation also along the arcosolia. The rock is a soft white "Maleki" limestone; in a short time both entrance and interior will be filled up again with mud; I already had to clear away a considerable mass to be able to photograph. Shepherds and vineyard-watchers use the tomb as a place of refuge for the night; fires are lighted and the ornamentations blackened and spoiled.

Khŭrbet Hûsheh.—This ruin, mentioned in the "Memoirs," vol. i, p. 311, and by Guérin ("Description de la Palestine," i, pp. 415, 416), to which my attention was directed by the Rev. P. van Kasteren, of the St. Joseph's University of Beyrût, must have been an important place, to judge from the mass of building stones and the fragments of columns lying about. Now that the grass is dried up a regular city wall can be traced. On the main road running from the well towards the ruin some fine capitals are lying about, which have a close resemblance to those which on other sites have been stated to be remains of synagogues. The shafts of columns lying about generally have the basis or capital worked out of the same piece, have a diameter of 18 inches, and are composed of Nâri limestone.

The inhabitants of Shefa 'Amr, with whom I spoke about Khŭrbet Hûsheh, and to whom this ruin belongs, cannot sufficiently praise the excellence of the water of the well or spring, the Bîr Hûsheh, at the western foot of the ruin; some of the old folks assured me that Djezzâr Pasha and 'Abdallah Pasha, the famous Governors of 'Acca, always had their drinking water supply from this well, and on their excursions into the interior generally camped here on account of the water.

Through the kindness of Pater van Kasteren, who showed me the

place, I am able to send a copy and photograph of a very curious inscription in Greek characters, engraved on a flat rock very near Khŭrbet



Inscription near Khŭrbet Hûsheh,

Hûsheh. This spot is, according to our exact measurements, 508 metres to the east of the Khŭrbet counted from the eastern city wall, situate in a rocky region a little south of the road leading from the Khŭrbet to Shefa 'Amr, 100 metres to the west of a small olive grove. The inscription is read facing the Khŭrbet. Each character of the first (upper) line has a height of $6\frac{1}{4}$ inches ; they are very much defaced. The characters of the lower (second) line are $8\frac{1}{2}$ to 9 inches high and better preserved. Between the lines there is a space of 1 foot 4 inches. A sort of frame line seems to have bordered the inscription.

So far as I am aware we owe the original discovery of this inscription to Père Julien, of Beyrût, to whom it was first shown by natives of Shefa 'Amr.

G. Schumacher.

METEOROLOGICAL OBSERVATIONS.

Sarona, 1886.

The numbers in column 1 of this table show the highest reading of the barometer in each month ; the maximum for the year was 30·164 ins., in December. In the years 1880, 1881, and 1884 the maximum was in January, in 1882 in February, and in 1883 and 1885 in December, as in

this year; the mean of the preceding six years highest pressures was 30·214 ins. The highest reading in the seven years was 30·269 ins., in the year 1880.

In column 2, the lowest reading in each month is shown; the minimum for the year was 29·543 ins., in April. In the year 1883 the minimum was in January, in 1881 in February, in 1880, 1884, and 1885 in April, as in this year, and in 1882 in July; the mean of the six preceding lowest pressures was 29·512 ins. The lowest reading in the seven years was 29·482 ins., in the year 1885.

The range of barometric readings in the year was 0·627 inch; in 1880 the range of readings was 0·780 inch; in 1881, 0·711 inch; in 1882, 0·704 inch; in 1883, 0·579 inch; in 1884, 0·757 inch; and in 1885, 0·680 inch. The mean for the six preceding years was 0·702 inch.

The numbers in the 3rd column show the range of readings in each month; the smallest was 0·132 inch in August, this being the smallest range in any month in the seven years; in the year 1883 the smallest was in June; in 1882 in August as in this year, and in 1880, 1881, 1884, and 1885 in October. The largest monthly range was 0·531 inch in March; in the years 1883 and 1884 the largest was in January, in 1882 in February, in 1881 in March as in this year, in 1880 in April, and in 1885 in September. The largest range in any month in the seven years was 0·710 inch in the year 1885.

The numbers in the 4th column show the mean monthly pressure of the atmosphere; the greatest, 29·979 ins., was in December. In the years 1880, 1881, 1882, and 1884 the greatest was in January, in 1883 in February, and in 1885 in December, as in this year. The highest mean monthly reading in the seven years was 30·060 ins., in the year 1882. The smallest mean monthly reading was 29·677 ins., in July. In the years 1880, 1882, and 1883, the smallest was in July, as in this year, and in 1881, 1884, and 1885, in August. The lowest mean monthly reading in the seven years was 29·657 ins., in the year 1885.

The highest temperature of the air in each month is shown in column 5; the highest in the year was 112°, in June; the next in order was 96° in October, and 94° in September. The first day in the year the temperature reached 90° was on April 30th. In June there were six days when the temperature reached or exceeded 90°; the highest, 112°, took place on the 15th of June, in August on two days, in September on four days, and in October on three days; therefore the temperature reached or exceeded 90° on 16 days. In the preceding six years, viz., 1880, 1881, 1882, 1883, 1884, and 1885, the temperature reached or exceeded 90° on 36, 27, 8, 16, 14, and 24 days respectively. In the six preceding years, viz., 1880, 1881, 1882, 1883, 1884 and 1885, the highest temperatures were 103°, 106°, 93°, 106°, 100°, and 103° respectively.

The numbers in column 6 show the lowest temperature of the air in each month. The lowest in the year was 37° on both the 22nd and 23rd of December; the next in order was 39° on the 15th of March, and in no other month throughout the year was the temperature below 40°;

therefore the temperature was below 40° on three nights in the year. In the preceding six years, viz., 1880, 1881, 1882, 1883, 1884 and 1885, the temperature was below 40° on 13, 2, 13, 2, 9, and 3 nights respectively. In the six preceding years, viz., 1880, 1881, 1882, 1883, 1884, and 1885, the lowest temperatures were 32°, 39°, 34°, 35°, 32°, and 38° respectively.

The yearly range of temperature was 75°, being larger than any in the six preceding years, viz., 1880, 1881, 1882, 1883, 1884, and 1885, in which the yearly ranges were 71°, 67°, 59°, 71°, 68°, and 65° respectively.

The range of temperature in each month is shown in column 7, and these numbers vary from 26° in August to 55° in June.

The mean of all the highest by day, of the lowest by night, and of the average daily ranges of temperature are shown in columns, 8, 9, and 10 respectively. Of the high day temperature, the lowest, 64°·7, is in January. In the years 1884 and 1885 the lowest in each year was in January, as in this year; in 1881, 1882, and 1883, in February; and in 1880 in December. The highest, 87°·9, is in August; in 1880 the highest was in May; in 1881, 1883, 1884, and 1885, in August, as in this year; and in 1882 in September.

Of the low night temperature, the coldest, 48°·1, is in December; in the years 1880, 1882, and 1884, the coldest in each year was in January; in 1883 and 1885 in February; and 1881 in December, as in this year. The warmest, 69°·2, is in August; in the year 1885 the warmest was in July; in the years 1880, 1881, 1882, 1883, and 1884, in August, as in this year. The average daily range of temperature is shown in column 10; the smallest, 15°·4, is in January; in 1880, 1883, and 1885, the smallest was in January, as in this year; and in 1881, 1882, and 1884, in February; and the greatest, 23°·5, in October.

In column 11, the mean temperature of each month is shown as found from observations of the maximum and minimum thermometers only. The month of the lowest temperature was January, 57°·0. In the years 1880, 1884, and 1885, the lowest was in January, as in this year, in 1881 and 1882 in February, and in 1883 in December. That of the highest was August, 78°·6, and in the six preceding years the highest was in August as in this year. The mean temperature for the year was 66°·8, and of the six preceding years, viz., 1880, 1881, 1882, 1883, 1884, and 1885 were 66°·4, 66°·7, 65°·5, 65°·7, 65°·7, and 65°·9 respectively.

The numbers in columns 12 and 13 are the monthly means of a dry and wet-bulb thermometer taken daily at 9 a.m. In column 14 the monthly temperature of the dew point, or that temperature at which dew would have been deposited is shown; the elastic force of vapour is shown in column 15. In column 16 the water present in a cubic foot of air is shown; in December it was as small as $2\frac{3}{4}$ grains, and in August as large as $7\frac{7}{8}$ grains. In column 17 the additional weight required for saturation is shown. The numbers in column 18 show the degree of humidity, saturation being considered 100; the smallest number indicating the driest month, is 53 in December, and the largest, 77, was in January;

the weight of a cubic foot of air under its pressure, temperature, and humidity at 9 a.m. is shown in column 19.

The most prevalent wind in January was S., and the least prevalent were W. and S.W. ; in February the most prevalent was S., and the least was N.W. ; in March the most prevalent was S., and the least was N. ; in April the most prevalent was N.W., and the least were E., N.E. and S.E. ; in May the most prevalent were W. and S.W., and the least were E. and S.E. ; in June the most prevalent was W., and the least were E. and S.E. ; in July and August the most prevalent were W. and S.W., and the least prevalent were N., E., and compounds of E. ; in September the most prevalent was S.W., and the least were E. and S.E. ; in October the most prevalent were S. and S.W., and the least were E. and compounds of E ; and in November and December the most prevalent was S., and the least prevalent winds were N.E. and compounds of E. The most prevalent wind for the year was S.W., which occurred on 69 times during the year, of which 13 were in August, and 12 in both July and September, and the least prevalent wind was E., which occurred on only 5 times during the year, of which 2 were in both January and February, and 1 in March.

The numbers in column 29 show the mean amount of cloud at 9 a.m. ; the month with the smallest is June, and the largest January. Of the cumulus, or fine weather cloud, there were 71 instances in the year, of these 14 were in October, 10 in September, and 9 in January, and only 2 in February. Of the nimbus, or rain cloud, there were 48 instances, of these 10 were in February, 8 in December, and 7 in January, and only 2 from June to October. Of the cirrus, there were 56 instances. Of the cirro-cumulus, 50 instances. Of the stratus, 12 instances, and of the cirro-stratus, 9 instances ; and 119 instances of cloudless skies, of which 20 were in June, 14 in December, and 12 in both July and October.

The largest fall of rain for the month in the year was 5·00 ins. in December, of which 1·65 inch fell on the 11th, 1·14 inch on the 15th, and 0·85 inch on the 14th. The next largest fall for the month was in January, 4·47 ins., of which 1·28 inch fell on the 26th, 0·79 inch on the 16th, and 0·75 inch on the 14th. No rain fell from May 11th till the 30th of October, making a period of 171 consecutive days without rain. In 1880 there were 168 consecutive days without rain ; in 1881, 189 consecutive days ; in 1882 there were two periods of 76 and 70 consecutive days without rain ; in 1883, 167 consecutive days ; in 1884, 118 consecutive days ; and in 1885, 115 consecutive days without rain. The fall of rain for the year was 20·09 ins., being 8·59 ins., 2·00 ins., and 9·97 ins. less than in 1880, 1882, and 1883 respectively, and 2·60 ins., 1·36 inch, and 0·03 inch more than in 1881, 1884, and 1885 respectively. The number of days on which rain fell was 66. In the six preceding years, viz., 1880, 1881, 1882, 1883, 1884, and 1885, rain fell on 66, 48, 62, 71, 65 and 63 days respectively.

JAMES GLAISHER.

NORMAN PALESTINE.

SINCE my paper in the last *Quarterly Statement* was printed, Sir C. W. Wilson has kindly called my attention to two papers on the subject which had escaped my attention.

The first of them is by M. Clermont-Ganneau ("Recueil D'Archéologie Orientale," No. 5, 1888). In this he has worked out fully the identification of Mont Gisart with *Tell Jezar* (pp. 350–391), giving the episode from William of Tyre to which I referred. I believe no other writer has suggested this identity; and M. Gannean's paper was published a year before my note. I think, however, the suggestion that Galatia was the present *Keratiyeh* is hardly as satisfactory as its identification with *Jelediyah*, which I proposed in the *Quarterly Statement*, and published in the "Memoirs" (vol. iii). M. Clermont-Ganneau identifies the *Cannetum Sturnellorum* (Itin. Ric. v, chs. xli and xlv) with *Wady Kassâbah* near Tell el Hesy, on account of the names, and this appears to me to fit well with the other places mentioned, and with the distances which he has worked out.

The other paper is a careful and exhaustive one by Herr R. Röhricht: "Studien zur mittelalterlichen Geographie und Topographie Syriens," in the "Zeitschrift des Deutschen Palestina Vereins" (x, 4), 1887. In this I find that half of the identifications which I proposed (*Quarterly Statement*, October, 1889, pp. 197–200) have already been proposed two years earlier by this scholar. Their reliability is much increased by this independent opinion, and the following sites are those to which I refer:—

Amouhde	=	*'Amûdeh.*	Aschar	=	*'Askar.*
Benehabeth	=	*Beni Hârith.*	Bet Digge	=	*Beit Dukku.*
Bether	=	*Bittîr.*	Bethsurie	=	*Beit Surîk.*
Chole	=	*Kuleh.*	Casracos	=	*Kefr Kus.*
Courcoza	=	*Kurza.*	Dere	=	*ed Deir.*
Feitata	=	*Fattâtah.*	Galilee	=	*Jelîl.*
Geschale	=	*Kashkalîyeh.*	Gez	=	*Jett.*
Heulem	=	*'Aulam.*	Heedix	=	*Hadîtheh.*
Hubim	=	*Hubîn.*	Kefreachab	=	*Kefr 'Akâb.*
Lahemedie	=	*El Hammadîyeh.*	Lecara	=	*Kara.*
Larmedie	=	*Er Rumeidîyeh.*	Migedell	=	*Mejdel.*
Meimes	=	*Mâmâs.*	Quefrenebit	=	*Kefr Nebîd.*
Saka	=	*S'as'a.*	Terfalsa	=	*Teir-filsieh.*
Turbasaim	=	*Turmus Aya.*	Der Sabeb	=	*Deir esh Shabîb.*

In four cases, also, I think that Herr Röhricht has given a better explanation than that which I have offered in the paper in question.

(1) Ferachiem—Pisan casale—should be near Tyre. *El Ferakîyeh* (Sheet I) very possibly preserves the name, though only applying to a hill.

(2) Jerraz. A casale of St. Mary of Jehosaphat, may be *Jerâsh* (S.W. of Jerusalem) (Sheet XVII).
(3) Saarethe. A casale of the Hospitallers, may be the ruin *Sh'areta* (Sheet XX).
(4) Subahiet. A casale of the Holy Sepulchre Church, may be the ruin *Subhah*, south of Jerusalem (Sheet XVII).

Herr Röhricht's paper is a careful and valuable discussion of the subject, and fairly exhaustive. He has used the P. E. F. Map and Memoirs (which were unknown to M. Rey), and has treated of 600 out of the 700 places of which the names are mentioned in documents of the Crusading period. He goes over the same lists previously studied by Prutz, Rey, and other scholars, and accepts their results in 240 cases, to which I may add 12 in which his identifications are the same given in the P. E. F. Memoirs, which (as far as I know) were not fixed before 1882–3. In about 85 cases (including those above noted) his identification appears to be a new one and satisfactory. In a very few instances he has been misled, by want of acquaintance with the ground, into suggestions which are not tenable; and in some cases I think the suggestions of his predecessors are better than those which he advocates. I propose to add about 40 more sites to those mentioned in my former paper, and this leaves only 200 places, for most of which different suggestions have been made, but which, on account of corrupt copying of the MSS., and from the meagre indications of position, remain doubtful. It will thus be seen that Herr Röhricht's paper is a substantial contribution to the subject.

The following are the cases where his new proposals seem to me to be evidently correct: —

Casales of the Holy Sepulchre Church.

1. Salome, near Bîreh, *Salamîyeh* (Sheet XVII).
2. Beitumen, *Beitunia*, better than *B. Anân* (Sheet XVII).

Casales of St. Mary of Jehosaphat.

3. Bethsan, *Beit Shenna* (Sheet XVII).
4. Dargeboam, *Deir el Okbân* (Sheet XIV).

Casales of Abbey of St. Sion.

5. Dersoeth (not the one in Galilee), *Deir es Sûdân* (Sheet XIV).
6. Messaria, near Tyre, *Mezr'ah* (Sheet II).

Casales of the Church of Bethlehem.

7. Phaghor, *Kh Faghûr* (Sheet XVII).

Casales of the Abbey of Tabor.

8.	Senbra	*Sinn en Nâbra* (Sheet VI).
9.	Cafartamara	*Tumrah* (Sheet V or Sheet IX).
10.	Casta	*Kastah* (Sheet VI).
11.	Noriz	*Nâris* (Sheet IX)
12.	Capharkeme	*Kefr Kama* (Sheet VI).

Casales of the Knights Hospitallers.

13.	Coquebel	*Kaukabah* (Sheet XX).
14.	Camsa	*Kemâs* (Sheet XX).
15.	Beze	*Bezzeh* (Sheet XVI).
16.	Deir Nachar	*Deir Nakhkhâs* (Sheet XX).
17.	Terra Malvarum?	*Khobbeizeh* (Sheet VIII).
18.	Artais	*Irtah* (Sheet XI).
19.	Damor	*ed Damûn* (Sheet V) from position.
20.	Cafriasim	*Kefr Yasîf* (Sheet III).
21.	Cafresur	*Kefr Sib* (Sheet XI) from position.
22.	Socque	*Shuweikeh* (Sheet XI).
23.	Turrearme	*Tul Keram* (Sheet XI) from position.
24.	Theris	*Tîreh* (Sheet IX).
25.	Losserim	*Sîrîn* (Sheet IX).
26	Torciaffe	*Teir Harfa* (Sheet III).
27.	Theyre	*Tîreh* (Sheet IV).
28.	Teira	*Tîreh* (Sheet XI).
29.	Bethiben	*Beit Iba* (Sheet XI).

Casales of the Teutonic Knights.

30.	Der Henne	*Deir Hanna* (Sheet IV).
31.	Seebeique	*Shubeikeh* (Sheet III).
32.	Jashon	*Jathûn* (Sheet III).
33.	Danehyle	*Fasl Dâniâl* (Sheet IV).
34.	Clil	*Iklîl* (Sheet III).
35.	Delaha	*Delâta* (Sheet IV).
36.	Quabrique	*Abrikha* (Sheet II).

Casales of the Pisans.

37.	Elfarachie	*Ferakîyeh* (Sheet I).
38.	Talobie	*Tarâbieh* (Sheet I).
39.	Aithiti	*'Aitît* (Sheet II).
40.	Ainebedelle	*'Ain Abu Abdallah* (Sheet I).
41.	Dordegaye	*Deir Dughiya* (Sheet II).
42.	Darzibine	*Teir Zinbeh* (Sheet II).

Casales of the Venetians.

43.	Homeire	*Humeireh* (Sheet II).
44.	Lahaya	*Tell el Haiyeh* (Sheet II).
45.	Szorcoorum	*Shaghûri* (Sheet II).
46.	Lahemedie	*el Hammâdîyeh* (Sheet I).
47.	Lanahemine	*el Hanîyeh* (Sheet I).
48.	Tyrdube	*Teir Dubbeh* (Sheet I).
49.	Brochey	*Berûkhei* (Sheet II).
50.	Lagariddie	*Jârûdîyeh* (Sheet I).

It will be seen from this list that Herr Röhricht, by aid of the P. E. F. Map, has added materially to M. Rey's results, especially in elucidating the possessions of the Hospital of St. John in the plains and of the Italian Republics, in the vicinity of Tyre, and in Upper Galilee.

The remarks which follow may be of use to those who are interested in the subject of Crusading Palestine ; and though venturing sometimes to disagree with those who have specially studied the question, I wish to be understood fully to appreciate the careful work of M. Rey and of Herr Röhricht.

Casales of the Holy Sepulchre.

(From the H.S. Cartulary.)

There were 70 villages given by the kings and barons at various times to this church in the 12th century. They lay mainly between Jerusalem and Nâblus and in the hills north of the latter town. The majority are well known places, as noted in the "Memoirs."

The following may require a few words of notice.

1. *Bethefłori* is, I think, probably *Beit Furîk* (Sheet XII), it lay in the Nablus territory, not *Beit Fâr* (Röhricht).

2. *Derxerip* may be *Deir Sherâf* (Sheet X), as Herr Röhricht proposes, but I think, perhaps, *Deir Tureif* (Sheet XIV) agrees better for position.

3. *Castrum Feniculi* is *Funeitir* according to Röhricht (Sheet VIII). If the word means "fennel" I think it may be sought near Haifa, in the *Wâdy esh Shomarîyeh* ("Valley of Fennel") on the north slope of Carmel (Sheet V).

4. *Bubil* or *Bubin* may be *'Abwein*, as suggested by Röhricht (Sheet XIV), but the initial letter is the gutteral.

5. *Subahiet*, other possible sites are *Soba* (Sheet XVII), and *'Ain Subieh* (Sheet XVII).

6. *Urniet* or *Uniet* might be *el Beituni* (Sheet XVII), it is a very doubtful site.

7. *Zenu* and *Zenum*, the proposed site at *Zanû'a*, is not impossible, but is rather far from the other places.

8. *Helmule.* I think *Almit* preferable to *Malhah* or *el 'Ammûr* proposed by Röhricht (all on Sheet XVII).

9. *Beitelamus*, Herr Röhricht follows Rey, but the site is doubtful geographically. *'Ain Beit Tulma* is worth consideration (Sheet XVII).

10. *Barimeta* or *Barineta* cannot well be *Bîr el Mutih.* I think rather that the ruin *Meita* near Bireh (Sheet XVII) or *Bornât*, a ruin on Sheet XIV, is to be understood.

11. *Benehatie.* Röhricht proposes *Beni Hasan*, a district name. I would suggest *Kefr 'Atîya* or *Kefr Hatta* (Sheets XV and XIV).

12. *Ragabam* is, I think, clearly *Râjîb* (Sheet XIV), and *Roma, el 'Ormeh* (Sheet XIV).

13. *Sapharoria* seems to me best placed at *Kefr Urieh* (Sheet XVII). In Fellah dialect *Chefr* or *Shefr* = *Kefr*.

14. *Gith* is somewhat doubtful, but I think *Jett* (Sheet XI) is better than *Beit Jiz.*

15. *Thora* may be *Tîreh*, near Bethhoron (Sheet XIV).

16. *Deirfres*, perhaps *Abu Fureij* (Sheet XVII).

17. *La Palmeree* (*cf.* Cartulary, Nos. 127, 128, 144) was near Haifa, mentioned with *civitatis veteris* ("*Haifa el 'Atîkah*"). Probably the palm grove near Haifa, on the banks of the Kishon, is intended. There are very few palm groves in Palestine, and it must always have been a marked feature of the place.

18. *La Forest* appears to me to be the Forest of Assur (Itin. Ric. iv, ch. xvi), the existing oak wood near *Umm Sûr* (Sheet X) not *Sindiânch*, "the oak" (Röhricht).

19. *Buffles* or *Casale Bubalorum*, I see no special reason for connecting with *Umm el Jemâl.* The site which I recently proposed at *Bablûn* (Sheet VIII) is quite possible topographically.

Casales of St. Mary of Jehosaphat.

(Bull of Alexander IV, 30th January, 1255.)

This church which held the supposed tomb of the Virgin, possessed 48 villages in different parts of Palestine, many being well-known places. The following are worth notice :—

20. *Serra*, probably *Surra* (Sheet XI) or *Kh. Sarra* (Sheet XV).

21. *Beith Bezim* I believe to be *Beit Bezzin* (Sheet XI).

22. *Casrielme* seems to have been near Tiberias, and if so, can hardly be *'Alma* as proposed by Röhricht. It seems to be the Arabic قصر الما (*Kasr el Ma-*) or "Water tower" probably on the shores of the lake.

23. *Lichorat* may have been near Tyre, I am disposed to think at *El Kureih* (Sheet I).

Casales of the Abbey of St. Sion.

(Bull of Alexander III, 1179.)

This church, the present Nebi Dâûd at Jerusalem, held in western Palestine, 28 villages including several well-known places.

24. *Faro fronte* might be for Fara Fonte "the spring of Fara." In this case it would be the *'Ain Fârâh* with ruins near Michmash (Sheet XVII).

25. *Gul* seems more probably to be *Kuleh* (Sheet XIV) than *Juleijil.*

26. *Gerable* may be *Jurbeh* as proposed by Röhricht, or perhaps *Jerâbeh* (Sheet XVII), near Yalo.

27. *Caforana* seems to me to be one of the two sites (Sheets XIII, XIV) called *Kefr 'Ana* rather than *Kefrein.*

Casales of the Church of Bethlehem.

(Bull of Gregory IX, 1227 A.D. Clement IV, 1266 A.D.)

The church of the Nativity owned 40 villages, which are difficult to identify, as the transcription of the native names seems to be very incorrect.

28. *St. George* was apparently *el Khudr*, near Bethlehem, as suggested by Röhricht. The same place is mentioned by John Poloner in 1422 ("Memoirs" iii, p. 26).

29. *Quercus.* I think the Quercus Abraham, or Abraham's oak, near Hebron, may be intended.

30. *Archas* seems to me to be the Arecha of Marino Sanuto, 1322, A.D., which, as his map shows, was the Bible Archi (Josh. xvi, 2), now *'Ain 'Arîk* ("Memoirs" iii, p. 7).

31. *Bethamar.* There seems no reason to doubt Rey's identification with *Beit Ummâr*, a site of known antiquity. *Beit T'âmir* proposed by Röhricht is named from the T'âmirah tribe, and is probably a modern title.

32. *Cadicherius*, whatever this means it seems doubtful if *Bîr Kadismu* can have any connection. The latter is only a roadside well near Mar Elias, where tradition says the Magi saw the star.

Casales of the Abbey of Tabor.

(Bull of Paschal II, 29th July, 1103 A.D.)

This was one of the first abbeys to be endowed. It owned 34 villages in Lower Galilee, especially round Mount Tabor, as well as 22 beyond Jordan, or in the Jordan Valley.

33. *Desurchain*, an unknown place. Herr Röhricht suggests *Dâr Sursuk*, but he will see from the "Memoirs" (i, p. 145) that this name applies to a modern house. It is named after the Beyrout banker Sursuk, and has no connection with any ancient site.

Casales of the Knights Hospitallers.

(Paoli, 1781).

The possessions of this great order were obtained by purchase from the Barons. They were widely spread, but, especially in the 13th century, they owned the best lands in the maritime plains and western foot hills. Altogether we have the names of 182 of their villages in Western Palestine.

34. *Betharas* seems to me clearly to be *Beit er Rush* (Sheet XX), Herr Röhricht says (p. 239) "Bet dārās, written on the English map Bet Durdis." The English map is correct. Beit Derâs is a well known place (Sheet XVI), but the ruin near Gaza is called Beit Durdis, not only on the P. E. F. Map, but on the older map of Robinson.

35. *El Roheib* is perhaps *er Ruheibeh* south of Beersheba.

36. *Tamarin*, a hill, is perhaps the village of *Tumrah* (Sheet XIX).

37. *Moitana* or *Montana*, I have proposed to find at *el Muteiyen* (Sheet XIV).

38. *Loie*. I do not understand why this should be placed as far north as 'Ajja. It seems to have been near to Sileh, and Rey connects it with *Neby Laûin* (Sheet XI).

39. *Cafarsalem* is more probably *Selmeh* (Sheet XIII), than *Kefr Sa*.

40. *Caphet* seems unlikely to be *Sefarîn* as proposed by Röhricht, *Keffa* (Sheet XI) seems preferable.

41. *Maresco*, "the Marsh" near Cæsarea, is probably to be sought on the Crocodile River.

42. *Chola* (*Kuleh*) was near Mirabel, which points to the site for that castle proposed in the "Memoirs."

43. *Tour Rouge*, near Caco, there seems no reason to doubt, was *Burj el Atôt*, as proposed by Rey ("Memoirs" ii, p. 178).

44. *Daidonis*, at *Tell ed Dôdehân* (Sheet VIII), as proposed by Rey, seems probable.

45. *Saphet* in the Acre region may be *Shefeiya* (Sheet III).

46. *Casale dou Carebliers*. If Herr Röhricht is right in connecting this with a hill called *el Kharrâbah* by Boha ed Din, 16 kilometres from Acre, and 12 from Haifa, yet it is not necessary to suppose that it is "not on the English map." The distances would roughly agree with *el Khureibeh* on Mount Carmel.

47. *Jheure* may be the *Jherio* of Rey, and seems probably to be *J'aarah* (Sheet VIII).

48–9. *Romette* and *Rome* seem hardly to be the same place, both being

in the same list. Rey proposes *Rummâneh* (Sheet VI) for the first. The other is well known as Roma (*Rûmeh*) not far off.

50. *Lacomedie.* It is not satisfactory to seek for such a name at a Muslem chapel (Sheikh Kaddûm) as proposed by Röhricht. The place was situated between the lake of Tiberias and La Petite Palmerée and had rights of fishing in the lake and mills fed by a stream. This seems clearly to point to *Khurbet el Kaneitrîyeh* north of Tiberias. The little Palmerée was no doubt near the shore where there are a few palms still. The mills were near the lake, no doubt at the *'Aïn Fulîyeh* (*cf.* "Memoirs" i, p. 374). Sir C. W. Wilson remarked "two of the sources are surrounded by walls as at the Tabghah spring apparently to feed a mill" (*cf.* "Recov. Jer.," p. 359).

51. *Assera.* Perhaps the best site for this is not 'Asîreh, which is too far south, but *Sîreh* near Nein (Sheet IX). The place *Sh'arah*, south of Safed, proposed by Röhricht, is too far north.

52. *Cafran* was near the last, probably *Kefrah* (Sheet IX). Kefr 'Anân is too far away to be probable.

Casales of the Teutonic Order.

(13th century, Prutz 1877.)

Many of these places occur in the preceding lists, as owned in the 12th century, before the loss of Jerusalem. The sites lie in Upper Galilee, and near the sea coast between Acre and Tyre, and 98 names in all are given by Prutz, in his work on the Order, 1877. Many are easily recognised, but a few may be suggested as below :—

53. *Aguille* or *Laguille* appears to be *El 'Ajliyât* (Sheet III) rather than *Jûlis* (Rey versus Röhricht).

54. *Mezerah.* Herr Röhricht proposes *El Mishr'a*, near Haifa (Sheet V. j, i). This word means "the drinking place," and applies to a small spring in a ravine. It is not the name of any village or ruin, and is in the wrong region. There seems no real objection to identifying the site in question with *Mezrah* (Sheet III).

55. *Miscalim*, in Upper Galilee. Röhricht suggests *Maskane*, south-west of Hattin (Sheet VI). The position would, however, point to *Muslakhit* (o. n.). Such inversions are not unknown in the Fellah nomenclature.

56. *La Tyre* appears to me to be *Y'ater* (Sheet IV).

57. *La Quiebre.* No reason is given by Röhricht for discarding *el Kâbry* (Sheet III).

58. *Lanoye*, as mentioned in "Syrian Stone Lore," 1887, seems to me to be *El Yanûh* (Sheet III).

59. *Gabatye* seems to be a distinct place from El Gabcie (*el Ghabsîyeh*, Sheet III). If so, the best site is probably *el Ghabbâti* (Sheet IV).

60. *Cassie* seems more probably *El Kûsy* (Rey), which is on Sheet IV, than *el Kuziziyeh* (Röhricht).

61. *Galafice* is, I think, *Ikhneifis* (Sheet V), not the neighbouring *Khalladîyeh* (Röhricht).

Casales of the Venetians near Tyre.

(Prutz, 1876).

The Venetians claimed a third part of many of the Crown land villages in the neighbourhood of Tyre. The total of names is about 80 in all, including a few Royal Casales mentioned as near those which the Republic claimed in return for services rendered with their fleet. Most of these places are easily fixed at the numerous villages of the Tyre region, but a few are doubtful.

62. *Femom* is, perhaps, the same as Fennes of the Teutonic order, now *Fânis* (Rey. *Cf.* Sheet IV).

63. *Szorcoorum.* An alternative site might perhaps be found in *Abu Sirkîn* (Sheet II).

64. *Maraque.* There seems no objection to Rey's identification with *M'arakah* (Sheet III). Herr Röhricht thinks it the same as Melequie (Malkîyeh, Sheet I). Possibly the Pisan casale Orachie and the Genoese Loaracha, may be the same place. Their names suggest العراق (El 'Arâk "the cavern" or "cliff"), but M'arakah, though not the same word (معركة) would sound much the same to the Franks.

65. *La Cassomie.* Rey's suggestion *El Kasimîyeh* (Sheet I) seems more probable than Röhricht's *Khamsîyeh.*

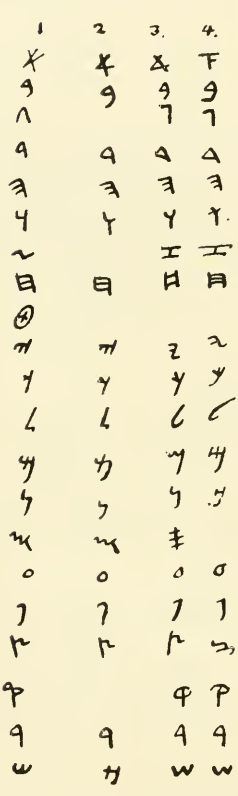
66. *Chateau Arnaud* is placed by Röhricht at Latrun (Toron). I venture to think the view taken by Rey, and yet earlier by De Saulcy, and advocated in the "Memoirs" (iii, p. 15) is the true one, and that the remains of the Crusading fortress, Kal'at et Tantûrah at the village of El Burj, represents this castle.

Many of the 700 places belonging to this topography are ancient Bible sites, and we thus find that in 1200 A.D. the nomenclature was unchanged from the days when the Book of Joshua was written, and has remained unchanged to our own times.

C. R. CONDER.

THE DATE OF ESHMUNAZAR'S COFFIN.

In "Syrian Stone Lore" I remarked incidentally (p. 146) that we have no inscribed monument in Syria between 530 and 330 B.C. The remark was criticised because it was supposed that I had forgotten Eshmunazar's coffin at Sidon. My intention, however, was (following the opinion of M. Clermont-Ganneau, which he told me in Palestine in 1882 at latest) to refer this important monument to a time as late as or later than Alexander the Great.



The date usually given (*see* Dr. Taylor's "History of the Alphabet") is "the latter part of the 5th or beginning of the 4th century B.C." (vol. i, p. 224). The monumental character was compared with texts from Cyprus of the 4th century B.C., and with the texts of Umm el 'Awamîd 132 B.C. (Corpus Sem. Inscript. I, 1, p. 32), but the main reason for supposing an early date was the hypothesis that Eshmunazar was an independent native ruler.

Another valuable text has since been found at M'asûb, north of Acre, and published by M. Clermont-Ganneau in his "Recueil," No. 2, 1886. This text bears the date of the 53rd year of the people of Tyre and 26th year of Ptolemy Euergetes, son of Ptolemy and Arsinoe. The date agrees with that the Umm el Awamîd text, which is the 143r year of the people of Tyre.

The attached plate shows, No. 1, Eshmunazar's alphabet, No. 2 that of the M'asûb text, and, by way of contrast, No. 3 that of the Moabite stone, and No. 4 that of the Siloam text. It will be clear that no philological objection exists to placing the Eshmunazar text as late as the time of the Ptolemies.

The expression אדנמלכם, or "King of kings," which Eshmunazar gives to the over-lord who bestowed on him the lands of Dor, Joppa, and Sharon, has been thought to refer to one of the kings of Persia; but in the new M'asûb text the same term is applied to Ptolemy, and M. Ganneau has compared it to the κυριος Βασιλειῶν applied to the very same Ptolemy on the Rosetta stone. Eshmunazar was not an independent ruler at all, but apparently a tributary of the Egyptian monarch.

The question is one of considerable interest in connection with the monumental history of Palestine, and an instance of the uncertainty which must exist in judging the dates of inscriptions merely from the forms of the letters or from arguments as to supposed history. We have indeed much yet to learn concerning the history of the alphabet, and the new inscription of Panammu, now in Berlin, and said to be as old as the Moabite Stone, must, therefore, be awaited with much interest, as casting a light on the earlier times in which alphabetic texts are so few. It may, also, perhaps, serve to further the comparison of the Phœnician alphabet with the Cypriote syllabary, to which I called attention a year ago (*Quarterly Statement*, January, 1889, p. 17).

C. R. C.

THE OLD WALL OUTSIDE JERUSALEM.

Traces of the wall mentioned in the October number of the *Quarterly Statement* were clearly visible when I was in Palestine. I always understood that this was regarded as the Crusading Wall. It appears to be connected with the towers outside the Damascus Gate, investigated by Sir C. Warren, and the use of a sort of concrete in parts of the foundations, visible above ground, seems to show that the work may be Mediæval.

The exact line of the Crusading Wall towards the north-west seems to me rather doubtful, the question being whether the Kalât J'alûd stood on the line of wall or not. It may of course have stood as a sort of "keep" inside the wall.

C. R. C.

THE TSINNOR.

It may be useful to refer to what Gesenius says of this word—

צִנּוֹר m. "a cataract" (so-called from its rushing noise), Psalm xlii, 7, "a watercourse," 2 Samuel v, 8.

Gesenius had no special theory as to the Jerusalem Tsinnor. The word as used in the Psalm is rendered "waterspouts" in the A. V. It would hardly seem in that passage at least to apply to any underground channel.

Ewald appears to have given an extraordinary rendering of the passage—2 Sam. v, 8.—"Whoso smiteth the Jebusites let him hurl down the waterfall (or cliff)."

I have never seen the operation of hurling down a waterfall performed.

C. R. C.

KU FOR KING.

Professor Sayce's opinion carries weight, but I cannot admit that I was mistaken in saying that Mr. Pinches and Mr. Bertin consider *Ku* to be an Akkadian word for king. I have their letters still in my possession, The fact is that Dr. Sayce differs from not only Mr. Bertin and Mr. Pinches, but also from Lenormant, and Norris, and Fox Talbot, in denying the existence of this word. The matter is not of very great importance, since I have been able to show independently of Akkadian that such a word exists in Turanian languages with such a meaning. It would appear that what Professor Sayce calls a "makeshift" on the part of Norris was really a discovery.

The authorities who give this word were well aware of the existence of the word *anin* or *unan;* but because we have the word "monarch" in English this does not deprive us of the word "king."

C. R. C.

BIRDS AND ANIMALS NEW TO PALESTINE.

Among the 2,000 bird skins which I collected while in Palestine, from 1882 to 1886, there are several which, so far as I know, are new to that country, and hence they should be added to the list of those already known. Dr. Tristram's catalogue is the one followed, and to which the additions are supposed to be made :—

(1) Brambling—*Fringilla montifringilla.*

(2) Cuckoo, Lineated—*Cuculus leptodetus.* An eastern form of a West African bird.

(3) Curlew, slender-billed—*Numenius tenuirostris.*

(4) Duck, Golden eye—*Clangula glaucion.*

(5) Duck, Common Sheldrake—*Tadorna vulpanser.*

(6) Phalarope, Red-necked—*Phalaropus hyperboreus.*

(7) Plover, White-tailed—*Chettusia leucura.*

(8) Pratincole, Nordmann's—*Glareola melanoptera.*

(9) Yellow-ammer—*Emberiza citrinella.*

It may be of interest also if I make a few additions to his list, following the same order, chiefly as to the locality of birds. In two or more instances I was fortunate enough to obtain specimens which he has entered in his list, but which he did not obtain himself.

No. 6. Rock Thrush—*Monticola saxatilis.*

Tristram.—"It arrives in the beginning of April. South of Lebanon it is only a passing traveller tarrying but a night."

Addition.—It is true that it arrives in April, and in some seasons as early as March ; but to the last part of his statement I would

add that between the 10th and the 30th of September I shot several pairs in the immediate vicinity of Jerusalem.

No. 28. White-throated Robin—*Erithacus gutturalis.*

Tristram.—"Discovered it on Hermon and Lebanon."

Addition.—Near Jerusalem in August, 1885, I shot a fine specimen of the female of this species.

No. 30. Eastern Nightingale—*Erithacus philomela.*

Tristram.—"Not obtained by me in Palestine. It may be discovered there."

Addition.—I have three good specimens, one shot in August near Jerusalem, and the others shot in the Jordan Valley.

No. 68. Hermit Fantail—*Drymœca inquieta.*

Tristram.—"It is very scarce wherever found."

Addition.—I should say that it was quite common, for I saw it frequently on different journeys to and from the Jordan Valley. On this road I shot several specimens in November, also one near Jerusalem in September.

No. 90. Palestine Bulbul—*Pyonoonotus xanthopygus.*

Tristram.—"Never found in the hills or upper country."

Addition.—I shot several at Hebron, which is 400 feet higher than Jerusalem.

No. 94. Red-backed Shrike—*Lanius collurio.*

Tristram.—"Have not obtained it south of Esdraelon."

Addition.—I have shot specimens in the hills near Es Salt, also others in the hilly region between Jerusalem and the Plain of Sharon.

No. 109. Palestine Sun Bird—*Cinnyris oseæ.*

Tristram.—"Beyond the gorge of the Jordan I never but once found it, and that was at the south of Mount Carmel."

Addition.—This bird, or *a species* of Sun Bird, is abundant at Jaffa. The markings of those found in Jaffa differ from those found in the Jordan Valley, and I have shot them both in the spring and autumn at each of these places. Whether or not these are distinct species I do not now pretend to determine.

No. 111. Serin—*Serinus hortulanus.*

Tristram.—"Is only a winter visitor to the wooded districts and the little glens near the sea. It has not been noticed inland."

Addition.—In January and February, 1885, these birds were very abundant about Jerusalem, and at different times during those two months I shot a dozen specimens.

No. 113. Tristram's Serin—*Serinus canonicus.*

Tristram.—"Belongs to the Lebanon and anti-Lebanon exclusively. I cannot trace it on any of the spurs southwards, either from Hermon or Lebanon and there it is very local."

Addition.—On the 7th of March, 1885, I shot a beautiful speci-

men about half an hour distant from Jerusalem, near the Convent of the Cross.

No. 116. Hawfinch—*Coccothraustes vulgaris.*

Tristram.—"Only twice detected it, once in Gilead and once near Tabor."

Addition.—I have three specimens, one from east of the Jordan, and two from the neighbourhood of Jerusalem.

No. 139. Grakle—*Amydrus tristrami Sclater.*

Tristram.—"Appears to be confined to the immediate neighbourhood of the Dead Sea."

Addition.—This bird ascends the Great Wadies to a higher point than these words would seem to imply. In the upper part of Wady Farah, and in Wady Suweinit, not far from Mukhmas, I have frequently seen them in large numbers.

No. 167. Night Jar—*Caprimulgus tamaricis.*

Tristram.—"Only three specimens known."

Addition.—I have a beautiful specimen which I obtained at Jericho in December.

No. 193. Montagu's Harrier—*Circus cineraceus.*

Tristram.—"Not often come under my observation. Obtained three specimens by the Lake of Galilee."

Addition.—I obtained two specimens near Jaffa in November, 1885, and one in the Jordan Valley in April, 1886.

No. 197. African Buzzard—*Buteo desertorum.*

Tristram.—"This may probably be entered among the birds of Palestine, though I have never obtained a specimen."

Addition.—I have three good specimens, one of which was obtained near Mar Saba, and the others in the Jordan Valley. One of these was taken in December, and the others in April. As Dr. Tristram says that it has never been found in Palestine, I am glad to be able to bring it to the attention of the public.

No. 203. Booted Eagle—*Aquila Pennata.*

Tristram.—"Appears to be confined to the wooded regions of Galilee and Phœnicia, and to the Lebanon."

Addition.—I shot a fine specimen near Jerusalem in May, 1886.

No. 226. Pygmy Cormorant—*Phalacrocorax pygmæus.*

Tristram.—"Found on the Leontes and other streams flowing into the Mediterranean. I did not observe it on the Lake of Galilee."

Addition.—I obtained several specimens from the Jordan near Jericho.

No. 236. Little Bittern—*Ardetta minuta.*

Tristram.—"Plentiful in the rushes and reeds round Lake Huleh."

Addition.—Plentiful also on the Aujeh, near Jaffa, and on the Lower Jordan.

No. 237. Night Heron—*Nycticorax griseus.*

Tristram.—"Found in small numbers about Lake Huleh, and Gennesaret."

Addition.—Also on the Lower Jordan.

No. 251. Ruddy Sheldrake—*Tadorna casarca.*

Tristram.—"At the south end of the Dead Sea, and near the Lake of Gennesaret."

Addition.—They are just as abundant at the north end of the Dead Sea, and are found all along the Jordan.

No. 257. Garganey—*Anas circia.*

Tristram.—"I have not taken the Garganey myself.'

Addition.—I have four fine specimens from the Jordan, one of them shot in November, one in December, and two in May.

No. 294. Stone Curlew—*Œdicnemus scolopax.*

Tristram.—"Plentiful in the Ghor at the north end of the Dead Sea."

Addition.—I saw it frequently in the region about Mar Saba, and in the hills east of the Jordan. I have specimens from both these localities, and others from the vicinity of Beirut, as well as still others from the north end of the Dead Sea. I should say it was pretty evenly distributed over the country.

No. 296. Cream-Coloured Courser—*Cursorius gallicus.*

Tristram.—"Rare in Palestine Proper. I twice obtained it near Acre; also saw it in the southern wilderness, and on the upland of Eastern Moab."

Addition.—Very abundant between Jerusalem and Bethlehem on the Plain of Rephaim and south-east towards Mar Saba.

No. 305. Dotterel—*Eudormias morinellus.*

Tristram.—"Vast flocks near Beer-Sheba."

Addition.—I found them near Mar Saba in May, 1885.

No. 344. Manx Shearwater—*Puffinus Anglorum.*

Tristram.—"Obtained a dead specimen near Mount Carmel."

Addition.—I have two fine specimens, obtained at Jaffa in 1884.

I observed, during my residence of nearly seven years in Palestine, that there were great variations in the migrations of birds. Some years the land was full of them, and the next year, perhaps, there seemed to be very few. For example, I remember that for two years there were but few ducks anywhere in the southern part of the country; the next year, however, they were very abundant. What Dr. Tristram says of the dotterel, No. 305, may have been peculiar to that year. The same I know is true of my observation under No. 296, respecting the cream-coloured coursers. In other years, while found here and there, they were scarce; the year referred to they were abundant. The Arabs brought to our hotel large numbers of them for our table. Similar remarks would be true of quails, and of some other birds. Seasons vary in character and circumstances which we cannot explain, and may combine to cause these variations. As I have had occasion elsewhere to remark, this

is a study where there can be no monopoly of knowledge on the part of any single observer. Many observers are necessary, and each may add something valuable to the general fund of information.

As to animals, I may mention that I secured a fine specimen of the ratel or honey badger, *Mellivora ratel*, which was taken between Mar Saba and the Dead Sea; also a pair of foxes, *Vulpes famelica*, small, delicate, with splendid brush. The most beautiful little creatures of the kind that I have ever seen. So far as I am aware these are both new to Palestine.

In his list of animals Dr. Tristram states of the coney, *Hyrax syriacus*, that it is "not known in Lebanon." A writer whose name does not appear, and who is unknown to me, in the "Edinburgh Review" for April, 1886, p. 326, speaks of the coney as "confined to the gorges of the Dead Sea and Arabia Petræa. It is rare in the rest of the country, and unknown in the Lebanon." The preface to Tristram's "Flora and Fauna" is dated in 1883, and the volume itself in 1884. But since 1876 I have had in my collection a fine large specimen of this animal, that was taken near the well-known Lebanon village of Abeih. Dr. Tristram's remark of the crocodile in the Zerka I would apply to this case of the coney: "An ounce of fact is worth a ton of theory."

SELAH MERRILL.

ANDOVER, MASS., U.S.A.

THE INSCRIPTIONS OF SARIS AND MOUNT OLIVET.

IT is very desirable that exact squeezes should be taken of the inscriptions described by Mr. Hanauer, as found in a cave at Saris, since the characters are evidently old Phœnician, the first one being an *aleph*. The sculpture accompanying them, moreover, is in the same style as the "Proto-Phœnician" rock-sculptures I have visited near Tyre.[1]

The inscription No. IV, given by Mr. Schick, which was found on the mosaic flooring at the Campo Santo on the Mount of Olives, reads: Χ[αίρετ]ε · μνήσθητι τῆς δούλης σου Ζάννας. "Farewell! remember thy servant Zanna." In Egypt the first letter of the proper name might be identified with the Coptic letter H, and the name accordingly read Hanna, but this would not be possible in Syria.

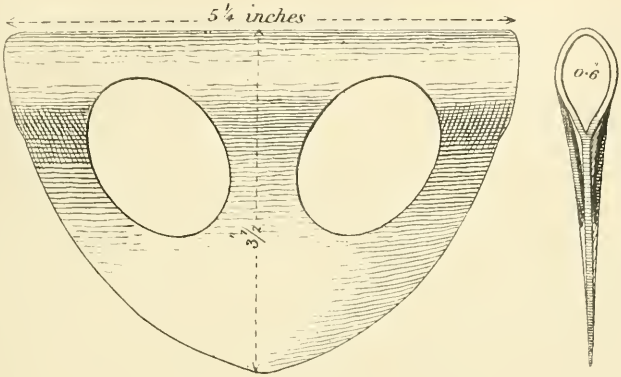
A. H. SAYCE.

[1] Squeezes of this inscription have since been received by the Fund, and will be forwarded to Professor Sayce, who is now in Egypt.

NOTE ON ANCIENT AXE-HEADS FOUND AT BEYROUT AND SIDON.

By Rev. Canon Greenwell, *in a Letter to Prof. Lewis.*

In the *Quarterly Statement* for April, 1889, at p. 77, there is an engraving of a bronze axe discovered by Mr. Schumacher in a cave near Esh Shejara. It is evidently a Syrian type, based on a well-known Egyptian form. I have two out of four found near Beyrût, one similar and of the same



size as that engraved, and the other like the engraving above. The other two are smaller, but of the same forms. I have also another, found near Sidon, which is like the above figure, but not so large. Except these I do not know of any others, though such may possibly be found in some collection, public or private. These axes were certainly handled. The holes in the blade are, I believe, either for appearance or to lighten the handle. In one, the largest of mine found near Beyrût, portions of wood still remain in the socket ; and the impression of the cloth in which it had been wrapped exists upon the oxidised surface of the metal.

JEWISH LAMPS.

Some time ago I was in Dorchester—a friend offered to show me the local Museum. The collection is varied and rich. I only wish to note what especially interested me. In a corner of a case were some lamps, labelled "Supposed Early British Lamps;" a moment showed me they were old Jewish, exactly like those from the excavations at Jerusalem. My friend the Antiquary, who had himself dug up many of the objects

of interest, told me these lamps came from "Maiden Castle," a grand specimen of a Roman camp, which I afterwards visited; it is quite close to Dorchester. History tells us that three Legions were camped here; and tradition has it that Jews—captives at Jerusalem, were sold by Titus to Phœnicians, and that these slaves made the fortifications. We know history tells that captive Jews worked in the tin mines of Cornwall; and as I looked on these lamps it did seem to me that the traditions were true, and that some poor Jews, slaves and exiles from their own land, had at one time worked here in this our England, and among their poor possessions they had clung to the old lamps.

H. A. Harper.

"THE WAY OF THE PHILISTINES."

I should like to call attention to a portion of the land between Palestine and Egypt, which would, I think, well repay skilful exploration. I mean the coast road, called in the Bible "The Way of the Philistines," across which that great wall of Egypt, with its towers and gates, must have stretched. While preparing notes for my book, "The Bible and Modern Discoveries," I was struck with the importance of this road, and also struck with the scanty information we have respecting it. Mr. Armstrong kindly showed me some large sectional maps of a portion of this road, and I was much interested in observing what a number of wells had been found in the portion surveyed. That there are "Tells," which mark ruined cities I know; and not many years ago the Archduke of Austria saw, in the street of the frontier town El Arish, an old Egyptian sarcophagus of black granite, covered within and without with very small hieroglyphics. It was there used as a water trough! On this very road the great armies from Egypt must have passed when they went on their way to invade Palestine. On this road Nebuchadnezzar and the other great invaders must have passed on their way to Egypt, and there must have been towns and settlements on the route—a fact proved by the wells I spoke of. True, I know, sand has driven in from the sea—but sand preserves ruins, and, it seems to me, that it only needs a skilful explorer, like M. Flinders Petrie, to have his attention directed to this "road," when I feel sure he would make many discoveries of interest, at very little cost both of time or money. We ought to know more of that land of Philistia, that we may get a clearer view of those people who were ever such bitter enemies to the Israelites.

Henry H. Harper.

NEHEMIAH'S WALL.

To all readers of the *Quarterly Statement* it must have been a foregone conclusion that the Rev. W. F. Birch would attack my paper on Nehemiah's south wall. He holds very confidently certain views of his own with regard to Jerusalem topography, and he is not able to see any probability in any others. For the benefit of perplexed readers he points out what he conceives to be the errors of my paper. May I be allowed in the interests of archæological truth to make some reply?

In seeking to restore the south wall of Nehemiah I have built upon a basis of fact, and have nowhere departed from probability. In carrying the wall round the southern brow of the modern Zion, I am only doing what most writers have done, and what Mr. Birch himself would do. He disputes its continuation along the eastern brow, up the Tyropœan, as far as the Causeway (or say the north wall of the Upper City). But this appears to be required by the statement of Josephus, that the Upper City had a wall of its own, going all round it. Apart from Josephus, it is inherently probable. Further, in adopting it I am only following Lewin, who gives reasons for it. I follow Lewin also in bringing a wall down the eastern side of the Tyropœan; I think with him that Josephus so describes its direction, and it seems to be required for the defence of Ophel, which received no protection from the eastern wall of the Upper City. Taking into account Sir Charles Warren's discoveries, which have been made since Lewin wrote his books, I assume that the wall last referred to joins the wall of Ophel, at the point where Warren found that wall to terminate. This arrangement localises the intramural "suburb," which I then have a short transverse wall to protect.

This bay up the Tyropœan is objected to by Mr. Birch as well as others. Instead of it they take the wall southward to the Pool of Siloam, and then northward along the eastern side of the Ophel hill. Their wall then does not and cannot effect a junction with the wall of Ophel, actually discovered. Moreover, it cannot be made to satisfy the descriptions in Nehemiah. The wall as I draw it does coincide with the descriptions of Nehemiah in almost every detail. In tracing the points of coincidence I am aided by Warren's discoveries, and I no longer find a guide in Lewin. That the coincidence should be so close is a strong presumption in favour of its truth, for the argument is cumulative, and it cannot fairly be put aside by such general considerations as Mr. Birch thinks it sufficient to urge. When Josephus speaks of the wall bending above the Fountain of Siloam, Mr. Birch takes him to mean southward, below Siloam, so as to include the Pool. He argues that Josephus must mean this because he speaks of the wall bending "thence again"—thence again from Siloam, says Mr. Birch; but why not thence again from the Causeway, after bending to go up the Tyropœan? As regards the Causeway, Mr. Birch allows that my plan is right, agreeing with Josephus, who

makes the Causeway part of the first wall. Whether the Causeway also joined Akra to the eastern hill is a detail, and Mr. Birch is quite wrong in saying that Warren's Akra is the basis on which I build. The question as between a wall making a bay up the Tyropœan and a wall making a sweep round the Pool of Siloam may almost be rested on the single fact that the first explains the omission from the route of the procession of so many places mentioned in the description of rebuilding (compare Neh. iii, 16–26, with Neh. xii, 37), and the second does not. It is to be noted that while Mr. Birch tries to find one or two weak points in my series of coincidences—coincidences between Nehemiah's descriptions and the line of wall in my plan—he does not attempt to make out that his own line of wall satisfies Nehemiah's description at all.

Mr. Birch is not solicitous to satisfy Nehemiah's descriptions, but rather to support one or two ingenious ideas of his own. He is confident that the wall did enclose the Pool of Siloam, because otherwise he, personally, would see no use in the rock-cut channel from the Virgin's Fountain, and he is sure that the wall of Ophel extended farther south and east than Warren found it to do, because otherwise Joab could not have found his way by the shaft from the Virgin's Fountain into the city itself, as Mr. Birch surmises that he did. That Joab entered the city in this way, aided by Araunah, is an ingenious guess; but it is only a guess, unsupported by any coincidence with any description in the Bible or elsewhere. Even if it be correct it militates against Mr. Birch's reasons for taking the wall of the city southward below Siloam Pool. For the passage if used by Joab existed in David's time, and since it afforded to the inhabitants of Jebus a means of obtaining water, even when the valley entrance to the fountain was blocked with stones and hidden from besiegers, there would be no necessity in Hezekiah's day to cut a channel through the hill for the like purpose. The supposition that Hezekiah cut this tunnel implies that he did not make Siloam Pool, for there was an open channel previously, which the rock-hewn tunnel was to supersede, and the open channel required the pool. The open channel being confessedly useless in face of an enemy, the pool which it supplied would seem to have been made for use in times of peace. But the open channel would only supply it when the water in the Virgin's Fountain rose so high as to overflow at its mouth in the Kedron Valley. It might be desired to bring it to the pool more constantly—for the same purpose as hitherto, whatever that purpose was—and one can imagine that the water ran through the tunnel when it would not have flowed by the open channel, not rising high enough. England is full of tunnels, excavated through hills and under rivers, but not at all with the purpose of hiding canals or railway trains from an enemy, and perhaps we should not make so sure that the purpose of the Ophel tunnel was to supply a besieged city.

Mr. Birch imagines that the city of David was confined to the Ophel hill. It seems to me that while the hill of Ophel was included, it was not of itself the whole of the city of David. Adopting Warren's Akra, west of the Temple, as the site recommended by what we now know of

the rock levels, and as suiting the references in the Books of the Maccabees and in Josephus, I think it possible that this was the fort which "held out still," after David had captured Ophel; but which he afterwards took, and joined it to the Lower City. The Akra thus became part of the Lower City; and this extended Lower City thus assumed a crescent form. Mr. Birch objects to my adopting the term *crescent-shaped* as a translation of Josephus's ἀμφίκυρτος. Well, the Greek word means doubly-curved, without specifying in what way; it might as well describe the gibbous moon as the crescent moon; but why not the crescent as well as any other double curve, especially when the local features of the ground seem to require it?

Mr. Birch further disputes the accuracy of some few details of my plan, and my accumulated coincidences.

1. He says that in Neh. iii, 19, 20, I make one "turning" count as two. Let him prove that it is only one. Again, the first salient angle of my plan is not mentioned in Neh. iii, and I show that there was no need to mention it, because the working party advances beyond it, and it is neither their *terminus a quo* nor their *terminus ad quem;* and in this connection I refer to the omission of the Ephraim Gate in Neh. iii, 6–8 "The Throne of the Governor beyond the river" comes in there instead; and it is obvious to every careful reader that this *may* be the same structure, or may be another structure *near* it. Mr. Birch tells us confidently that it is the same. Thus, he says, the Ephraim Gate is not omitted, and so my salient angle ought not to be. But the reason I have given is sufficient. On the next point I admit that Binnui comes *unto* the turning of the wall and *unto* the corner, and not simply *over against* them; but this would only require me to leave a trifle less space between Nehemiah's wall and the wall of the Temple enclosure.

2. In Nehemiah's description one builder takes up the work *after* another, and no doubt often at the point where the previous builder leaves off. Mr. Birch wishes us to believe that this was invariably the case, even where the next stretch of wall was not damaged, and again where diverging walls did not admit of it. I speak of Shallun repairing a transverse wall, branching eastward from the Fountain Gate, and of Nehemiah, who comes "after" him, repairing the wall from the Fountain Gate northward. Mr. Birch stands on the preposition, and cannot understand how the two men could begin their work at the same point. May I ask him simply to allow for a moment the possibility of the wall being as in my plan, and then to describe the succession of workers in some better phrase than Nehemiah does, if he can?

3. It seems unlikely to Mr. Birch that the transverse wall should be named from the Pool of Siloam, outside, and so far down the valley. Will he tell us why the Jaffa Gate is named after a town on the sea-coast and the Damascus Gate after a city in Northern Syria?

4. The bay of wall is pronounced inadmissible, because Mr. Birch knows that Nehemiah was too intelligent to fritter away the strength of the workers on a loop line of wall four times as long as the transverse

wall. But why not repair all the walls if there were workers enough? Owing to the previous building of the enclosing wall of the Temple, Nehemiah's wall, as I draw it, is pushed so far west as to be at one part very little above the valley bed; and Mr. Birch ridicules this. But it is to be observed that even this part of the wall is at no lower level than the wall of Ophel, discovered by Warren. A wall in such a position was the best that the circumstances of the locality admitted of, and was better than none. It could not be reached unless the transverse wall were taken first. Its position could scarcely be weaker than that of the north-west wall of the city, which actually has higher ground outside. Mr. Birch's alternative is a wall carried from the south-west hill, round Siloam, to the eastern side of Ophel; and *this necessarily crosses the valley*, and at a much lower level than the wall in my plan.

Finally, may I say that I have drawn a definite line of wall, and have correlated it at many parts of its course with points in Nehemiah's description; the argument is cumulative, and is not answered if one or two details be shown to be doubtful. Mr. Birch has not drawn his wall definitely, and could not make any wall going down to Siloam to tally with Nehemiah's descriptions. The Ophel wall actually discovered has no use on his theory, and apparently ought never to have been built. Further, comparing Neh. iii with Neh. xii, the processionists skip over a long line of wall repaired by the workers, and there is no way of disposing of it except by allowing the loop line as in my plan.

GEORGE ST. CLAIR.

THE WATERS OF MEROM.

I. Grounds for supposing that the waters of Merom (Josh. xi, 5, 7) are not the Lake Semechonitis of Josephus and the Bahr el Hûleh of the present day, and therefore that of this lake there is no mention in the Bible.

II. What was this "waters of Merom," and the locality of Joshua's victory over the northern tribes?

I. There appears to be no trace of the "waters of Merom" having been identified in ancient times with the Lake Semechonitis of Josephus; the Bahr el Hûleh of the Arab as far back at least as the Crusades. The district itself indeed in which this lake lies was known as the Ulatha in the days of Josephus. Ant. xv, 10, §3.

Such identification, therefore, rests at best on slender inference, and is destitute of satisfactory authority. But the name having been once thus assigned (at what time it is difficult to trace) it has been taken as correct, and handed on by one writer after another without enquiry or question.

Now it struck me in closely examining the maps of Western Palestine with Stanley's account of Joshua's battle with the northern tribes, that there were difficulties in accepting his localisation which could not be got over.

The following is a topographical description of the spot where he has placed the battle: "Owing to the triangular form of the lake a considerable space is left between the lake and the mountains at the lower end. This is more the case on the west than on the east, and the rolling plain thus formed is very fertile, and cultivated to the water's edge."[1] Now, on such ground, chosen as Stanley says, "because along those level shores they could have full play for their force of chariots," the approach of Joshua with his men of war from the south as he crossed the Wâdies, and especially the Wâdy Hindâj, must have been visible for long distances, and from numerous points. He could hardly have fallen upon them suddenly; whilst had his attack with footmen been in this open plain, it could not have proved the decisive success which we know it was.

Again, the line of flight from the scene of defeat, had it been by the shores of Semechonitis, could hardly have been to Sidon the Great. The tremendous ravine of the Leittâni (Leontes), and the stern ridge of Kŭlât es Shŭkîf on its northern side, would forbid escape in that direction.

Again, too, it is objected that the word for water in the original would not be used for a lake, but the word for "sea," as of Tiberias (*a*).

At all events the Septuagint constantly uses the expression "the water of"—always in the singular—to denote the stream running near some village, and named after it. Thus "the water of Megiddo," ἐπὶ ὕδατι Μαγέδδω (Judg. v, 19), for the upper reaches of the Kishon River; or again, "the water of Nimrim shall be desolate," "the water of Dimon shall be full of blood" (Isai. xv, 6 and 9), and so in other passages.

That is the Afon, Adwr, ϝύδωρ, running near a town or village and borrowing its name from it, is what is meant by the expression "the water," τὸ ὕδωρ, and not a lake.

On such grounds then, it is unlikely that the Bahr el Hûleh is meant by "the waters of Merom;" and if so, there is no reference to this lake in the SS.

Indeed, the very existence of the name Merom here may be nothing more than a mistaken reading.

II. What then may more probably be the site of Joshua's third great final victory?

Now, in reference to the Septuagint we find that one of the kings to whom Jabin, King of Hazor, sends, is not Jobab, King of Madon, as it stands in the Authorised and Revised Versions (Josh. xi, 1); but Ἰωβαβ βασιλέα Μαρών. So, too, in verse 5 it is said all the kings παρενέβαλον ἐπὶ τὸν ὕδατος Μαρών, and not Merom. So also, verse 7, that Joshua with his warriors came upon them ἐπὶ τὸ ὕδωρ Μαρὼν at unawares, and fell upon them "in the mountainous country," ἐν τῇ ὀρείῃ.

Where, then, are we to look for this stream of Maron?

[1] Smith's "Bib. Dict.," s.v, Merom.

Josephus informs us (Ant. v, 1, §18) that "the kings pitched their camp at Beroth, a city in the Upper Galilee not far from Kadesh, itself also a place in Galilee."

Now, south of Kadesh runs a ravine with a perennial stream from the central watershed to the foot of the Bahr el Hûleh, bearing at the present day in its downward course the names of Wâdy el Jish (Gischala), W. Fârah, W. 'Aûba, Tawahîn el 'Aûba, and lastly, Wâdy Hindâj.

To the north of this stream lay the towns of Hazor (over the Lake Senechonitis (Joseph. Ant. v, 5, §1), and then the head of all the kingdoms), Kadesh, Iron, (Josh. xix, 37), and perhaps, taking the reading of the Septuagint, Mârûn; for of these, Iron is probably the present Yârûn; and Μαρὼν, Mârûn er Râs, about 2½ miles from the ravine, but dependent on its stream for water; if, indeed, the addition, er Ras (*b*) does not point to the existence once of a Mârûn lying on the lower ground, and perhaps coincident with Fârah.

Along this ravine, for the water's sake, lay, I imagine, the gathering hosts of the northern confederacy, somewhere about the part which bears now the name of Fârah.

Thus, too, they would have their store cities behind them, as they were organising their bands to sweep down against Israel across Esdraelon into central Palestine. But as they lay in fancied security near to water, and in the crowded valley, by (*c*) a forced march of five days (Josephus, Ant. v, 1, §18) from Gilgal (Josephus and our versions, but not the Septuagint), Joshua and all the people of war fell upon them like a thunderbolt in the rocky ground (Septuagint) where their chariots would be useless.

Struck in the centre their army was broken asunder by the impetuous charge. Then the Israelites, facing westward and eastward on their flanks, would roll up their enemies in hopeless rout. Only at one point perhaps was a stand made; on the crest of the watershed at Kefr Birîm, *i.e.*, "the village of wells;" surely the city of Beroth, *i.e.*, "of wells" of Josephus. But the struggle was short. Led on, it may be by the mighty Caleb, the left wing of the Israelites drove their foes headlong down the tortuous valleys that at over twenty miles away open upon the road which, coming down from the Ladder of Tyre and north of Râs el Abiad, ran along the coast to the fords of the Leittâni, to Misrephothmaim (Zarephath) (*d*) and Sidon the Great.

Eastward Joshua himself seems to have led the pursuit, perhaps between Kadesh and Hazor, cutting off the main body from their cities and driving them before him till he reached the valley of Mizpah eastward, under the roots of Hermon, whence the Hivite had descended to range himself under the banners of Jabin. Then, when the pursuit ceased with the slaughter of the last of the overtaken fugitives, Joshua turned back and took Hazor "and smote the king thereof," feebly defending it with the remnant of his host "with the sword." "And they smote all the souls that were therein with the edge of the sword, utterly destroying them; there was not any left to breathe, and he burnt

Hazor with fire." And Hazor only. As it was done to Jericho in the south, so was it done to Hazor, the head of all those kingdoms in the north.

Such I suggest as the probable site of the battle, the course of the fugitives, and the final result.

Thus, it seems, may be best brought into unison the narratives of the Hebrew, the Septuagint, and Josephus.

NOTES.

(*a*) The Hebrew word *Me* is not that commonly used for a large piece of standing water, but rather *Yam*, "a sea," which was even employed for so small a body of water as the artificial pond or tank in Solomon's Temple: Smith's "Dict. of Bible, s. v, Merom."

(*b*) As Râs el Akra on the hill and Akrabeh (Ekrebel, Jud. vii, 18) on the lower ground.

(*c*) This march could hardly have been from Gilgal in five days, for the distance, as the crow flies, is 75 miles.

(*d*) An objection to identifying Misrephothmaim with Zarephath might be, that it is named after Sidon in the description of the flight, whereas it would be reached on the way to it. Granting this, it would come in order as belonging to the eastward route of flight. Symmachus, says Eusebius, interprets it as Misraipoth of the sea. May it then be a place near the northern part of the Lake (Sea) Hûleh?

William Gover,
Hon. Canon of Worcester.

Saltley Lodge, Worthing,
December, 1889.

APPENDIX A.

Merran (Merrom, Jerome).—Eusebius (whose Onomasticon with Jerome's translation I have had the opportunity of examining in his ample library through the kindness of my neighbour, Major Gaisford, of Offington) regards this village as the site of the battle. He describes it as twelve miles' distance from Sebaste (Samaria), and near Dothaim (the two cisterns?).

If so, the waters of Merom (Merran) must be the Brook Mochmur in the plain of Dothaim, south of the Carmel ridge, now known in its higher parts as the Wâdy es Selhab, and as the Nahr el Mefjir at its debouchement into the Mediterranean. But this point is fifty miles distance from Hazor and Kedesh, and such localisation can in no way be made to cohere with the precise narrative in Joshua of the lines of flight.

Meiron.—So much could not be said against a conjecture that should place the site of the battle near Meiron, about three miles south of El Jish (Gischala), with its wâdy running from west to east till it joins the larger Wâdy et Tawahîn near the western foot of the hill on which Safed stands. Yet even so, if this were the site the western line of flight would surely be the shorter route south (not north) of the Ladder of Tyre and the Râs el Nâkûrah, to the friendly cities of Accho, Achsaph, and Achzib, while the eastward would seek the fords of the Jordan below Lake Hûleh.

The examination, therefore, of both these alternatives tends to confirm the correctness of the supposition which places the site of the battle near Maroon and Kefr Birîm.

APPENDIX B.

Eusebius' Onomasticon ; Jerome's Liber de situ, &c., Joshua.

Eusebii Hieronymi Opera, Tom. III, p. 243. Editio Vallarsii, Veronæ MDCCXXXV.

Μερρὰν, ἐπὶ τὸ ὕδωρ ἔνθα παρέβαλον εἰς πόλεμον. Ἔστι νῦν κώμης μέρος Σεβάστης ἀπέχουσα σημείοις ιβ', πλησίον Δωθαείμ.

Merrom.—Aquæ ad quas exercitu præparato castra sunt posita. Est autem nunc vicus Merrus nomine in duodecimo milliario urbis Sebastæ juxta Dothaim.

Μαρὼθ, καὶ ταύτον εἷλεν Ἰησοῦς, τὸν βασιλέα αὐτῆς ἀνελών.

Marom.—Et hanc cepit Jesus, rege illius interfecto. (Posita est et supra Marrus.)

Μαστραιφὼθ μαίμ. Α. μαστραιφώθ ὕδατος, Σύμμαχος Μαστραιφώθ θαλάσσης.

Massephoth maim : pro quo Aquila Massephoth aquæ ; Symmachus, Massephoth maris, interpretati sunt.

NOTE ON GREEK INSCRIPTION.

Allow me to suggest that the inscription No. 4 on Plate at p. 183 of the last (October) *Quarterly Statement* should be read as "the Memorial (THC DOUλHC COUZANNAC) of the servant [minister] Susanna, not Anna, as rendered in the note, p. 179.

In Luke viii, 3, Susanna (Σουσαννα) was one of the women who "ministered" (διηκανουν) unto the Lord "of their substance."

Have we here a Hebrew (Christian) memorial of mosaic, wrought in

memory of one belonging to a wealthy family? It is to be remembered that the names of Martha, Eleazar (Lazarus), and Simeon were found by M. Clermont-Ganneau on the other side of Olivet, "close to the Bethany road and very near the site of Bethany" (*Quarterly Statement*, January, 1874, pp. 7–8), in Hebrew inscriptions on small sarcophagi. In the Greek inscriptions which he found at the same place Σ is represented by C. This is also the case on the Judeo-Greek inscription found by M. Clermont-Ganneau at Jaffa (*Quarterly Statement*, April, 1887, p. 106), and in the inscription found by my husband, Mr. Finn, near Aceldama.

E. A. F.

IRRIGATION AND WATER-SUPPLY IN PALESTINE.

Mr. Harper, in his capital book, "The Bible and Modern Discoveries," touches on a matter which may perhaps throw some light on the water-supply and irrigation in Palestine. I do not feel quite sure of the conclusion to be drawn from the descriptions given, but I judge as well as I am able in this, and leave the subject till further information turns up. At pp. 11-12 Mr. Harper quotes first from Dr. Merrill, of the American Survey, who reports having seen rows of pits, in the Vale of Siddim, and "counted in one place a row of 31, and in another row, 20; they are from 3 to 6 feet deep, and he says more can be traced." Mr. Harper also received an account of these pits from the Rev. J. Neil, who visited them before Dr. Merrill. According to him the pits are about 6 feet deep; then there is a deep shaft or well; "this well is connected with the next pit by a tunnel, so that when that well is full it overflows into the other pit, and so on through the whole series, every pit having a well. The first pit being on higher ground would catch the rain-water from the hills, and when the well was full the water would pass into the next by the tunnel, and so the whole row would be filled, and a good store of water secured." It is also stated that similar pits exist near Kŭrn Sŭrtŭbeh, and that "near Damascus the same arrangement for storing water may be seen in working order."

From these descriptions I would say that this is the same system of water supply that exists at the present day in Persia and Afghanistan, and is still in "working order" about Damascus. The pits with the tunnel connecting them form what in Persia and Afghanistan would be called a *Karaize*, but either the gentlemen who have described the pits in Palestine have not understood them, or they may be partly destroyed, and owing to this the accounts do not make them quite agree with the *Karaize*. Hence there is some uncertainty as to identity. Still, the leading points are so similar that I have little doubt but they are the same. I shall here give an idea of the *Karaize*, so that it may be com-

pared by travellers with the remains in the Vale of Siddim, and with the system still working near Damascus. In Persia land is of little value, but a supply of water is wealth. In many parts streams are scarce, and it is by means of the Karaize that water for irrigation is found. In the part of Persia that I journeyed over with the Afghan Boundary Commission—that is, in a line east from Tehran—these works exist everywhere. There are men whose profession it is to find out a source of water below ground near the foot of the hills, and when this has been discovered there are men who will make the Karaize. They dig a series of pits, about, perhaps, twenty or thirty feet apart, and to a depth which depends upon the soil and the level of the Karaize. These pits are not wells; they are only the means by which the tunnel through which the water is to flow is made. This subterranean aqueduct extends from the source to the point where the water is required, and there it flows out, cool and clear, for the use of a village, but principally for the irrigation of the fields. The pits are kept open, so that the men can go down at any time to clear out or repair the tunnel. The pits and the connecting tunnel below, described by the Rev. Mr. Neil, so exactly resembles a *Karaize* that I can scarcely doubt the character of the remains in the Vale of Siddim; but Mr. Neil describes the pits as wells, and ascribes to them the purpose of storing a supply of water. Now, this is exactly what would result in a Karaise if the lower end of it was destroyed, so that the water could not escape. It would accumulate and fill up the pits. Of course I only give this as a guess, and leave it for further investigation.

If the suggestion here made should turn out to be a correct one, it will have an interest in many ways. It will show that a system of water supply has extended in the past from Palestine eastwards as far as the Khyber, where I first saw a Karaize. In the Jellalabad Valley they are numerous—and at Heda, an ancient Buddhist site, there are the remains of one tunnelled through the rock,—showing that this method of supplying water is of great antiquity. If the pits in the Vale of Siddim should ultimately be accepted as the remains of a Karaize, the "ditches," referred to by Mr. Harper, 2 Kings, iii, 16, will most probably have been the same. By throwing light on the water supply of Palestine it will explain to a certain extent the curious problem as to the former fertility of the Holy Land, with which the existence of a large population, and extensive cities, are connected. I have seen a large stream flowing from a Karaize in Khorassan, beyond which there were no other indications of water in the locality. Without this supply the place would have been a desert; by its means a number of villages existed. I have read somewhere that the Valley of Nishapur in Khorassan was at one time called "The Valley of twelve thousand Karaizes,"—an Oriental exaggeration no doubt, —but then the valley at that time was fertile and populous, and Nishapur was a great and celebrated city. I mention these facts to show how this particular system of water supply was related to fertility and population in one part of the world; and if it existed in Palestine, it will be a sufficient explanation of the same conditions.

If the arrangement which is said to be in "working order" at Damascus is similar to the *Karaise*, we need have little doubt but the system existed in Palestine. I have never been to Damascus, but many persons have, and it is to be hoped that some one will be able to tell us what the system is at that place. In the *Quarterly Statement* for 1881, p. 38, there is a mention of an underground stream, "which, rising near Hebron, runs southwards to Beersheba, and thence westward to the sea, passing by the site of Gerar." In the *Quarterly Statement* for 1873, p. 149, and 1876, p. 121, will be found notices upon the water supply of Palestine.

To the author of "The Bible and Modern Discoveries," as a "Brother Brush," I beg to convey my congratulation on his production, and wish the book every success, which I am sure it will receive.

WILLIAM SIMPSON.

THE PALESTINE EXPLORATION FUND.

NOTES AND NEWS.

The Committee of the Palestine Exploration Fund have much pleasure in announcing to subscribers and friends that they have obtained a firman granting permission to excavate at Khŭrbet 'Ajlân, the EGLON of Joshua. It is understood that all objects, except duplicates, found in the course of the excavations shall be forwarded to the Museum at Constantinople, but that the Committee's agents shall have the right of making squeezes, sketches, models, photographs, and copies of all such objects. The Committee have been so fortunate as to secure the services of Mr. Flinders Petrie, who is now in Syria making arrangements to start the excavations.

The Committee will be most grateful to subscribers who wish to contribute towards this Fund to send in their donations as early as possible.

For a long time it has been desired by the Committee to present to the world some of the great hoards of information about Palestine which lie buried in the Arabic texts of the Moslem geographers and travellers of the Middle Ages. Some few of the works, or parts of the works, have been already translated into Latin, French, and German. Hardly anything has been done with them in English, and no attempt has ever been made to systematise, compare, and annotate them.

This has been done for the Society by Mr. Guy le Strange in the book "Palestine under the Moslems," just prepared and this day issued. The work is divided into chapters on Syria, Palestine, Jerusalem, and Damascus, the provincial capitols and chief towns, and the legends related by the writers consulted. These writers begin with the ninth century and continue until the fifteenth. Such illustrations as may be required for the elucidation of the text are presented with the volume.

The Committee are in great confidence that this work—so novel, so useful to students of mediæval history, and to all those interested in the continuous story of the Holy Land—will meet with the success which its learned author deserves. The price to subscribers to the Fund will be 8*s.* 6*d.*; to the public, 12*s.* 6*d.*

Dr. Torrance, of Tiberias, has explored to some extent the caves behind that city, and succeeded in penetrating several hundred feet into the interior of one of them, but without finding much. The Talmud speaks of these caves, and states that they extended as far as Sepphoris (Seffûrieh), which is eighteen miles distant!

BALANCE SHEET FOR THE YEAR ENDING 31st DECEMBER, 1889.

Receipts.	£	s.	d.
January 1, 1889—			
To Balance	402	9	0
December 31, 1889—			
Donations, Subscriptions, and Lectures ..	1,521	9	0
Maps, Memoirs, and Books	988	3	2
Photographs	37	16	11
	£2,949	18	1

Expenditure.	£	s.	d.
By Printing and Binding	920	18	3
Maps, Illustrations, and Photographs..	462	12	11
Exploration.. ..	163	3	0
Stationery, Advertising, and Sundries	112	17	10
Postage, Parcels, including the *Quarterly Statement* ..	113	7	4
Salaries and Wages	280	12	4
Rent..	121	0	0
Loan paid off ..	400	0	0
Balance in Bank, 31st December, 1889..	375	6	5
	£2,949	18	1

W. Morrison,
Treasurer.

TREASURER'S STATEMENT.

This year, like the last, has been one mainly of printing and of publishing results. Thus the expenses of publishing amount to £1,383 11*s.* 2*d.*, against which must be set £1,026 0*s.* 1*d.* produced by sales. Considering that the *Quarterly Statement*, which costs about £500, is given away to subscribers to the Fund, and that great liberality is observed in the allowance to subscribers on the books, these figures show very good results. The amount set down as received, it must be observed, does not include advertising the books or the publisher's commission, but shows the net results.

Management shows a pretty constant expenditure of £627. New exploration only required £163 last year. As the Committee are at the present moment organising new work, it will be very much heavier next year. The debt of £450, which appeared in my last Statement (*Quarterly Statement*, April, 1889) is now paid off, leaving only a small sum due for interest. The only liabilities of the Society are certain current printers' and engravers' accounts.

The position of the Society, if we enumerate its books, with copyrights and stock of books, its collections, and its maps, is perfectly sound and solvent.

In other words, out of a total expenditure of £2,175 the proportion is as follows:—

Publishing	·64.
Excavations	·07.
Postage	·05.
Management	·24.

Walter Morrison, *Treasurer.*

A Society of German Roman Catholics has purchased property at Khan Minych, and is erecting buildings there.

A report from Herr Schick respecting the Greek inscription found north of Damascus Gate, alluded to in the last *Quarterly Statement*, page 3, will be found on page 69, together with (reduced) copy of the inscription itself.

The essay on Ma'lula, by F. J. Bliss, Esq., B.A., of Beyrût, is printed in the current number, and also an important paper by the Rev. G. Post, M.D., on the sects and nationalities of Syria and Palestine.

A letter has been received from the Rev. Gordon C. Grist of Frome, objecting to the translations given by Major Conder and Professor Sayce of the Greek inscription on page 183 of last year's *Quarterly Statement*. The Rev. Mr. Grist thinks the true rendering should be "Christ, remember the slave Susanna," or possibly, "Christ, remember Thy servant Zanna."

Mr. Henry A. Harper's work, on "The Bible and Modern Discoveries" was published in December. It is an endeavour to present in a simple but yet connected form the Biblical results of twenty-two years' work of the Palestine Exploration Fund. The writer has also availed himself of the discoveries made by the American Expeditions and the Egyptian Exploration Fund, as well as discoveries of interest made by independent travellers. The Bible story, from the call of Abraham to the Captivity, is taken, and details given of the light thrown by modern research on the sacred annals. Eastern customs and modes of thought are explained whenever the writer thought they illustrated the text. To the Clergy and Sunday School Teachers, as well as to all those who love the Bible, the writer hopes this work will prove useful. He is personally acquainted with the land, and nearly all the places spoken of he has visited, and most of them he has moreover sketched or painted. The work is in one large, handsome volume of 600 pages. It is illustrated with many plates, and a map showing the route of the Israelites and the sites of the principal places mentioned in the sacred narratives. Price to the public, 16*s.*; to subscribers to the Palestine Exploration Fund, 10*s.* 6*d.*, carriage included.

The work has had a very gratifying reception. The whole of the First and Second Editions are gone, and a Third Revised Edition is now ready. It should be noted that the book is admirably adapted for the school or village library.

The report of Herr Schumacher's Survey of Northern 'Ajlûn is now ready. It contains a map, plans and drawings of the important ruins of Gadara (Umm Keis), Capitolias (Beit Ras), and Arbela (Irbid), none of which had ever before been surveyed, also of the Temple at el-Kabu and numerous tombs, sarcophagi, inscriptions, dolmens, &c. The price to the public will be 3*s.* 6*d.*, to subscribers to the Fund, 1*s.* 6*d.*

A special case (1*s.* each.) is being prepared for binding "'Ajlûn," "Abila," and "Pella" in one volume.

The first volume of the "Survey of Eastern Palestine," by Major Conder, has been issued to subscribers. It is accompanied by a map of the portion of country surveyed, special plans, and upwards of 350 drawings of ruins, tombs, dolmens, stone circles, inscriptions, &c. The edition is limited to 500. The first 250 subscribers pay seven guineas for the three volumes; subscribers to the "Survey of Western Palestine" are privileged to have the volumes for this sum. The price will be raised, after 250 names are received, to twelve guineas. The Committee *are pledged never to let any copies be subscribed under the sum of seven guineas.* Mr. A. P. Watt, 2, Paternoster Square, is the Sole Agent. The attention of intending subscribers is directed to the announcement on the inside of the cover of this number.

Considerable progress has also been made with the second volume, which consists of M. Lecomte's beautiful drawings, illustrating the Mission of M. Clermont-Ganneau in 1874. The illustrations for the third volume, Mr. Chichester Hart's "Flora and Fauna" of the Wâdy Arabah, are nearly ready.

The Committee have added to their list of publications the new edition of the "History of Jerusalem," by Walter Besant and E. H. Palmer (Bentley & Son). It can be obtained by subscribers, carriage paid, for 5*s.* 6*d.*, by application to the Head Office only. The "History of Jerusalem," which was originally published in 1871, and has long been completely out of print, covers a period and is compiled from materials not included in any other work, though some of the contents have been plundered by later works on the same subject. It begins with the siege by Titus and continues to the fourteenth century, including the Early Christian period, the Moslem invasion, the Mediæval pilgrims, the Mohammedan pilgrims, the Crusades, the Latin Kingdom, the victorious career of Saladin, the Crusade of Children, and many other little-known episodes in the history of the city and the country.

The books now contained in the Society's publications comprise an amount of information on Palestine, and on the researches conducted in the country, which can be found in no other publications. It must never be forgotten that

no single traveller, however well equipped by previous knowledge, can compete with a scientific body of explorers, instructed in the periods required, and provided with all the instruments necessary for carrying out their work. The books are the following (*the whole set can be obtained by application to Mr. George Armstrong, for £2, carriage paid to any part in the United Kingdom only*):—

By Major Conder, R.E.—

(1) "Tent Work in Palestine."—A popular account of the survey of Western Palestine, freely illustrated by drawings made by the author himself. This is not a dry record of the sepulchres, or a descriptive catalogue of ruins, springs, and valleys, but a continuous narrative full of observations upon the manners and customs of the people, the Biblical associations of the sites, the Holy City and its memories, and is based upon a six years' experience in the country itself. No other modern traveller has enjoyed the same advantages as Major Conder, or has used his opportunities to better purpose.

(2) "Heth and Moab."—Under this title Major Conder provides a narrative, as bright and as full of interest as "Tent Work," of the expedition for the *Survey of Eastern Palestine*. How the party began by a flying visit to North Syria, in order to discover the Holy City—Kadesh—of the children of Heth; how they fared across the Jordan, and what discoveries they made there, will be found in this volume.

(3) Major Conder's "Syrian Stone Lore."—This volume, the least known of Major Conder's works, is, perhaps, the most valuable. It attempts a task never before approached—the reconstruction of Palestine from its monuments. It shows what we should know of Syria if there were no Bible, and it illustrates the Bible from the monuments.

(4) Major Conder's "Altaic Inscriptions."—This book is an attempt to read the Hittite Inscriptions. The author has seen no reason to change his views since the publication of the work.

(5) Professor Hull's "Mount Seir."—This is a popular account of the Geological Expedition conducted by Professor Hull for the Committee of the Palestine Fund. The part which deals with the Valley of Arabah will be found entirely new and interesting.

(6) Herr Schumacher's "Across the Jordan."

(7) Herr Schumacher's "Jaulân."—These two books must be taken in continuation of Major Conder's works issued as instalments of the unpublished "Survey of Eastern Palestine." They are full of drawings, sketches, and plans, and contain many valuable remarks upon manners and customs.

(8) "The Memoirs of Twenty-one Years' Work."—This work is a popular account of the researches conducted by the Society during the past

twenty-one years of its existence. It will be found not only valuable in itself as an interesting work, but also as a book of reference, and especially useful in order to show what has been doing, and is still doing, by this Society.

(9) Herr Schumacher's "Kh. Fahil." The ancient Pella, the first retreat of the Christians; with map and illustrations.

(10) Names and Places in the Old and New Testament and Apocrypha, with their modern identifications, with reference to Josephus, the Memoirs, and *Quarterly Statements.*

(11) Besant and Palmer's "History of Jerusalem," already described.

(12) Northern 'Ajlûn "Within the Decapolis," by Herr Schumacher.

Branch Associations of the Bible Society, all Sunday School unions within the Sunday School Institute, the Sunday School Union, and the Wesleyan Sunday School Institute, will please observe that by a special Resolution of the Committee they will henceforth be treated as subscribers and be allowed to purchase the books and maps (by application only to the Secretary) at reduced price.

The income of the Society, from December 19th to March 19th inclusive, was—from annual subscriptions and donations, £755 3*s.* 8*d.*; from donations for excavations, £932 8*s.* 6*d.*; from all sources, £1,983 17*s* 2*d.* The expenditure during the same period was £1,132 19*s.* 8*d.* On March 20th, the balance in the Bank was £1,195 7*s.* 7*d.*

Subscribers are begged to note that the following can be had by application to the office, at 1*s.* each:—

1. Index to the *Quarterly Statement*, 1869–1880;
2. Cases for Herr Schumacher's "Jaulân;"
3. Cases for the *Quarterly Statement*, in green or chocolate.
4. Cases for "Abila," "Pella," and "'Ajlûn" in one volume.

Early numbers of the *Quarterly Statement* are very rare. In order to make up complete sets, the Committee will be very glad to receive any of the following numbers:—

No. II, 1869; No. VII, 1870; No. III (July) 1871; January and April, 1872; January, 1883, and January, 1886.

It having again been reported to the Committee that certain book hawkers are representing themselves as agents of the Society, the Committee have to caution subscribers and the public that they have no book hawkers in their employ, and that none of their works are sold by itinerant agents.

While desiring to give every publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they neither sanction nor adopt them.

Subscribers who do not receive the *Quarterly Statement* regularly are asked to send a note to the Secretary. Great care is taken to forward each number to all who are entitled to receive it, but changes of address and other causes give rise occasionally to omissions.

The only authorised lecturers for the Society are—

(1) Mr. George St. Clair, F.G.S., Member of the Anthropological Institute and of the Society of Biblical Archæology.

His subjects are:—

(1) *The Buried City of Jerusalem, and General Exploration of Palestine.*
(2) *Discoveries in Assyria, Chaldea, and Palestine.*
(3) *The Moabite Stone and the Pedigree of the English Alphabet.*
(4) *Jerusalem of David, Nehemiah, and Christ.*
(5) *Sight-seeing in Palestine: a Narrative of Personal Experiences.*
(6) *Israel's Wars and Worship, illustrated by the new Survey.*
(7) *The Gospel History in the light of Palestine Exploration.*

Address: Geo. St. Clair, Bristol Road, Birmingham, or at the Office of the Fund.

(2) The Rev. Henry Geary, Vicar of St. Thomas's, Portman Square. His lectures are on the following subjects, and all illustrated by original photographs shown as "dissolving views:"—

The Survey of Western Palestine, as illustrating Bible History.
Palestine East of the Jordan.
The Jerusalem Excavations.
A Restoration of Ancient Jerusalem.

(3) The Rev. Thomas Harrison, F.R.G.S., Member of the Society of Biblical Archæology, 38, Melrose Gardens, West Kensington Park, W. His subjects are as follows:—

(1) *Research and Discovery in the Holy Land.*
(2) *In the Track of the Israelites from Egypt to Canaan.*
(3) *Bible Scenes in the Light of Modern Science.*

REPORTS FROM JERUSALEM.

Rock-cut Cave at Silwân.—When, a few weeks ago, I went down to Silwân to choose one or two points for excavation, in order to settle the question of a *second aqueduct*, I was told by the people that there exists *another rock-cut chapel* with a large iron cross in it. So I requested them to show me the spot, which they did, bringing me into a large rock-hewn cave. It is no chapel at all, although there is on one of the walls a large cross. They stated this to be of *iron*, but I found it to be *plaster*, so blackened by smoke and age as to look like iron.

I enclose a plan and section of this cave. It is situated under the first house which the road coming from the water or the Pool of Silwân, and crossing the valley, leads to. The rock is cut perpendicular to a height of 20 feet, and has in it an opening 14 feet wide and 6 feet 4 inches high. A rock-cut step leads up to this opening, which is partly walled up, only a door about 4 feet wide being left, which has wooden doorposts and wooden door, which was locked, but on my wish opened. Ten steps lead downwards into the body of the cave; its flooring about 4 feet 6 inches deeper than the surface of the road and court outside. At the end of the steps is some masonry, on one side forming a large *recess* measuring about 10 feet by 10 feet, and used as a stable. The shape of the main cave is very irregular, and on the average (without the steps, &c.), 35 feet long, 30 feet wide, and 13 feet high—the highest point is 15 feet 3 inches, as the ceiling and flooring being not quite even. On the south wall, close to the stairs, is a *recess*, *not* an *apse*, as I had been told, for it is neither a half circle nor of any exact measure on its four sides. Of greater interest is a kind of *passage* cut into the rock on the same side, 2 feet 4 inches wide, 4 feet high, and 14 feet 8 inches long, and terminating abruptly. Its direction is not exactly in a straight line, and its floor has a slight slope upwards. This passage is 9 feet 6 inches above the flooring of the cave, which is here somewhat higher than the main flooring, forming a kind of step.

Opposite, on the northern wall, which is not so straight as the southern, is fixed the *cross* already mentioned. It is in relief, 3 feet long, with its lower end 6 feet above the floor. Although in several places on the side walls plaster is visible, yet it was no *cistern*, as no hole for a well is observable in the ceiling, and the bottom is not deep enough for that kind of cistern from which the water is fetched by the stairs. My humble opinion is, it was originally a *habitation* for men, and at the same time, or afterwards, used for a stable, magazine, and mill. The millstones are still there.

Excavations at Aceldama—or, as the natives call the hill higher up, *El Shamah*.[1]—Somewhat above the Aceldama building, near the top of

[1] Possibly a corruption of Chaudemar, the name given to the place in the 12th century.—Ed.

the hill, some excavations were made by the proprietor of the ground when about to cultivate it, and to plant vines and trees. Caves, scarps of the rock, mosaics, hewn stones, &c., were found; so I visited the place, and have to report the following. Some of the excavations had no important result; some are not finished, and those which seem to me interesting, are the following:—

(*a*) A kind of court or yard worked horizontally into the surface of the rock. As the ground rises towards the west the flooring is worked down to the level. On the eastern side, on some parts where the rock lies deep, it is restored by mosaics of somewhat large stone cubes. This court is on an average 32 feet long and 19 feet 6 inches wide, and has at its eastern end two small pools. The smaller one is 4 feet wide each way and 3 feet 6 inches deep, and from its bottom a round hole leads to the larger one, which is 8 feet long, 5 feet wide, and 5 feet deep, and has on its bottom a kind of shaft 3 feet 6 inches deep. This is round, and at its middle has an *upset*, so that the lower part is narrower than the upper, which has a diameter of 2 feet. This shaft, as well as the sides and bottoms of both pools, are laid with such dies or cubes as are mentioned above, and over them there is no plaster. What was the use of these things? It is not easy to say. The proprietor thinks they formed a *bath*, as he has found in the pools some white stuff which he thinks to be the sediment of soap. But this is not likely to be the case, and I rather think the white stuff is the remains of *lead*, with which the pools were overlaid, instead of cement. A bath also does not want such a court, but rather adjoining buildings. So I think it was a store-house or fabric of wine or oil.

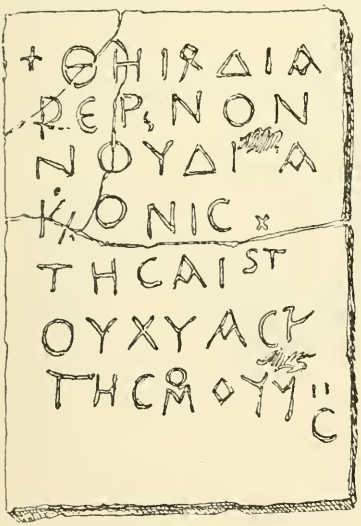
(*b*) Some caves and scarps with steps, &c. Close by are some rock-cut tombs, of no special interest, unless the large stone which was found before the door be reckoned as such.

(*c*) Farther west are other and more interesting rock-cut tombs. The workmanship is excellent, walls straight, and angles exact. The entrance, as in all rock-cut tombs, is square, 2 feet 4 inches wide and 2 feet 6 inches high; inside of it, four steps lead down into a square chamber 11 feet long and 10 feet wide, and 6 feet 4 inches high. On the walls opposite the entrance, and on the two other sides, are deep recesses cut in the rock each 7 feet long, 2 feet 4 inches high, and 3 feet deep, so forming three tombs or places where a coffin or sarcophagus might be put; yet it is clear that it was not intended for such, for on the bottom, which is about one inch deeper than the bench in front, is hewn out from the rock a kind of couch, with a shallow place for the reception of the head of the corpse. The bench before the eastern recess is only 1 foot 3 inches wide, whereas the southern is nearly 3 feet, and the western a little more than 3 feet wide. The top and sides are smooth. On the western side, where it joins the southern, and below the upper edge, there is a Greek *inscription*, from which I took a squeeze and made a good copy, which I enclose.

C. Schick.

The Greek Inscriptions on Tombs north of Damascus Gate.

In answer to enquiries respecting the Greek inscription said to have been found in the Dominican ground north of Damascus Gate (*Quarterly Statement*, 1890, p. 3), on the 30th July last I sent a description and some drawings of two newly-discovered tombs at St. Stephen's, near Jeremiah's Grotto, one still with a stone door, the other one having once had a rolling stone. On each of these were Greek inscriptions, of which I sent copies (*Quarterly Statement*, 1890, p. 10). I mentioned also that on one, the covering stone of the entrance, there was also an inscription, but it had been broken in pieces and taken away by the monks. They made a wooden frame, and put the pieces together into the frame, and sent squeezes of the inscription to Paris, where it has been published in a paper called "Cosmos," No. 235, July 27th, 1889, together with notes and interpretations. I also inclose herewith a copy (reduced to about $\frac{1}{20}$). The slab is about $3\frac{1}{2}$ feet long and 2 feet 9 inches wide, and 6 or 7 inches thick; the letters are engraved, and the stone is broken into four or five pieces, and in some places the letters have suffered by weathering.



+ Θῆκ(αι) αἰδ-
φερ(ουσα,) Νόν-
νου δια (κόνον)
καὶ Ονισ(ίμοα διακόνδ)
τῆς ἁγ(ιας) τ-
οὸ χ(ρισθο) ῖ 'Α(νάθσθ(άσεω,)
τες μο(νῆς) αὐτῆ-
]

This is the reading of Dr. Papodoculos.

Dr. Papodoculos, a learned man in the Greek Convent, tells me the inscription is abbreviated, and may be read so that it becomes fatal to the traditional site of the Holy Sepulchre, but that before one can speak positively more proofs must be looked for, and as the matter now stands it is better not to make too much of it. He thinks it is clear from the inscription that the newly-discovered tombs were those of two deacons, Nonus and Onisimus, of the Church of the Resurrection, but that this does not prove that the church itself stood near their tombs. It seems to me

that they may have belonged to the clergy of the church on the traditional site of the Holy Sepulchre, and have been buried here in the general burial ground. However, the learned in England will read the inscription properly and settle the question ; I simply report upon it.

C. SCHICK.

This inscription has been submitted to Dr. A. S. Murray, of the British Museum, who is well known for his intimate knowledge of Greek epigraphy, and he gives the following criticism upon it :—

There is a family likeness between the inscription you have sent me and one which Boeckh (C. I. Gr. 9139) gives as *on the door of a cave at Jerusalem.* The copies he had access to differed much among themselves and he was uncertain of restoring the original. The reading of Papodoculos has probably been made with Boeckh's before him, and may, I think, pass. Here is Boeckh's inscription :—

† ΘΗΚΗ ΔΙΑΦΕΡΟΥCΑΗΓΕΜ	Θήκη ἣιαφέρουσα Ἠ(ρ)εμίᾳ
ΤΩΦΕΡ . . . . . ΓΩΝΟΘΕΤΗ	ἱερ(ομ. τοῦ) μ(ο)ναστηρ. (τῆς ἁγίας)
ΔΕCΙΜ . . . . . ΙΒ ΒΕΝΑS	Θέκλα[ς καὶ . . . . .
ΚΕΥΑ . . . . ΤΒ ΓΕΡ	(κατασ)κευα(σμέν)ου Γερ(μανι)
ΚΟΥΤΒ . . . . . ΓΙΒΗ	κοῦ τοῦ . . . . . ου
† ΤΗC ΑΓΙΑCCΙΩΝ	τῆς ἁγιάς Σιών.

As regards the smaller inscription which Papodoculos renders as follows : "Pachomios was buried on the 20th (of some month and of some year)," a possible alternative would be to suppose the name of the deceased person to be lost at the beginning of the inscription. The sense would then be ". . . . was buried on the 20th of (the month) Pachon, in the 11th year of the Jndiction" (ἐτάφη τῇ ἐ(ι)κοστ(ῇ) Γαχ(ῶ)νος λ. ἰνδ(ικτιῶνος). But I have had hardly any experience of these Christian Greek inscriptions, and therefore cannot speak with confidence. The name Pachomios, which Papodoculos restores, may be right, but his reading of the word that follows seems to be wrong.

ΕΤΑΦΗΤΝΕΚΟCΤ(
ΙΠΑΧΟΜΗΟCΛΙΥΝΝ

Ἐτάφη ϑῇ ε(ι)κου(ῇ)
Παχ(ώ)μ(ν)ος Λιχν(δενὶ)

= on the twentieth (of a certain month of a certain year) Pachomios from Lychis dos (?) was buried.

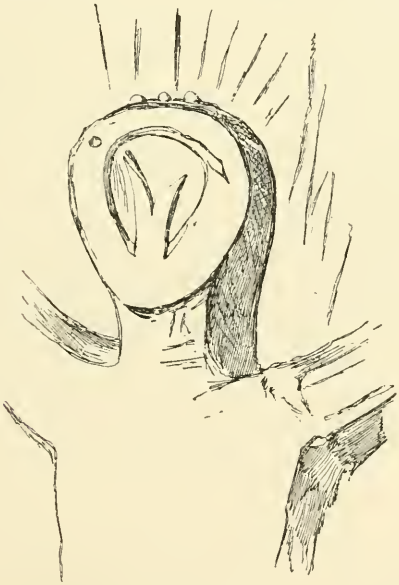
A. S. MURRAY.

CAVE OF SARÎS.

I HAVE again visited the cave at Saris, and forward the results of my attempts to obtain squeezes of the marks or characters which were noticed by me in the place where an inscription was said to have been, but which was destroyed by the peasant who had hoped to find treasure.

Mr. Schick was unable to accompany me, but he kindly allowed me to take with me an intelligent young man in his employ who proved very useful.

I was also happy in being accompanied by Mr. Lees, who came at my invitation and kindly sketched the two figures in the cave. These sketches I also forward with the squeezes, and a rough plan of the cave, with section of the pit, and also a sketch copy of the vestiges of letters, and a full sized sketch of the head of the figure on the east wall, which is very curious, the face having instead of eyes, nose, mouth, &c., an ornament very much resembling a double dagger-shaped leaf.



We did not find any letters near the figures, but a close inspection showed that when the cave was made, they had been outlined by means of a drill or borer, in such a manner that when the adjacent stone was cut away, the figures remained standing out in relief. The lower portion of many of the drill holes is distinctly visible, as shown in one of Mr. Lee's sketches, and also in that of the head itself.

Since I first visited the cave last June others have been on the spot.

The Jerusalem Freemasons especially, seem to have been quite excited by the accounts of the attitude of the figures, and about two months ago a large party of them, headed by the Master and some other officers of their society, actually made an expedition in search of it, and cleared the earth, broken pottery, and bones, in the pit or square trough in the south-eastern corner. I have made special enquiries of some who were of the party, but could not learn that they had discovered anything of importance except some broken jars or cruses (imbriks). However, their visit was of service in so far as it saved us the trouble of clearing out the four-foot deep pit or trough, which at the western end has at the top a step or ledge. The floor of the cave round the western and southern walls had been cleared, so that we had only to excavate in the centre to ascertain the level there, as the floor outside the pit seems to shelve towards the centre from all sides. To do this was no easy task, as besides the stuff which had come out of the pit, the soil in the cave is very hard and full of tree roots which had penetrated in search of moisture. The rock floor in the centre of the cave is five feet from the ceiling. At the north-west, south-west, and south-east corners it is three feet from the ceiling. In the south-east corner the rock overhangs the pit.

In the rubbish that had been taken out of the pit Mr. Lees found a broken *siraj* or earthenware shell-shaped lamp like those used at the present day by the Fellahin, only larger. From the rock terrace above the cave there is a magnificent view over the sea-board plain. We saw the range of Carmel very clearly with the naked eye, and, of course, yet more so with a field glass.

I enclose a squeeze of a small Greek inscription in raised letters found stone dug up lately close to the tombs of the Prophets on Olivet.

I have not had time to write out the list of Judeo-Spanish proverbs which I promised some months ago. I have begun but do not know when I shall finish. We missionaries, however intensely we may be interested in the Palestine Exploration Fund work, can seldom find leisure to indulge in it.

P.S.—In my report I described the cave as being hewn out of *narie* rock, soft to work, but hardening by exposure; I was mistaken, it is hard *mizzie*.

J. E. Hanauer.

IRRIGATION AND WATER SUPPLY IN SYRIA.

Referring to the notice by Mr. Simpson upon the above subject in the last *Quarterly Statement*, I may mention that in April, 1889, while riding with my wife from Palmyra to El Beda, on our return journey from the former place, I observed a considerable number of pits such as those which Mr. Simpson describes. Those that I saw were within a few miles of Palmyra, and were, I should judge, distant from 200

to 300 yards from one another. But I did not observe carefully. Our men stopped at two of them and found water. I supposed that they were old irrigation pits communicating with one another by an underground channel, and fed from the hills on the north side of the gap to the east of which Palmyra stands. I made no examination of them, however, being ill at the time, and engaged in struggling against a strong west wind, which carried so much sand with it as to be most unpleasant.

I do not remember to have seen El Beda mentioned in any of the guide books or accounts of journeys to Palmyra. It is considerably to the north of the direct route from Karyatin to Palmyra, and about six hours ride from Palmyra. It consists of a well of brackish water, and a small block house, which as I was told had been recently established by the Turkish Government, and in which an officer and eight soldiers, with their horses, are stationed. The establishment of this station makes the journey between Palmyra and Karyatin easier and safer than it was before.

With regard to Palmyra, I will mention another matter which may be of interest.

All modern notices of the place which I have read refer to the fact that no fresh water is to be found there, and some express wonder at the ancient prosperity of the Palmyrenes in the absence of this requisite. The guide books recommend the traveller to bring a supply of drinking water with him, as the stream of sulphurous water which, until last summer, was alone known in modern times as the source of supply there, is very disagreeable to the taste. We were, therefore, much surprised to find that the stream near to which our tents were pitched was fresh and pure. It appears that it was only discovered in the summer of 1888, and that we were the first European travellers to see it. It runs only a few feet under the surface of the ground, in an old flagged channel or conduit which widens out at the spot where it now comes to light so as to admit of a landing, on which people coming to fetch water or to bathe can stand, and it was a very interesting sight to see the hot and thirsty Arabs, engaged in digging during the day in other parts of the ruins for water which they had not yet found, rush rejoicing at sunset to this spot. But the artificial channel ending here, the water disappears a few yards further on in a sandy hollow. The volume of water was about 16 inches deep by 22 wide ; it was tepid, but when cooled in earthenware jars very pleasant and refreshing to the taste. I have no doubt that there are several similar streams conducted by similar channels in other parts of the ruins. The surface of the ground (presumably in consequence of the accumulation of sand blown in from the desert) has evidently risen since the erection of the chief buildings (as one may see from the proportions of the arches and columns in many places), and probably this is the cause of the disappearance of these streams. The finding of this stream has stirred up the inhabitants to search for more fresh water, and pits were sinking in several places during our visit.

GRAY HILL.

MA'LULA AND ITS DIALECT.

The village of Ma'lula in the Anti-Libanus has a three-fold interest for the traveller. Its situation and surrounding scenery are unique, its cave-dwellings and rock-tombs give evidence of an ancient but active existence, while in its dialect we find a certain strange survival of the Aramaic which Christ spoke not 150 miles away.

My first glimpse of Ma'lula was in March 1888, on my way to Palmyra. Roughly speaking, Ma'lula is about 25 miles to the north-east of Damascus, and is reached in about eight hours. At about three and a-half hours' distance from that city the path crosses a steep ridge and enters a broad rolling valley running N.E. and S.W., bounded on the east by slight hills, rising in places to higher peaks. The western boundary is one long, almost unbroken, ridge, of a curious formation. The mountain runs up smoothly for several hundred feet, with a surface of light tinted shale and gravel, terminating in a palisade of reddish-yellow limestone, from 50 to 150 feet in height, making an irregular sky-line. This columnar wall runs along the top of the ridge for 20 miles or so. It takes strange fantastic shapes, often like pillars or pilasters, now like giant teeth with monstrous roots, and now like animal forms. The red and yellow of this irregular wall cutting sharp against the vivid blue produces a brilliant effect of colour. Sometimes the gravelly hill appears above the palisade, but not often.

Before reaching Ma'lula the ridge is twice broken, once by a gorge leading to the small village of Jeb'adîn, and again where the Yebrûd road crosses through a second gorge to the higher hills. About three miles beyond this point the ridge curves sharply inward and downward, rights itself for a few hundred yards, then curves outward and upward again, and resumes its former N.E. direction. In the meantime it has formed a deep basin, the shape of an amphitheatre, bounded by massive cliffs, which are pierced at the two inward corners by rapidly-ascending gorges. Great rocks and boulders lie on the steep slopes, or are heaped together at the base of the cliffs. Clinging to these rocks, rising tier above tier, like the cells of a honeycomb, are the houses which form the village of Ma'lula. The houses are built of *libin* or unburnt brick, rough unhewn stones, and mud. A few arches appear. Many of the flat roofs project, and are supported by posts, thus forming a sort of balcony. Brushwood is used in the roofs and peeps out from under the eaves. The mud and scant whitewash give the town an appearance of brown and white. The houses are at all angles: one stands out boldly on a great rock, another retreats under the overhanging precipice. A simple square Church with belfry gives point to the collection of simple houses. Under the north cliff lie the substantial buildings of the Convent of Mar Tukla. On this same side of the town there are a few substantial stone houses, but as a rule the buildings differ little from each other, in point of simplicity.

A valley opens out from the Ma'lula natural amphitheatre into the long upland, which I have mentioned. It is watered by streams from the

two gorges, and is rich in great walnut and other fruit trees, as plums, pistachio, and apricots. The limestone soil is of a dazzling whiteness, especially just outside the amphitheatre, where the path crosses ledges of soft polished white rock, easily carved, and used very effectively in decoration, as in the houses of Yebrûd. At the north side of the village threshing floors have been carved out of the hillside—rounded, level places—curious white spots in the landscape. Beyond these the hillside is strewn with sumach trees, or shrubs, used in tanning. Judging from the number of threshing floors I should say that the town must own many wheat fields in the rolling country below. Perched high above the lofty cliffs at the back of the town is the Convent of Mar Sarkis, with its metal dome. On these upper hills, the colour of maize, are many vineyards.

These general features were noticed in my first visit, when we passed through hurriedly. As we entered further into the cliff-bound recess we saw the caves high up in the face of the precipices to north and south, and the dozens of square entrance holes to chambers within the cliff at the back of the town—some apparently inaccessible, so high were they.

We rode through the twisting streets, finding the people very friendly. Once the path wound along a covered gallery fifty feet long, with dwellings above. Soon the path became precipitous; we dismounted and led our horses up a series of ledges. The baggage animal, which was ahead, slipped and began to roll, we, meanwhile, standing each on his own ledge quite helpless in view of the coming avalanche. Fortunately something stopped the horse, but the load had to be carried up by men through the magnificent gorge. At the end it is simply a climb up a fissure, where the horses lifted their legs from one deep hole in the rock to another.

In June of this year (1889) a friend and myself planned to spend a few days at Ma'lula, being curious to find out something about the Syriac dialect spoken by the inhabitants. We arrived on a Saturday evening, and remained till the following Thursday morning. In the meantime we asked many questions, and examined the Convents, cliff chambers, and tombs. I had not at the time the plan of writing an exhaustive article on the place, hence the impressions here given are merely those of an interested traveller, and lack many particulars which a scientific description should contain.

We approached the village from the north-east, as we were coming from Yebrûd, having crossed the ridge about an hour to the north. We pitched our tent on a spot cleared and built up for a threshing floor, on a slope of the hill below the northern cliff, at some little distance from the village. On Sunday, the people having no work to do, crowded about the tent—sitting outside the door, peeping in through the cracks, and even crouching inside. Oddly enough they were not troublesome. They simply wished to "admire." They were neither impertinent nor intrusive, and they kept quiet. We found their good humour unfailing. They were alert, active, and merry, but without the same conceit one finds in the Lebanon. The type of face did not seem to me as distinct as that of

Yebrûd; dark hair and eyes are the rule; the faces are round, and the features not striking. There were many comely women, with fresh complexions. We saw few dull countenances. We heard the echoes of one or two violent quarrels, but in their general mutual intercourse the people seemed gentle and agreeable. Their enterprise is shown by the number of men and boys who go to Damascus for work, always, however, regarding Ma'lula as their home. The majority go as bakers, while some are servants. Baking is the art of the town; the brother of the Sheikh works in the oven.

After some inquiry we estimated the population at 2,000, including the absent. Two-thirds are Greek Catholics, the remainder are Orthodox Greek, with about twenty Moslem families, not to be distinguished in dress or language from the Christians. The people seem about on a par with each other, there being no aristocracy. The Greek-Catholic priest is a native of the place. He spoke a little French. The men all wear the veil or shawl on the head, falling over the shoulders. It is bound with thick camel-hair rope. The cloth robe which they wear over their waistcoat and full trousers struck me as much shorter than what one usually sees. The men are not heavily bearded, nor does the beard seem to come as early in youth as it does in the Lebanon. There is a school in the village, where we saw a few small boys. The teacher boards with the pupils by turn. He teaches Arabic, reading, and writing. He was sent to the town by the Bishop of Yebrûd.

All speak the Syriac dialect; they say a woman brought as a bride from elsewhere can learn it in a year. At the same time they all speak Arabic like any Syrian. They seemed much interested and amused by our desire to look into their language, and were most good-natured in answering questions, but we found a varying intelligence in their answers; the trouble with many being that they gave much more than was asked. Speaking the Arabic, I found little difficulty in obtaining information. If in doubt as to what one person meant, I could always ask another.

The streets in the village are often ledges of rock along the steep slope. The houses are sometimes built over the street. Near the north gorge there is a house wedged in between the overhanging cliff and a huge boulder, with an arched gallery beneath it for the highway. It has a balcony in front, supported by a single beam. The light green of willow branches contrasts with the whitewashed wall. Entering the passage under the house, we followed it up sharply to the left, and there found on our right a narrow flight of mud-steps, whitewashed, leading back to a platform-roof opening on which was the door of the house! Within everything was very clean. The rough walls formed by cliff and boulder were whitewashed. A sick man lay on a bed on the floor. His son, who had been in Damascus, and kept one of the three small shops in the village, asked us how we made gunpowder, as he wished to compare our method with his own.

Later we called at another house in response to a cordial invitation from its mistress. From a small enclosed yard whitewashed steps of mud

led up to a roof in front of a house of two rooms. Steps, roof, walls, floor were all of this whitened mud, which comes off on the clothes. The room in which we were received had two windows and small openings above for ventilation. In one corner a cone-shaped chimney of mud came down to within 3 feet of the floor. At the angles between it and the walls there were ornamented pockets of mud. Its surface was also ornamented. The projecting angle of the chimney had a place for a lamp. Below there was no hearth, but only a place for one pot or kettle rounded out from a low platform of mud. The mud of the walls in the room was worked into pockets, ledges, shelves, rudely ornamented in rosettes and twists, with bits of glass stuck in. Chimneys are not found in the Lebanon houses, but they occur in the Anti-Libanus as near the Buka'a as Zebedani. In the other room the family stores were kept in jars made of mud and straw, whitewashed. Later in the day a fierce wind blew threatening to overthrow the tent, so we took refuge in this clean house for two nights. The woman baked bread (barley bread as well as wheaten) for the neighbours, who paid her in kind, the number of loaves being left to generosity. A fire kindled at the bottom of a pit in a mud projection at the side of the house heated its sides, against which were stuck the flat loaves, which gradually became baked.

In passing through the town we found the houses clean. We were often warned against bye-paths, because of the house-dogs. They certainly had a most villainous look. Bees are kept. We could get no meat, as there happened to be a feast, but in a village like Ma'lula there would hardly be meat oftener than once a week. Such people live on bread, cheese, olives, eggs, dibs, and vegetables in their season. Unripe fruit is much prized—as grapes (eaten with salt), plums, &c. The people rise with the dawn.

The Sheikh's house differed little from the rest, but it had a stone doorway, with some carving and coloured ornamentation. The office of Sheikh continues in the same family. He was away, but his brother (who left the oven to entertain us) said that the house was to be improved and enlarged.

In speaking of the caves and rock-chambers of Ma'lula it will be convenient to refer to the South Cliff, Central Cliff, and North Cliff of the great natural amphitheatre. These cliffs are about 150 feet in height. About 35 feet above the base of the South Cliff a cave opens in the face of the rock, the entrance being about 20 feet in length. A rude ladder, made by two irregular branches or trunks of ancient walnut trees, with rounds fastened by large nails, is the rather risky means of approach. Our servant climbed up first, disappeared in the cave, and then reappeared at a square window cut in the face of the rock some 40 feet to the left of the entrance (as we looked at it) and rather above it. We then scaled the ladder, and scrambled around the rude masonry that forms a parapet at the entrance of the cave. This wall is made partly of stones and partly of large blocks of wood. Within there are two or three plastered walls (in a somewhat ruined condition) of mud and straw, forming small

passages and shutting off the main part of the cave, which runs sloping up *behind* the face of the cliff for some 52 feet. This, added to the 20 feet of entrance, gives 72 feet as the face length. The cave then turns and slopes up inward for 70 feet more. Here the breadth is considerable. The height is from 10 to 15 feet. Before the cave turns inward a low, artificial passage leads off at right angles, through which one must creep, into a small chamber, from which a similar gallery leads to the interior cavern. Marks of the chisel or pick are everywhere visible, so that it is impossible to tell how much a natural cavern may have been enlarged. The square window in the face of the cliff has an embrasure of 3 or 4 feet, and a parapet with a drainage hole below to the right. The cliff below this hole is stained. Sockets and holes at the side show that the window may have been bolted or barred. Near the entrance, within the cave on a ledge, there are signs of an ancient inscription in large Greek letters, irregularly following the irregular surface of the ledge, something like this :—

NEOICIOC ETC TA T
PA

It was not until we had been in the cave for an hour that we noticed the faint letters, and I daresay a strong sun might reveal others. A few ruder letters in red paint also occur ; also there were some plaster remains on the cave wall, rough figures of a giraffe, a horse, a bird, and a camel, with rider apparently holding an umbrella ! This last I do not recall, but my friend assures me he saw it. We noticed pretty maidenhair growing above another ledge, then damp moss on the ledge itself, then a basin scooped out, a foot across, with a tiny channel 8 inches long leading to a small hole. This was the only sign we saw of a water supply in the cave.

When we descended to the base of the cliff we found a stout, jolly man, bearing a strong resemblance to King Henry the Eighth, who said that in the troubles of 1860 he had hid for days in that cave with the women and children. All the walls within were then there : they did nothing to the place. In the face of the same cliff, somewhat to the west, there is another cave, with masonry at the entrance. This the man said was smaller, and we did not visit it. At the base of the cliff, some yards up, there are holes 12 or 15 inches square, cut in the rock at regular intervals, probably beam ends, used in the roof of some building, perhaps some public place, as the structure indicated must have been large. This cliff-castle is similar to the better known one in the Southern Lebanon, Kala'at Niha, near Jezzīn, where the Emir Fukher-ed-dīn Ma'n, held out against the Turks. There a long ledge projecting from a cliff was utilised for castle and dwelling ; beam ends occur above each other, suggesting two or three stories, water was brought by a channel from above, small reservoirs appear, granaries were carved in the rock, &c., &c. The Emir must have taken advantage of some ancient cliff dwelling, dating perhaps from the time of the one at Ma'lula.

On the huge detached boulders at the foot of the South Cliff are found many tombs. In many cases they are simply cut in the tops of rocks. One rock, far below, has steps cut to the top. There seems to have been a passion for cutting in these stones, as there are many shallow, arched recesses on detached rocks, apparently useless. Other arched recesses have a couple of tombs in them. On one great boulder an elaborate arch is cut, with a balustrade below and several deep tombs within. In another place the tombs are two deep, with a ledge, as if for cover between.

The West Cliff, directly above the town, is perforated with many square holes—entrances to dwellings cut in the heart of the rock. Some of these have been fitted with modern doors, and are used as storehouses. One is so high that at a distance it seems quite inaccessible, but on approach one finds beam-ends below, showing that the cliff-chamber might have been approached from the roof of some building in front. At the south end of this central cliff the beam ends occur in several tiers, above each other. In one place steps lead up the cliff to a chamber. We entered several rooms and found them of varying sizes, some as large as 15 feet square. At the back of one chamber there was an arch, and on the surface of the rock at its side, slightly smoothed for the purpose, was this inscription, not perfectly clear, but apparently inclusive :

ΕΤΟΥCΗ?ΙΥΥ – – ΙΟΦΙΧΛΟΥ
ΠΑΤΡΟΚΛΟΥΕΠΟΙΗCΑ
ΝΤΗΝΚΟΝΧΗΝΟΓ?
ΜΕΡΟΥCΗΜΟΙCΟΥC
ΠΩΘΕΩΜΑΛΑΧΗΔΑΑ
ΕΙΑΝ

Another rock-dwelling consisted of two rooms. In one room at the side there was an elevation as for seat or divan. The rock hung down somewhat over the lintel of the inner door, which had this inscription, in rude letters, some of which were rather indefinite :

ΕΤΟΥCΗ?ΟΥΑΥΔΝΕΟΥΓΧΕΙΛΟC
ΖΑΒΔΕΟΥΑΒΙCΑΛΥΥΛCΕΡΜΟΥ?

In another chamber we found traces of a much longer inscription of nine lines, too indistinct for us to read. The guide told us that the above inscriptions had been copied by travellers. All the chambers in the West Cliff are quite artificial, the walls are always straight and the angles true. Slightly carved in the face of the cliff is a large arch, apparently to no purpose. Here also are small recesses like those we noticed below. In one chamber a small channel or open drain crosses the floor and disappears into the mountain at the back of the room. In another are two vats, one lower than the other but connected with it.

On the rocks outside the chambers and at a little distance are more tombs, but the chambers themselves as a rule are without tombs.

The rocks and cliffs of the South Gorge are wild and splendid, but contain no tombs. A side valley, lined with fantastic rocks and choked with boulders, enters from the south. Near by, a huge rock hollowed out like an oblong box, set on end, is called the "Hanging Place," because of a round hole in the top. One looks up to the summit of the South Cliff and is startled by its resemblance to a bear. A shallow groove runs down the cliff at one side of the gorge; as it comes to nothing it looks as if it were merely to drain the rocks above, especially as we find these drain-lines in the cliffs above the convent of Mar Tukla.

The North Gorge is more interesting. The path for horses climbs over the rocks at one side, but we followed up the brook which emerged from a narrow fissure with lofty perpendicular sides. Narrower grew the winding chasm, and we had to use our hands quite as much as our feet in getting along. Presently we heard a sound behind us, and we flattened ourselves against the walls to let pass two women with cows. As they splashed through the tiny brook their progress was more rapid than ours. They told us that God had opened up this fissure as a way for Mar Tukla, who was fleeing from her enemies, and pointed to a deep groove or aqueduct high up in the side of the cliff as the path on which she walked. We traced this aqueduct almost to the fountain on the open land above.

Mar Tukla is said to have been a companion of St. Paul's; the tradition is doubtless ancient, and thus some light is thrown upon the antiquity of the channel-aqueduct, and perhaps on ancient Ma'lula itself, as those responsible for the tradition had no notion of its real origin.

Another day we followed the horse-path up the gorge and found quantities of tombs—some open and some in rooms. Here also were large chambers, partly cavernous and partly artificial. One was regularly vaulted, with incomplete pillars not extending far below the vault. It had a broad doorway, with sockets. It contained three vats, and a place that might have been a tomb, or a place for stores. Another contained lamp-niches, a stone seat, rings cut in floor and walls, plastered holes, and vats sunk in the stone floor, used now in the preparation of sumach.

To one approaching Ma'lula from the high lands to the west, the ledges of rock which line the summits of the hills above the amphitheatre seem to roll up to the sheer edge of the precipice like angry waves of grey-white foam. Or to take a milder figure, the ledges appear sometimes like the wrinkled surface of cream or curds. In the ledges above the Central or West Cliff we find the greatest number of rock-dwellings. These are cut so near the surface of the hill that sometimes the roof of the chamber is no more than a foot thick. Some rooms are high and spacious, others not high enough to stand in. One room had an arched recess, precisely like the modern yuk, in which the beds of the family are piled by day; seats; cupboards; rings in the roof. Some chambers

seem to have been ancient wine or oil presses, with vats at different levels connected by channels.

Outside were shallow, rectangular reservoirs. One chamber had a hole near the roof in the back wall, connecting it with a room cut in a higher ledge of the mountain. The chambers are near each other and the top of the hill is quite honey-combed with this rock-city. No tombs occur here.

Mar Serkis, the Latin Serjius, is perched on these cliffs. It is a plain quadrangle with two galleried stories about a court, and has a chapel with small dome in the centre. Within the chapel we found a stone screen, with a series of western-looking panel pictures above. The altar was canopied, surmounted by dome and cross.

At the back of the nave was a ruined gallery. The convent belongs to the Greek Catholics. In the Greek Orthodox churches the screen is usually wooden, with three doors, surmounted by panels and a huge wooden cross, with painting on it. There is only one priest at Mar Serkis, whe received us hospitably. There are no monks. The wine of the convent, so the priest said, is celebrated. It seemed very pure, but somewhat heavy and flavourless. A fine fruit garden stretches behind the convent, at some little distance below.

The Cave-Castle of the North Cliff is approached from above, as it opens into the face of the rock, some 100 feet above its base. We toiled up the sloping ledges, crawled through a small tunnel on our hands and knees, and then descended a narrow fissure in which little holes were notched, to a short ladder dropping to the cave itself. The descent from the tunnel above must have measured 30 or 35 feet if not more. The view was splendid ; taking in the grandly-coloured cliffs opposite, the richly green gardens far below, the white houses of the town, also far below, the roofs covered with brush, with people walking over them, the dome of Mar Serkis, and the green of the vines on the upper hills of yellow, saffron, brown, white, and maize.

The floor of the cave was very sloping. In front was a parapet of stones and mud. Along the face the cave dimensions were 50 by 20 feet. At one end it rounded into the mountain to a further depth of 25 feet. The cave seemed mostly natural. In the roof were two holes, evidently artificial, apparently drilled from above ; and there was a larger hole in the wall, soon branching into two funnels. Could this have been for water supply ?

We have now touched on all the rock dwellings and chiselled stones of Ma'lula except those under the further end of the North Cliff. The largest chamber we found was one recently opened in the hill, below our tent. This measured 20 by 40 feet. Its roof was supported by four pillars—the natural rock left standing when the room was carved out. It was divided into two parts by a low wall, only two or three feet high. It contained seats, rings, niches for lamps, etc.

The only sign of sculpture was on a detached boulder above the tent. Here, on two arched panels, were figures of a man and woman, or two

men perhaps, the features quite destroyed. On the arched border of one panel was this inscription :—

ЄΓΝΑΤΙΑΡЄΡЄΝΙΚΗΤΑΙΟCΙΟΥΛΙΟC
? ? ?
ΛΡЄC

After all this detail about tombs, chambers, and caves, perhaps a few words of recapitulation will make the matter clearer.

We have in ancient Ma'lula not only a large rock cemetery, but a town of rock dwellings, which must have supported no small population. While some tombs are found in recesses and chambers, the majority are in the surface of rocks. Dwelling-houses are thickest on the hill behind the West Cliff, where there are no tombs. Below, tombs and chambers occur side by side. There may have been a large public building against the South Cliff. Both North and South Cliffs have cave-castles. Numerous beam-ends show that houses of wood or hewn stone occurred, in addition to the rock-dwellings. The business part of the town must have been above the North Gorge, where the vats, pits, &c., are rather more numerous, though they are found elsewhere. As to the origin of the cave dwellings, the present people of Ma'lula seem to have no idea.

The traditions of the place cluster around Mar Tukla. This convent is most picturesquely placed in the angle made by the North Cliff with the North Gorge. Its many buildings are shown at different angles on the steep slope. Terraces, arcades, courts, diversify its appearance.

A series of arches, with wall, set in the face of a lofty cavern in the cliff above makes a most charming combination of art and nature. We sent our servant on before to announce us, and then followed him up to the comfortably furnished room where the head of the convent received us. The Archimandrite Macarius Sleba is a Syrian, of about 60 years, with pleasant, if somewhat patronising, manner. His face is agreeable, dignified, though not intellectual. He asked many questions, for example, as to the relative position of New York and London. He was much interested in hearing of our visit to the Convent of St. Catherine at Sinai. On our showing him a ring consecrated on the Saint's relics and presented to us by the Prior, he took it, crossed his right eye with it, then the left, then the mouth. We were served with sweets, including delicious *mastik*, a drink prepared from some fruit essence, which made us all, including the servant, quite ill later on, and delicious coffee. My friend had a small detective camera which takes a picture about $3\frac{1}{2}$ inches square. The Archimandrite asked us to take his likeness. However, he gave such elaborate instructions to his deacon to bring robes, a great silver cross, &c., &c., that I told him that after all the result would be but small. "What!" said he. "Not as large as that picture?" pointing to some coarse print on the wall two or three feet square. "No," said I; "it cannot be larger than this," pointing to the tiny camera. The Archimandrite was disgusted. "Here, take this cross," he said, and it was a

few moments before his dignity recovered the attack made upon it. It is needless to add he refused to be photographed.

Mar Tukla, according to the Prior's account, lived "40 years after Christ." Her name in Greek was Seleukias. (A man in the village told us that the ancient name of Ma'lula was Seleukia.) She was a native of Iconium, was engaged to the son of the King, but on her conversion desired to lead a single life, and fled. On reaching Ma'lula the miraculous passage was opened for her. She followed St. Paul to Rome. He said to her: "You have become as one of us; return to your own country and preach the Gospel." Later she lived in the cave above the Convent, which we visited with the deacon. Here a basin of ice-cold water (very holy) is formed by the perpetual droppings from the rock above. She lived in the part of the cave where the small chapel is built. Here are brought the sick of all creeds, including Moslems and Druzes, for cure. The deacon told us that only two days before a woman had been brought from Suddud (the ancient Zedad mentioned in Numb. xxxiv, 8, two days' journey from Ma'lula), all doubled up and carried in a box. She slept one night in the chapel and returned to her town, walking. At the back of the chapel is a small closed aperture, behind which the Saint was buried. A workman once tried to open the tomb, but a blast or some power came out which either paralysed or killed him.

Later on, in Damascus, I heard from the Ma'lulites there resident some more legends and tales of Mar Tukla, which I insert here. According to my informants, her people were Moslems. It will be remembered in this connection that she was a companion of St. Paul's. When fleeing from her persecutors she passed a fellah. Taking up a burnt stick, she stuck it into the ground, and said to the peasant, "If people come along and inquire for a girl, tell them that the girl who passed by planted this." She went on her way, and presently her people appeared. The burnt stick had put forth flowers; the persecutors, evidently believing that the girl who planted that shrub could not have passed recently, turned back, giving up the pursuit. When living in her cave she cured people by laying hands on the head. After her death her people came to steal her body; she appeared in the night to the Prior of the Convent and said, "They have stolen my body." At the third summons he arose, went in pursuit, and brought back the body.

Mar Tukla's presence in the village is a real thing to the people to-day. They speak of her as a "lady we have here." A friend of mine was recently in the village and heard an excited discussion. A man who had a dispute about money matters was declaring that Mar Tukla had appeared to him in a field, and had given her judgment of the affair; as the decision was favourable to himself, some scepticism prevailed in the opposite party. However, many believed in the appearance.

My Ma'lula friends say that once a man coming from Hums was greatly imperilled by a storm of rain and snow. He cried out, "If God will save me and my beast, I will offer a drop of oil to the Saint at Ma'lula." Immediately the storm ceased. On arriving at the Convent

he expressed his gratitude by offering half a pint of oil to Mar Tukla. Then he ate his dinner and spent a pleasant evening. Later on he visited the cave and found something wrong with the oil, just what I could not understand. However, he went to the Prior, told his story, and asked why the Saint was displeased. "Ah!" said the Prior. "You have not performed your vow. You promised a drop, and you presented half a pint. The Saint wishes no more and no less than you vow." So the man mounted to the cave, poured off all the oil but one drop, and the Saint was appeased.

A boy declared to me that he had seen a girl arrive in the village from Kuryatan, carried by four men, accompanied by her mother and bridegroom. She slept in the cave, and the boy affirms that he saw her the next day cured.

Another tale declares that a man in Salhieh, a suburb of Damascus, suffered with "all kinds of diseases." Having heard of Mar Tukla, he fattened a sheep and took it to Ma'lula as an offering. He was cured, and keeps up the offering yearly.

One evening a European arrived at the village and asked for shelter. He was taken in by the uncle of Machoil, the lad who taught me what I know of his dialect. During the evening the stranger said that he had had much pain in his legs for years; he had tried many medicines with no success. The host then said: "We have a lady here who can cure you." "Who is she, and what can she do?" said the Frank. The host then related the cures of the Saint. The Frank, however, remained unconvinced. Presently beds were spread on the floor and they retired. In the night the stranger felt some one treading on his legs and feet. Up he jumped, seized his host by the throat, and demanded what he meant by walking over him. The host indignantly repudiated the charge, and the fight would have waxed severe had not the Ma'lulite bethought himself of "the lady." "She has come to cure you," he declared. The next morning the Frank found that his pains had disappeared. His unbelief vanished, and he went up to the convent to make his acknowledgments to the Saint.

I asked if many Ma'lulites had been cured. "Not one," was the answer, "and the reason is this—when one of us is ill he says, I will go up to the convent and see whether perhaps the lady will cure me! It is that *perhaps* that spoils everything. We live in the place, and have no means of proving our faith. Those who travel, with difficulty, two, three, and four days, prove the strength of their faith, and so the Saint heals them."

To return to the convent. Besides the prior and the deacon, a nun was the only other person we saw in the establishment. There are suites of new rooms for the accommodation of numerous Damascenes who make Ma'lula a place for summer resort. On leaving they make presents to the convent. Similar guests are entertained at Mar Serkis. It was curious to notice in one of the rooms the yukh (or place for beds), so similar to what is carved from rock in the cave-dwellings.

The Archimandrite could tell us nothing of the history of the convent, but it was his impression that while the place was always held sacred, a convent had not been built till centuries after the Saint's death. I am sorry to say that we left without entering the church. This was an oversight that we meant to remedy. However, it was a simple square structure with flat roof. In no old convent in Syria have I seen a pointed roof, except in the church of the ruined square convent of Mar Mousa, in a gorge to the east of Nebk, off the Palmyra Road. This Mar Mousa Church bears a strong architectural resemblance to Justinian's Church at Mount Sinai.

My friend in the village told me that in an old book, no longer in the town, it was stated that Mohammed never entered Ma'lula, though the inhabitants hid for twelve years in the Cliff Castle. By "Mohammed," I suppose we may understand the Moslem army. I refer to this fact as significant in its possible relation to the survival of the old dialect, while the Arabic of the Conquerors supplanted this same old dialect in the rest of Syria, save in the small villages of Bukh'a and Jeb'adīn, not far from Ma'lula itself. It is difficult, perhaps idle, to speculate on the reasons for this sporadic survival. However, it is possible that if the people of Ma'lula kept out the conqueror, or if for some reason the conqueror did not care to enter, the population of this wild, secluded gorge, might have kept purer and more intact than that of the rest of Syria, and that this might account for the preservation of their own language. Once preserved for a century or so, during which it had disappeared from the rest of the country, local pride and local tradition would be enough to retain it as a local dialect. The people seemed to us proud of their language. Meanwhile, the Arabic spoken by the Ma'lulites is of the Damascus type, far purer in accent than that of their neighbours in Ma'arra, which bears a distinct Syriac flavour in its vocalization. This is curious, but admits of explanation. The people of Ma'arra gradually adopted the Arabic as their sole language, retaining the broad Syriac vowels. The Ma'lulites learned Arabic as a foreign tongue, and kept the Syriac vocalization for the Syriac language, pronouncing the Arabic like the Arabs. For example, the ordinary Arabic word for Damascus is pronounced by the Ma'arrites *Shawm*, by the Ma'lulites *Shêm*. However, such a speculation is a delicate one. Nebk and Yebrûd, situated hardly six miles apart, have easily distinguished accents.

Bukh'a and Jeb'adīn are Moslem villages, but there are indications that they were Christian not very long ago, perhaps within a couple of centuries. Bukh'a is on the high land above Ma'lula, and a few miles to the north. It is a miserable village, containing about twenty houses. Jeb'adīn is to the south of Ma'lula, about an hour away. It is approached by a wild gorge, and its fifty or more houses occupy the hills above. The dialect in these villages differs somewhat from that of Ma'lula. Even in my hurried visit I noticed a difference in the form of some words. It is strange that the dialect should have survived in these two villages, and should have disappeared in 'Ain-etīny, which is much nearer Ma'lula.

Possibly they may have been more closely affiliated to Ma'lula, by intermarriage, trade, &c.

Since writing the above I have paid a visit to Damascus, for the purpose of verifying the notes taken in Ma'lula upon its dialect. To these notes I have made such additions as will enable me to present a brief sketch of the language. Writing in Beirût I have no access to any large library. Nöldeke, in 1862, published a brief treatise on the Anti-Libanus-Aramaic, which I have not seen. I learn from Burton and Drake's "Unexplored Syria" (London, 1872), that Dr. Socin spent two months in Ma'lula studying the dialect. If he has published anything I have not seen it. In the "Unexplored Syria" (vol. ii, pp. 264–271), there is a short description of Ma'lula, with lists of skulls and bones found there, and a list of a dozen or more words of the dialect.

The ovens in the Christian quarter of Damascus are, as a rule, worked by Ma'lulites, who are looked upon as quite a distinct class of people. They have a name for shrewdness. The bread boys are notably sharp and mischievous, as well as profane. At one of the ovens I found Machoîl, the boy who had been my teacher at Ma'lula. I employed him again, because he had a rare faculty of answering questions, giving neither more nor less than what was asked. The Ma'lula dialect is not written, and very few of the villagers read and write Arabic. Hence a sharp boy whom one could keep to the point made the best teacher.

I transliterate words of the dialect into Latin characters for three reasons: 1st, as I have just noticed, the people do not write it themselves; 2nd, some letters have peculiar sounds; 3rd, many words are almost pure Arabic.

ܒ (*beth*) is sometimes hard like our B, but is often pronounced like P, eg. *ob*, father, *ippai* = my father. *Dhappopa* = fly. This difference is observed to-day in the Oriental pronunciation of the classic Syriac.

ܓ (*Gomal*) (1) like a softened Arabic غ or a thick Parisian R; (2) like the soft Arabic ج in *'aja* why; also in *sejratha* tree, and *thelja* snow, both of which are very near the Arabic.

ܕ (dolath) like TH in that—as in Dhemsek (Damascus). Also like T; ex. *Blota*, town, &c. The relative ܕ is pronounced t.

The hard sound of D appears rarely; ex. *Mdîntcha*, city.

ܚ (cheth) is like the Arabic ح

But the خ sound occurs *kharufa*, sheep; *khuttuma*, servant, and some other Arabic words.

ܩ (Koph) is like *ch* in the Scottish *loch*, ex. *chathoba* = *book*. It also has the hard c sound in many Arabic words, and in the Syriac *dhactha* = *place*; *malca* = king, &c.

ܥ (Ee) is usually like the Arabic ع But I noticed the غ sound *ghubura* = dust, and *Shoghala* = work, which are near the Arabi forms.

ܦ (Pe) is like the Arabic ف F.

ܩ (Qoph) loses its guttural sound, and is pronounced like simple K.

ܫ (Shin) is *Sh*. The *S* sound occurs, but seems usually traceable to an Arabic ص Sad, or Syriac ܣ Notice, however, Sejratha, (Arabic س).

ܬ (tau) is like TH in *thin*, eg. *ichthab* = he writes. It also has the sound of TCH as in the English word *hutch*, ex. *hatch* = thou.

In some words derived from the Arabic the T sound occurs.

In my transliteration the following letters and combinations have the following values :—

SH, as in *shop*, representing shin.
TCH, as in *hutch* „ one sound of tau.
TH, as in *thin* „ another sound of tau.
GH, sounded like Ar. غ representing gomal.
CH, as in Scottish *loch* „ soft koph.
C „ *cat*, representing hard koph.
K (no guttural) „ qoph.
Ḣ, representing aspirate cheth.
KH „ rough cheth.
DH, as in *that*, representing dolath.
T represents soft sound of dolath.
Ṫ „ teth.
' „ ee.

In words plainly borrowed from the Arabic *t* also represents ت

The influence of the Arabic on the dialect has been great. Without pretending to mention all the indications of this influence, I name a few particulars :—

1. The structure of sentences in the Ma'lula dialect follows closely that of the common Arabic. Connectives have been transferred bodily. Further on I give an example of narrative which illustrates this.

2. Many words are plainly borrowed from the Arabic, but these are usually given a Syriac termination, and altered in pronunciation, and sometimes in accent. (Some words, however, are unaltered.)

Furshta (bed), Arabic, فرشة
Durba (road) „ درب
'Aiba (shame) „ عيب
Tchuchtcha (bedstead), Arabic, تخت

3. The adjective in comparison undergoes internal changes as in Arabic.

Korsa (cold), *akras* (colder), *iḥil* (sweet), *aḥla* (sweeter).

4. Salutations, complimentary phrases, proverbs, &c., &c., are generally Arabic, with slight accommodation to the Syriac pronunciation and accent.

5. The unclassical Arabic auxiliary expressions, *beddi*, *beddu*, &c. joined with the verb to express desire, and *'am*, to express continuous action in the present, have been transferred as in the phrases *betnidhmuch* = I wish to sleep; *bennīchul* = I wish to eat; *'annochil* = I am eating; *'amshoth* = I am drinking.

NOUNS.—Masculine nouns usually end in *â*, and accent the penultimate. They form their plural in ô, which takes the accent: Chêfa (stone), chêfo; ḥsonâ (horse), ḥsanô; bsonâ (child), bsînô. In the last two examples note the modification of the root-vowel.

Feminine nouns usually end in *tha*, and form their plural in *iotha;* bisnîtha (girl), bsiniotha; shunîtha (woman), shuniotha; baitha (house), baithiotha, where the *th* as a sign of the feminine appears in the plural.

M'artha (cave) has the plural M'arô, and chowcabtha (star) the plural chowc-bô.

The pronominal suffixes are as follows:—

1. For masculine nouns—

Singular, ḥsôna (horse).

1st (my horse), ḥsôn.	1st (our), ḥsonaḥ.
2nd masc. (thy), ḥsônach.	2nd masc. (your), ḥsônchun.
2nd fem. (thy), ḥsônish.	2nd fem. (your), ḥsonchin.
3rd masc. (his), ḥsônî.	3rd masc. (their), ḥsonun.
3rd fem. (has), ḥsonâ.	3rd fem. (their), ḥsonin.

Plural, ḥsanô (horses).

1st (my horses), ḥsanoi.	1st (our), ḥsanênaḥ.
2nd masc. (thy), ḥsanoch.	2nd masc. (your), ḥsanêchun.
2nd fem. (thy), ḥsanosh.	2nd fem. (your), ḥsanêchin.
3rd masc. (his), ḥsanoi.	3rd masc. (their), ḥsanêhun.
3rd fem. (her), ḥsanoya.	3rd fem. (their), ḥsanêhin.

Note.—The vowel ê in ḥsanênaḥ, &c., approximates in sound to the diphthong *ai*.

2. For feminine nouns—

Singular: Baitha (house), baith or baitha (my house), baithach (thy house), baithish (thy house), fem., &c., &c., like the suffixes of the sing. masc. noun.

The *plural*, baithiotha, also takes the singular suffixes: baithioth (my houses), baithiothach (thy houses), baithiothaḥ (our houses), &c., &c.

The noun *ob* (father) takes peculiar suffixes.

Sing. Suffixes.	*Plural Suffixes.*
1st, ippai (my father).	1st, abunaḥ (our).
2nd masc., obuch.	2nd masc., abuchun.
2nd fem., obush.	2nd fem., abuchin.
3rd masc., obu.	3rd masc., abuhun.
3rd fem., obu.	3rd fem., abuhin.

In these various suffixes may be observed—(1) classical Syriac forms as *och* (which, however, attaches itself to a plural rather than a singular noun); (2) an Arabic suffix (with the ك pronounced soft) in ḥsonach; (3) some peculiar forms, as in ḥsonish, ḥsonaḥ, &c.

I add a short list of common nouns for comparison with the classical and Arabic forms :—

Raisha	= head.	Cilntha	= word.
'Aina	= eye.	Shimsha	= sun.
Reghra	= foot.	Nura	= fire.
Furshta	= bed.	Tchuchtcha	= bedstead.
Bisra	= meat.	Sahara	= moon.
Sejratha	= tree.	Dhuctha	= place.
Ḥwoya	= air.	Ḥona	= brother.
Ḥoth	= sister.	Bshola	= cooked food.
Ar'a	= ground.	Thelja	= snow.
Shoptha	= week.	Shmo	= heaven.
'Afra	= earth.	Ghubura	= dust.
Chathoba	= book.	Safrona	= bird.
Shenna	= rock.	Ghanna	= garden.
Ghubelcha	= cheese.	Durba	= road.
Sara	= hair.	Chsuru	= wood.
Mdîntcha	= city.	Yarḥa	= month.

PRONOUNS.

The *personal pronouns* are as follows :—

1st sing., Ana = I.
2nd masc., Hatch or hatchi = thou.
2nd fem., Hash or hashi = thou.
3rd masc., Hû.
3rd fem., Hî.
1st plural, Anaḥ = we.
2nd masc., Hatchchun = you.
2nd fem., Hatchchin = you.
3rd masc., Hin or hinnun = they.

Demonstrative Pronouns.

Masc. Hanna = this. *Fem.* Hodh or ho = this.
Masc. Hothi = that. *Fem.* Hotha = that.
Plu. Hathin = those.
Relative.—The classical ة appears but is pronounced t.

The interrogatives are *mon* = who, and *mo* = what

The Numerals to Ten.

1. Aḥadh.	6. Shitcha.
2. Ithr.	7. Shob'a.
3. Thlotha.	8. Thmonya.
4. Urba'.	9. Tish'a.
5. Ḥansha.	10. 'Asra.

VERBS.—The regular strong verb is inflected as follows :—

Ichthab = he wrote. Idhmich = he slept.

Preterite.

3rd masc. sing.,	Ichthab	Idhmich, or -michli.
3rd fem. ,,	Chathbath	Dhimchath.
2nd masc. ,,	Chathbitch	Dhimchitch.
2nd fem. ,,	Chathbish	Dhimchish.
1st c. ,,	Chathbith	Dhimchith.
3rd c. plu.,	Ichthab	Idhmich.
2nd masc. plu.,	Chathbitchchun	Dhimchitchchun.
2nd fem. ,,	Chathbitchchin	Dhimchitchchin.
1st c. ,,	Chathbinnaḥ	Dhimchinnaḥ.

The 2nd masc., 2nd fem., and 1st c. plural, seem to be formed by adding the pronouns *hatchchun*, *hatchchin*, and *anaḥ* to the root with little change. The 2nd pers. pronouns, *hatchi* and *haski*, may be traced perhaps, but less clearly, in the 2nd sing. verbal forms. The other forms vary little from the classic, 3rd sing. and 3rd plural being pronounced alike. Note, however, the prosthetic vowel which almost always occurs in the 3rd person. I have noticed one exception : *raḥm*, *he loved*, instead of *irḥam*. Note also the alternative form, *idhmichli*.

The *present and future* are generally expressed by forms based on the participle ; the preformatives of *n* and *tch* may be explained as traces of *ana*, *anaḥ*, *hatchi*, &c., hurriedly repeated and then assimilated to the participle.

Singular, rôchib (*he rides*).	*Plural.*
3rd masc., rôchib.	3rd masc., rochbin.
3rd fem., rôchba.	3rd fem., rochban.
2nd masc., tchrochib.	2nd masc., tchrochbin.
2nd fem., tchrochba.	2nd fem., tchrochban.
1st c., n-rochib.	1st c., n-rochbin.

In subordinate clauses, as of purpose, &c., we find traces of the regular future (or imperfect) tense, as *zelli yidhmuch* (he went that he might sleep). The phrase *bettu yichthub* (he wishes to write) follows a colloquial Arabic idiom :—

Sing., 3rd masc., bettu yichthub.
„ 3rd fem., betta tchichthub.
„ 2nd masc., bettach „
„ 2nd fem., bettish „
„ 1st c., bennichthub.
Plu., 3rd masc., bettûn y-chuthbun.
„ 3rd fem., „ y-chuthban.
„ 2nd masc., betchun tch-chuthbun.
„ 2nd fem., „ tch-chuthban.
„ 1st c., bettah nichthub.

Note.—There is no trace of the *n* preformative in the 3rd masc. peculiar to the classic Syriac. It occurs instead in the 1st sing. and plu. The *y* preformative, foreign to the classic Syriac, occurs in 3rd pers. sing. and plu.

The imperative is :—

2nd masc. rchab ; 2nd f. irchab ; 2nd plural, ruchbun.

I did not hear an infinitive used. The verbal noun *riding* is *ruchb-tha*. I give suffixes of Iktal and Kutlith, 3rd and 1st pers. sing. of preterite.

	Iktal.	Kutlith.
Suf. 1st sing.	Kutal (he killed me)—	
„ 2nd s.m.	Kutlach.	Kutlitchach.
„ 2nd s.f.	Kutlish.	Kutlitchish.
„ 3rd s.m.	Kutli.	Kutlitchi.
„ 3rd s.f.	Kutla.	Kutlitcha.
„ 1st plu.	Kutlennah.	
„ 2nd pl. m.	Kutlanchun.	Kutlitchchun.
„ 2nd pl. f.	Kutlanchin.	Kutlitchchin.
„ 3rd pl. m	Kutlan.	Kutlitchun.
„ 3rd pl. f.	„	Kutlitchin.

Another way is to use *lomadh*, ex. *Inchus*, he butchered ; with suffixes—nachisil, nachislach, nachislash, nachisli, &c., &c.

Kotil (participial present), with suffixes : *katelli*, killing him ; *katella*, killing her ; *katîl*, killing me ; *katellach*, killing thee, &c. And so

the other forms as n-kotil (I am killing), n-katelli, n-katellach, n-katellich &c., &c.

The passive In-ktal has the endings of the active preterite: In ktal, inkutlath, inkutlitch, inkutlith, &c., &c.

The intensive. Bukkar, to know; Preterite, bukkar, bukrath, bukritch, bukrish, &c. &c.

The future (clearly based on the participle with *m*), mbukkar, mbukra tch-mbukkar, n-mbukkar, &c.

The *Pe Nun* verb *Inchus*, he killed, does not lose the *nun* in any part, but is inflected like the strong verb. Inchus, nachsath, nachsitch, &c.; *fut.* nochis, tchnochis, &c.; *imper.* n-chas.

The *Pe olaf* verb *achal* (he ate), *Pret.* achal, achlath, achlitch, &c.; *fut.* ôchil, ôchla, tchôchil, nôchil, &c.; *Imper. 2nd m.*, chôl; *2nd f.*, achûl; *2nd m. pl.*, uchlun; *2nd f. pl.*, uchlin, *I wish to eat* = bennîchul.

Ilif (both vowels short) may be a *Pe olaph*, or a *pe yudh* verb (classic).

Pret. ilif, ilfath, ilfitch, &c., &c.; *fut.* lôif, lôifa, tchlôif, nlôif, &c.

Ailif, to teach, is the causative form; *Pret.* ailif, ailfath, &c.; *fut.* mailif, mailfa, tchmailif, &c., &c.

I wish to learn = betnîlaf.
He wishes to learn = betti yîlaf.
I wish to teach = betnêilaf.
He wishes to learn = betti yêilaf.

Similar to this verb is *irib*, he grew great. *Pret.* irib, irbath, &c.; *fut.* roib, tch-roib, n-roib, &c.—

He wishes to increase = betti yîrub.
I wish „ „ = betnîrub.

The verb *ap* he gave, is the classic ܐܦ
Pret. ap, appath, appitch, &c.
Fut. map, mapya, tchmap, tchmapya, n-map, &c.
Imper. appa, *fem.* appai; *pl.* appun, appin.
Ap, with suffixes of the indirect object:

Suf.	1st sing.	c.,	appîl or applîl	=	he gave me.	
„	2nd „	m.,	appêch or applêch	=	„	thee.
„	„ „	f.,	appish or applish	=	„	thee.
„	3rd „	m.,	appêli or applêli	=	„	him.
„	„ „	f.,	appêla or applêla	=	„	her.
„	1st pl.	c.,	appêh	=	„	us.
„	2nd pl.	m.,	appêlchun	=	„	you.
„	„ „	f.,	appelchin	=	„	you.
„	3rd „	m.,	appêlun	=	„	them.
„	„ „	f.,	appêlin	=	„	them.

The forms with and without lomadh seem to be used indifferently.

Other suffixes are: I gave him = applilli; I gave her = applella; I gave thee = applillach; she gave him = applelli; thou gavest him = applitchli; they gave him = appulli; you gave him = aptchulli; we gave him = apnaḥli.

Map, with indirect object: mappîl, mapêch, mapîsh, mapêli, mapêla, mappêḥ, mappêḥun, &c., &c.

The causative is *owpil*, to deliver—*l* is used as an auxiliary letter apparently.

Pret. owpil, owplath, owplitch, &c.

Fut. mowpil, mowpla, tchmowpil, &c.

Imper. owpil, owplun.

Note the trace of yudh, lost in the peal form.

Ee vau verb.—Akam (note the prosthetic vowel) is inflected: Akam, komath, komitch, &c.; *plural* akam, komitchchun, &c.

Fut. koim, koima, tchkoim, &c.

Imper. Sing. masc. kôm, *fem.* kûm. *Plu. masc.* kumôn, *fem.* kuman.

Lomadh Olaph verbs.—Ishtch—he drank—is inflected.

Pret. Ishtch, ishtchath, ishtchitch, &c.

Fut. Shoth, shothya, tchoth, &c.; *plu.* shothin, shothan, tchothin, tchothyan, n-shothin.

Note how in *tchoth*, sh disappears before the preformative tch.

Imper. mas. Ishtcha or shtcha; *fem.* stchai; *plural* Ishtschôn or shtchôn; *fem.* shtchîn.

Iḥim, he saw.

Pret. Iḥim, iḥmath, iḥmitch, &c.; *plu.* iḥim, ḥmitchchun, ḥminnaḥ, &c.

Fut. Ḥom, ḥomya, tchḥom, &c.

Imper. masc. Iḥma, *fem.* ḥmai, *plu.* iḥmun, *fem.* iḥmin.

Iḥim, with suffixes:—

Ḥimni	= he saw him.	ḥ-mânun	= he saw them.
Ḥimna	= „ her.	ḥ-menchun	= „ you.
Ḥimnach	= „ thee.	ḥ-mennaḥ	= „ us.

Ḥom, with suffixes:—

ḥamîl	= seeing me.	ḥameḥ	= seeing us.
ḥamêch	= „ thee.	&c.	&c.
ḥamîsh	= „ thee (f.).	&c.	&c.
ḥameli	= „ him.		
ḥamêla	= „ her.		

If (to bake), Hebrew אפה, is both Pe olaph and lomadh olaph.

Pret. îf, ifath, &c. *Fut.* ôf, tchôf, nôf, &c. *Imper. masc.* ifa; *fem.* ifai; *plu. masc.* funin; *fem.* fînu.

In all these verbs the final radical disappears (except, perhaps, in forms ḥomya, ḥmai, &c.), and the regular endings attach themselves to the second radicals.

There is a group of verbs which have peculiar terminations: tholi he came; zelli he went; and k'oli, he sat (*i.e.*, sat as a servant, served). The first two are evidently the classic ܐܬܠܝ and ܙܠܝ, with an auxiliary lomadh appearing in some forms. K'oli seems to belong to the same class.

Preterite.

3rd sing., masc.,	Tholi.	Zelli.	K'oli.
„ „ fem.,	Thalla.	Zlella.	K'alla.
2nd „ m.,	Thitchlach.	Zlitchlach.	K'itchlach.
„ „ f.,	Thishlish.	Zlishlish.	K'ishlish.
1st „ c.,	Thîl.	Zlîl.	K'îl.
3rd, plu., masc,	Tholun.	Zellun.	K'olun.
„ „ f.,	Tholin.	Zellin.	K'olin.
2nd „ m.,	Thitchchun.	Zlitchun.	K'itchchun.
„ „ f.,	Thitchchin.	Zlitchchin.	K'itchchin.
1st „ c.,	Thinnaḥ.	Zlinnaḥ.	K'innaḥ.

Future.

3rd sing., m.,	Thêli.	Zelli.	K'elli.
„ „ f.,	Thiola.	Zlola.	K'iola.
2nd „ m.,	Tchthêch.	Zellach.	Tchk'êch.
„ „ f.,	Tchthiosh.	Tchzlush.	Tchk'iosh.
1st „ c.,	N-thil.	Nzil.	N-k'il.
3rd plu., m.,	Thyillun.	Zlillun.	K'illun.
„ „ f.,	Thyillin.	Zlellin.	K'illun.
2nd plu., m.,	Tchthilchun.	Tchzlilchun.	Tchkai'ilchun.
„ „ f.,	Tchthilchin.	„ in.	„ in.
1st „ c.,	N-thyillaḥ.	N-zillaḥ.	N-kai'illaḥ.

Imper.

2nd sing., m.,	Thoch.	Zêch.	K'ach.
„ „ f.,	Thosh.	Zîsh or Zellish.	K'ash.
„ plu. m.,	Thalchun.	Zlelchun.	K'elchun.
„ „ f.,	Thalchin.	„ in.	K'elchin.

The endings of these verbs in the pret. and fut. sing. and imp. sing. bear a strong resemblance to the pronominal suffixes attached to verbs, nouns, and the preposition lomadh. Only in the plural do the forms resemble those of the ordinary strong verb.

Notice here the resemblance of some of the forms to the strong classical imperative with the "ethical dative" with *lomadh*, ܙܠܝ ܠܟ, (zel loch), ܙܠܝ ܠܟܘܢ; also ܬܠ ܠܟ (tho loch) ܬܠ ܠܟܘܢ,

ܠܘ ܟܚܝ, &c. It seems as if an inflection, in preterite and future, had been built by analogy upon these imp. forms with *l*.

The verb *to be* (corresponding in use to the Arabic كان) is wob.

(*WOB*) *Preterite.*

3rd sing.	m.,	wob.	3rd plu.	m.,	waibîn.
,, ,,	f.,	waiba.	,, ,,	f.,	waiban.
2nd ,,	m.,	tchob or tchobi.	2nd ,,	m.,	utchibín.
,, ,,	f.,	ushîba.	,, ,,	f.,	utchiban.
1st ,,	m.,	unob or nob.	1st ,,	m.,	unibîn.
,, ,,	f.,	unîba.	,, ,,	f.,	uniban.

Future.

3rd sing.	m.,	ob or yîbtchob.	3rd plu.	m.,	aibûn.
,, ,,	f.,	tchib.	,, ,,	f.,	aiban.
2nd ,,	m.,	tchib.	2nd ,,	m.,	tchibîn.
,, ,,	f.,	tchiba.	,, ,,	f.,	tchiban.
1st ,,	c.,	unob or nob.	1st ,,	c.,	nibîn.

This inflection may possibly be based upon a combination of the verb ܐܝܬ and the preposition ܒ (beth). The colloquial Arabic expression FÎ signifies (like wob) *there is;* FINI comes to mean *it is in me* or *I can;* FIK, *it is in you* or *you can.* Some such use might explain the form *wob*, and the other forms might be accounted for if we regard *wob* as taken as a root, given feminine and plural terminations as in *waiba*, *waibin*, and *waiban*, and combined with pronominal fragments as in tchob, utchibin, and unob.

There is is also expressed by ûth ; there is not = tchûth.

There was is *woth.*

He became is *ithcan*, inflicted thicnath, thicnitch, &c.

Fut. thocan, n-thocan, &c.

The preposition ܠ (lomdah) takes its suffixes thus :—

1*st sing.*, lîl ; 2*nd sing.* masc., lêch ; 2*nd sing. fem.*, lîsh ; 3*rd sing. masc.*, lêli ; 3*rd sing. fem.*, lêla ; 1*st pl.*, leah ; 2*nd pl. masc.*, lêlchun ; 2nd pl. fem., lêlchin ; 3rd pl. masc., lêlun ; 3rd pl. fem., lêlin.

The preposition lomadh is used in such phrases as : *mor il baitha*, the master of the house ; *Ob il Machoîl*, Michael's father.

A few adverbs, particles, &c. :—

Hosh	= now.	Lina	= where ?
Il'il	= up.	Emma	= where ?
Ira'	= down.	Hannuc	= where ?
Imodh	= to-day.	Ikdhum	= before (conj.).
Rumish	= yesterday.		
Imhar	= to-morrow.	Aja'	= why ?
Bothar	= after (prep.).	Tchu	= not.

Kayyam	= after (conj.).	Hutta	= in order that.
Hocha	= here.		
Dhuk or dhikli	= when.	Laow or Izzatchob	= if.

I add a Ma'lula-Syriac rendering of the parable of the Prodigal Son. The Ma'lula baker-boy, Machoil, like most of his fellow-townsmen, can neither read nor write, and does not easily follow "high Arabic." However, I repeated the parable to him in Arabic, simple, but as nearly equivalent to the original Syriac as possible. He gave me, bit by bit, the following translation. Later, by the aid of an oil lamp in the dark gloomy oven, I read the parable as given by him, to some Ma'lula men and boys, who easily re-translated it into Arabic.

Hence it will give a fair idea of the Ma'lula style of narrative.

Luke xv, 11–32.

11. Woth ghabrona ilê ithr ibr. 12. Z'ora amel lobu. Ya ippai applîl kusmthi m-molach. Iksam lêlun 'ishtchi. 13. Bothar yoma kalil, ajma' ibri z'ora chullemet, u-zelli 'a blato bhîdha, u-illhil rowḥ il moli musrif bahar. 14. Dhuki rowwaḥ chullemet t-ghappi, ithcin chufna bahar bathin blato, u-ithcin muḥtchaj. 15. U-zelli u-k'oli ghap laḥadh marôil lathin blato, u-owpli l-bistchano yir'al l-hzîro. 16. U-bettu yimlel ghowwi mnenna khurnûb t-uchlilli ḥ-zîro. La bernash appêli mit. 17. Dhukkil 'owwit l-nephshi omar; uchma aghîr ghap lippai t-ghappai lehma zayyit, u-ana hocha ahl-cith mchufna. 18. N-kônzil la' lippai, u-namelli, ya ippai, ukhtith lishmo u-kommach. 19. U-lophash il fristcha ḥutta tchemmin ibrach. Shûn uchtaḥadh min aghiroch. 20. Akam, zelli la'lobu. Dhukkil wob ba'idh ḥemmi obu, tchhannan 'alê, arhit u-iskat 'a kdholi, u-neshki. 21. U-amelli ibri, ya ippai ukhtith l-shmo u-kommach, u-lophash il fristcha ḥutta tchemmin ibrach. 22. Omar obu laghirô, Aithûn chusso t-aḥsin u-chuslulli, arnhun khotchuna b-îdhi, u-surmoytha b-rughri. 23. Aithun 'akkusha ma'lufa u-nuchsunni, u-nochlin u-nḥodhin. 24. Hanna ibr wob imith u hosh aytib, wob dhayya u-iltchki. U-abbit ḥodhin. 25. Ibri rappa wob b-hokla; u dhuki tholi u-akrib il baitha ishmi' ḥessa nowbtha u-reghdha. 26. U-iz'ak 'a lahadh m-naghiro, u-sha'li; mo ôth. 27. U-amelli, Honach tholi, u-obuch inchas 'akkusha ma'lufa, akbli bisslomtcha. 28. U-aghdhib, u-la sob ya'bur; u-infik obu y-tulpenni. 29. U-jowwibi u-amel lobu; ana mukhtemlach chullan ishno, u lîmodh la chulifitchach m-mit. B-ômrach lappitchil ghudhya ḥutta niḥidh 'amlistikoi. 30. Lacawn dhuki tholi hanna ibrach t-rowwaḥ il moli ḥarîma t-zônyan nachsitchlêli 'akkusha ma'lufa. 31. U-amelli, ya ibr, hatch 'im chullan yomo, u-chutilîl lech. 32. Wob wojib 'alênaḥ niḥidh u nimbsut; ḥonach hanna wob imith u-iḥ, u-wob dhayya u-iltchki.

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Beirût, Syria.

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NOTES 11.—*Woth* = there was. *Ilê* to him. 12. *Amel lobu*, from amr, to say; r changed to l before l in *lobu* = to his father. *Ya* = O, common

Arabic mode of address. *Applil* = give me; *appa* is give. *Kusmthi m-molach*, the Arabic roots are used, my share of thy property. 13. *Bothar yoma kalil;* another expression is *bothar uchma yom*, after some days. *Chullemet i.e.*, ܟܠܡܬ. *Blatô*, plural form used for *district*; the sing., *Blota* signifies *a town*. *Ilhil* = there; *il moli* = the property, a use of the Arabic article. *Musrif* (Arabic) *bahar* = great expenditure, the simple dialect fails to express the "*riotous living*" better than this. 14. *Rowwah*, we have had the form *rowh* with just the same meaning—an illustration of the flexibility of form we find in many words which lengthen or shorten as the rhythm of the sentence may demand. For *when* we have *dhuk*, *dhuki*, *dhukkil*, *dhukli*, the form depending on the first letter of the next word as well as rhythm. *T-ghappi* = which he had; it is the classical ب; I find no trace of it as a preposition; *ghap* is *with* denoting possession, &c. 15. *K'oli . . . blato* = "served at the house of one of the masters of that land." Observe the redundant use of the l. *Lathin* = *l-hathin*; *owpli* = sent him, *owpil*—aphel from *ap*. *Yir'al* we have noticed the y preformative in clauses of purpose. 16. *Mnenna*, from those; *t-uchlilli h-ziro*, which the swine eat (them). From achal w. suffix. *Bernash* = ܒܪܢܫ; mit = ܥܡ. *'owwit*, the Arabic عاود *ghap lippai* = at my father's, redundant; *t-ghappai*, who have, lit. who with them. 18. *N-kônzil*, I will arise and go, a compound. The kônzellah! let us be off! is very common; *la'lippai*, very redundant; *namelli*, r lost or assimilated w. l of suffix. 19. *Lophash il fristcha* = there is no longer to me the right. *Hutta tchemmin* = that thou shouldst call me. 20. *Akam zelli*, he arose (and) went; conjunctions are often omitted; *hemni* = *ihm* with suffix. The Chaldaic חכיא equivalent to Clas. Syriae ܡܢ *tchannan 'alê* = *Arabic; Arhit* = he ran. 22. *Aithun*, imper. from *Aith*, causative of *tholi*, the fut. (part. form) is maith, *t-ahsin* = which (is) the best. *Chuslulli* = dress him. *Surmoytha* = Arabic صرمايتة. 23. *Ma'lufa* = Arabic — معلوف *nuchsunni*, imper. from inchas, with suffix. 24. *Hanna ibr* = this my son. *Hosh* = now. *Iltchki Ar* = التقى *Abbit hodhin*, they began to be merry; use of participle 25. *Akrib il baitha*, drew near *to* the house, *il* being probably the prep., with prosthetic vowel rather than a borrowed Arabic article. *Hessa* = Arabic حس 26. *Sha'li* Hebrew = שאל, Syriae = ܫܐܠ; the Ma'lulites insert an *ee* in place of *olaph*. *Mo oth* = what is this? They also say, *mo hanna*. 27. *Akbli*, &c., I could get no word for *because* (he has received &c.); such connections are seldom used. 28. *La sob ya'bur* = he did not wish to enter, *y-tulpenni* = that he might intreat him; Arabic = يطلبوا 29. *Mukhtemlach*, part. with suffix; Arabic root = خادم *Chullan ishno* = all these years; *limodh*, to this day; *la chulifitchach*, I have cost thee nothing. *i.e.*, no trouble. *Arabic* كلفتك *m-mit*, in anything or of anything; *b-ômrach* = "in thy days," *i.e.*, never; *lappitchil* = thou hast not given me; *'amlistikoi* = 'am-listikoi, together with my friends. Arabic = اصدقاء 30. *Lacawn* = but, however; *harîma t-zonyan* = women who (are) harlots; *Nach·*

sitch-leli = thou hast killed for him. 31. *Hatch'im* = thou (art) with me; *chutilil* = *chul-t-lil* = all which (is) to me, all that I have. 32. *Wojib 'alénah*, Arabic واجب علينا

Since my completion of this article Dr. Van Dyck has called my attention to the book درّة الغواص في اوهام الخواص by الحريري where reference is made to some changes of consonants, &c., similar to what we find in the Ma'lula dialect. The كشكشة ربيعة (an Arab tribe) is changing the كاف الوقف to شين; as مابش for مابك; and sometimes the كاف, which is not the كاف الوقف, is changed to ش, as in و جيدش جيدها عيناش عيناها.

Change of hamzeh to ع is also mentioned as in أعن توسمت for ان توسمت.

In Bethlehem, and among some Bedouins, to-day ك is pronounced like TCH. In Nazareth ق loses its guttural force. The Nuseiryeh, near Sofita, say هِنْت instead of إنْت, for the 2nd. pers. sing. of the pronoun.

F. J. B.

ESSAYS ON THE SECTS AND NATIONALITIES OF SYRIA AND PALESTINE.

Essay I, Introduction.

By Rev. George E. Post, M.A., M.D., F.L.S.

The Physical Features, Climate, Soil, Water Supply, Natural History, and Health of Syria and Palestine.

I.—*Physical Features.*

It is not the object of the present essay to present an exhaustive view of the topics enumerated in the title, but to show their bearing on the march of population in these lands, and the preservation of the races now represented, as well as the origination and destruction of those which have been represented in the past.

No country of equal size contains so strange an aggregate of heterogeneous elements, such a medley of irreconcilable sects and races, as the

one which we are to pass in review. No country has been so scourged by war, so often trampled under foot and ruined, and yet it has never long been without a considerable population, often a very dense one. No other country has retained such distinct and strongly marked traces of the vicissitudes of its history. None is so complete a microcosm in the variety of types of civilisation and barbarism. To attempt to account for these strongly marked peculiarities simply from history will lead only to partial and one-sided results. It will be our purpose to show how, under the guidance of an unerring providence, the physical features, climate, soil, water supply, natural history, and health of Syria and Palestine, have influenced the population, history, and physical, moral, and religious characteristics of the people.

The insular character, the sinuous coast, the geographical position, and the great mineral and agricultural resources of Great Britain have had a large share in making it the great commercial and naval power of Europe. The lofty mountains, and inaccessible fastnesses of Switzerland have nurtured that spirit of independence and love of liberty which have made that land so illustrious in the history of the world. But neither of these countries has owed more of its peculiar development to its physical features and surroundings than have Syria and Palestine.

Syria and Palestine present in a geographical area of, say 50,000 miles, more diversities and anomalies than any equal territory on the surface of the globe. In this territory is the deepest valley, 1,300 feet below the level of the sea. While its mountains are not as lofty as the Alps, their nearness to the sea gives them a relative elevation as striking, and, in a physical sense, as important. They are surrounded by deserts, with a line of demarcation almost abrupt.

There exists between parts of this territory, quite near to each other, the widest difference in isolation from or in connection with the rest of the eastern world. Thus the southern and eastern deserts are so isolated, that they have been, from time immemorial, inhabited by almost independent tribes of Arabs, whom Assyrian, Babylonian, Persian, Greek, Roman, Saracen, and Turkish power has striven in vain to subdue. Thus a prime factor in preserving a race, language, and customs has been the physical features of their country. Again the mountain fastnesses of the Nusairy range, and of Lebanon, have had a large share in the semi-independence of the tribes which inhabit them, and have made possible the continued existence without fusion of such sects as the Nusairîyeh, the Maronites, and the Druzes,. But inaccessibility is the exception and not the rule in this territory. The level strip of sea coast, with openings to the interior by the plains of Esdraëlon, Merj 'Ayun, 'Akkar, and Issus, has been a highway for the conquering armies of Egypt, Assyria, Babylon, Persia, Greece, Rome, Tartary, the Crusaders, Saracens, Turks, and French ; hence, while the hill countries and deserts have contributed to *preserve* fragments of the original races unaltered, the plains have invited the intrusion of new races, and produced a mixture, unparalled in the history of mankind. Canaanite, Hittite, Hebrew, Syrian, Arab, have become intermingled with

all the historic races of Europe, Asia, and Africa, even to the blue-eyed and flaxen-haired Dane and Norwegian. Syria and Palestine have been subdued and overwhelmed oftener than any other part of the world, and such seems to be their destiny until the entrance of a new order of things. Let us see how this has occurred.

Syria and Palestine, including the Sinaitic peninsula, form the geographical meeting point of the European, Asiatic, and African continents. For Asia Minor, although included by its sea coast in the Asiatic mass, is essentially southern European in its climate, productions, ethnology (with the exception of the modern Turkish graft), and its history.

The salient physical feature of the country is the two mountain ranges which intersect it from north to south, parallel to each other and the coast. Between the westernmost of these ranges and the Mediterranean Sea, is the narrow maritime plain of Philistia, Phœnicia, and 'Akkar. Between these two ranges is the table-land of Hamath, Hums, the lacustrine basin of Cœlesyria, and the sunken trough of the Jordan, Dead Sea, and the 'Arabah. Eastward of the easternmost range is the table-land of Moab, Gilead, Haurân, Damascus, and Aleppo, stretching eastward to the Syrian Desert, and northward to the Euphrates Valley.

So pronounced are these ridges, that they turn most of the principal rivers of the country into a north and south course, in the cleft between the two chains. Thus the Orontes, taking its rise in the valley of Cœlesyria, flows northward to a little north of the latitude of Antioch, and then breaks abruptly south-westward around the shoulders of the Nusairy and Cassius chain to the sea. The Leontes, rising near the Orontes, flows southward through the valley of Cœlesyria, and, a little north of Tyre, reaches the Mediterranean through the gap between Lebanon and Galilee. The Jordan, rising on the westward slopes of Hermon, flows southward in its strange chasm, to be lost in the Dead Sea. The waters of the Tîh flow northward, through the 'Arîsh, and those of the 'Arabah and Edom also northward, through the 'Arabah, to the Dead Sea. Only the lesser torrents flow westward by a more or less direct course to the Mediterranean, and the Barrada and 'Awaj eastward from Anti-Lebanon and Hermon to the Syrian Desert.

As before mentioned, the maritime plain opens by four broad depressions in the hill country to the interior plains. These great and easy highways have had a controlling influence on the destinies of the land. An army invading the Euphrates Valley from Egypt, or vice versâ, could march with ease along the coast to Acre, across Galilee by the plain of Esdraëlon and enter Haurân, whence there is hardly need to make roads to enable chariots, as well as horse and foot, to penetrate where they would to the northward. But the table-land of Haurân, Damascus, and Aleppo did not offer a more sure and safe road to an army, than did the Syrian desert hem it in from the east, and compel it to march northward or southward. Hence the great campaigns were always on north and south lines. The forces of Assyria and Babylonia made a wide detour to reach those of Egypt. No conqueror had the foolhardiness or the

resources to enable him to cross the Syrian desert to seek his foe. For this reason the kingdom of Palmyra, sequestered in the desert, was long safe from assault and conquest.

An invading army from Egypt might pass the plain of Esdraëlon, and enter Cœlesyria by the valley of the Leontes, or debouch around the southern or northern shoulder of Hermon into the Damascus plain. Or it might pass northward by the Phœnician plain to 'Akkar, and thence eastward to Hums, Hamath, and Aleppo. Or it might advance northward to the Orontes, and so penetrate to the interior. Campaigns along all of these lines were undertaken by the great military monarchies of northern Africa and Western Asia, and later of Europe. Many times these expeditions merely claimed a right of way, and seem to have interfered little or not at all with the inhabitants. At others they formed alliances with the peoples who lay on their line of march, and thus held open their own communications and line of retreat. But it could not be otherwise than that a land so accessible from every side should have been overrun and conquered by the fierce military monarchies at whose mercy they lay.

The inevitable result of the repeated conquests of the plains and more accessible mountains was to drive back the refugees into the fastnesses, and each wave of war which rolled upward left on retiring a fragment of some race or religion on the upper terraces, and in the secluded valleys of the mountains.

II.—*Climate and Meteorology.*

The physical features of the country, so exceedingly varied, and so important in their influence on political history and ethnology, exercise also a controlling influence over the climate and meteorology, which are more diversified than in any similar extent of territory on the globe.

As the great mountain chains determine the course of the rivers, so they determine the distribution of the rainfall. The Tîh and Sinai are under the dominion of the climatic laws which govern north-eastern Africa, and seldom have any considerable rainfall. The dry air of the Sahara, not passing on its way to these regions over any considerable body of water, remains dry, and hence, even the lofty mountains of Sinai do not often find moisture to precipitate, and whole winters may pass without a shower. But the winds that strike the coast range of Palestine and Syria are loaded with moisture in their passage over the Mediterranean, and this moisture is condensed and poured down in copious rains over the seaward slopes of this range, and the maritime plain. The rainfall increases as you pass from Southern Palestine to Lebanon, and probably attains its maximum under the alpine summits of Sunnîn and Makmel. The rainy season lasts from the middle or end of November to the end of March. There is a month of occasional showers before and after this season, but the heaviest rains of the year usually occur in the months of December, January and February.

As much of the moisture of the air is extracted in its passage over the maritime chain of mountains, there is a considerably reduced rainfall over

the central plains and the eastern chains. These chains extract still more of the moisture of the air, so that the rainfall of the eastern table-land is much smaller than that of the coast and adjacent hills. Thus, while the average rainfall of Beirût is about 35 inches, and that of the central zone of Lebanon probably from 50 to 55 inches, that of Damascus will hardly exceed 20 inches, and the amount diminishes as the distance eastward from the mountains increases. Those parts of the eastern table land which lie open to the heavily charged clouds coming from the west enjoy a greater rainfall and more fertility than those which are cut off by intervening mountains. Thus Haurân, which lies in the gap between the mountains of Gilead and Hermon, and is backed to the eastward by a high mountain chain, enjoys a heavy rainfall, and corresponding fertility. The same is true of the region about Hums and Hamath.

The heavily wooded chains of Cassius and Amanus attract moisture, and enjoy a longer rainy reason than southern Syria and Palestine, and have occasional showers even in midsummer.

The temperature of the different portions of our district depends on their altitude more than their latitude, and varies from the tropical heat of the Dead Sea Chasm, to the alpine temperature of the higher peaks of Lebanon and Anti-Lebanon. The average summer temperature of Beirût at 10 a.m. is about 84° F. in the shade. This would probably be a mean for the coast. But, owing to the low dew point, this temperature, in itself so moderate, seems much higher than it really is. At an altitude of 2,500 feet on Lebanon the average for the same season and hour is about 77° F. The air at this altitude is dry, and this temperature is, therefore, by no means oppressive. The temperature of the upper inhabited regions of Lebanon, the highest of which are 6,000 feet above the sea, is quite subalpine, and the winters are so severe that the better classes and many of the poorer people of Ehedin, near the Cedars, winter on the Tripoli plain. Snow covers the higher peaks during the winter months, and rests on their summits throughout the year.

On the other hand the temperature of the Jordan Valley is tropical. The thermometer ranges as high as 120° F. in the shade at Jericho in August. The harvests of this torrid depression mature a month or six weeks earlier than those of the sea-coast, and two to three months earlier than those of the hill country.

In speaking of the temperature in the shade in this land, we must not forget that it quite inadequately expresses the intense fervor of the direct rays of the sun, when no cloud intervenes to mitigate the heat. On the sea-coast the sun temperature often reaches 145° F., and sometimes over 150° F., and in the Jordan Valley and in the narrow gorges which debouche into the basin of the Dead Sea, the heat is blistering. One of these wadies is appropriately termed Wadi-en-Nâr, the Valley of Fire.

The temperature of the plateaux is subject to extremes of heat, and to bitter cold winds. It is not uncommon to have a summer heat of 95° to 100° F. in Hums and Aleppo, while storms almost like the blizzards of the western United States sweep over those boundless plains in winter.

All parts of the country are exposed to siroccos, which are the driest and most exhausting of all the winds of the country. During such winds the surface of the soil is parched and cracked, the covers of books become warped, doors snap with a sound like a pistol shot, the skin becomes dry, and the nervous system is at its highest tension. These siroccos prevail for the most part in the early spring, and are often followed by refreshing rains. They are most intolerable when they occur in mid-summer, and especially so on the great plains of the interior, where they seem like the blast of a furnace.

The rainy winds are usually from the south-west. Occasionally there is a shower from the north, and rarely from the east. But the heavy storms of winter always come up obliquely to the ccast line, out of the Mediterranean.

The above particulars of the meteorology of the country denote a climate in the plains of a subtropical, and in the mountains and plateaux of a mild temperate character, with sufficient variety to cultivate strong contrasts of character, illustrated by the extremes of the effeminate inhabitants of the Jordan Valley, and the sturdy mountaineers of Alpine Lebanon. In general, the climate is one which is adapted to the existence of a large population. There being little need of fire for heating houses, the scarcity of fuel would not be felt. The long summers made it a matter of comparatively trifling cost to provide necessary clothing. From these two causes a larger population could exist than in a land where fuel and warm clothing are essential to existence. Again, the variety and range of temperature and rainfall have a most important bearing on the development of all the resources and capabilities of the country. Those plants which require moisture find it. Those which flourish best without it are also suited. Hence almost every foot of land not actually rock produces something directly or indirectly useful to man, and even the clefts of the rocks furnish pasture of no little value to sheep and goats.

III.—*Soil.*

The soil of the maritime plain is usually a fertile brown loam, with sandy reaches behind the prominent capes. That of the hill country of Palestine and Syria is also a brown loam mixed with the detritus of limestone rocks, usually thin, and, except where terraced, liable to be washed down by the torrents into the valleys. When terraced it yields a small harvest of the cereals, but is especially adapted to the fig, the mulberry, and the olive, and from 2,500 feet to 5,000 to the vine.

The soil of Cœlesyria is that of the bed of an ancient lake, a rich brown, and in places almost black loam, of inexhaustible fertility. Notwithstanding the primitive ploughs, which only scratch the soil, the rude method of sowing, and the failure to manure, this plain still furnishes luxuriant crops of wheat and maize, sesame, and sorghum. The only attempt at scientific agriculture is the rotation of the crops of maize and wheat. This, and leaving portions to lie fallow, seem to suffice to maintain a fertility which is immemorial.

The soil of the Jordan Valley and of the plain of Esdraëlon, and the lesser plains of the uplands of Palestine, resembles that of Cœlesyria in fertility and strength.

Eastward of the Jordan the soil of Moab is thin, and for the most part adapted to pasturage. The rolling park land of Gilead is partly wooded, and adapted only for forest growth, and partly a grazing country, as in the days of Reuben. Only a few favoured spots are specially adapted to the raising of wheat and other grain.

Haurân, El Leja, and the great plains which stretch away to the northward as far as Aleppo, are largely volcanic. The tufas and other products of the disintegration of the volcanic rock, furnish an exceedingly rich soil, specially adapted to the growth of wheat. Seven hundred camel loads of wheat are said to be carried daily to Acre during the season immediately following the wheat harvest of Haurân.

As a whole, Syria and Palestine, while containing much rocky and unproductive territory, are countries of great fertility and resources. But their fertility depends in a peculiar manner on the industry of man. The soil of the hills must be terraced, or it will be washed down their sides by the winter torrents ; it must be worked over to clear it of rocks and stones, or it will not give good nourishment to the plants and trees which it bears. But given a carefully-prepared soil, and sufficient water, and there seems no limit to the agricultural possibilities of this land of fertilising sunshine. Water, however, is a *sine quâ non*, and as the season of rain is limited, it was necessary that there should be a provision for the storage and distribution of water over all the country, through the dry as well as the wet season.

IV.—*The Water Supply.*

Few countries have a more admirable provision for the collection, storage, and distribution of water than Syria and Palestine. The limestone rocks which constitute the greater part of the mountain chains have numerous and very extensive caverns, which are natural cisterns for the storage of the surface water which percolates into them through the fissures of the overlying strata. In the centre of the north and south mountain-chains rise the lofty ranges of Lebanon and Anti-Lebanon, the summits of which are covered with snow during the winter, and carry the snow of one winter into the next. The summits of Jebel Sunnîn and Jebel Kenîseh, and parts of the chain above the Cedars, are so arranged as to collect and retain vast drifts of snow. The top of Sunnîn, for example, consists of a series of funnel-like depressions from 250 to 1,200 feet across, and from 100 to 250 feet deep. These become almost or quite filled with snow in mid-winter. From the bottoms of these funnel-like depressions there are channels leading down to the great caverns in the heart of the mountain mass, and through these channels the water which melts from the snow-drifts flows down to swell the

supply in the reservoirs, from which it breaks forth in perennial fountains at different levels down to the sea, and even under its surface. The top of Jebel Makmel is a broad plateau with transverse ridges across it, and between these ridges lie the snow-drifts, and into depressions of the plateau runs the water, to be lost in the mountain mass beneath, and then reappear in such streams as the Kadîsha, which springs forth, an ice-cold torrent, below the "Cedars of the Lord."

Similar store-houses of snow and water are found on the tops of the other peaks of Lebanon and Anti-Lebanon, and in their inmost recesses. The lake of Yamûni is drained by an underground channel, and perhaps reappears in the great fountain of Afka, which is about 400 feet lower, on the opposite side of Lebanon. In that case the underground stream must tunnel the entire breadth of the mountain chain at an elevation of over 4,000 feet.

The strata of the limestone chains are nearly horizontal, and there is abundant evidence that the water stored at the higher levels is distributed as follows: copious fountains burst forth at the base of the summit cones and ridges, as those of Neba'-el-Leben, Neba'-el-'Asal, Neba'-el-Hhadîd, the fountain of the Kadîsha, and many others: Another portion of the water percolates through the upper strata to other intramontane reservoirs at different lower levels, and is then conducted by the slightly dipping strata in channels between these strata, and breaks forth by side channels in fountains along the course of these rocky aqueducts. Nothing is more striking in travelling through Lebanon than to see from some commanding point of view the villages along both sides of a valley, like that of the Damûr, lying along horizontal lines, corresponding with the strata between which the fountains gush forth. In some cases these rocky aqueducts are many miles in length, and a single one manifestly acts as a water-main for a large number of villages. A few hundred feet below such a concealed watercourse will be another tier of villages, supplied by a second conduit, with its lateral channels to furnish the life-giving fluid to the fountains along its course.

There are also underground rivers flowing to great distances, and supplying fountains even to the level of the sea, or beneath its bed. In this way must be explained the large number of perennial springs which flow through the rainless months along the sides of the mountains of Palestine, and in the Nusairy chain, which have no snow-clad peaks to supply water through the seven months of summer. Doubtless there are many of these channels which work more or less on the syphon principle, and some of them give rise to intermittent fountains of a most interesting kind.

The capacity of the great storage and distributing reservoirs of the mountains may be inferred from the vast quantity of water which flows in the numerous streams of the country. The aggregate of the Orontes, the Leontes, the Jordan, the Barrada, the 'Awaj, the Kadîsha, the Dog River, and the Damûr, beside the numerous smaller streams, which flow into the Mediterranean, and the Dead Sea, and the Damascus plain, is

enormous. Much of this water is used for irrigation and never reaches the mouth of the stream. Many streams are wholly used in this way in summer. But, notwithstanding leakage, evaporation, and irrigation, a vast volume of water is poured out steadily through the long succession of rainless months; and if we add to this the fact that, by digging, copious supplies of potable water can be obtained almost anywhere on level ground, we shall gain a more adequate conception of the provision made for fertilising this land and supporting a large population.

The bearing of the fertility of the soil and the adequate supply of water for the wants of all whom the soil can feed, on the continuity of a large population in these lands through all the vicissitudes of the ages, is evident. A land in which the water supply is on the whole stable and certain, and the soil responds to the labourer's toil, is a land which will attract back again a population however it may have been "scattered and peeled." While there are irregularities in the amount of the rainfall there is seldom a water famine. The drought of summer is offset by the fact that the winter is a period of vegetable growth, not of sleep under a mantle of snow as in cooler climates, and that, with irrigation, two or more crops may be gathered in a year. It is still further offset by the fact that several of the staples of the country, as the mulberry, the vine, the olive, the fig, and the durrah, are independent of rain, except during its proper season, and there is a superabundance of water for all crops which require irrigation.

It is not, then, to be wondered at that a succession of wars, and desolations, and captivities, which would have ruined a less favoured land irreparably, as they have ruined Mesopotamia, large parts of Persia, and Northern Africa, have never for any long time prevented Syria and Palestine from having a considerable population. And while the country now supports far fewer people than it once did, and may do again, yet every year of peace multiplies its population, and it needs but the protection of a stable and just government to cause it once more to swarm with people "as the sands on the sea shore for multitude."

V.—*Natural History.*

The *Flora* of this land is the richest of any country of its size in the world. The great diversity of soil, climate, rainfall, sun exposure, elevation, and depression, gives opportunity for the growth of a large number of species and varieties. The flowering plants number over 3,000 species, distributed through 850 genera and 117 orders. Many of the genera have a large number of species. Thus, Ranunculus has 28, Silene 58, Trigonella 31, Trifolium 48, and Astragalus 115 species, and several other genera have from 30 to 60 species apiece.

Each district has its distinctive flora. The *maritime plain* has the palm, the sugar-cane, the colocasia, the banana, the orange, lemon, citron and mandarin orange, which characterize its gardens and fields. In the dunes on the coast grow a large number of plants which are only adapted

to the blown sand, and seem to be provided to prevent this sand from overwhelming the fertile land. In the warm, moist air of the coast plain most sub-tropical plants can be cultivated in the open air.

The *lower and middle zone of the mountains* is the favoured home of the mulberry, the fig, the olive (which also grows luxuriantly on the maritime plain), and the vine. Tree culture is the main industry of Lebanon, and a considerable one on the mountains of Palestine. The cereals grown in the mountains are insufficient for the support of the population, and cannot be rated as a staple of the district. The main reliance of Lebanon is the mulberry, which not only furnishes the food of the silkworm, but later that of the sheep and horned cattle.

Anti-Lebanon is far less fertile, and has far less inhabitants than Lebanon. Tree culture is less common, but there are far more forest trees here than in Lebanon. But at similar altitudes corresponding productions are raised.

The forest trees of the *middle mountain zone* are the Aleppo Pine, the Hackberry (*Celtis Australis*), three species of Maple, the Portuguese, Lebanon, evergreen, Vallonia, Cerris, and other Oaks, the Syrian Ash, the Juniper, the Cypress, the Styrax, the Arbutus (which attains the magnitude of a considerable tree in the park-like groves of Gilead), the Terebinth, and, in Northern Syria, the Beech and Hornbeam, and others. The Walnut is generally cultivated as also the Carob. All the ordinary fruit trees, as apples, peaches, pears, plums, apricots, medlars, &c., flourish.

At an altitude of about 6,000 feet the famous Cedar of Lebanon flourishes, and doubtless once covered the subalpine zone of Lebanon and Anti-Lebanon. It is now found in only a few groves of Lebanon, and is extinct in Anti-Lebanon, but grows in considerable quantity in Amanus.

Of wild fruit trees there are few in our district. The sour plum (*Prunus ursinus*) is a plant of the middle and subalpine regions of Lebanon and Anti-Lebanon. A minute dwarf cherry flourishes on the alpine peaks. There is the Arbutus Unedo, L., the Jujube tree, the Hawthorn, the Syrian Pear. Of shrubs almost the only one with an edible fruit is the wild Blackberry.

The characteristic flora of the *almost treeless plains of the interior* consists of numerous species of Astragalus, Centaurea, Phlomis, and Salvia. These plains are the great wheat producing regions of the Levant, and along them armies have always been sure of supplies. Maize, durrah, sesame, barley, and in wet places rice, flourish in this district. From some prominent shoulder of the mountains one of these great fertile plains appears in the spring-time a broad sea of green, and later, in the harvest-season, a sea of gold, stretching away as far as the eye can reach, or to the base of the range of mountains which constitutes its boundary.

The flora of the *Jordan Valley*, besides sharing the characteristics of the lower levels of Palestine, has an element of tropical vegetation, similar to the upper Egyptian and Nubian. The Zaqqûm, or so called Balm of

Gilead Tree, grows nowhere in our district but in this valley. The same is true of the Papyrus, *Salvadora Persica*, *Calotropis procera* (the Apples of Sodom), *Solanum coagulans*, and other plants. The torrid heat of this valley causes its crops to mature very early, and its abundant water is capable, by irrigation, of making it, what it once was, a garden of the Lord.

The *alpine peaks of Lebanon, Anti-Lebanon, Cassius, and Amanus* support a copious and peculiar vegetation, of most interesting botanical character. This vegetation, although useless to man directly, is of great indirect value, as it furnishes the food of large flocks of goats, which are a source of livelihood to no inconsiderable number of goatherds and their employers. These goats, however, do more harm than good to the country, by devouring all seedling trees, and so preventing the second growth o the forests, so needed on the higher mountain ranges, both as a direct source of wealth, and as a regulator of the rainfall.

The *desert flora* is as peculiar and interesting as that of the alpine regions, and like it, although directly of little value to man, indirectly contributes to his maintenance by supporting considerable herds of camels, and in some places asses. Not all of the so-called desert is unproductive. The valleys of Sinai have, until recently, contained large numbers of acacia and tamarix trees, which have furnished much charcoal for the Egyptian market. The supply is even yet not exhausted. The great table land known as the Syrian Desert, furnishes pasturage for innumerable flocks and herds, and supports a large nomad population.

It is evident from the foregoing sketch of the botanical regions of this land that the diversified productions of the different parts of so small a territory have had their full share in its strange history. Thus the fertility of the coast and the great plains of the interior, as well as of the depressions which connect them with the coast, has had as much to do with making them highways for conquering armies as their ready accessibility. An Egyptian or Assyrian Army could march from its base to its objective point almost without commissariat, and find abundant supplies by the way. On the other hand, the rugged surface and stony soil of the mountains, ill-adapted to the production of the cereals, could not furnish an invader with necessary supplies, thus adding to the cost and difficulty of a campaign the necessity of providing a commissariat. Yet in their remote fastnesses or fortified towns the natives could preserve a sufficient store of food to enable them to withstand a siege, and when it was over their forests and upland pasturages furnished a means of quickly regaining a livelihood, while their less fortunate brethren of the plain had been despoiled of all they possessed, and perhaps led away into captivity.

Furthermore, the deserts, while inaccessible to foreign armies, furnished sufficient sustenance to the indigenous shepherds and warriors who roamed over them.

Thus, while parts of the country were being depopulated in every campaign, there remained hives of population, furnished with scanty but

sufficient nourishment for their hardy frames and frugal habits, ready to swarm out over the desolated plains and re-people the fertile districts so inviting to those who had known only the hardships and privations of mountain and desert life.

The *Fauna* of Syria and Palestine in Bible times was more varied, and included more of the larger animals than are now to be found. It is probable that the hippopotamus, the wild ass, and the lion were found in Palestine in historic times. It is asserted that the crocodile still exists in the marshes of the Zarqa and the Kishon. But from early times the wild animals of the more formidable kind were extirpated or driven back into the deserts or remoter mountain districts. Of the larger mammals the bear still exists in small numbers on the high peaks of Lebanon and Anti-Lebanon ; the leopard is occasionally met with throughout the wilder forest and mountain regions ; the oryx, which inhabits the deserts adjacent to Palestine ; the fallow deer, of which a few stragglers inhabit Carmel and the wadies of Galilee ; the ibex, which is found in the deserts and eastern and southern mountains, as far as Sinai ; the Bubale, or Boqr-el-Wahhsh of the Arabs ; the addax, and the kebsh—but few of them are ever seen, and fewer captured or killed by man. The chase, therefore, is of no great importance in this land for the maintenance of human life. Wild swine exist in numbers in the forests of Cassius and Amanus, in the more secluded regions of Lebanon and Anti-Lebanon, and in the cane brakes of the Jordan Valley and elsewhere. They owe their continued existence to the fact that they are regarded as unclean, and unsuitable for food.

The chase is now almost confined to gazelles, hares, porcupines, conies, and other small mammalia, and to noxious animals, as the fox, wolf, hyæna, and jackal, and to birds. This was not, however, always so. In ancient times hunting supported a considerable population, and the game was worthy of noble and even kingly hands.

But if man finds little in the way of game to sustain life in this land, on the other hand, he has little to fear from wild beasts. A few people die annually from serpent bites, a few are torn by leopards or wolves, but predaceous animals have not seriously molested man within the historic periods.

The *domestic fauna* is, however, of great importance to man. It includes such invaluable servants as the camel, the horse, the ass, the mule, the buffalo, the ox, the sheep, and the goat. The camel is to the Arab what the reindeer is to the Laplanders. It is the beast of burden, its milk furnishes a considerable part of the food of the Bedawîn, its hair is woven into cloth for garments and tents, its flesh is also most valuable in case of need. Its value is greatly enhanced by the fact that it is the most inexpensive of animals to feed. In fact, it lives and thrives where no other beast of any use to man could exist. Hence its importance to the dwellers in deserts cannot be over-estimated. Probably without the camel these deserts would have been uninhabited. With it they maintain a very considerable populatiou. The ass, also, is an animal of

exceeding value to man in these lands. It can live on the most meagre and uninviting diet of thistles and stubble, and yet do a surprising amount of work. Being very sure-footed, it is specially adapted to mountainous and stony regions, which are the rule in Syria and Palestine. The goat also is an animal capable of living where other grazing animals would find little or nothing to support life It climbs over almost inaccessible rocks, and lives on a host of aromatic and bitter plants, which no other animal will eat. The importance of these animals in furnishing to man the means of existence cannot be forgotten in estimating the persistence of a large population in the remoter and more barren districts.

VII.—*Mineralogy.*

The mineral wealth of our district is not large. Iron ore is found in large quantities, and has, from earliest historic periods, been worked. The Damascus steel was famous in the Middle Ages. At present, the production of iron is probably smaller than at any previous period, owing to the disappearance of the forests which furnished the charcoal used in smelting. Copper mines were worked in ancient times by the Egyptians in Sinai. Turquoise was also extracted in considerable quantities from the sandstone rocks of Wadi Maghara. Copper is said to be found in the neighbourhood of Jebâ', in Lebanon. Bitumen is found in the neighbourhood of Hasbeiyah and in the Jordan Valley. Chromium s found near Antioch, but its value was not known to the ancients. In general, it must be admitted that the country is poorer in minerals than in other resources, and that it was indebted for its supplies to other lands. Few mines have been discovered, and, except the workers in iron, few of the people have ever depended on metallurgy for their livelihood.

VIII.—*Health and Disease.*

The health of these lands is in general good. They are to a large extent free from the severe inflammatory affections so fatal in the colder climates. They are also free from the peculiar diseases of the tropics. The great variety of productions, the generally wholesome water, and the comparative certainty and regularity of the crops, cause the prevalence of a high standard of health, and prevent the famines which curse countries of one staple. The temperate habits of the people, their freedom from alcoholism, their moderate use of meat, all favour their resisting power to causes of disease, and enable them to bear injuries and operations well. The adjacent Mediterranean, the high mountains, the table lands of the interior, swept by pure and almost constant winds, the deserts which lie on two sides of the land, all contribute to the maintenance of the purity of the air, and support a vigorous stock of humanity, fitted to replenish and infuse new vigor into the more effeminate races of the lower districts. They are also a sanitarium of the most perfect kind, and constantly afford

a refuge to those enervated by the tropical climate of Egypt and the warmer portions of Syria and Palestine themselves. Again and again has it happened, while cholera has prevailed on the coast and in the cities of the interior, that the mountains of Lebanon and Anti-Lebanon, and the Syrian and Sinaitic deserts have been quite free from the scourge.

The bearing of the excellence of the conditions of health on the recovery of a people subjected often to the rigors of war, and the derangement of industry, as well as the forcible breaking up of homes, and the crowding together of large bodies of men, is not hard to see. As a good constitution in an individual enables him to rally from desperate illness and regain sound health, so the sound state of a country's health enables it to recuperate after the horrors of war, and speedily reproduce the population which had been wasted by the sword.

Summary.

Syria and Palestine constitute a territory situated at the meeting point of the three ancient continents, and forming a highway connecting them, and along this highway the historic races of mankind have passed to and from a career of invasion and conquest unexampled in the annals of the world. Yet, although affording an easy pathway to invaders and conquerors, this land contains hiding places for those who have escaped conquest, which have afforded refuge to a large number of communities, still surviving, and transmitting by living tradition the fragmentary history of the past.

The *Climate* is such as to favour rapid increase of population and the maintenance of life, with a small expenditure for fuel and clothing, and a frugal diet. The *Soil* is rich, and produces, under the favourable conditions of exposure, altitude, and rainfall, a vegetation of unexampled richness and variety, and has been proven capable of supporting a very dense population. The *Water Supply* is copious for a country with a rainless summer, and the provisions for storing and distributing it are such that the population is well able to occupy a large part of the land. Even the deserts yield subsistence to a considerable number of hardy men, who are, and always have been, unconquerable. The *Flora* and *Fauna* are such as to favour the growth of population, and to make available to man all that the soil and climate furnish. Finally, it is a country whose lofty mountains and breezy plateaux furnish an admirable sanitarium for its tropical and sub-tropical lowlands.

From the combination of these causes these lands were inhabited from the earliest periods of history, and their populations, so often conquered, destroyed, or carried into captivity, have often returned, or a remnant of them has survived in some mountain fastness or desert solitude, or such rugged refuges as the lava sea of the Leja, or the volcanic cones of the Jebel-ed-Durûz, and these remnants have often clung to the traditions, religion, and customs of their forefathers, and in one case a

few villages have clung to their ancient language, or rather transformed it into a new and most interesting dialect. In taking up the individual sects it will be our duty to point out the origin and history of each, and their present geographical distribution so far as possible.

Meantime, the subject of a second preliminary essay will be—

The Land Tenure, Agriculture, Industries, Dress and Habits, Art and Architecture, Amusements, Science, and Music of these sects, so far as they are common to all.

METEOROLOGICAL OBSERVATIONS.

Sarona, 1887.

The numbers in column 1 of the table show the highest reading of the barometer in each month ; the maximum for the year was 30·285 ins. in January, this being higher than any reading in the preceding seven years. In the years 1880, 1881, and 1884, the maximum was in January as in this year, in 1882 in February, and in 1883, 1885, and 1886 in December. The maximum, therefore, has always been in the winter months. The mean of the preceding seven years highest pressures was 30·207 ins.

In column 2, the lowest reading in each month is shown ; the minimum for the year was 29·145 ins. in April, this being lower than any reading in the preceding seven years. In the year 1883 the minimum was in January, in 1881 in February, in 1880, 1884, 1885, and 1886 in April, as in this year, and in 1882 in July ; the mean of the seven preceding lowest pressures was 29·516 ins. The minimum, therefore, has taken place in the months from January to July.

The range of barometric readings in the year was 1·140 inch ; this range being greater than any in the seven preceding years, viz., 1880, 1881, 1882, 1883, 1884, 1885, and 1886, when the ranges were 0·780 inch ; 0·711 inch ; 0·704 inch ; 0·579 inch ; 0·757 inch ; 0·680 inch and 0·621 inch respectively. The mean for these seven years was 0·690 inch.

The numbers in the 3rd column show the range of readings in each month ; the smallest was 0·104 inch in October, this being the smallest range in any month in the eight years ; in the year 1883 the smallest was in June ; in 1882 and 1886 in August, and in 1880, 1881, 1884, and 1885 in October, as in this year. The mean of the seven preceding smallest monthly ranges was 0·175 inch.

The largest monthly range was 0·843 inch in April, this being the largest range in any month in the eight years ; in the years 1883 and 1884 the largest was in January, in 1882 in February, in 1881 and 1886 in March, in 1880 in April as in this year, and in 1885 in September. The mean of the seven preceding largest monthly ranges was 0·584 inch.

The numbers in the 4th column show the mean monthly pressure of the atmosphere ; the greatest, 29·958 ins., was in February. In the years

1880, 1881, 1882, and 1884 the greatest was in January, in 1883 in February as in this year, and in 1885 and 1886 in December. The highest mean monthly reading in the eight years was 30·060 ins. in January, 1882.

The smallest mean monthly reading was 29·653 ins. in August, this being the lowest mean reading in any month in the eight years; that in August, 1885, was nearly as small, being 29·657 ins. In the years 1880, 1882, 1883, and 1886, the smallest was in July, and in 1881, 1884, and 1885 in August as in this year.

The highest temperature of the air in each month is shown in column 5; the highest in the year was 100°, in October; the next in order was 98° in May, and 97° in April. The first day in the year the temperature reached 90° was on April 10th, and on three other days in this month the temperature reached or exceeded 90°. In May there were two days when the temperature reached or exceeded 90°, in August on nine days in September on two days, and in October on eight days; the highest in the year, viz., 100°, took place on the 29th of October; therefore the temperature reached or exceeded 90° on twenty-five days during this year. For the preceding seven years, viz., 1880, 1881, 1882, 1883, 1884, 1885 and 1886, the temperature reached or exceeded 90° on 36, 27, 8, 16, 14, 24 and 16 days respectively. In the seven preceding years, the highest temperatures were 103°, 106°, 93°, 106°, 100°, 103° and 112° respectively.

The numbers in column 6 show the lowest temperature of the air in each month. The lowest in the year was 32°·5 on January 28th; the next in order was 33° on the 27th of January, and 36° on both the 26th and 29th of the same month, the temperature being below 40° again on the last day of January; in February the temperature was below 40° on seven different nights, and in March on three nights. Therefore the temperature was below 40° on fifteen nights in this year. In the preceding seven years, viz., 1880, 1881, 1882, 1883, 1884, 1885, and 1886, the temperature was below 40° on 13, 2, 13, 2, 9, 3, and 3 nights respectively. In the preceding seven years the lowest temperatures were 32°, 39°, 34°, 35°, 32°, and 38° respectively.

The yearly range of temperature was 67°·5; in the seven preceding years, viz., 1880, 1881, 1882, 1883, 1884, 1885, and 1886, the yearly ranges were 71°, 67°, 59°, 71°, 68°, 65°, and 75° respectively. The mean of the seven preceding yearly ranges was 68°·0.

The range of temperature in each month is shown in column 7, and these numbers vary from 27° in July to 54° in April. In the year 1880 these numbers varied from 25° in August to 53° in both April and May; in 1881 from 29° in July and September to 51° in May; in 1882 from 25° in August to 47° in November; in 1883 from 25° in July to 62° in March; in 1884 from 24° in February to 51° in April; in 1885 from 22° in July to 52° in March; and in 1886 from 26° in August to 55° in June.

The mean of all the highest by day, of the lowest by night, and of the average daily ranges of temperature are shown in columns 8, 9, and 10 respectively. Of the high day temperature, the lowest 63°·4, was in

January. In the years 1884, 1885, and 1886 the lowest was in January, as in this year; in 1881, 1882, and 1883, in February, and in 1880 in December. The highest, 88°·5, was in August, in the year 1880 the highest was in May; in 1881, 1883, 1884, 1885, and 1886, in August, as in this year; and in 1882 in September. Of the low night temperature, the coldest 44°·0, was in February; in the years 1880, 1882, and 1884, the coldest was in January, in 1883 and 1885 in February, as this year, and in 1881 and 1886 in December. The warmest, 69°·1, was in August; in the year 1885 the warmest was in July; in the years 1880, 1881, 1882, 1883, 1884 and 1886 the warmest was in August as in this year. The average daily range of temperature is shown in column 10; the smallest, 18°·5, is in January; in the years 1880, 1883, 1885, and 1886 the smallest was in January, as in this year; in 1881, 1882, and 1884 in February. The greatest range of temperature, 25°·1, is in April; in the year 1884 the greatest was in April, as in this year; in the years 1880 and 1885 the greatest was in May, in 1881 in June, in 1883 in September, and in 1882 and 1886 in October.

In column 11, the mean temperature of the air is shown as found from observations of the maximum and minimum thermometers only. The month of the lowest temperature, 54°·1, was January, but February was nearly as cold, being 54°·2. In the years 1880, 1884, 1885, and 1886, the lowest was in January, as in this year; in 1881 and 1882 in February; and in 1883 in December. That of the highest, 78°·8, was August, as in each of the 7 preceding years. The mean temperature for the year was 66°·5, and of the 7 preceding years, viz., 1880, 1881, 1882, 1883, 1884, 1885, and 1886 were 66°·4, 66°·7, 65°·5, 65°·7, 65°·7, 65°·9, and 66°·8 respectively.

The numbers in columns 12 and 13 are the monthly means of a dry and wet bulb thermometer taken daily at 9 a.m. In column 14 the monthly temperature of the dew point, or that temperature at which dew would have been deposited, is shown; the elastic force of vapour is shown in column 15. In column 16 the water present in a cubic foot of air is shown; in March it was as small as $3\frac{1}{5}$ grains, and in September it was as large as $7\frac{3}{4}$ grains. In column 17 the additional weight required for saturation is shown. The numbers in column 18 show the degree of humidity, saturation being considered 100; the smallest number indicating the driest month, is 50 in March, and the largest 75, indicating the wettest month, was in December; the weight of a cubic foot of air under its pressure, temperature, and humidity at 9 a.m., is shown in column 19.

The most prevalent winds in January were S.E. and S., and the least prevalent were N.E., W., and N.W.; in February the most prevalent were S.W. and S., and the least was N.E.; in March the most prevalent was W., and the least were N., N.E., and N.W.; in April the most prevalant was W, and the least were N. and S E.: in May the most prevalent was W., and the least were N.E., E., and S.E.; in June the the most prevalent were S.W. and W., and the least were N., N.E., E., and S.E.; in July the most prevalent was S.W., and the least were N., N.E.,

E., S.E., S., and N.W.; in August the most prevalent was S.W., and the least were N., N.E., E., and S.E.; in September the most prevalent was S.W., and the least were N.E., E., S.E., and S.; in October the most prevalent was S.W., and the least was N.; in November the most prevalent were S.E., S., and N.E., and the least were N. and N.W.; and in December the most prevalent were S. and S.W., and the least prevalent were N. and N.W. The most prevalent wind for the year was S.W., which occurred on 97 different days in the year, and the least prevalent wind was E., which occurred on only 13 times during the year.

The numbers in column 29 show the mean amount of cloud at 9 a.m.; the month with the smallest is August, and the largest in both January and April, which were of the same value. Of the cumulus, or fine weather cloud, there were 60 instances in the year; of these 18 were in August, 11 in September, and 9 in July. Of the nimbus, or rain cloud, there were 57 instances; of these 14 were in December, 13 in January, and 8 in both February and March, and only 4 from May to October. Of the cirrus there were 46 instances. Of the cirro-cumulus there were 59 instances. Of the stratus 23 instances. Of the cirro-stratus, 10 instances. Of the cumulus-stratus, 6 instances; and 104 instances of cloudless skies, of which 17 were in October, 14 in May, and 13 in September.

The largest fall of rain for the month in the year was 5·74 ins. in January, of which 1·83 inch fell on the 16th. The next largest fall for the month was in December, 5·22 ins., of which 2·12 ins. fell on the 15th. No rain fell from the 2nd May till the 14th of November, with the exception of one day, viz., the 12th of September, when 0·08 inch fell, and so making two periods of 132 and 63 consecutive days without rain. In 1880 there were 168 consecutive days without rain; in 1881, 189 consecutive days; in 1882, there were two periods of 76 and 70 consecutive days without rain; in 1883, 167 consecutive days; in 1884, 118 consecutive days; in 1885, 115 consecutive days; and in 1886, 171 consecutive days without rain. The fall of rain for the year was 17·06 ins., being smaller in amount than in any of the preceding seven years by 11·62 ins., 0·43 inch, 5·03 ins., 13·00 ins.. 1·67 inch, 3·00 ins., and 3·03 ins. respectively. The number of days on which rain fell was 43. In the seven preceding years, viz., 1880, 1881, 1882, 1883, 1884, 1885, and 1886 rain fell on 66, 48, 62, 71, 65, 63, and 66 days respectively.

JAMES GLAISHER.

A HITTITE PRINCE'S LETTER.

THE majority of the Tell el Amarna letters have now been published. Whether the kings to whom they are addressed are to be identified with Amenophis III and Amenophis IV, or with invading Babylonian monarchs who had reached Egypt and there ruled for a brief space, and to whom the Princes of Mesopotamia, and the Babylonian Governors set up in Syria and Phœnicia, were writing, may be doubtful. It is

highly improbable that native Egyptians, acquainted with the simpler hieratic script, would have used the clumsy Cuneiform ; and it is indisputable that the letters were written, not in Egypt or by Egyptians, but in Syria and Mesopotamia, and by Asiatics. The names of the monarchs addressed are read as *Nimutriya* and *Khuri.* The first has been supposed equivalent to Ra-mat-neb (Amenophis III), and the tablet with his name bears the Egyptian character *nuter* on the back. The second is supposed to be the Oros of Manetho, and connected with Nofer-Kheperu-Ra (Amenophis IV). The name of one of the messengers sent with a letter to *Nap-khu-ririya*, King of Egypt, is Pirizzi, and this is also that of a messenger from the King of Mesopotamia mentioned in the Egyptian docket on the back of another letter from the same writer. This letter mentions the Egyptian Queen Thi, and it appears that the author (Dusratta, King of Mitani) was father-in-law to the King of Egypt. Naturally he uses the cuneiform script, but the docket is in hieratic writing. Nap-khu-ririya seems pretty clearly to be Amenophis IV, which gives the date of the letter. (*See* "Proceedings" Bib. Arch. Soc., June, 1889.)

Among this mass of Semitic documents there is one letter in another language, addressed to Nimutriya, and this has been partly translated by Dr. Hugo Winckler and by Dr. Sayce.[1] They both have come to the conclusion that the language is that of the Hittites ; but the difficulty which remains is that, as the text for the most part is ideographically written, it is only possible to obtain the sounds of the language in a few cases with any certainty.

The reasons for supposing the letter to be Hittite are : 1st. That the name of the sender is Tarkundarais—a Hittite name. 2nd. That he ruled apparently in Syria. 3rd. That the Prince of the Hittites is mentioned in the letter.

The heading of the letter is supposed to be Assyrian, it is as follows:—

"To Nimutriya the Great King the King of Egypt of Tarkundarais King of the Land of Arzapi the letter."

The more certain phrases of the letter itself are as follows :—

". . . me peace to my houses my wives my sons my great men my army my horses my lands . . . may there be peace.

". . . may there be peace to thy houses thy wives thy sons thy great men thy army thy horses thy lands may there by peace . . . .

"The Prince of the Hittites ruling at the Mountain of Igaid . . . of gold by weight, twenty *manas* of gold, three *Kak* of ivory, 3 *Kak* of . . , 3 *Kak* of . . , 8 *Kak* of . . . , 100 *Kak* of *lead* (or tin) 4 . . . , 100 *Kak* of . . , 100 *Kak* of . . , 4 Kukupu stones . . . , 5 Kukupu stones of a good kind, 3 . . , 24 plants of the

[1] Dr. Winckler's paper was read at the Royal Academy of Berlin, on December 13th, 1888. The text is published by Dr. Sayce ("Proc." Bib. Arch. Soc., June, 1889.)

. . . tree, 10 thrones of ushu wood from the White Mountain 10 . . . , 2 ushu trees. . . . ."

The more obscure part of the letter to be mentioned afterwards is supposed to refer to a demand for the hand of an Egyptian princess.

The importance of this letter for the study of the Hittite language is very great, and it is satisfactory to find that in the opinion of specialists it presents many marks of relationship to the Akkadian. In the absence of bilinguals it is one of the best means of furthering our knowledge which has come to hand. The following remarks occured to me on first reading it.

Tarkhundarais.—The last syllable is doubtful, but the name presents us with the familiar Tarkhun, which I have already shown to be a Turko-Mongol word meaning "chief" Dara is an Akkadian word for "prince," and, as I have previously shown, is also Hittite, and found in Altaic languages with the same meaning.

Igaid may probably, as Dr. Sayce suggests, be the Ikatai of the "Travels of a Mohar," which, as is clear from Chabas' commentary, was in the neighbourhood of Aleppo. Thus the Prince of the Hittites appears in the Hittite country, where alone we know of this tribe—in northern Syria.

Mi is the possessive pronoun, first person singular, as in Akkadian, and in Altaic languages generally. (*See* my previous paper on the "Hittite Language" in the *Quarterly Statement.*)

Ti is the possessive pronoun, second person singular. This no doubt recalls Aryan languages, but is also found in Altaic speech, as in the Hungarian *te* and Zirianian *te.* It is a dialectic variation of *si*, which is the commoner sound in Altaic speech (Mongol *si*, Akkadian *Zae*).

Plural.—The sound is not supposed to be certain, but the emblem is that which has the sound *mes* in Cuneiform. The tacking on of this emblem to those for "house," "wife," &c., &c., seems to indicate an agglutinative language.

Khuuman-kuru-in, "may there be peace," is a precative form, which Dr. Sayce admits, to remind us of Akkadian.

An-na, rendered "lead" by Dr. Sayce, seems, perhaps, to be phonetic. In this case it recalls the Akkadian *anna*, Hungarian *on*, Armenian *anag*, for "tin."

Arzapi, the country ruled by Tarkhundarais, is thought to be Razaffa of the Assyrian inscriptions, the Rezeph of the Bible (2 Kings xix, 12). If so, this prince with a distinctively Hittite name ruled the mountains of Ikatai, from a town supposed to be near Nisibin. It is not a well fixed site. One place so-called was on the road from Rakkah to Homs, west of the Euphrates ; another was near Baghdad. The Syrian Reseph may fairly be supposed to be the place intended ; the emblem *Ki* attached to the word is probably the genitive.

It appears, therefore, that as far as at present deciphered, the letter in question confirms my view that the Hittite language was one closely connected with Akkadian.

The following appears to me to be the correct translation of the main part of the letter of which only a few words have been previously read :—

"My great Chief, the Lord Irsappa, the Envoy, who is of my family, my brother, I am sending to fetch thy daughter, O my Rising Sun, as a wife. My brother has a son of noble appearance. He brings, therefore, to thy city a bag of gold as a present. Let my brother bring my gift to thee from this place. These my . . . thus he brings, afterwards to give thee, in order that thy servant the envoy from thee with this one of mine whom I am sending may take her afterwards to the young man. Thy (servant ?) I cause to fetch, to fetch from far (if) thy daughter receives the envoy with favour, thy envoy shall go as far as the house of the great fortress, before the young Princess, as she goes through the countries . . . Let her come to (our ?) palace. The Prince of the Hittites, ruling in the mountains of Ikatai, sends therefore 30 *tu* of usu wood, as appointed. Irsappa will weigh the weight of the bag of gold."

The expression "Rising Sun" as a title for the King of Egypt, occurs in many of the Tell el Amarna texts as well as in Egyptian.

The inscription so rendered gives us at least seventy Hittite words some of which, however, being written "ideographically," that is, by a single emblem, may be considered of doubtful sound; but the rest, amounting to more than fifty, are syllabically written, and may thus be considered of known sound.

Out of this total there are twenty-five words which I had previously fixed as belonging to the Hittite language, being found either on the Hittite monuments, or by analysis of the names of Hittite towns and of Hittite Princes. The number of such words, which I have previously published, amounts to about 100, so that a quarter of these words are confirmed by this new and independent evidence.

The words so confirmed are as follows :—

A = participial affix.
Ar (or *Er*) = man.
Ata = "Chief."
Du = "go."
E = "house."
Enu = "Lord."
Ga = "Oh."
Gal = "great."
Gan = "this."
Kar = "fortress."
Kal or *Khal* = "town."
Khat = "Hittite."
Kur = "mountain."
Me = "to be."
Mes = plural.
Mu = "me," "my."
Ne = "he," "of," "to."
Neke = "belonging to."
Papa = "young man" and "father."
Sa = "with," "in."
Sar = "Chief."
Si = "eye," "see."
Tak = "stone."
Tarku = "Chieftain."
Ti, Ta = "to," "at."

The words not previously connected with the Hittite language require further notice for their identification :—

1. *Agga*, "strong"; Akkadian *Agga*, "strong"; *Akku*, "great"; Medic *Ukku*, "great."
2. *An-na*, "tin"; Akkadian *an-na*, Hungarian *on*.
3. *Bi*, "he," "it"; Akkadian *Bi*, "he"; Medic *Ap*, *up*; Turkish بو, "this"; Samoyed *ba*; Finnic verbal pronoun *pi*; Esthonian *b*; Tcherkess *be*; Yakut *by*.
4. *Bi-bi-pi*, "the which" (pl.); Akkadian *aba*, Medic *upe*, "which," with the plural in *pi* as in Medic.
5. *Dam*, "wife," as in Akkadian (ideographic).
6. *Egir*, "afterwards" Akkadian *egir*, (ideographic).
7. *Guskin*, "gold"; Akkadian *Guskin* (ideographic). This word is probably connected with the Tartar *kin*, "gold"; Manchu *chin*; Chinese *kum*.
8. *Gar* (in *Khalugari* "haste-maker"); Akkadian *gar*, "to make" or "cause," perhaps connected with the Aryan root KAR or GAR, "to do."
9. *Ki*, "as." I have already proposed this as possibly a Hittite word. Akkadian *ki*, "as"; Hungarian *ki*, "so."
10. *Ku* (or *Kuin*) "dawn" or "bright"; Akkadian *ku*, "dawn" or "bright"; *kun*, "dawn." Compare Livonian *koi*, "the dawn," Finnic, *koi*, "bright," Basque *eguna*, "day."
11. *Kurn*, "peace," as in Akkadian (ideographic).
12. *Kala*, "city." *See* "Transactions Bib. Arch. Soc.," ii, p. 248, where W. A. I. ii, 30, 14, is quoted as the authority for the word [illegible], *Kal*, *or Kalla*, being an Akkadian word for "town." According to the known rules of change in sounds this would be the older form of the later *val*, *vol*, or *aul*, a well-known Tartar word for "city," or "camp," found also in Etruscan. In Susian the form *khal*, "city," is well-known. It may be but a variant of *kar*, "fortress," the Votiac and Zirianian *kar*, "town."
13. *Kuis-tu*, "as far as," or "up to"; Medic *kus*, "until."
14. *Kuukta*, "favourable"; Medic *kukta*, "favouring." For these and other Medic words the authority is Oppert's "Les Mèdes."
15. *Ku-ku-pu*. Probably the plural of *ku-ku*, which is the intensitive of *ku*, "bright, "precious"; the word is preceded by *tak*, "stone" (Turkish *tash*), and *tak-kukupu* would thus mean "precious stones," which are enumerated among the presents.
16. *Kur-ra*, "horse," as in Akkadian. There is no very evident reason for regarding this as ideographic.
17. *Khal*, "haste" (in *Khalugari*, "haste-maker") as in Akkadian, *e.g.*, *Dara khal-khal*, "the very swift (or 'bounding') deer." It is the Votiac *zal*, "swift"; Altaic *yel*, "swift."
18. *Là*, "gift." This appears to be an Akkadian word, and to occur in in Medic as *Lu*.
19. *Lal*, "weight," as in Akkadian (ideographic).
20. *Li-il* appears to be the Akkadian suffix *lal*, "possessing"; *si-liil*,

"appearance possessing," being thus the Akkadian *si-lal*, "aspect."

21. *Muk* or *Vag*, supposing the sign to be read as in Medic, means "to bring," "carry," "carry oneself," "travel."
22. *Nin*, "Lady," as in Akkadian. In Chinese we find *neung*, "Lady"; in Turkish *nene*, "mother," a term of respect.
23. *Nitakh*, "man," as in Akkadian (ideographic).
24. *Num*, "high," "noble," a common Turanian root; Samoyed *num*, "high," "heaven." In Akkadian, *Num*, *Nim*, *Enim*, is "high"; *Nu*, "Prince," is probably from the same root.
25. *Pi*, "to cause"; Medic *Pe*, "to do."
26 *Pir*, "army," as in Akkadian; compare the Medic *Pirra*, "battle."
27. *Pu*, "young." In Etruscan we find *Pu* and *Puia* for "daughter" or "child"; Hungarian *fiu*, "son"; Vogul *pu;* Votiak *pi*, connected with *pu*, "little." This word is also Aryan for a child, whence *pu-er* and *pu-ella* in Latin. The gender is not distinct in Akkadian.
28. *Ra*, "towards," as in Akkadian. In Buriat Mongol *r*, "to"; Medic *ra re*, "to"; old Turkish datives *ra ru;* Basque *ra*, "towards." This particle I had already supposed to occur on the Hittite monuments.
29. *Sak*, "son"; Medic and Susian *Sak;* Etruscan *Sech*. It survives in the Lapp *sakko*, "offspring." It is also known in Cassite.
30. *Sa-as-sa*, "ruling," apparently the causative from *Sa* and *Assa;* Akkadian *Sa*, "ruling" *Issi*, "master." This is very common, *e.g.*, Etruscan *Isa*; Yakut *us* and *icci*; Altaic *us*, Finnic and Esthonian *issa* or *isä*, meaning "master." *Khate-sa-assa* means, I think, clearly "Ruler of the Hittites."
31. *Sade*, "mountain," as in Akkadian (possibly ideographic). *Sad* appears to mean a mountain chain (from a root meaning "long"). The word was adopted in Semitic languages.
32. *Sari*. In the Medic texts of Malamir we find *sar* in the sense of "appoint."
33. *Sis*, "brother," as in Akkadian (ideographic).
34. *Su-kha*, "bag." In Akkadian *sugga* is rendered "baggage. Compare the Hungarian *zsok*, "bag."
35. *Si* "face," "appearance," *cf. li-il*.
36. *Tik?* "in front of," as in Akkadian.
37. *Tsil*, *Tsilua*, apparently the Akkadian *Tsil*, "to raise," "put."
38. *Tur*, "child"; Akkadian (ideographic). Compare Yakut *ödēr* Tunguse *edōr*, "young"; Etruscan *etera*, "child"; Mordwin *Tsur*, "son."
39. *Tur-rak*, "daughter," as in Akkadian *Rak*, meaning "female."
40. *U*, "relation" or "blood," as in Akkadian (ideographic).
41. *U*, "I"; Akkadian *U*, *Vu;* Medic *Hu*.
42. *Ud*, "sun," as in Akkadian (ideographic); Buriat Mongol *ude*, "day"; Chinese *yat*, "sun."

43. *Ud*, "to appear," connected with the preceding.
44. *Uppa*, "thus," "therefore"; Medic *uppe* or *huppe*.
45. *Zi*, probably "to carry away," as in Akkadian. The word *an-zi* appears to be a verb. The preceding syllable forms the infinitive (*cf.* Medic *an-to*, "to go"; *in-paru*, "to arrive"; Akkadian *ni-gin*, "to enclose.") In each case the root is affixed.
46. *Zi-in*, apparently "palace"; Akkadian *zi*, "building"; Medic *zi-yan*, "palace."

In addition to these words we have the personal name *Ir-sappa* for the Hittite messenger. Each of its constituents occurs in other Hittite names: *Ir* (in *Irkhulin*, the name of a King of Hamath) is apparently the common Turkic *er*, "man"; *Sappa* compares with *Sap-lel*, a Hittite Prince mentioned in an Egyptian papyrus.

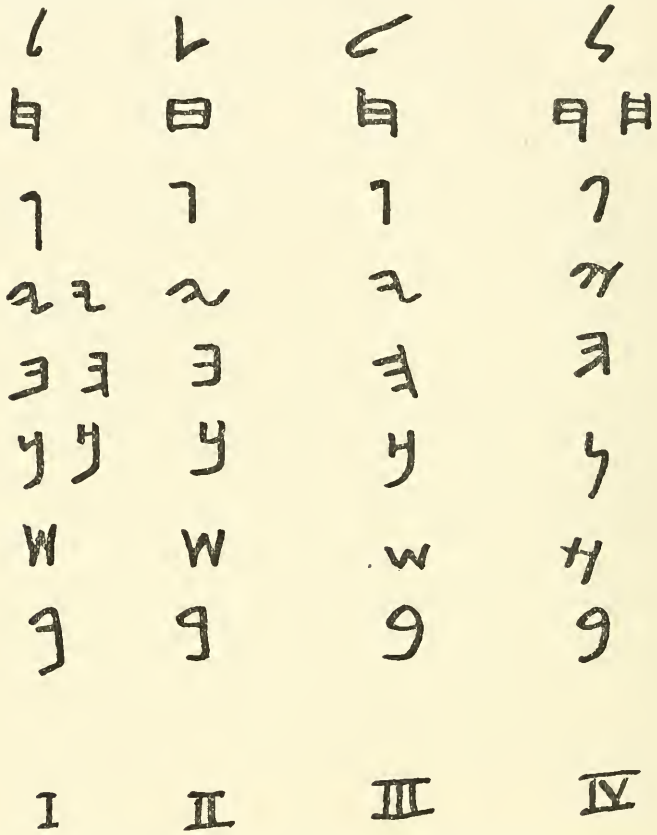
Several doubtful words have not been noticed in this enumeration. They are as follows: *am* and *ma*, "this one" (as in Akkadian); *makh* "great"; *kak-ti*, "says"; *da*, "my" (as in Medic); *du-ukka*, "again"; *dusi*, "he is" (Medic *duis*); *kue*, "putting" (as in Akkadian); *daas*, "they are" (as in Medic); *ki*, "place"; *khuudak*, "he may take"; *kidda*, "far" (Akkadian *gid*); *asmiis*, "'she has received"; *ga-as*, "she comes"; *tu*, "weight"; *shi*, "horn." The following words are also of unknown sound, "servant"? and "country." The words *raat*, *khu-uz* (perhaps "slave"), *Kak*, *Istu*, are difficult, but *guza* seems to mean "throne, and *khir*, *gis*, *pa-na*, "plants of the Pan tree," recalls the Hindi name for the betel. *Gismestu* can hardly mean "thy trees" because of its position in the sentence; as repeated (lines 7 and 10) it might mean "to continue." *Khu*, "he," "this" (as in Akkadian and Medic) seems to occur in line 14, and *da* in line 18 "to give" (as in Akkadian). The new letter not only appears to show clearly that the Hittite language was a Tartar dialect akin to Akkadian and Medic, but it also materially increases our stock of Hittite words, giving a present total of about 150 in all. The grammatical construction of the sentence is exactly that which has been discussed in my previous paper on the "Hittite Language" in the *Quarterly Statement* for 1888.

C. R. C.

THE SEAL OF HAGGAI.

THE attached comparison may be of value as showing on what grounds this seal is supposed to be ancient. Col. 1—The Haggai letters. Col. 2—The Jewish Early Coinage (2nd cent. B.C.) Col. 3—The Siloam Text (supposed 700 B.C.) Col. 4—Late Phœnician (2nd cent. B.C.) In the test letters, *Cheth Yod Shin*, the Haggai character is nearer to the Siloam Alphabet.

The assertion that the Siloam text presents older forms than the Moabite stone is as yet unproved; on the contrary the forms of the *mim*, *nun*, and especially of the *aleph* are those found on texts of the 7th



century B.C. and later, and the text is only placed as early as 700 B.C. because some of its letters approach those of the older Moabite alphabet.

C. R. C.

BEZETHA.

THIS name applied to the new part of Jerusalem, north of the temple. Josephus speaks of Bezetha (Βεζηθά) "which is *also* called the New City" 2 Wars xix, 4) which by no means shows that the Hebrew name meant "New City." Dr. Neubauer (Geog. Tal. p. 139) says the word has been

variously translated. The common etymology is בית חדתא *Beth Haditha* "New house" others give בית זיתא "House of Olives." R. Schwarz points to the word בצעא "swamp" but there are no swamps at Jerusalem. Yet the real meaning of the name may not be unconnected with a passage to which R. Schwarz was referring.

Dr. Neubauer cites this passage which appears in various Talmudic works. Tosiphta *Sanhed*, ch. 3 ; Tal Jer *Sanhed* i, 2 ; Tal Bab *Shebuoth* 16a, *Megillah Taanith*, ch. 6. "Two places called Bitzin (בציין or בציים) existed at Jerusalem, the lower and the upper. The lower was added to Jerusalem by the exiles who came back from Babylon and had the same rights as the rest of the city, the other was added later by a king and without consulting Urim and Thummim. It had not previously been added to the city because it was on the weak side of Jerusalem."

Now since Bezetha was both on the weak side of Jerusalem, and also only added in the later times of the Herodians, it is clear that the Upper Bitz'a may, as Dr. Neubauer said, very probably be Bezetha.

I would now call attention to the meaning of the word. The root בצע in Aramaic is used according to Buxtorff with the meaning "to cut off" or "divide." Hence the Bitz'a was the "cutting" (*Frustra Fovea Fossa*) and Gesenius (s. v. בזא) makes the Hebrew roots בזא and בצע and בזע equivalent, all with the sense of *dividing*. Hence we might easily suppose that βεζηθα (with the long vowel *Bezêtha* represents a word בזאתא from the Root בזא equivalent to the Aramaic בצע.

Bezetha only appears in history after the Christian Era, that is after the building of Herod's Temple. Now, as Josephus explains (5 Wars iv, 3), "It lies over against the Tower Antonia, but it is divided from it by a deep valley which was dug on purpose, and that in order to hinder the foundations of the Tower of Antonia from joining to this hill." It is true that in the same passage he seems to consider Bezetha as equivalent to the Greek "New City," but the translation may here be doubted.

It seems probable that Bezetha, therefore, may simply be the Hebrew or Aramaic *Bezâtha*, and may mean "the cutting," referring to the fosse north of Antonia, which still exists and which was converted, after the time of Josephus, into the Twin Pools. This explanation has not, as far as I know, been previously proposed.

C. R. C.

ESAU'S HEAD.

There is a curious legend in the Talmud as to the death of Esau. According to this account, Hushim, son of Dan, cut off Esau's head in the faction fight which followed the burial of Jacob. The head was buried in Hebron, but the body in Mount Seir.

On the Survey Map north of Hebron will be found the village of Siair

(Sheet XXI, Mem. III, p. 309), in which is shown the traditional tomb of Esau (*El 'Ais*), which I have fully described on a later page (p. 379).

The village appears to be the Zior of the Bible (Josh. xv, 54), but it would appear probable that at some time or other this site was regarded as the Biblical Seir, where Esau's body was buried. The legend of the head was not, however, recovered in connection with Hebron.

C. R. C.

GIHON.

In histories, commentaries, books of travel, and guidebooks, we read of a Mount Gihon, a Valley of Gihon, a Fountain of Gihon, and an Upper and Lower Pool of Gihon. In the Bible, Gihon, near Jerusalem, is mentioned only as a place which had an upper and, as may be inferred, a lower outflow of water (2 Chron. xxxii, 30.) It was at a lower level than the city, in the valley נחל and apparently near enough to En-Rogel for shouting and music to be there heard from it; but the two places were not in sight of each other. From Joshua xv, 7, it appears that En-Rogel was to the east or south-east of the city, and as Gihon was near it, and in a nachal, or narrow deep water-course, we must look for the latter in one of the narrow valleys which converge just below the city on the south-east. In the Chaldee and Syriac versions of the Bible, Gihon is translated Siloah, and this gives an indication of its position. According to high authorities, Gihon means a bursting forth and was therefore the name given to this water source. But this term is applied to no other spring, and it seems to me not improbable that the true derivation of Gihon is not גִּיחַ *giah*, to burst forth, but גָּחַן *gahan*, to bow down to prostrate oneself, and that the term was originally applied, not to the fountain, but to *the canal which brought the water from the fountain.*[1] How fitting such a term would be for such a narrow passage, which can only be traversed in portions of its extent by a person going literally on his belly גָּחוֹן *gahon*, everyone who has been through the canal will feelingly recognise. But however this may be, all the difficulties of the narratives, so far as Gihon is concerned, seem to disappear if we consider that the names Gihon and Siloah were applied to the canal, and especially to its southern end, which was the lower and principal outflow of its waters whilst its upper outflow was at what is now called the Virgin's Fountain. There is nothing to indicate the situation of the Shiloah alluded to by the prophet Isaiah (viii, 6), but there can be little doubt that it was identical with the Siloah, or more properly Shelach, of Nehemiah; only the prophet speaks of the softly flowing stream, and Nehemiah of the pool which it supplied. That this pool was the same as the "pool of Siloam" few will question, and if there ever was a "pool of Gihon" (which there

[1] The form גִּחוֹן or גִּיחוֹ, if derived from גָּחַי, is exactly the same as שִׁלֹה or as the Rabbis spell it שילוח, from שָׁלַח to send (cf. John ix, 7).

was not) it would have been either here or in the other valley, in which was the upper outflow of water. By David Kimchi and Rashi, as well as by the Targum, Gihon and Siloah are regarded as identical, and this being so, it is easy, in the light of modern discovery, to understand the dictum of R Samuel that "Siloah was within the city" שלוח היה באמצע המדינה. (Talm. Jer. Chag., page 4). The entrance to the passage leading down to the shaft by means of which the branch of the aqueduct was reached from above, as discovered by Sir Charles Warren, was almost certainly within the ancient city. This shaft and passage may have been constructed partly for convenience of ordinary life, but were no doubt chiefly designed to enable those within the walls to obtain the water when the outer approaches to it were stopped and hidden.[1] This branch aqueduct is a part of the canal which I venture to think was called Gihon or Siloah, and thus Siloah might be truly said to be within the city.

THOMAS CHAPLIN, M.D.

SITE OF CALVARY.

Now that so much interest is concentrated on the excavations in progress in and near Jerusalem, in which the readers of the *Quarterly Statement* are being well posted up by Herr Schick, would you be so good as to insert the enclosed letter, which I happened to come upon when turning over a copy of "Mount Seir," and which in justice to the late Colonel Churchill ought to be made public?

Allow me to add that, in my opinion, the recent excavations in the neighbourhood of "Jeremiah's Grotto," so clearly described by Herr Schick, all tend to confirm the view that this spot is without doubt the site of the Crucifixion and of the Holy Sepulchre.

EDWARD HULL.

"Ordsall Rectory, Retford, Notts.

"SIR,—May I take the liberty of saying that nearly 20 years ago the site of Calvary as you and Captain Conder indicate it, was pointed out to me by Colonel Churchill (now dead), the historian of the Lebanon?

"His arguments were identical with yours, though we neither of us knew of the Roman Causeway. On two subsequent visits to Jerusalem the idea became a certainty to me.

"I do not think Colonel Churchill mentioned his idea to many persons, as it met with much disfavour.

"I am, Sir,

"Faithfully yours,

"S. KELSON STOTHERT.

"To Professor Hull."

[1] No doubt Hezekiah stopped the lower outflow as well as the upper, for he stopped "*all* the fountains." The Jews who sustained the siege by Titus were not so prudent.

NEHEMIAH'S WALL.

Mr. St. Clair says that in his line for this wall he has "nowhere departed from probability." To me he rather seems to have plunged into impossibility. To reduce his theory to ruins, all that is needed is to prove that Nehemiah's Wall passed near 'Ain Silwân (Siloam), since thence to the wall of Ophel (Neh. iii, 27) it could never have passed up the Tyropœon.

It may be well to premise that, though he names Lewin and Warren, no support whatever from these two writers or from Thrupp accrues to Mr. St. Clair's theory, since Lewin draws Nehemiah's Wall down to Siloam, and Sir Charles Warren, in his plan ("Jerusalem Recovered" and "Temple or Tomb"), does the very same; while Thrupp, unable to bring his wall down to 'Ain Silwân, brings Siloam up to it instead—all of them having seen, what is obvious enough, that the wall passed *near* Siloam.

If Mr. St. Clair, as I pointed out (1889, 207), appeals to Josephus, his theory collapses at once, for the Jewish historian states that the first wall was built by the kings, and makes it to reach *to Siloam.* I quoted *three* passages to prove this, and it is no answer whatever for Mr. St. Clair to ignore *two* of them entirely, and, as to the third, to suggest that "thence" may refer to a place that has *not* even been named. Josephus distinctly speaks of part of the first wall as "bending from Siloam towards (or facing) east" (Wars, v, vi, 1). Again (as I pointed out) the Romans drove the Jews out of the lower city and "set all on fire *as far as Siloam.*" How possibly could the wall bend from Siloam or the fire reach to Siloam if the wall on the north never came nearer to it than 1,500 feet, as is urged by Mr. St. Clair, and so shown on his plan. It seems wasting space to add that when the country for 90 furlongs round had been scoured for wood there would in August be nothing outside the wall left to set fire to "as far as Siloam."

Therefore *within* the city the fire extended to Siloam, or, in other words, the wall came near to 'Ain Silwân. Whatever support Mr. St. Clair may have for his new theory, he will find none whatever in Josephus, and perhaps now he will be willing to dismiss this witness, as the first wall of his time need not *necessarily* have been on the line of that of Nehemiah.

Accordingly, *without Josephus*, it is next to be proved that Nehemiah's Wall came near to Siloam. It is stated (Neh. iii, 15) that Shallun repaired "the wall of the Pool of Siloah by the king's garden." Happily, Mr. St. Clair admits that this pool was near 'Ain Silwân, and does *not* urge that Nehemiah is here said to build a wall near that pool, though distant some 1,500 feet from *his* (Mr. St. Clair's) city, merely to show that he had plenty of workmen to spare. Mr. St. Clair maintains,

however, that his wall across the valley, 1,500 feet distant from the Pool of Siloam, derived its name from that pool; just as now the Jaffa and Damascus Gates at Jerusalem are named from places miles away. Gates naturally have and had, as at Rome, their name from places to which the road led that passed through them; but that part of a city wall should have its name from the place as well as from the direction (as east, &c.) towards which it looked is quite a *different* question. Neither Lewin (so far as I remember) nor Mr. St. Clair attempts to give any instance of the kind.

Neh. iii, 15, mentions indeed the *fountain* gate, because the road through it led to the *fountain*. Whether this means 'Ain Silwân or En-rogel (*see* Jos. Ant. vii, xiv, 4, and Wars, v, xii, 2) need not now be discussed; and if the wall adjacent could have derived its name from the road, why, I may ask in turn, was it not called *the fountain wall*, instead of *the wall of the Pool of Siloah?* If there is any truth in Mr. St. Clair's way of taking the words, surely he can furnish us with an example to save his theory from destruction.

Until such an instance is produced, *the wall of the Pool of Siloah* must be taken to mean *literally what it says;* just as the Damascus wall means the wall of and at Damascus, and not part of the wall of Jerusalem, near the Damascus Gate.

Therefore, as Shallun repaired the wall of the Pool of Siloah, it seems to me that the conclusion is inevitable that the wall went close to the pool (so as to defend it), even if it did not actually enclose it, as seems to me to have been most probably, if not certainly, the case in *Nehemiah's* time.

And now my task on this point is practically done, since if the wall came near to 'Ain Silwân Mr. St. Clair's structure falls to the ground like a castle of cards, and there it must remain until it can be shown that the wall of the Pool of Siloah was not the *actual* wall of that pool.

A few other points, however, deserve notice.

1. I have never objected to a bay up the Tyropœon. I know as yet of no evidence that there was not such a bay (in the wall) in the time of Solomon, and at what point the wall crossed the Tyropœon is still an unsettled question; but I maintain that it can be proved that in the time of Hezekiah the wall on Ophel (so-called) must have reached close to 'Ain Silwân, and have thoroughly defended it, if it did not also enclose there the Pool of Siloah.

2. I fail to understand what Mr. St. Clair means by saying, "Their (*i.e.*, others' and my) wall does not and cannot effect a junction with the wall of Ophel." Why cannot *our* wall from the south join that wall just as well as his wall does from the west? As a matter of fact, Sir Charles Warren's and Major Conder's wall on their plans ("Jerusalem Recovered" and "Handbook to the Bible") actually do join the Ophel wall, and (1879, 179), on "Nehemiah's Wall," I state, "Here we seem to join the *wall of Ophel.*"

3. He says again of our wall, "It cannot be made to satisfy the

descriptions in Nehemiah." What does this mean? If it means we cannot show "corners and turnings," I would observe that no reasonable person would expect to find such underground remains before the required excavations are made.

4. I believe the wall of Josephus had (as Mr. St. Clair says) a bend *above* Siloam; but this in no way prevented the wall afterwards going down to Siloam, and there enclosing the *spring* (Josephus's word) of Siloam, as seems probable from the fact that Simon held that spring.

5. After Mr. St. Clair's procession from the west reaches the Ophel ridge, we do not read of their passing any point named on the repaired wall. Why, then, after my procession reaches the same ridge from the south, is it to be required to pass any point named on the same repaired wall? It seems arbitrary to demand more from us than from himself. Evidently once on the ridge of Ophel the procession kept to it.

6. I am *confident* that the wall came *near to* the Pool of Siloah (though I have never insisted on its *inclosing* it), because *the wall of the pool is distinctly stated to have been repaired.* Mr. St. Clair is wrong when he says (*supra*, 47) I argue "that Josephus must mean this because he speaks of the wall bending thence again." As I am cautious about trusting Josephus, let me say I take him to prove that the wall came *near* to Siloam in *his* own time, but as to Nehemiah's time I do not care to ask on this point what Josephus thought.

7. I see no object in attempting to add details, without further evidence, to the line I adopted on p. 179 in *Quarterly Statement*, 1879. My reason is given in 3, above.

8. Where do I say "the wall of Ophel extended further east than Warren found it?" That it extended further south than he traced it is, I imagine, admitted now by everybody who writes on Jerusalem, except Mr. St. Clair. I quoted two passages from the Bible to prove that before the time of Nehemiah there was a wall on Ophel due west of the Virgin's Fount or Gihon. One of these (2 Chron. xxxiii, 14) Mr. St. Clair passes over in silence, not seeing (I suppose) how to get over it. The other (xxxii, 30), which speaks of Hezekiah's stopping Gihon, &c., he explains in an amusing manner, being unwilling to admit that the Jewish King made the tunnel through Ophel in order to prevent an enemy using the waters from Gihon. While he admits that Schick's aqueduct at that time carried water into the Tyropœon, he supposes that the waters sometimes could not rise high enough to flow into it, and that therefore the tunnel was made through the hill at a lower level for the waters to flow more constantly.

This beats all the odd notions one has heard of about Jerusalem. The difference of level between the bottom of the aqueduct and the water in the tunnel cannot be much more than 12 inches, though really the more the better (*see* "Defence of the Gutter"), and yet merely for this gain of about 12 inches Hezekiah is made to cut through the rock a tunnel 1,700 feet long.

Now, from what I have seen and heard of Gihon for some years,

I hereby certify Mr. St. Clair that it is a well-conducted spring, and, though remittent, still always obedient to natural laws and ready in old time to rise at a moment's notice all the inches necessary to reach the higher aqueduct; and more than this, to remain at that height unless emptied by over-drawing. Indeed, I venture to assert that the tunnel was made by Hezekiah because the waters would persistently *rise*, not because they would *not*, and not only rise, but also *overflow;* so that Hezekiah, do what he might, could not prevent their flowing and overflowing as usual, any more than he could by the plug stop En-rogel from overflowing after heavy rains. Therefore Hezekiah was forced to make the tunnel through Ophel to the Pool of Siloah, where the Assyrians could not get at the water.

It is this same Gihon that leads Kitto to observe, "It curiously shows how deficient men of liberal education and even eminent scholars are generally in knowledge of natural science." I believe, however, that Mr St. Clair knows of the latter more than I do. He made "only a guess," intent at the time on his double wall with its corners and turnings, unless, it may be, his feeble defence was *meant* to portend his speedy abandonment of his strange theory.

Let me add that Schick's aqueduct carried (I believe) water to the King's Pool, below the later Pool of Siloah, in the Tyropœon, and that Hezekiah's tunnel carried water into the ditch (Isaiah xxii, 11) or Pool of Siloah, just below 'Ain Silwân. Further, Mr. St. Clair fails to tell us what Hezekiah (2 Chron. xxxii, 30) was going to gain by stopping the upper outlet of Gihon (at the Virgin's Fount) *in peace*, or even in war, if the Assyrian could draw the water lower down, at the Pool of Siloah.

9. Mr. St. Clair very prudently does not attempt to meet any of the proofs I have brought forward from time to time showing that the City of David, or the Acra of I Maccabees, or the Acra of Josephus, was solely on Ophel (so called), south of the temple. He "accepts," he says, "Warren's Acra;" as if that were enough (1889, 90).

10. Mr. St. Clair's explanation of ἀμφίκυρτος is also curious. He says it means *doubly curved*, and, therefore, counting the inner curve, he asks why it may not mean *crescent-shaped* as well as *gibbous*. Such ingenuity would enable this word to be applicable to the moon at any time except the moment when it is just half-moon. The Greeks, however, had three words to describe forms similar to the phases of the moon when less than full—ἀμφίκυρτος, *gibbous*, μηνοειδής, *crescent-shaped*, διχότομος, *cut in half*. I hardly think the lexicographers will accept this latest interpretation for the first word.

I have corrected enough errors, and will only add that I did not say that the throne of the governor *was* the gate of Ephraim, but that I believed it marked the position of the latter gate. Again, I did *not* say that a builder *invariably* began where the preceding builder ended, but that the expression *after him* (which is not *invariably* used) seemed, *when it is used*, to indicate that the fresh builder began where the preceding one ended.

My apology for these tedious notes must be that unless I can defend my own theory and show the errors of any adverse one relating to the position of David's sepulchres, I cannot reasonably expect the Executive Committee to begin the excavations necessary to finding the sepulchres of the kings.

W. F. Birch.

RUINS OF THE "SLIME PITS" IN THE VALE OF SIDDIM.

The remains to which Mr. H. A. Harper has called attention in the first edition of his "Bible and Modern Discoveries" are undoubtedly the ruins of a *karaize*, such as Mr. William Simpson so well describes in the last *Quarterly Statement*, the underground connecting channel of which is called a *kanot*. But Mr. Harper has fallen into a mistake in supposing that the description I gave him applied to *the present state* of the ruins on the east of the Jordan situated in that singularly dry and waterless region in the *Ghor*, now absolutely desert, extending for some ten or twelve miles north of *Tell Nimrim*. This description, as it appeared on page 12 of the first edition of "The Bible and Modern Discoveries," though it is far from accurate, must have been given by me to Mr. Harper as that of a rough view of the system as it would be if restored, or as it now exists, where it is still to be seen in working order on the plains of Damascus, as described by Dr. Porter in "Murray's Handbook for Travellers in Syria and Palestine." So little like a water system is it, as it now exists in this strip of arid desert in the *Ghor*, held by the *Adwan* tribe of Bedawîn, that Dr. Selah Merrill declares in his account of it that he had no idea of the purpose it served! Nothing like it, so far as I have been able to ascertain, is to be found in any other part of Palestine, for what at first was thought by those who made the survey of Western Palestine to be a similar ruin near *Kurn Surtubeh*, appears, from the account in the "Memoirs of the Survey Map" (vol. ii, plate facing page 397), to be some four rock-cut *beers*, or ordinary underground cemented water-cisterns, connected with an ordinary aqueduct, which rises three-quarters of a mile west of the *Kurn*. All that I saw, and all that now exists in the desert north of *Tell Nimrim*, are three rows of bason-like, circular mounds, about 5 or 6 feet high and some 30 feet in diameter, resembling in shape the dens of ant-lions. The actual pits themselves, which once yawned deep and wide within these enclosures, are now in all instances filled up. In the longest row there are no less than 31 of these shallow basons. They are generally 30 feet apart, but in some instances 50 to 60. As seen at a distance, the three rows resemble a string of monster mole-hills, only placed at regular intervals.

My discovery consists in recognising these remains, when on a journey to the highlands of Moab in 1873, as the exact marks left by such a

water system as Mr. Simpson describes when in ruins, as I had an opportunity of seeing it in several places in the desert east of Damascus when travelling to Palmyra in 1872, and also in identifying them with the "slime" pits, or probably "marl clay," and possibly "cemented" pits, with which the Vale of Siddim was full, just north of the site now identified as that of the Cities of the Plain, and which dangerous network of pits stretching across the whole vale naturally completed the route of the retreating armies of the five kings, as described in Gen. xiv.

Mr. William Simpson is certainly right in supposing that the connecting channel of a *karaize* in Syria, as in Central Asia, is in every case at the bottom of the pits, and that under ordinary circumstances they are almost, if not quite, empty of water; and if I led Mr. Harper to understand anything else I was mistaken. But I think the words which Mr. Harper quotes as mine must be what he has gathered from my verbal description rather than any that I could have written. The "rain water from the hills," which is intended to be caught and conveyed on by the first pit, is not surface water, but that of a spring underground at the foot of the hills; and the object is not to keep water standing in the pits, but to pass it on by their connecting channel, or tunnel, through the gradually descending ground till it flows out at a point on a level with the surface, some half a mile to three miles away from the spot where the water is found at the bottom of the first pit. I specially referred Mr. Harper, when telling him about my discovery, to Dr. Porter for a full description of this system as now at work on the Plains of Damascus. As Mr. Simpson says, it is "to be hoped that some one will be able to tell us what the system is at that place," I will now give Dr. Porter's words in Mr. Murray's "Handbook for Travellers in Syria and Palestine," 1858, vol. ii, p. 497:—

"A mode of obtaining water for irrigation extensively employed over the Plain of Damascus is deserving of notice. A well is first sunk till water is found; then, following the slope of the plain, another is sunk at the distance of 50 or 60 yards, and the two are connected by a subterranean channel, with just enough of fall for the water to flow. A long line of wells is thus made and connected, and the stream of water obtained is at length on a level with the surface, and ready for use. The whole plain is filled with these singular aqueducts, some of them running for two or three miles underground. Where the water of one is diffusing life and verdure over the surface, another beneath is collecting a new supply, deriving it, too, in some measure from the surplus of the former which percolates through the soil. Many of them are now choked with rubbish, and no longer serviceable." Dr. Porter has also another allusion to this system of irrigation on page 540 in the same volume, and two in his "Five Years in Damascus," vol. i, pp. 159, 394, in the first of which (p. 159) he alludes to the circular bason-like mounds around the mouths of the pits. Readers of the *Quarterly*, who may be interested in the discovery *in situ* of the ruins of constructions mentioned in the Bible as existing nearly 4,000 years ago, may see the subject fully discussed in an article

entitled "The Cities of the Plain and the 'Slime Pits' of the Vale of Siddim," which I am contributing to the May number of the "Theological Monthly."

JAMES NEIL.

ERRATA.

1889, page 52, "Spring of the fig." *For* fig, *read* almond.
,, ,, 207. *For* novel, *read* or Thrupp's.
,, ,, 208. *For* Rabboth, *read* Rabbath.
,, ,, 209. *For* "That the, *read* that "The.

THE PALESTINE EXPLORATION FUND.

NOTES AND NEWS.

On the 22nd of June last, the Fund completed twenty-five years of existence. During this period a large amount of important work has been done. Western Palestine, as far north as the Nahr el Kâsimîyeh, has been completely surveyed, and fifteen hundred square miles of the country east of the Jordan. Important excavations have been made in and around Jerusalem, and at Tell Hesy. Besides a series of accurate maps of the Holy Land, an immense number of drawings, photographs, and plans has been produced and published, together with memoirs of the surveys, name lists, and other valuable matter, whilst the *Quarterly Statements* have afforded the means of publishing many new discoveries by the officers of the Fund and other travellers, and the views and arguments of scholars and explorers with reference to disputed sites and other points of interest. It is satisfactory that the fund has lost none of its vitality. No less than 187 new members were added during the past year, and the vigour with which the work is carried on where openings for it present themselves, is shown by the recent important excavations of Mr. Flinders Petrie, in the western plain; the researches of Herr Schick at Jerusalem; and of Herr Shumacher in the north and north-east.

In the present number will be found two important communications from Mr. Flinders Petrie, one being notes on places visited by him in Jerusalem, and the other a short and condensed report of his excavations at Tell Hesy.

The latter have already proved of the greatest interest and importance. A wall, 28 feet 8 inches thick, of clay bricks, unburnt, which has been uncovered, is believed to be that of the ancient Amorite city of Lachish, erected probably 1,500 years before Christ. Phœnician pottery of about 1100 B.C. was found above its level. Later constructions found on the spot are the supposed wall of Rehoboam, and remains of the fortifications made in the reigns of Asa, Jehosha-

phat, Uzziah, Jotham, and Manasseh. In one building, probably of 900 B.C. or 1000 B.C., was found a curious form of decoration—a shallow pilaster, with very sloping side, resting on a low cushion base, and with a volute at the top. "We are here," Mr. Petrie writes, "face to face at last with work of the earlier Jewish kings, probably executed by the same school of masons who built and adorned the Temple of Solomon."

The discoveries of pottery are most valuable. Some fragments have inscriptions of very ancient form. "We now know for certain the characteristics of Amorite pottery, of earlier Jewish, and of later Jewish, influenced by Greek trade. In future all the tells and ruins of the country will at once reveal their age by the potsherds which cover them."

The work of Mr. Guy le Strange on "Palestine under the Moslems" was published in April.

For a long time it had been desired by the Committee to present to the world some of the great hoards of information about Palestine which lie buried in the Arabic texts of the Moslem geographers and travellers of the Middle Ages. Some few of the works, or parts of the works, have been already translated into Latin, French, and German. Hardly anything has been done with them in English, and no attempt has ever been made to systematise, compare, and annotate them.

This has now been done for the Society by Mr. Guy le Strange. The work is divided into chapters on Syria, Palestine, Jerusalem, and Damascus, the provincial capitals and chief towns, and the legends related by the writers consulted. These writers begin with the ninth century and continue until the fifteenth. The volume contains maps and illustrations required for the elucidation of the text.

The Committee have great confidence that this work—so novel, so useful to students of mediæval history, and to all those interested in the continuous story of the Holy Land—will meet with the success which its learned author deserves. The price to subscribers to the Fund is 8*s.* 6*d.*; to the public 12*s.* 6*d.*

The new map of Palestine, so long in hand, is now ready. It embraces both sides of the Jordan, and extends from Baalbek in the north to Kadesh Barnea in the south. All the modern names are in black; over these are printed in red the Old Testament and Apocrypha names. The New Testament, Josephus, and Talmudic names are in blue, and the tribal possessions are tinted in colours, giving clearly all the identifications up to date. It is the most comprehensive map that has been published, and will be invaluable to universities, colleges, schools, &c.

It is published in 21 sheets, with paper cover; price to subscribers to the Fund, 24*s.*, to the public, £2. It can be had mounted on cloth, rollers, and varnished for hanging. The size is 8 feet by 6 feet. The cost of mounting will be extra.

Mr. Henry A. Harper's work, on "The Bible and Modern Discoveries" was published last December. It is an endeavour to present in a simple but yet connected form the Biblical results of twenty-two years' work of the Palestine Exploration Fund. The writer has also availed himself of the discoveries made by the American Expeditions and the Egyptian Exploration Fund, as well as discoveries of interest made by independent travellers. The Bible story, from the call of Abraham to the Captivity, is taken, and details given of the light thrown by modern research on the sacred annals. Eastern customs and modes of thought are explained whenever the writer thought they illustrated the text. To the Clergy and Sunday School Teachers, as well as to all those who love the Bible, the writer hopes this work will prove useful. He is personally acquainted with the land, and nearly all the places spoken of he has visited, and most of them he has moreover sketched or painted. The work is in one large, handsome volume of 600 pages. It is illustrated with many plates, and a map showing the route of the Israelites and the sites of the principal places mentioned in the sacred narratives. The work has had a very gratifying reception. The Third Revised Edition is now nearly exhausted. It should be noted that the book is admirably adapted for the school or village library.

An interesting note from Rev. J. E. Hanauer is inserted in this *Statement*, which will set at rest the many conflicting statements as to whether or not the Dead Sea is visible from Jerusalem.

Mr. Hanauer has forwarded a series of photographs of the rock-hewn altar near Sŭràh, of sculptured stones found at 'Artûf, of the interesting sculptured figures in the cave near Saris (taken by magnesium light), and of stones with inscriptions recently dug up near the supposed St. Stephen's Church, north of Damascus Gate.

From Mr. G. R. Lees, F.R.G.S., Head Master of the Boys' School of the London Jews' Society at Jerusalem, has been received an account of further observations on rock-hewn chambers at Silwân, which appear to have been chapels. Herr Schick has also sent elaborate drawings and reports of the same, as well as an account of discoveries of mosaics, &c., at the so-called House of Caiaphas, of a newly opened tomb near Bethany, &c.

Mr. Lethaby, of Kerak, has sent two fragments of soft limestone with sculptured figures of animals, which were found in digging the foundations of a house.

The projected railway between Jaffa and Jerusalem was begun in March. The Governor of Jerusalem and other notabilities went down to Jaffa to see the work commenced. It is believed that the line will run past Ramleh and up the Wady Surar. It is reported that a concession has also been given for a line between Haifa and Damascus.

The first volume of the "Survey of Eastern Palestine," by Major Conder, has been issued to subscribers. It is accompanied by a map of the portion of country surveyed, special plans, and upwards of 350 drawings of ruins, tombs, dolmens, stone circles, inscriptions, &c. The edition is limited to 500. The first 250 subscribers pay seven guineas for the three volumes; subscribers to the "Survey of Western Palestine" are privileged to have the volumes for this sum. The price will be raised, after 250 names are received, to twelve guineas. The Committee *are pledged never to let any copies be subscribed under the sum of seven guineas.* Mr. A. P. Watt, 2, Paternoster Square, is the Sole Agent. The attention of intending subscribers is directed to the announcement on the inside of the cover of this number.

Considerable progress has also been made with the second volume, which consists of M. Lecomte's beautiful drawings, illustrating the Mission of M. Clermont-Ganneau in 1874. The illustrations for the third volume, Mr. Chichester Hart's "Fauna and Flora" of the Wâdy Arabah, are nearly ready.

The Committee have added to their list of publications the new edition of the "History of Jerusalem," by Walter Besant and E. H. Palmer (Bentley & Son). It can be obtained by subscribers, carriage paid, for 5*s.* 6*d.*, by application to the Head Office only. The "History of Jerusalem," which was originally published in 1871, and has long been completely out of print, covers a period and is compiled from materials not included in any other work, though some of the contents have been plundered by later works on the same subject. It begins with the siege by Titus and continues to the fourteenth century, including the Early Christian period, the Moslem invasion, the Mediæval pilgrims, the Mohammedan pilgrims, the Crusades, the Latin Kingdom, the victorious career of Saladin, the Crusade of Children, and many other little-known episodes in the history of the city and the country.

The books now contained in the Society's publications comprise an amount of information on Palestine, and on the researches conducted in the country, which can be found in no other publications. It must never be forgotten that no single traveller, however well equipped by previous knowledge, can compete with a scientific body of explorers, instructed in the periods required, and provided with all the instruments necessary for carrying out their work. The books are the following (*the whole set can be obtained by application to*

Mr. George Armstrong, for £2, carriage paid to any part in the United Kingdom only):—

By Major Conder, R.E.—

(1) "Tent Work in Palestine."—A popular account of the Survey of Western Palestine, freely illustrated by drawings made by the author himself. This is not a dry record of the sepulchres, or a descriptive catalogue of ruins, springs, and valleys, but a continuous narrative full of observations upon the manners and customs of the people, the Biblical associations of the sites, the Holy City and its memories, and is based upon a six years' experience in the country itself. No other modern traveller has enjoyed the same advantages as Major Conder, or has used his opportunities to better purpose.

(2) "Heth and Moab."—Under this title Major Conder provides a narrative, as bright and as full of interest as "Tent Work," of the expedition for the *Survey of Eastern Palestine*. How the party began by a flying visit to North Syria, in order to discover the Holy City—Kadesh—of the children of Heth; how they fared across the Jordan, and what discoveries they made there, will be found in this volume.

(3) Major Conder's "Syrian Stone Lore."—This volume, the least known of Major Conder's works, is, perhaps, the most valuable. It attempts a task never before approached—the reconstruction of Palestine from its monuments. It shows what we should know of Syria if there were no Bible, and it illustrates the Bible from the monuments.

(4) Major Conder's "Altaic Inscriptions."—This book is an attempt to read the Hittite Inscriptions. The author has seen no reason to change his views since the publication of the work.

(5) Professor Hull's "Mount Seir."—This is a popular account of the Geological Expedition conducted by Professor Hull for the Committee of the Palestine Fund. The part which deals with the Valley of Arabah will be found entirely new and interesting.

(6) Herr Schumacher's "Across the Jordan."

(7) Herr Schumacher's "Jaulân."—These two books must be taken in continuation of Major Conder's works issued as instalments of the unpublished "Survey of Eastern Palestine." They are full of drawings, sketches, and plans, and contain many valuable remarks upon manners and customs.

(8) "The Memoirs of Twenty-one Years' Work."—This work is a popular account of the researches conducted by the Society during the past twenty-one years of its existence. It will be found not only valuable in itself as an interesting work, but also as a book of reference, and especially useful in order to show what has been doing, and is still doing, by this Society.

(9) Herr Schumacher's "Kh. Fahil." The ancient Pella, the first retreat of the Christians; with map and illustrations.

(10) Names and Places in the Old and New Testament and Apocrypha, with their modern identifications, with reference to Josephus, the Memoirs, and *Quarterly Statements.*

(11) Besant and Palmer's "History of Jerusalem," already described.

(12) Northern 'Ajlûn "Within the Decapolis," by Herr Schumacher.

To the above must now be added Mr. Henry A. Harper's "The Bible and Modern Discoveries." Price to the public, 16*s.*; to subscribers to the Palestine Exploration Fund, 10*s.* 6*d.*, carriage included. And Mr. Guy le Strange's important work "Palestine under the Moslems," price to the public, 12*s.* 6*d.*; to subscribers to the Fund, 8*s.* 6*d.*

Branch Associations of the Bible Society, all Sunday School unions within the Sunday School Institute, the Sunday School Union, and the Wesleyan Sunday School Institute, will please observe that by a special Resolution of the Committee they will henceforth be treated as subscribers and be allowed to purchase the books and maps (by application only to the Secretary) at reduced price.

The income of the Society, from March 20th to June 20th inclusive, was —from annual subscriptions and donations, £132 18*s.* 6*d.*; from donations for excavations, £174 18*s.* 0*d.*; from all sources, £609 9*s* 7*d.* The expenditure during the same period was £1,025 1*s.* 1*d.* On June 20th, the balance in the Bank was £772 17*s.* 0*d.*

Subscribers are begged to note that the following can be had by application to the office, at 1*s.* each:—

1. Index to the *Quarterly Statement*, 1869–1880;
2. Cases for Herr Schumacher's "Jaulân;"
3. Cases for the *Quarterly Statement*, in green or chocolate.
4. Cases for "Abila," "Pella," and "'Ajlûn" in one volume.

The following gentlemen have kindly undertaken to act as Hon. Local Secretaries :—

The Rev. Vincent Joseph Higgins, Ashworth Vicarage, for Nottingham.
John Nanson, Esq., for Ambleside.
Rev. T. F. Wright, for Cambridge, Mass., U.S.A.
W. Clarkson Wallis, Esq., for Brighton.
Rev. R. Raikes Bromage, M.A., F.R.G.S., Keyford Parsonage, for Frome, in place of C. W. Le Gros, Esq., resigned.
Norman Penney, Esq., for Gloucester.

A. Kemp Brown, Esq., M.A., owing to his leaving Leeds, has resigned his appointment as Honorary Secretary.

The Committee will be glad to communicate with ladies and gentlemen willing to help the Fund as Honorary Secretaries.

Early numbers of the *Quarterly Statement* are very rare. In order to make up complete sets, the Committee will be very glad to receive any of the following numbers :—

No. II, 1869; No. VII, 1870; No. III, 1871; January and April 1872; January, 1883, and January, 1886.

It having again been reported to the Committee that certain book hawkers are representing themselves as agents of the Society, the Committee have to caution subscribers and the public that they have no book hawkers in their employ, and that none of their works are sold by itinerant agents.

While desiring to give every publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they neither sanction nor adopt them.

Subscribers who do not receive the *Quarterly Statement* regularly are asked to send a note to the Secretary. Great care is taken to forward each number to all who are entitled to receive it, but changes of address and other causes give rise occasionally to omissions.

The only authorised lecturers for the Society are—

(1) Mr. George St. Clair, F.G.S., Member of the Anthropological Institute and of the Society of Biblical Archæology.

His subjects are :—

(1) *The Buried City of Jerusalem, and General Exploration of Palestine.*
(2) *Discoveries in Assyria, Chaldea, and Palestine.*
(3) *The Moabite Stone and the Pedigree of the English Alphabet.*
(4) *Jerusalem of David, Nehemiah, and Christ.*
(5) *Sight-seeing in Palestine: a Narrative of Personal Experiences.*
(6) *Israel's Wars and Worship, illustrated by the new Survey.*
(7) *The Gospel History in the light of Palestine Exploration.*

Address: Geo. St. Clair, Bristol Road, Birmingham, or at the Office of the Fund.

(2) The Rev. Henry Geary, Vicar of St. Thomas's, Portman Square. His lectures are on the following subjects, and all illustrated by original photographs shown as "dissolving views:"—

The Survey of Western Palestine, as illustrating Bible History.

Palestine East of the Jordan.

The Jerusalem Excavations.

A Restoration of Ancient Jerusalem.

(3) The Rev. Thomas Harrison, F.R.G.S., Member of the Society of Biblical Archæology, 38, Melrose Gardens, West Kensington Park, W. His subjects are as follows:—

(1) *Research and Discovery in the Holy Land.*
(2) *In the Track of the Israelites from Egypt to Canaan.*
(3) *Bible Scenes in the Light of Modern Science.*

ANNUAL MEETING.

The Annual Meeting of the General Committee of this Society took place at the Office, 1, Adam Street, on July 1st. Among those present were Viscount Sidmouth, James Glaisher, Esq., F.R.S., Walter Morrison, Esq., M.P., Walter Besant, Esq., M.A., T. Chaplin, Esq., M.D., Captain Mantell, R.E., W. Aldis Wright, Esq., Wm. Simpson, Esq., Rev. William Allan, Basil Woodd Smith, Esq., Rev. W. J. Stracey, Guy le Strange, Esq., Henry Mandslay, Esq., &c.

James Glaisher, Esq., F.R.S., in the Chair.

The Chairman, after mentioning that he held in his hand a packet of letters from various members regretting their inability to attend, and that the Report of the last Meeting would be taken as read, called upon the Hon. Secretary to read the Report of the Executive Committee for the past year.

My Lord and Gentlemen,

Your Executive Committee, elected at the last General Meeting, on July 16th, 1889, have now, on resigning their office, to render an account of their administration during their term of office for the past year 1889–90.

It may be noted at the outset that the Society has now completed its twenty-fifth year of existence.

Your Committee have held twenty meetings since the last Report was issued.

In the last Report your Committee reported that they had hopes of a Firman being granted. Their hopes were realised in the month of February. On the 27th an official letter arrived stating that a permit for excavating in the vicinity of 'Ajlân (Eglon) had been granted. Having secured the services of Mr. Flinders Petrie previously, immediate steps were taken to inform all subscribers and friends interested in the work, and a "special appeal" was made inviting subscriptions. The result up to date, your Committee are pleased to report, is the receipt of £1,110 6*s.* 6*d.*, although the amount named by the Committee was only £1,000. Mr. Petrie, on closing his work in Egypt, lost no time in proceeding to Palestine, but owing to a clerical error in the Firman, a delay of three weeks was caused. The following is a summary of the excavations by Mr. Flinders Petrie himself. It will be found a very satisfactory record of work done and discoveries made :—

"After lengthy delays, officially, I was able to begin excavation for the Palestine Exploration Fund in the middle of April. Unfortunately, nothing was known of the history of pottery in Syria, and therefore nothing had been done in past surveys and explorations towards dating the various *tells* and *khurbehs*. It had been necessary, therefore, in applying for a site, to trust to the identification by names ; and there seemed little risk in expecting that Umm Lakis and 'Ajlân would, one or other—if not both—prove to be Amorite towns, Lachish and Eglon. Some other ruins were included in the legal limit of are for the permission. Among them, most happily, was Tell Hesy.

"So soon as I arrived and could examine our ground, I saw, from my Egyptian experience, that every site, except Tell Hesy, was of Roman age, and unimportant. At Umm Lâkis, three days' work amply proved its late date; and 'Ajlân was a still more trivial site. I therefore attacked Tell Hesy, a mound of house ruins 60 feet high and about 200 feet square. All of one side had been washed away by the stream, thus affording a clear section from top to base. The generally early age of it was evident, from nothing later than good Greek pottery being found on the top of it, and from Phœnician ware (which is known in Egypt to date from 1100 B.C.), occurring at half to three-quarters of the height up the mound. It could not be doubted, therefore, that we had an Amorite and Jewish town to work on. My general results are as follows:—

"Topographically, this place and Tell Nejîleh, six miles south, are the most valuable possessions in the low country, as they command the only springs and watercourse which exist in the whole district. From their positions, their early age, and their water supply, it seems almost certain that they are the two Amorite cities of the low country, Lachish and Eglon. The transference of the names in late times to settlements a few miles off, is probably due to the returning Jews not being strong enough to wrest these springs from the Bedawîn sheep-masters.

"Historically, this town began as an immensely strong fort, with a wall 28 feet thick, on a knoll close to the spring. This is certainly pre-Jewish, by the relative position of Phœnician pottery; and approximately its age would be about 1500 B.C., agreeing well to the beginning of the Egyptian raids under Tahutmes I.[1] This fort, after repairs, which still exist as solid brickwork over 20 feet high, fell into complete ruin. No more bricks were made; rude houses of stones from the stream were all that were erected; and for long years the alkali burner used the deserted hill, attracted by the water supply to wash his ashes with. This corresponds to the barbaric Hebrew period under the Judges. Then, again, the town was walled, Phœnician pottery begins to appear, and some good masonry, evidently the age of the early Jewish kings. Successive fortifications were built as the ruins rose higher and the older walls were destroyed; Cypriote influence comes in, and later on Greek influence, from about 700 B.C. and onwards. The great ruin of the town was, about 600 B.C., that by Nebuchadnezzar; and some slight remains of Greek pottery, down to about 400 B.C., show the last stage of its history. Happily the indications can be interpreted by our literary records, otherwise we could have discovered little about a place in which not a single inscription or dated object has been found.

"Architecturally, though little has come to light, it is of the greatest importance. In a building, which is probably of Solomon's age, or certainly within a century later, were four slabs, each bearing half a pilaster in relief. These pilasters have a quarter-round base, a very sloping shaft, and a volute at the top, projecting, without any separate capital or line across the shaft. The

[1] I should explain that the various Sirius feasts recorded in Egypt leave no doubt that the XVIIIth dynasty was from about 1568 to 1333 B.C., and the XIXth from 1333 to 1160 or later. To date the exodus under either dynasty seems beset with equal difficulties. I incline to the later date.

volute seems derived from a ram's horn. We now see the early date and Asiatic nature of the Ionic style; and we have some definite ground for the temple architecture. A special key to the age of masonry is in the methods of stone-dressing. The use of the 'claw-tool,' more intelligibly called the 'comb-pick,' is distinctive of Greek work in Egypt, and it is known in early work in Greece. As now, on examining the stone-dressing of 1000 B.C., and a gateway and steps of about 750 B.C., there is not a trace of this tooling, it seems almost certain that it is as much of Greek age in Syria as in Egypt. Hence we must attribute the whole of the known walls of the Haram area to Herod and later builders. The use of drafted masonry, with an irregular bump on the face, is fixed to as early as 750 B.C. by the gateway just named; and the use of flaked-dressing (as I may call it), is fixed to 1000 B.C. by the pilaster slabs, agreeing with the work of the supposed Solomonic column by the Russian Church at Jerusalem.

"Pottery is now pretty completely known, and we shall be able in future to date the ages of towns at a glance, as I can in Egypt. Without entering on details, we may distinguish the Amorite by the very peculiar comb-streaking on the surface, wavy ledges for handles, and polished red-faced bowls, decorated by burnished cross-lines. These date from about 1500 to 1100 B.C., and deteriorate down to disappearance about 900. The Phœnician is thin hard black or brown ware; bottles with long necks, elegant bowls, and white juglets with pointed bottoms. Beginning about 1100, it flourishes till about 800, B.C. It developes into the Cypriote bowls, with V-handles, painted in bistre ladder patterns, which range from about 950 to 750 B.C. Due also to Phœnician influence, seem to be the lamps from about 900 to 750 B.C., formed by open bowls pinched in at the edge to form a wick-spout. These were succeeded in the time of Greek influence, from 750, by the same pinched type, but of Greek ware, and with a flat brim. The Greek influence is also seen in the massive bowls of drab pottery, like those of early Naukratis, and the huge loop handles, such as belong to both Naukratis and Defenneh before 600 B.C. All these approximate dates are solely derived from the levels of the walls and the thickness of the deposits; but they agree well with what is otherwise known.

"As unfortunately the Turkish Government claims everything, all the perfect pottery has been taken by the officials, and the stone-work is left to be destroyed by the Bedawîn. Casts, photographs, and potsherds (such as any visitor can pick up here), are all that may be brought to England. These will be exhibited this summer in London, probably along with my Egyptian collections of this season.

"It is much to be hoped that some fresh explorer will come forward to take up this Syrian work, of which we have only been able to lay some of the foundations by the excavations of this spring. Much more has to be done before we can settle the historical problems which await solution in this land."

Herr Schick, our worthy agent in Jerusalem, though incapacitated from active work for some time through illness, did not fail to report all discoveries of interest in and outside of Jerusalem. A few may be mentioned, which have already been published in the *Quarterly Statement*, viz.:—

1. The excavations outside the Damascus gate in the ground of the Domini-

cans, a little to the east of the smaller church discovered in 1880, had exposed additional fragments of masonry, bases of columns, doorsteps, &c., thereby giving sufficient detail to show the foundations of another church, much larger than the former one, and measuring 130 feet by 73 feet. Mr. Schick suggests this to be the original church of St. Stephen's. In the same neighbourhood have been found some rock-hewn tombs, with rolling-stone doors, bearing Greek inscriptions and mason's marks.

2. On the eastern brow of Zion some rock-hewn chambers have been cleared out, which showed evidence of having been used in ancient times as dwellings. These are on the property of a French gentleman, who kindly allowed Mr. Schick to examine and plan.

3. In the village of Silwân three little rock-hewn chapels were found; they are most remarkable, cut out of the solid rock, and from an inscription in the apse of the centre one, appear to have been dedicated to the memory of the prophet Isaiah. Indications of another rock-hewn church, of which the apse remains, were found and noted by Herr Schumacher near 'Athlît.

4. At the Pool of Bethesda the discovery of a fresco on the wall over the Pool, representing an angel troubling the water, is of great value, proving that in crusading times the spot was regarded as the site of Bethesda.

5. Mr. Schick, during the paving of the streets in Jerusalem, obtained some more rock levels; from these, with former ones, he has given what he thinks is the top or form of the Acra terrace.

6. As the stones of one of the immense cairns or mounds in the Plain of Rephaim were being removed for road purposes, a peculiar upright stone was revealed having regular tooled grooves running obliquely towards the centre of the stone on the one side; there are also some curious holes in it.

7. An obelisk, broken, originally about 45 feet in height, was found in the Theatre at Cæsarea; this is believed to be the first obelisk found in Palestine.

We have received from Herr Schumacher (1) a photograph of a very richly ornamented tomb found near Shefa 'Amr, which was published in the October *Quarterly Statement* for 1889; (2) a photo of a Greek inscription found on a flat rock near the important ruins and spring of Khurbet Husheh. This inscription was pointed out to Herr Schumacher by the Rev. P. Van Kasteren, of the St. Joseph's University, Beyrout; (3) a few days ago ten photos and a description of the figures cut in the rock in Wâdy 'Akkâb, opposite Tyre.

To the Rev. J. E. Hanauer the Committee are indebted—

(1) For an account of the cave near Sarîs, with the curious figures carved on the walls.

(2) For a copy of a Greek inscription which he discovered at Beit el Khŭlîl.

(3) For a collection of Judeo-Spanish proverbs.

(4) For several photos of interest, including the rock-cut altar near Zorah.

(5) And for various notes of interest obtained on the spot.

In the April *Quarterly Statement* was published a very interesting paper on the Sects and Nationalities of Syria and Palestine, by Rev. Geo. E. Post, M.D., who has articles in hand on Palmyra and the Bedawîn.

In the same number is an able and learned paper on Mâlula and its Dialect, from F. J. Bliss, B.A., who promises an exhaustive account of the Druses, &c.

Publications.

"The Bible and Modern Discoveries," by Henry A. Harper, was published in December. It is an endeavour to present in a simple but yet connected form the Biblical results of twenty-two years' work of the Palestine Exploration Fund. The writer has also availed himself of the discoveries made by the American Expeditions and the Egyptian Exploration Fund, as well as discoveries of interest made by independent travellers. The Bible story, from the call of Abraham to the Captivity, is taken, and details given of the light thrown by modern research on the sacred annals. Eastern customs and modes of thought are explained whenever the writer thought they illustrated the text. To the Clergy and Sunday School Teachers, the writer hopes this work will prove especially useful. He is personally acquainted with the land, and nearly all the places spoken of he has visited, and most of them he has moreover sketched or painted. The work is in one large, handsome volume of 600 pages. It is illustrated with many plates, and a map showing the route of the Israelites and the sites of the principal places mentioned in the sacred narratives. The work has had a very gratifying reception. The whole of the First and Second Editions are gone, and a Third Revised Edition is nearly exhausted. It is proposed that Mr. Harper write a second volume to complete the old Testament and also take in the New Testament.

For a long time it has been desired by the Committee to present to the world some of the great hoards of information about Palestine which lie buried in the Arabic texts of the Moslem geographers and travellers of the Middle Ages. Some few of the works, or parts of the works, have been already translated into Latin, French, and German. Hardly anything has been done with them in English, and no attempt has ever been made to systematize, compare, and annotate them. This has now been done for the Society by Mr. Guy le Strange in the book "Palestine under the Moslems," just prepared and issued. The work is divided into chapters on Syria, Palestine, Jerusalem, and Damascus, the provincial capitals and chief towns, and the legends related by the writers consulted. These writers begin with the ninth century and continue until the fifteenth. Illustrations required for the elucidation of the text are presented with the volume.

The Committee are in great confidence that this work—so novel, so useful to students of mediæval history, and to all those interested in the continuous story of the Holy Land—will meet with the success which its learned author deserves.

Northern 'Ajlûn "Within the Decapolis," by Herr Schumacher, was published in April. It contains an account of his journey between the Jabbok and Yarmuk and is fully illustrated with a map, plans, and drawings of the ruins tombs, dolmens, inscriptions, &c.

Of the Memoirs of the Western Survey there are only some 15 sets left of the 500 printed.

The Survey of Eastern Palestine as far as accomplished by Major Conder was published in 1889. This volume has been sent out to subscribers.

The Archæological Mission of M. Clermont Ganneau. The illustrations of this work are being reproduced from the beautiful drawings of M. Lecomte, and will be ready in a few days for the letterpress.

The Fauna and Flora of the Wady Arabah, by H. C. Hart, is in the press, the plates are almost ready, and will be issued before the end of the year.

The New Map of Palestine.—The Committee are pleased to say that the new map which has been so long in hand is now ready. The map takes in both sides of the Jordan and extends to Baalbeck and Damascus in the north, and to Kadesh Barnea in the south. It is compiled chiefly from the surveys of the officers of the Fund by George Armstrong, the Assistant Secretary, and revised by Colonel Sir Charles W. Wilson and Major C. R. Conder.

The scale is $\frac{3}{8}$ of an inch to the mile. All modern names are in black, and over these are printed the Old Testament and Apocrypha names in red; New Testament, Josephus, and Talmudic names in blue; clearly showing at a glance all the identifications of the places that have been obtained. Those marked with a ? are doubtful.

The price to subscribers to the Fund will be 24*s.*; to the public £2.

Raised Contour Map of Palestine.—The Committee have pleasure in bringing before you for your inspection a raised contour map of Palestine, which is now nearing completion.

It has been for a considerable period in course of construction by Mr. Armstrong, the Assistant Secretary.

The contour lines on the west of the Jordan represent a rise of 100 feet; those on the north and east, a rise of 200 feet each.

It is on the same horizontal scale, and gives nearly the same extent of country as the new map hung alongside of it.

Museum and Office.—The Committee have to report that all the objects of antiquity belonging to the Fund were removed from the South Kensington Museum, and are now in Messrs. Taylor's Depository until suitable rooms are secured, which will serve for both the Office and Museum. The Committee have rooms in view which they hope to take early next year.

Since the last Annual Meeting the following reports and papers have been published in the *Quarterly Statements*:—

By Herr Schick—

"On the Discovery of an Old Church in Jerusalem;" "On Tombs, Inscriptions and Roman Tiles on the Mount of Olives;" "On Tombs with Rolling-Stone Doors, Inscriptions, Masons' Marks, and Large Cisterns North of the Damascus Gate;" "On Caves on Eastern Brow of Zion;" "On Rock-cut Chapels at Silwân;" "On the Fresco of an Angel over the Pool of Bethesda;" "On Remains of the Old City Wall;" "On Supposed Druidical Stone on the Plain of Rephaim;" "On Subterranean Passages at Gibeon;" "On Tombs at Aceldama," &c., &c.

By Rev. J. E. Hanauer—

"On the Discovery of a Cave with Curious Figures at Saris;" "An Inscription at Beit el Khŭlîl;" and "A Note on the Dead Sea being Visible from Jerusalem."

By Herr Schumacher—

"On Sarcophagi near Akka;" "On Tomb with Curious Figures near Shefa 'Amr;" "On a Rock-cut Semi-circular Apse near Tantura;" "On Inscriptions," &c., &c.

By W. M. Flinders Petrie—

"Notes on Places visited near Jerusalem;" "Report of the Excavations at Tell Hesy."

By Rev. Dr. Camden Cobern—

"A Visit to the Scene of Excavations."

By James Glaisher, F.R.S.—

"Monthly Tables of Meteorological Observations taken near Jaffa for the Years 1885, 1886, 1887, and 1888."

By Rev. George E. Post, M.D.—

"Essay on the Sects and Nationalities of Syria and Palestine;" "The Roebuck in Palestine."

By F. J. Bliss, B.A.—

"Ma'lula and its Dialect."

By Dr. Selah Merrill—

"Birds and Animals New to Palestine."

By T. Chaplin, M.D.—

"On Gihon."

By Major C. R. Conder, R.E.—

"On Norman and Norman Fiefs in Palestine;" "On the Vannic Language;" "On the Hittite Prince's Letter;" "Notes on the Holy Sepulchre;" "The Date of Eshmunazar's Coffin;" "The Old Wall Outside Jerusalem;" "The Tsinnor;" "Ku for King the Seal of Haggai;" "Bezetha;" "Esau's Head;" "Native Name of Palmyra;" "Pella;"

"New Hittite Bas-Reliefs;" "The Mâlula Dialect;" "The Greek Inscriptions North of Damascus Gate;" "Dr. Post's Paper;" "The Inscriptions of Edrei," &c., &c.

By Professor Sayce—
"On the Accadian Word for King;" and "The Inscription of Saris and Mount Olivet."

By William Simpson, F.R.G.S.—
"On Irrigation and Water Supply of Palestine."

By Col. Sir Charles W. Wilson, R.E.—
"On the Tell es Salahiyeh Monument."

By Henry A. Harper—
"On Jewish Lamps;" and "The Way of the Philistines."

By Rev. Canon Greenwell—
"Note on Ancient Axe-heads."

By Mrs. Finn—
"Notes on Mosaic and Embroidery in the Old Testament;" "On the Old Walls of Jerusalem;" "On Greek Inscriptions;" On Sunbirds;" "On Nehemiah's Wall;" "On the Mounds on the Plain of Rephaim;" "On the Waters of Merom," and "On the Tsinnor."

By Rev. W. F. Birch—
"On Nehemiah's Wall;" "Nehemiah's Defence of the Gutter Tsinnor;" "The Pool that was Made;" and "The Siloam Inscription."

By Gray Hill—
"On Irrigation and Water Supply of Syria;" and "Mashita."

By Rev. Canon Gover—
"On the Waters of Merom."

By Dr. Murray—
"On the Greek Inscriptions found on some Tombs North of the Damascus Gate."

By Professor Hull—
"On the Site of Calvary."

By Rev. Henry Brass—
"On the Site of Capernaum;" "The Cave of Adullam;" and "The Place of Elijah's Sacrifice."

By George St. Clair—
"On Nehemiah's Wall;" and "Sutekh, the Chief God of the Hittites."

By Rev. James Neil—
"On the 'Slime Pits' in the Vale of Siddim."

The following is the Balance Sheet for the year 1889, which was published in the April *Quarterly Statement*:—

BALANCE SHEET FOR THE YEAR ENDING 31st DECEMBER, 1889.

Receipts.	£	s.	d.
January 1, 1889—			
To Balance	402	9	0
December 31, 1889—			
Donations, Subscriptions, and Lectures ..	1,521	9	0
Maps, Memoirs, and Books	988	3	2
Photographs	37	16	11
	£2,949	18	1

Expenditure.	£	s.	d.
By Printing and Binding	920	18	3
Maps, Illustrations, and Photographs..	462	12	11
Exploration.. ..	163	3	0
Stationery, Advertising, and Sundries	112	17	10
Postage, Parcels, including the *Quarterly Statement* ..	113	7	4
Salaries and Wages	280	12	4
Rent	121	0	0
Loan paid off ..	400	0	0
Balance in Bank, 31st December, 1889 ..	375	6	5
	£2,949	18	1

W. Morrison,
Treasurer.

TREASURER'S STATEMENT.

This year, like the last, has been one mainly of printing and of publishing results. Thus the expenses of publishing amount to £1,383 11*s.* 2*d.*, against which must be set £1,026 0*s.* 1*d.* produced by sales. Considering that the *Quarterly Statement*, which costs about £500, is given away to subscribers to the Fund, and that great liberality is observed in the allowance to subscribers on the books, these figures show very good results. The amount set down as received, it must be observed, does not include advertising the books or the publisher's commission, but shows the net results.

Management shows a pretty constant expenditure of £627. New exploration only required £163 last year. As the Committee are at the present moment organising new work, it will be very much heavier next year. The debt of £450, which appeared in my last Statement (*Quarterly Statement*, April, 1889) is now paid off, leaving only a small sum due for interest. The only liabilities of the Society are certain current printers' and engravers' accounts.

The position of the Society, if we enumerate its books, with copyrights and stock of books, its collections, and its maps, is perfectly sound and solvent.

In other words, out of a total expenditure of £2,175 the proportion is as follows:—

Publishing	·64.
Excavations	·07.
Postage	·05.
Management	·24.

Walter Morrison, *Treasurer.*

The number of subscribers is steadily, but not rapidly increasing; since the date of last meeting some 187 have joined the annual list.

The Committee desire again to record their special thanks to their Honorary Local Secretaries for their efforts so cheerfully and readily made on behalf of the Society's work.

The Committee have to announce with regret the death of six members of the General Committee since the last Annual Meeting, viz.—

Earl of Carnarvon.
Col. Sir Henry Yule, C.B., R.E.
Sir George Burns, Bart.
General Sir Howard Elphinstone, K.C.B.
George Jackson Eldridge, Esq., C.M.G., H.B.M., Consul-General, Beyrout.
Rev. H. Hall-Houghton.

The Committee propose that the following gentlemen be invited to become members of the General Committee:—

The Duke of Norfolk.
Major C. M. Watson, C.M.G., R.E., War Office, Horse Guards.
Sir John Coode.
der Stuart Murray, Esq.
Reginald Stuart Poole, Esq., LL.D.
H. Rylands, Esq., F.S.A.
Bishop of Lincoln.
Bishop Blyth, of Jerusalem.
P. Le Page Renouf, Esq.
James Melrose, Esq.
Rev. James H. Rigg, D.D., Principal of the Westminster Training College.
Dr. D'Erf-Wheeler, Jerusalem.
J. R. Barlow, Esq.
T. Rymer, Esq.
Rev. W. H. Rogers, D.D.
Herbert Birch, Esq.
Rev. Thomas Harrison.
H. C. Kay, Esq.

The Chairman.—We have the pleasure of having Mr. Petrie with us, and I should like to know whether he would like to add anything to what has been said in the Report.

Mr. Flinders Petrie.—I do not wish to suggest any additions to that Report as a Report. I have stated in it as briefly as I can the principal heads of information, and I think that will be all that I should wish to state for the present in the Annual Report until you shall decide what form the further and more detailed publication will take.

Mr. Walter Morrison.—Everything I can tell the Committee has been stated by Mr. Flinders Petrie. I should like to ask Mr. Petrie one question. In the Report it is mentioned that he identifies Lachish with Tell-el-Hesy. I don't know how far this is from Umm Lakis.

Mr. Petrie.—They are about 3 miles apart. It has been supposed that Umm Lakis and 'Ajlân must naturally be Lachish and Eglon, which were near together. But neither of these sites can be ancient, as they only contain a small depth of Roman pottery. Tell Nejîleh, which I suppose to be Eglon, is about 6 miles from 'Ajlân.

Mr. Morrison.—We know that in Oriental countries an important town does shift about. We have the cases of Memphis and Cairo, of Delhi, and of Jericho.

Mr. Petrie.—My reasons for identifying these sites are that we know Lachish and Eglon to have been the two principal towns of the Amorites in the low country, and Tell Hesy and Nejîleh are the most valuable positions in that district as commanding constant springs, whereas every other place depends on wells. As moreover I find at these places the only two great Amorite cities that I have seen in all the district, it seems almost certain that these are Lachish and Eglon, which must have been in this part. My supposition is that after the Jews were removed the Bedawîn would push up into this country, and naturally seize on these springs for their flocks and herds. The Jews returned here in feeble force, and were not strong enough to eject the Bedawîn; they therefore occupied the nearest points they could within sight of the old places, on the opposite hills; the families from Lachish founding Umm Lakis (which implies in Arabic "a descendant of Lachish"), and the families from Eglon founding 'Ajlân.

Mr. Morrison asked a question with reference to the masonry of the south-east corner of the Haram area being Herodian.

Mr. Petrie.—That is just a question how long those signs as masons' marks may have existed. One can hardly use it as a conclusive argument. The question of the stone-dressing seems to me very important. A certain peculiar form of tooling, "claw-tooling" or "comb-picking," is known in Greece before it is ever known in Egypt. Subsequently we find it used in Egypt in Greek times, and it is abundantly used in Palestine. That is entirely absent from the masonry we now know belonging to the period of the Jewish kings; there is no trace of that, and as it belongs entirely to the Greek period in Egypt, it is a very strong argument that where we find this tooling we must suppose it to belong to the Herodian period in Palestine.

Mr. Morrison.—I follow that. What does Major Conder say about it?

Mr. Petrie.—It was satisfactory to see that the method of dressing the stone at Tell Hesy, probably 900 or 1000 B.C., was exactly similar to that on the column at the Russian Church, viz., by flaking it away so that the surface appears to be hollowed out in a series of flakes, and that was further reduced by pick-working, which left the surface what I may call the pocke surface. I found only one such stone re-used in the Triple Gateway of Jerusalem.

Mr. Morrison.—We use the claw-tool, or comb-picking, now. A sort of hammer with a number of sharp points.

Mr. Petrie.—They use that also in the East. At present my belief is that it was a Greek invention, imported by the Greeks into both Egypt Palestine.

Mr. Morrison.—Major Conder is very strong about that.

Mr. Petrie.—There is no question it is the essential means of judging of the period of the stone, and I think we have now much firmer grounds for our judgment in having got early masonry of which we can be certain of the date to within a century. There is a point I should be glad to hear the opinion of the Executive Committee on, which might almost be laid before the present Committee, as to whether the circumstances will justify us in adopting the name Lachish for this site provisionally, instead of referring to it as Tell Hesy, which does not convey a definite idea to most people. I don't know how far it might be suitable to assume that identification and proceed upon it, but it will simplify matters rather in writing on the subject if we can at once venture to adopt this identification of this place as Major Conder suggested.

Mr. Guy le Strange.—Was the identification made before you went there?

Mr. Petrie.—Yes. Major Conder suggested it some time before that. I now can prove it to be distinctly an Amorite fortress from the section shown, and a fortress of great strength and great importance, and that the Umm Lakis is certainly of the Roman period. We have destroyed the rival, and we have greatly strengthened the case for Tell Hesy by finding the early wall and proving the early date of it. The distance between is three miles.

Mr. Guy le Strange.—Is there a place called 'Ajlân there now?

Mr. Petrie.—Yes, between Tell Hesy and Umm Lakis; almost midway between the two.

Mr. Guy le Strange.—Umm Lakis is not known in the old Arab chronicles. There is mention of 'Ajlân in that part of the world in the early chronicles, but only once, though. There is the well-known place, Ajlûn, east of the Jordan, but there is an 'Ajlûn in the chronicles mentioned in that part of the world too, once or twice only.

Mr. Petrie.—I may say that Tell en Nejîleh is within sight of the place now called 'Ajlân; they are only about 5 miles apart.

Mr. Basil Woodd Smith.—In the absence of Lord Sidmouth I beg to move the adoption of the Report. It does not require a speech from me, because Mr. Flinders Petrie has made a more effective speech. An

unlearned and untravelled Englishman could not deal with it so exhaustively. It must be very gratifying to us to find that the Fund is still so vigorous, and that it promises to go on doing even greater things in the future. I have been looking at the new raised contour map and it strikes me as being very effective indeed. It gives me a more vivid idea of the contour of Palestine than I have ever had before. It presents to the eye clearly and distinctly the qualities of the surface of the land. I have great pleasure in moving the adoption of the Report.

Mr. Henry Maudslay.—May I add a word? In the case of blind people that map would give the finest explanation possible; they would pass their fingers over it and ascertain in a moment the main features of the country. To my mind it is one of the most beautiful and effective things I have seen.

Captain A. M. Mantell, R.E.—We have to congratulate ourselves that so much has been done during the last 12 months. I remember in '80 or '81, when I had the pleasure of going out with Major Conder, there was a great talk of our getting a new Firman, and that talk has gone on until 10 years have elapsed, and it is a great satisfaction to think we have now succeeded in getting rid of the obstruction. I have much pleasure in seconding the adoption of the Report.

The Chairman.—Having that Report of Mr. Petrie before us and Mr. Petrie himself here, I should like to move that our best thanks be given to Mr. Petrie for his exertions. When he was at Jerusalem it was very cold, and I know he has gone through very great extremes of heat and cold, as those who go to Palestine generally experience. I trust the experience he has had in that country, the good work that he has done, are indications of other good works that he will be induced to follow up next year, for I did hear when he was there—and I didn't wonder at it at all, frozen one day and melted the next—under those circumstances he would go there no more. I hope, however, and I know I am not alone in that, that he will see his way, "as it is only broken ground," to use his own words, to follow up the work next year; to start in the good time, and knowing as he does the country now, and knowing the people and others, that we may have to thank him another year for the services he will have rendered between now and our next Annual Meeting. I would ask the Treasurer if he would kindly second that vote of thanks.

Mr. Morrison.—I should be very happy indeed to second that vote of thanks. I am sure what has fallen from Mr. Petrie to-day is sufficient to whet our appetite for fresh discoveries. It seems as though there were a considerable field, and Mr. Petrie, with that instinct which comes I suppose from practice—like the blacksmith's arm—will be enabled to hit upon the right spot. No doubt in this particular case it was rather a hurried matter, and there was not sufficient time for Mr. Petrie to go out to make his way, and do full justice to the opportunities offered to him.

A Member having asked if the Firman allowed of excavations in any part.

The Chairman said :—I was going to speak of that. Our Firman was confined to ten square kilometres, but I am in hopes that directly we can find another site, after having broken ground, we shall have very little trouble in getting a new Firman. Ten years have passed of great anxiety, but I can assure you that we have never forgotten that dropping water will wear away a stone. Perseverance will gain our ends I have very little doubt. I can only say we are greatly indebted to the Marquis of Salisbury, and I think he never flagged for a single moment from the first attempt, and I have no doubt we shall have the same assistance when we apply again. Now, gentlemen, you have heard the motion.

The resolution was put to the Committee, and carried unanimously.

Mr. Petrie.—I thank you most sincerely for your very kind expression concerning my work. It has been a very great pleasure indeed to me to undertake what I have done, especially as I think that I have been able to lay a foundation for future work by getting the pottery and the masonry accurately dated, which will enable others, I hope, to be as successful in examining sites, and with more certainty than they could have done before. I am almost afraid that Egypt has greater attractions for me than Palestine, but in any case it will be my pleasure to give any assistance I can in helping others towards the work, or giving any information I can from the small experience I have had in the country. (Cheers.)

The Chairman.—Gentlemen, there is another duty to perform. Mr. Schick has done his work well. I had doubts upon some things, but it took a load from my mind to hear from Professor Lewis, who has just returned from a visit to Jerusalem, that the measurements that had been sent to us were correct. He tells us every one—angles, direction, and length of line, was found to be accurate. It is a very important thing that we should know that anyone who is there sending us information is careful in his measurements, and doesn't jump at conclusions. For the good work he has done for us, and the constancy with which he has worked, I should like to ask the Committee to thank this coadjutor who has worked so exceedingly well.

Mr. William Simpson.—I have very much pleasure in seconding that. I think we could not do otherwise than pass a vote of thanks to him.

The resolution was put to the Committee and carried unanimously.

The Chairman.—Well, gentlemen, who would have imagined that an over-wrought man, writing here, writing there, ever engaged in artistic work, would find any time to devote to us? Who would have thought that Mr. Walter Besant, who is so energetically at work, and so usefully in so many things, should find time to come here, so that what he had done for us entitled me to move our thanks be given to him. That which he has done has been effective, as is everything he does. It is an early ove, as Mr. Petrie says his early love for Egypt will overcome his

love for Palestine. Mr. Besant is here. If he were not, I have a note from him which is of an earnest nature, and I do ask you to give a warm vote of thanks, and I feel sure, under the circumstances in which Mr. Walter Besant is placed, that you will thank him, and thank him very warmly for being with us. Everyone in the room, I know, would second that, but, Professor Lewis, you know his work best, and I will ask you to do so.

Professor Hayter Lewis.—I am extremely glad to second that. He collects valuable information and puts it in a way which everyone can understand and thoroughly enjoy, and he uses his interest in every way for the advancement of the Fund. I am quite sure I should do my duty very imperfectly if I didn't second, with my heartiest good will, the resolution you have moved. (Cheers.)

The Chairman.—It is passed by acclamation. I need not put it to the meeting. Mr. Besant, the meeting has thanked you for those good services you have rendered.

Mr. Walter Besant.—I really do not deserve your thanks. I have been here very little indeed, and all the real work of this Society has been entirely done by Mr. Armstrong. I have not been here for the last ten days more than once. I am always very anxious to carry on the work in which I have been engaged so long and so happily, and as long as I can continue the work you may depend on me.

The Chairman.—I have yet one other motion. You see this contour map, that map has been done entirely by Mr. Armstrong, not in his office hours. There is a deal of work to be done here, no one knows it better than I do. It is a map that, I think, answers all the desires that I have heard expressed from time to time. Here we have something that speaks, and will speak, to the good work of the Survey. Just see. So far as the Survey extends we know everything. South and east of that much is uncertain or unknown. How is this map to be reproduced? It has been a subject for thought, how it can be readily reproduced and how it can be brought into schools and have a general application, even that application which my friend Mr. Maudslay referred to just now, that the blind would feel and know how deep a certain part was below the level of the Mediterranean, and so in every other part of it. It is one that I feel exceedingly proud of. Look how well these two maps—the raised contour and new map of Palestine—will work together. This has been part of the work in the past year, and therefore as Mr. Armgtrong has performed his duties to my *entire* satisfaction, and in addition has prepared this map of which I am proud, I should like to move that our thanks be given to Mr. Armstrong. I will ask Dr. Chaplin, knowing the value of the work, to second this resolution.

Dr. Chaplin.—It affords me very much pleasure, sir, to have the opportunity of seconding the vote of thanks to Mr. Armstrong for this very valuable work. I have had the pleasure of seeing it in the course of its progress from month to month, and I know how very much labour and thought Mr. Armstrong has bestowed upon it, and I also know what

has already been said, how very much occupied he is in this office, so that I think the time he has bestowed upon it, and the skill and judgment which he has displayed in connection with it are exceedingly creditable, and we owe him really a very warm vote of thanks.

Mr. Armstrong briefly returned thanks.

Mr. Guy le Strange moved and—

Mr. Henry Maudslay seconded the re-election of the Executive Committee. This was put to the meeting and carried unanimously.

Rev. W. J. Stracey.—Before we separate there is one more vote of thanks which is due, and that is to our Chairman. I should judge by his looks that he must be as old as I am, but he is a very much younger man than I am myself really. I will only say, as regards Palestine, that I look back to my short tour there ten years ago with the greatest pleasure I almost ever had in my life. I never went anywhere where I had so much satisfaction. I make a point of telling all my friends, particularly the younger clergy, that they cannot do better for themselves than to take a holiday of two months and go to Palestine. I beg to move that our very best thanks be given to you, Mr. Chairman, for your presidency on this occasion.

Mr. Henry Maudslay.—I have had the honour of being requested to second this motion, and I shall do so in the very fewest words. The Chairman has my most entire and hearty consideration, and I am quite sure that his devotion to the work which he has done so efficiently warrants and ensures its continuance. Without his application and perseverance I think the thing would, perhaps, have died a natural death long ago. It is reported that Queen Mary said she should have the word "Calais" written on her heart. I am quite sure that our Chairman has the word "Jerusalem" written upon his heart, and "Palestine" written in his head and in his thoughts. I am quite sure he will carry out this work as long as God gives him strength, for the furtherance of the object that we have in view. I beg to second the resolution.

Put to the Committee and carried unanimously.

The Chairman.—I thank you very much, because I understand that this vote is not individually addressed, but to the Executive Committee who aid me so well and so effectively, and work so well. This I can assure you, that all that is in my power I certainly shall do; and knowing this vote is to the Executive Committee, and knowing them so well, I am certain they will do so. I hope that this time next year, as I have already said, Mr. Petrie will be here to report again; but I first wish to express my individual thanks to him for the deep concern he has shown in the interests of the Fund. I can only say, in the name of the Executive Committee, I thank you very sincerely for the kind vote you have just given me. I hope we shall have a good Report next year.

The Committee then adjourned.

NOTES ON PLACES VISITED IN JERUSALEM.

Silwan.—The Isaiah tomb is now in custody of the Franciscans, who have made it into a chapel, kept locked up. The published inscription is not quite correct ; apart from the curvature it is

KTUTHFEPWICAIA
ΠΡΟΦ TOV

There is no trace of a letter between *προφ* and *τον*. The surface is rough picked, and rubbed down partly, before inscribing. Greek inscriptions were used till crusading times here (as in the Anarulph inscription), but such have the *α* made in the Coptic form ⲁ ⲁ, *φ* as *ϕ*, and not as here Φ. Professor Lewis noted some small corrections in the restored plan of Herr Schick.

Absalom's Tomb appears to be of several periods. From the position of the entrance it was probably a rock tomb decending in the surface of the open field originally ; the steps and rough chamber being of this age. Secondly. It was cut around and isolated in the Herodian age. Thirdly. the side recesses for bodies were cut in the sides of the chamber ; certainly later than the moulding round the top of the chamber, which is cut into by them. That the entrance at the top of the steps was used in the second period, is shown by the relief circle carved on the stone over it, which does not occur in any other part of the top.

The tomb of St. James, near it, has also been originally different, as there are signs of a square shaft as the original entrance, altered by being cut away on one side to form the present steps.

Church of St. Stephen outside Damascus gate. There can be no doubt as to the general form and size of this building. A pier was found by us just where it was required to match an existing one, so that there are now four known, in two pairs. The apse was plastered over on the outside with plaster, with irregular flakes of limestone imbedded in it. This plaster remains against the outer earth, after the stones have been removed, and shows all the joints of the wall which existed there. The present blocks around the apse have all been roughly placed there by the friars. They have also made up part of the apse outline with loose blocks, but the steps leading up to the apse on either side are quite undisturbed, and are of fine red clouded marbly limestone. The great excavations in the rock are later than the church and its destruction, as they are cut askew to it, and were filled with rubbish ; moreover pieces of the broken columns of the church were used in the filling up of low parts of the sides of the hollows.

A tomb lately opened there has the stone door, with iron ring for the pivot, and iron nails for the lock. The inscriptions over these tombs are—

ΕΠΙ CYKΕ and ΟΚΔ+ΤΟΙΚS
ΗΛΠΙΣ ΕΝ ΒΟΡΤΟΥ
ΜΗΚΑΤS ΥΥ,

Mosque of El Aksa.—With regard to the age of this, the irregular use of materials which are of the age of Justinian, the capitals which do not match, the stumpy columns built up of odd material, and unsuitable proportions of the monolith columns in parts, seem to conclusively show that it must have been built after the Arab conquest, as Professor Lewis maintains. But it appears that its original form was totally un-Arab, a pure basilica, of nave and two aisles, with the clerestory arcade work, above the nave arches, which is purely Roman in design; a Christian architect was doubtless the constructor of this. The special point to note is the extraordinary thickness of the piers which bound the aisles; these seem to me to be the thick outer walls of the original basilica form, pierced through with arches so as to extend the mosque into the Arab type of a large number of low colonnades, or forest of columns. Professor Lewis does not see any objection to this view of the independent basilica form being the first, and extended later on, though he strongly holds to the large area of the colonnades in early Arab times.

Rock Tombs. The regularity of many of these tombs suggested that they were cut to measure; and on measuring them it is found that the same lengths recur frequently. Thus (in metres, the only measure I happen to have here) there are lengths found of 2·22, 2·23, 2·24, 2·27, 2·28, 2·29, 2·30, and 2·31, all evidently intended for the same quantity; again, there occur 2·81, 2·83, 2·83, 2·84, 2·84, 2·84, 2·85, 2·87, 2·88, 2·90, 2·91, 2·93, 2·93, and 2·94 metres; and this extent of variation is not more than is often found in one single chamber owing to accidental errors in the excavating. From those tombs which I have already measured it is certain that more than one cubit was used, and in two cases there is valuable evidence of a part being cut by one cubit, and a later chamber being cut out with a different cubit. The cubits found are—

Inches	±	
25·12	·1	One chamber of tombs of Judges, with other chambers cut later with 22·5, leading from it.
23·83	·06	Four chambers of one tomb, near Judges, with later chamber on 22·5 cut from it.
22·55	·04	Eighteen tombs, tomb of Judges and others by it, and tombs of Hinnom. No variation in amount in different places.
15·46	·08	Six tombs in valley of Hinnom, one with moulding and therefore late. (Herodian.)

The 25·12 is already known to be probably the sacred cubit of the Jews; and 22·5 is the double of the Phœnician foot. I should say that all the results were worked out in metres, in which form I could not recognise the resemblance to known measures, which I am familiar with in inches; hence I could not have the faintest prejudice or inclination to adapt the results to cubits already known. I hope to obtain more material and work out these results more fully in future.

Future Work required in Jerusalem.—A great deal of clearance has been made in Solomon's stables by the late Pasha here, and the inner ends of the triple gate opened out on the Haram area. Thus much more can be seen of the masonry; and four periods are traceable, probably ranging from Herod to Justinian. I am told by Professor Lewis that the lowest blocks of the great wall on south-east are dressed with the "claw tool," or *comb pick* as it may better be named. This tooling is, in Egypt, characteristic of Greek work, and is well known early in Greece (Parthenon, &c.); hence it gives a strong presumption that the whole of the south-east wall is of Herodian work. If so, it is very unlikely that Solomon's wall occupied that line, as if it did its lowest courses would have been buried in the rubbish, and used by Herod for his foundations. Hence the most urgent question is whether any trace of Solomon's wall can be found *within* the line of the present wall. To settle this, some excavations in Solomon's stables are needed. Probably the best place would be in the internal angle between the great corner tower and the east wall where two sides of the pit would be of masonry, with ledges to fix timbering, &c., upon; thus we should learn whether the wall is backed (1) with earth, (2) with vaults, or (3) with a rock scarp; also (4) whether there is any sign of Solomon's wall or foundations. Other pits might be sunk to find the rock, and search for walls or masonry, between this and the outcrop of the rock in the triple gate.

It is also very desirable to open and examine the vaults beneath the raised platform of the Haram, but these are jealously guarded from any chance view.

W. M. Flinders Petrie.

EXPLORATIONS IN PALESTINE.

Early in February a vizierial permission was granted for excavations about Khurbet 'Ajlân, and an area of 9½ square kilometres in that neighbourhood. And as soon as the packing of my Egyptian collections was finished, and they had been inspected by the Government, and a bad attack of influenza had been overcome, I left Egypt for Syria, arriving at Jaffa on March 9. The season was unusually late; no rain had fallen till Christmas, and the spring rains lasted heavily till the beginning of April; the last day of March there was a furious storm over all south Palestine; a white squall, which I saw tearing along over Jaffa at the rate of an

express train, breaking shutters and windows there in a way not known for years.

Although the permission was signed, it unfortunately contained a trifling error of description, which for form's sake was rectified ; but this produced so much delay that the paper did not reach Jerusalem, where I was awaiting it, till March 29. For nearly three weeks, therefore, I was unable to forward the business at all, as no steps could be taken until the original document could be presented to the governor, Reshad Pasha. This time was not, however, all wasted, as I was fortunately able to examine and discuss the various buildings and remains of masonry with Professor Hayter Lewis and Dr. Chaplin ; and thus I learnt, I cannot say much, about the antiquities, but rather I found how provokingly little is positively known, and in what a vast uncertainty almost every question still remains. Perhaps to learn our ignorance, at first hand on the best authority, was as useful a preparation as I could have for appreciating scraps of information. It is easy and simple to speak of Solomonic masonry, the Jebusite rock-scarp, &c. ; but when the positive proofs of such ages are enquired into, the constant resource must be the answer, "There is nothing certain in Jerusalem." If ever the history of the city is to be clearly settled, it must be by learning the archæology of Syria in other and less complicated sites, and then applying the knowledge of stone-working, of construction, and of pottery to fix the ages of things in erusalem.

But while waiting I began on a fresh enquiry which had not hitherto been opened. The abundance of rock-hewn tombs about Jerusalem is well known, and many of them have been surveyed and published. Much yet remains to be done in this matter, but it would need a considerable time in Jerusalem to work out the subject. The dimensions of those that are cleared are, however, easily taken, and hence we may examine whether they were wrought by measure, and, if so, what measure or cubit was used by the masons. Over fifty tombs I thus measured, from mere single chambers, up to the complex arrangements of the "Tombs of the Kings." From these it was abundantly plain that some measure was generally used, not only from the regularity of the sides of a chamber, but also from the repetition of the same length in ten or a dozen different tombs. The details of the results must be published with reference to the already published plans of several of the tombs : but the general results are that far the commonest cubit is of 22·6 inches, which is evidently the Phœnician cubit of 22·3 at Carthage, and known in the Hauran. Earlier that this, and in the "Tombs of the Kings," there is a cubit of 23·7 ; there is also one tomb of a cubit of 25·1, which is the Hebrew, Assyrian, and Persian cubit of 25·1 to ·3, and in the valley of Hinnom only are tombs cut to a cubit of 15·5 inches, which seems to be peculiar to Syria. From the workmanship most of these tombs are probably of the Herodian times ; but whether the 15·5 inch cubit of the rude Hinnom tombs is earlier or later cannot be decided yet ; the presumption is that such a near and convenient site for tombs would be early occupied. We have at

least now a basis of accurate information as to the various cubits and their relative use, which will serve to start further studies.

So soon as the permission arrived Mr. Moore and I went to the governor, who was most cordial and willing to facilitate matters in every way. But further delays were due to the official who was deputed to receive everything that might be found on behalf of the Government. So that it was not till April 14 that I could at last begin work, only one week before Ramadan. I had already visited the various sites included in the area of the permission, but found that all but one were of Roman age and unimportant. The only promising place was Tell Hesy, in the Arab country, six miles from the village of Burer, where we had to settle to begin with But as Umm Lakis had been supposed to be Lachish, and it was the nearest site to the village, three miles off, I determined to just examine it, partly in order to get a body of men together who could go off as far as Tell Hesy afterwards.

My expectations of Umm Lakis from the first view of it, were quite confirmed. We trenched about all over the ground down to the undisturbed native red clay; but there was only 6 or 8 feet of earth, and pottery of Roman age was continually found in it; while, most decisively, a worn coin of Maximian Hercules (circ. 300 A.D.) was found within 2 feet of native clay. On a hill to the north some walls were seen, but they proved to belong to a building with a large bath, probably a Roman villa. That Umm Lakis is the great historic city of Lachish is utterly impossible, after over three days' digging over the site. Khurbet 'Ajlân appeared far less promising than Umm Lakis; there is very little extent of artificial soil, very little pottery about it, and what there is shows Roman age; as it is all under crops I did not think it worth while to dig into it, after the insignificance of the much less unpromising site which we had already settled.

We then moved and established ourselves at Tell Hesy, which appeared to me to be a very important city of early date. In the absence of any inscriptions it might seem very risky to draw a conclusion as to the identification of a town; but we will first notice what reasons there are for believing this to be Lachish, and then we shall see how valuable the literary notices of its history become in understanding the site. Lachish was one of the five strongholds of the Amorites, with Jerusalem, Hebron, Jarmuth, and Eglon (Jos. x, 5). And it continued to be one of the strongest places in the country down to the invasions of Sennacherib and Nebuchadnezzar, to both of whom it was a special object of attack. It must, therefore, have had some natural advantages, and from various other notices (especially Eusebius) it certainly lay in the low country in this district. Now at Tell Hesy is the only spring for many miles around, a brackish brook trickles down from Tell Nejîleh, where in ancient times it was confined by a massive dam; and at Tell Hesy it is joined by a fine fresh spring, while the whole of the water is swallowed in the stony wady within a few hundred yards lower, and never reappears. It is certain then that Tell Hesy and subordinately Tell Nejileh must have been

positions of first-rate importance from the time of the earliest settlements. They would thus agree to the character of Lachish and Eglon. The history of Tell Hesy begins about 1500 B.C., and ends about 500 B.C.; while Tell Nejîleh, as far as can be seen on the surface, is of the same age, or ruined even earlier. The absolute point of date is the position in Tell Hesy—some way from the bottom of it—of the thin black Phœnician pottery which is known in Egyptian remains as belonging to about 1100 B.C. While the close of its history is fixed by the fragments of Greek pottery on the top of it, and the total absence of Seleucidan and Roman objects. There are then no sites in the country around so suited to the importance of Lachish and Eglon as these two Tells; and conversely there are no recorded places of such primary value as these must have been, except the two Amorite capitals of the low country, which we know to have been near together.

It will naturally be asked how the names of Umm Lakis and 'Ajlân come to be in places which are some miles from these tells, and are certainly not the cities of Lachish and Eglon. A conjecture may be tolerated that during the captivity the Bedawîn spread over the south country and seized these springs for their flocks; that the "residue of Israel" which returned were not strong enough in this outlying district to dispossess the occupiers,* and that the men of Lachish and the men of Eglon (*see* the local groups maintained in Neh. vii, 25-38) took up lands in sight of their old habitations, on the other side of the Wady Hesy, and gave them the old names. Such a process seems very likely; and the possibility of it must warn us against placing too much value on the position of a name alone. The name Umm Lakis might well be applied to a descendant of the ancient city; Umm Lakis being like Abu Daud in modern Arabic, meaning "his father is David," and so "its mother was Lachish. I will not venture to say whether there is an echo of the old 'Ajlân in the name Nejîleh, but the tell is not more particularly grassy than other places; nor will philologists perhaps allow it possible that the name of Lachish may have been formed from that of the Wady Hesy, the town of "Hesy," Le-hesy.

The actual remains of Tell Hesy consist of a mound which is formed of successive towns, one on the ruins of another, and an enclosure taking in an area to the south and west of it. This enclosure is nearly a quarter of a mile across in each direction, and is bounded by a clay rampart still seven feet high in parts, and in one place by a brick wall. This area of about 30 acres would suffice to take in a large quantity of cattle in case of a sudden invasion; and such was probably its purpose, as no buildings are found in it, and there is but little depth of soil. The city mound is about 200 feet square; its natural ground is 45 to 58 feet above the

* The feeble occupation of Lachish is shewn by the phrase "Lachish and the fields thereof" (Neh. xi. 30), while all the other towns occupied had villages dependent on them: this shows that there were not enough settlers to fill up the *Khurbets* all round Lachish.

tream in the wady below, and on that the mass of dust and ruins of brick walls rises 60 feet. The whole of the east side of the town is destroyed by the encroachments of the valley, which here makes a great bend that has enabled the winter torrents to eat away this side. But for this fact we should have been unable to reach anything much of the earlier ages here ; but in the section cut away in a steep slope above the wady, every period is equally exposed. We can thus see the succession of the walls of the town, and trace its history.

The earliest town here was of great strength and importance ; the lowest wall of all being 28 feet 8 inches thick of clay bricks, unburnt ; and over this are two successive patchings of later rebuilding, altogether 21 feet of height remaining. Such massive work was certainly not that of the oppressed Israelites during the time of the Judges ; it cannot be as late as the Kings, since the pottery of about 1100 B.C. is found above its level. It must therefore be the Amorite city ; and agrees with the account that "the cities are walled and very great" (Num. xiii, 28), "great and walled up to heaven" (Deut. i, 28), and also with the sculptures of the conquests of Ramessu II, at Karnah, where the Amorite cities are all massively fortified. So far as a scale of accumulation can be estimated, the foundation of the city wall would have been about 1500 B.C., and thus agrees to the time of the great Egyptian conquests of the land, beginning under Tahutmes I, at that date. The need of defence against such a well-organised foe, probably gave the great start to fortifying in Syria. On both outside and inside of this wall is a great quantity of burnt dust and ashes, with fragments of pottery ; and we can now exactly know the character of the Amorite pottery, and its peculiarities, which are quite different to those of other times or places.

The next period is marked by a stratum of 5 feet of dust and rolled stones out of the valley below, lying in confusion on the ruins of the great Amorite wall. These remains clearly show a barbaric period, when the inhabitants were not skilled either in brick-making or in fortifying, and when rude huts of the nearest materials were piled up, only to fall soon into ruin. This accords with what we glean as to the period of the Judges, and, coming immediately on the ruins of the Amorite city, the historical relation of these remains can hardly be doubted. Above this we meet a period of wall-building and fortifying, which goes on with intermissions and various destructions until the end of the history. The first of these walls is the most solid, being 13 feet thick, and this probably belongs to Rehoboam's fortification of Lachish (2 Chron. xi, 9) ; for, though David and Solomon doubtless did some building (2 Chron. viii, 2–6), yet probably this was more in the outlying parts of the Kingdom, and not so near home, where the strength of the inhabitants was sufficient protection. Rehoboam, on the contrary, found himself with a shattered country, which needed consolidating throughout ; and his fortifications of the inner circuit of towns show how little David and Solomon had thought it needful to attend to them. Probably to this

fortifying of Rehoboam we must attribute the wall which I have traced along the north and west of the town, forming a tower at the north-west corner. But to trace the connection of walls in one part with another is a difficult task, as they need to be cleared all along, and all the rebuildings and patchings tracked out—a most tedious affair. The four rebuildings which may be traced on the east face section must belong to some of the fortifying mentioned as having been done under Asa, Jehoshaphat, Uzziah, Jotham, and Manasseh. That the main building here does not belong to later times than Nebuchadnezzar's destruction is shown by the scanty remains of post-exilic times found on the very top of the mound, a Persian coin and pieces of Greek pottery of the fifth century.

On the south side a different character of walls is found; one of the later being a massive brick wall 25 feet thick, and still of a considerable height. Probably this belongs to Manasseh's work, about 650 B.C. This was built over a great *glacis* slope, formed of blocks of stone faced with plaster, which can be traced for forty feet height of slope; perhaps this may be attributed to the hasty defences by Hezekiah at the time of Sennacherib's invasion in 713 B.C. A flight of steps of rather rough stones led up to an ascent of the *glacis*, which has now perished in the valley, and there is the gateway of a building at the foot of the steps, the rest of which has likewise been washed away. As this building may be attributed to about 700 B.C. or earlier, its character is important in the question of stone-working. There is the system of drafted stones, with a smooth edge, and a rough lump on the middle of the face; but there is no trace of the "claw tool," or rather comb-pick, as it may be more intelligibly described. On the masonry at Jerusalem this is a constant feature, and we will notice later on the importance of this matter. This *glacis* slope overlies the earth, which is piled 10 feet deep around a large building, the line of which I have traced on the east side. This building is 85 feet long, with walls of clay brick, over 4 feet thick. It must be considerably earlier than the *glacis* to allow of ten feet of accumulation; and as the *glacis* cannot be likely to be earlier than Hezekiah, the building can hardly be of Ahaz; but it rather belongs to the long and flourishing time of Uzziah. Indeed, on a regular scale of accumulation of deposits, we should need to date it back to Jehoash; but we can hardly be too early in dating it to 800 B.C. Then ten feet more below this is another clay-brick building, which we should accordingly have to date back to 900 B.C. or earlier—perhaps 1000 B.C. It has, moreover, been ruined and burnt, and then reconstructed out of the old materials, very rudely. Though of clay brick, it had doorways of fine, white limestone, and some precious slabs of these yet remain, turned upside down in the reconstruction. These show us a curious form of decoration by a shallow pilaster, with very sloping side, resting on a low cushion base, and with a volute at the top. We are here face to face at last with work of the earlier Jewish kings, probably executed by the same school of masons who built and adorned the temple of Solomon. We see decoration which

we must suppose to be closely akin to that of Solomon's time—if not, indeed, as early as that itself. We learn that the Ionic volute, which the Greeks borrowed from Asia, goes back to the tenth century in Asiatic art; and we can hardly fail to see its origin from a ram's horn, thus leading us to a pointed suggestion as to the form of the "horns of the altar." Looking downwards from this, to test the scale of its age, we see the oldest Amorite level, of about 1500 B.C., 32 feet below it, a distance which would require us to date it to 1000 rather than 900 B.C., and which shews that the age is under, rather than over, estimated in the successive steps described above. The truth most likely is that this decoration is of Solomon's own time. Beside these wall-slabs there are fragments of a cavetto moulding from the door lintels, exactly like that of the early Jewish monolith shrine at Siloam. Three of these pilasters have been found, and though not thought worth removal by the Turkish officials, not one of them can come to England. I have taken casts and photographs of them, and carefully reburied them in known spots. Beside these, one of the slabs had a graffito on it representing a lion (?) walking; and as it was upside down it must have been scratched in the time of the first building. Unfortunately the remainder of this building is beneath 30 feet of earth, and the small prospect of there being anything else of importance in it, makes it scarcely worth while to undertake such a weighty clearance. No small objects have been found in the ashes so far.

The great scarcity of small antiquities, and the rarity of any regular stonework, makes this excavation seem barren after those in Egypt. Yet every fragment bearing on the history of art in Palestine is of great value from its very rarity, and the present results just described fill a wide space in our architectural knowledge which has hitherto been a blank. Another matter of importance in itself, and of inestimable value for future exploration, is the fixing of a scale of dated pottery. Poor as Tell Hesy is in some respects, it is full of potsherds; and the chance of such a grand section as that of the east face from top to bottom, gives us at one stroke a series of all the varieties of pottery over a thousand years. We now know for certain the characteristics of Amorite pottery, of earlier Jewish and of later Jewish influenced by Greek trade, and we can trace the importation and the influence of Phœnician pottery. In future all the tells and ruins of the country will at once reveal their age by the potsherds which cover them.

The methods of stoneworking are another great key to the age of work. In the Haram wall at Jerusalem all the stones are dressed with the comb-pick (or "claw-tool"), down to the very base as Professor Lewis states. This tool in Egypt is characteristic of Greek work, and it was used in pre-Persian work in Greece, pointing to its being of Greek introduction. Now in the masonry of the period of the kings here we have a strong test of the question; and in no part either of the gateway, steps, or pilaster slabs is any traces of comb-pick work to be seen. The evidence, therefore, is strong that this tool is a sign of Herodian and later ages; and we must

ascribe the whole of the Haram wall to Herod. This also strengthens the view that Ramet-el-Khallil is an early building, as no trace of comb-picking is seen on the massive blocks there, but only on the later relining of the building.[1]

W. M. Flinders Petrie.

THE WORK AT TELL EL HESY, AS SEEN BY AN AMERICAN VISITOR.

It is with pleasure that I accept your invitation to send you an account of my visit with Mr. W. M. Flinders Petrie. What you want, I am sure is not any archæological dissertation, or any account of the "finds;" but rather a description of some of the things which would interest one new to the country, and new to the work of excavating.

The trip from Jaffa down the coast, past Ashdod and Ascalon, towards Gaza, was a memorable one. The hedges of prickly pear in full bloom, sometimes twelve feet high and twelve feet deep, which surrounded the village, and the date-palms which lovingly moved their beautiful plumes over the mud huts and queer conical-shaped ovens, made Philistia appear to me more beautiful than any other part of Palestine.

These level sandy roads, though, impress one that the "way of the Philistines" would have been just fitted for the chariots of Egypt, and the worst road in the world for a band of slaves to take when attempting to escape from the Pharaoh.

What could be more romantic than a journey over this historic "highway," sleeping in a khan at night, having a box for a bed and the sky for a roof, and passing scarcely a town that did not have some granite shafts or marble capitals—sometimes as richly carved as those of Baalbek—built into its mud walls or used as a donkey trough at the village well?

There was constant evidence that I was walking over ancient soil. Not only was the summit of every mound that I visited covered with broken pottery, but at Ascalon I was offered many old coins and an image of a goddess, which I suppose to be Ashtoreth; at Umm Lakis, a *fellah* tried to sell me a Phœnician *menhir;* and at El Kustneh I descried a raised platform surrounded by mats, and a heap of stones and a lamp, which seemed to hint at the perpetuation of the ancient Canaanitish worship even to this day.

Charming as was all this, however, I was glad when on the morning of the 8th May, I caught sight of the end of my journey—a gashed and broken tell lying by the water-brook like some hurt creature of the

[1] Full detailed reports of the results of these excavations, with plates plans, and sections, will be published later on. Portions of the pottery and other antiquities which have been brought home will be exhibited at Oxford Mansions in September, together with Mr. Flinders Petrie's Egyptian discoveries of the past season.

geologic ages fallen in its dying agonies. In the distance this fancy was encouraged, because of the many little objects which could be seen crawling in and out of the fresh wounds. On approaching nearer these moving objects took shape as Arabs, who seemed to be mangling the poor carcase in a most reckless way, until the discovery was made that every stroke of the pick was directed "from above," and that every puncture and furrow and tunnel had some definite object.

These Arab picksmen looked picturesque enough in their single garment, and their wives no less so, as, unemcumbered with very little clothing excepting their necklaces and armlets, they carried away upon their heads in ragged native baskets, and pitched over the cliff the results of their husbands' manly toil. The cliff was formed by Dame Nature, who, in her interest for Palestine explorations, ages ago sent a torrent tumbling along this wady, and sliced the tell from the top to bottom, much better than any modern excavator could have done it; thus leaving a clean face for accurate chronological investigation of the various eras of the mound's occupation. I am not sure whether this tell got its name, "The Mound of the Water Pit," from the hollows in the bed of the little creek which yet runs through the wady, in which water can be found in the summer after the stream is dried up everywhere else, or whether it comes from the spring of good sweet water which trickles out of the rocks at the base of the tell.

I was in the camp several days before I found this spring, and delighted enough I was to find it, for it was the first draught of cool water that I had been able to get for a week. It was a novel sight to sit on the cliff in the evening and watch the Bedawîn girls crowding about this spring, each seeking to be the first to fill her black jars and lift them into the wicker baskets hung on each side of her donkey's back.

The Bedawîn were plenty. At any time one might count half-a-dozen camps in sight, each camp containing from four to forty tents. All the details of their daily life became very familiar to us. Their fields of grain were all around us. In one direction might be seen a large ungainly camel dragging the little wooden plough; in another, the shepherd leading his sheep and calling back the strays with his keen quivering whistle; in another, the harvesters reaping the barley crop, or rather pulling it up, for even those who had sickles did not pretend to cut the stalks of grain with them, but only used them to collect more comfortably the handfuls, which they then extracted by the roots!

Yet we may be glad that they are willing to "farm it" even as much as they do. For untold centuries these "children of the East" were accustomed to live in the desert, and then just about harvest-time they would come up "like grasshoppers" as far as Gaza, and pitching their black tents, help themselves. (Judges vi).

In Gideon's day it was a great encouragement to the Hebrew captain to hear one of these thieves tell his comrade that he had just dreamed that one of the stolen barley loaves had grown astonishingly large,

and rolled down the hill against his tent and overturned it. Having tried for some time to live on native barley bread, I can understand how, after a heavy supper, one might easily dream that these loaves could be used effectively as cannon balls, or as ammunition for a catapult.

But that cannot be said of the Arabic bread with which I was served at Tell el Hesy. I never relished a *table d'hôte* better than I did there. We were nomads, and had the pleasure of a perpetual picnic. Tinned meats, and the preserves for which we longed as boys, were luxuries which we enjoyed at every meal—and to eat out of the can saved washing a dish. We solved the problem of living comfortably without being everlastingly tormented with the presence of His Highness, the *chef de cuisine.*

Our most elaborate repast only required us to wash two forks, three spoons, two cups, two plates, and a dish-pan! That only took three minutes, and who wanted anything more? Sometimes I ate with a case knife, but generally used my pen-knife when it was my day to wash the dishes. As for a bread-plate, that is all nonsense—what was the table made for?

The only thing that disappointed me in Mr. Petrie was his luxurious tastes. Actually, he insisted on eating every day on a mahogany table, and would always use solid silver spoons with his dessert. I always looked with some awe at that table after I learned that it was mahogany. I examined the boxes that I laid on every night, hoping that I could report that I slept nightly on a sandal-wood bedstead; but unfortunately the cracker factory that sent them out were not putting on much style just then. After all, it might have sounded almost as well if I had only thought to say that my bedroom furniture was made of *pinus resinosa.* That is the way I shall report it in the United States. All the bedroom furnishings we had were those three boxes and a tin basin. One thing I know, I got good sleep every night.

One evening we were greatly puzzled to know what to do. Some aristocratic visitors came all the way from Egypt to see us. At any rate, the last we had seen of them had been in Egypt until they suddenly rode in upon us. One was a Prussian nobleman, the Count d'Hulst, and the other an American nobleman, Dr. Goddard, of the Egyptian Exploration Fund. At first I thought the mahogany table would have to be used as a bed, but presently I found that our visitors had brought a tent with them, and everything with which to make themselves comfortable.

To be sure they had to sleep on blankets thrown on the ground instead of reposing on a couch of sandal-wood or *pinus resinosa*, but I only went so far as to pity them. I did not propose to give up my privileges as a prior guest, even to such distinguished gentlemen.

What an evening we had together, though! As we sipped our tea and drank each others' health in delicious draughts of raspberry vinegar, and talked over all our mutual acquaintances and their virtues, and

settled all Egyptian affairs, archæological and political, I am thinking that no more contented group of mortals could have been found inside the continent of Asia.

That is saying a good deal too, for there are few such happy-go-lucky sort of people to be found in England or America as are these Arabs. They have nothing, and they need nothing, and they want nothing. To have a turban and a shirt, and to be able to lie down during the greater part of the day in the shade of a great rock, in a weary land, is the *summum bonum*. What a fool the pushing, struggling, perspiring European appears to him! Why get excited? Why work? Will not Allah provide what is best? If you can afford a knife and a gun you are well to do. If you have a goat and a camel, and a wife or two to take care of them, you are rich. Take thy comfort, thou son of a day, and enjoy the smell of the ground while thy nose is young!

That is good Bedawîn philosophy. Nevertheless, while they seem to be convinced that Allah will take care of them without work, they seem to think that it would be tempting providence not to steal. This, together with their warlike disposition, makes them anything but agreeable neighbours. Every little while the news would come to us of some traveller who had been waylaid and kept for ransom, or who had been robbed and beaten, and left half dead in the desert; and one day the noise of a battle between two hostile tribes disturbed the camp all day long. It was reported afterwards that eight men were killed in the fight. A few days before I arrived a number of leading sheikhs had been arrested and sent under a heavy escort to Jerusalem. The fact that our camp was never molested was due, I think, much more largely to Mr. Petrie's exceptional skill in managing the Arabs than to the fact of the *Effendi* being on the ground.

He was very just in his dealings with them, and very careful of their rights. An illustrative case is seen in his treatment of the barley-patch on the top and sides of the tell. The Arabs would race over this according to the primitive law that one "can come into the standing corn" and "pluck the ears," providing only he puts no sickle in the grain (Deut. xxiii), but the director of affairs would not put so much as his foot over the path.

That leads me to say that the best thing I saw at Tell el Hesy was Mr. Petrie himself. All day long he would go from group to group of his workmen, critically examining the colour and character of the clay and any scraps of pottery that had been found. It was a constant surprise to me, as we went prospecting together, to see how accurately he could determine, even at a distance, the meaning of some peculiar formation. It was an equal surprise to notice how swiftly and certainly he would expose any of the impostures which are so frequently attempted by the *fellaheen*. I think he scarcely needs to do more than walk over a mound covered with pottery to tell the age of the latest town to be found underneath, while, because of his long experience and minute observation, from a chip of tool or scrap of vase

he can reconstruct the original as infallibly as a zoologist can draw the picture of an animal upon being shown a bit of his skeleton.

May he stick his spade deep into Philistia and bring up great spoil!

CAMDEN COBERN.

Detroit, Michigan,
June 16th, 1890.

THE DEAD SEA VISIBLE FROM JERUSALEM.

JOSEPHUS ("Wars" v, iv, 3) seems to imply that the Mediterranean was visible from the Tower Psephinus. Some, however, take his words to refer to the Dead Sea. The Russian buildings can hardly be high enough to command a view of the former, so that as to that sea one suspects Josephus of inaccuracy. In 1875, my brother and I believed we saw the Dead Sea from the battlements of the (so-called) Zion Gate. In my diary for April 12th, I find noted, "We next entered by the Zion Gate, climbed the tower from which we had a most glorious view of the Moab Mountains (with just two strips of *the Dead Sea visible*), through the most pellucid atmosphere, as the slanting rays of the sun shone upon the country from behind us."

After searching many books, questioning a native of Jerusalem, as well as an English resident of 20 years, and others, I find now no corroboration from them of my belief, but rather the suggestion that we mistook the haze for the sea. One is reluctant, however, to accept this explanation as final.

W. F. BIRCH.

THE DEAD SEA VISIBLE FROM JERUSALEM.

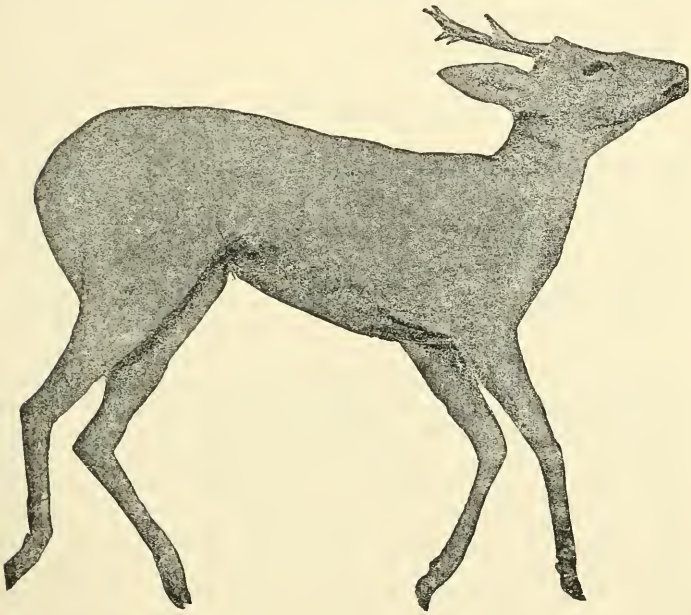
THE Dead Sea *can* be seen from the roof of the London Jews' Society's Boys' School, and also from that of Christ Church, but only at a certain hour of the day during the summer months. I have often noticed it about 8 a.m., shining like a small speck of molten silver through a small gap amongst the bare hills towards Mar Saba. This was all that, *till a few years ago*, could be seen of it. However, since the erection of the large church of St. Salvador in the Franciscan convent in the north-west part of the city, several large portions of it may be seen at all hours of the day (unless the weather be hazy), if one will take the trouble of climbing into the clock-tower.

J. E. HANAUER.

THE ROEBUCK IN PALESTINE.

In the "Fauna and Flora" Canon Tristram notes the Roebuck among the animals of Palestine, but does not appeal to a specimen of his own collection. He says it is found in the woods of Carmel, but that Sheikh Iskandar is its most southerly station. He also states that it is called the Yahhmûr, يَحْمُور by the natives.

Major Conder, in "Tent Work in Palestine," i, 173, says that he obtained a specimen from the charcoal burners of Carmel, and sent the bones and skin to the museum at Cambridge. He also says that



it is called Yahhmûr by the natives, and that a district of Carmel is known as "the Yahhmûr," probably from the former abundance of this animal.

The Yahhmûr of the Hebrew (Deut. xiv, 5) is translated "fallow-deer," but this is, in view of the above testimony, a mistake. The true fallow-deer (the "hart" of Ps. xlii, 1) is the Iyyal, which is not now often found south of Cassius and Amanus, where it is still hunted. Tristram says that it has been found along the Litâny and north-west of Tabor.

Last summer, Rev. W. K. Eddy, of Sidon, procured a female of the Roebuck species near Alma, in Northern Galilee. Unfortunately it was skinned only with a view to making a mat of the pelt, and so no scientific observations could be made. The bones were not preserved.

A few days since the same gentleman procured for me from natives a full-grown male, of which the accompanying is a sketch, made from the carcase, lying in an attitude which it assumed with ease when stretched out and left to replace itself. The point of view of the artist was 8 feet off from the feet and 4 feet above the animal. This gives a little fore-shortening of the neck, otherwise the proportions are well preserved.

The natives of the region about Qâna and 'Alma call this species the Wa'l وَعْل. The term Wa'l, however, belongs properly to the wild goat or Syrian Ibex (*Caper Beden*).

The measurements are as follows :—

	ft.	in.
Height at shoulder, approximately	2	4
„ rump „	2	6
Length (stretched out) from tip of nose to end of rump	3	10
„ „ „ „ hind foot	5	4
„ „ „ „ right horn....	1	$2\frac{3}{4}$
„ „ „ „ left horn	1	$3\frac{3}{4}$
The eye was almond shaped, with point forward :		
Inside length	0	$1\frac{1}{15}$
„ breadth	0	$0\frac{1}{2}$

A peculiarity is that this animal had no tail. The rump was rounded. The coccyx, about 2 inches long, made no external projection.

The colour was grey, with a reddish-brown shade toward the posterior part of the rump, and white between the thighs and on the belly.

The horns are three-branched, and, as depicted in the drawing, on a straight line with the front of the face, which is quite flat.

If, as suggested by Captain Conder, this species furnished the venison, which formed part of the daily menu of Solomon, it must have been abundant in the age of that monarch. It has now become quite rare, and, so far as known to the writer, no recent specimen has been minutely described and figured. The present notes fix its identity beyond a question.

George E. Post.

Beirût, March 8th, 1890.

THE ROEBUCK.

THE existence of the roebuck in Palestine was, I believe, unknown before a specimen was brought to me at Haifa in 1872. Dr. Tristram did not know of it apparently when he published his "Natural History of the Bible," in 1868, and he would, no doubt, acknowledge the source of his notice in the "Memoirs." The specimen taken to Cambridge by Mr. C. F. T. Drake in 1873 was pronounced to be the same as the English roebuck. I have also noticed its existence in the woods of Mount Gilead, where it appears to be called *Hamûr* instead of *Yahhmûr* the name which I ascertained on Carmel.

C. R. C.

MASHITA.

I HAVE not Major Conder's last book by me at the time of writing but I think he states in it that the question whether the conjecture which assigns the building at Mashita to Chosroes is right, must depend upon the deciphering of the inscriptions which may be found there. My wife and I have visited Mashita twice; once in 1888, and again in April of this year (1890); and on both occasions I made diligent search without being able to discern any inscription whatever, except the "Wusn" marks of the Arabs. My wife, on the occasion of our last visit, took thirteen photographs, and if these turn out well on being developed at home, I will send you copies. Some of the detail of ornamentation (which seems to me very Persian in style) is exceedingly fine. I have no description of the ruin by me, and may be merely repeating what is well known, when I give the following particulars, but the place is so seldom visited that I will venture. The main erection and enclosure are built to the cardinal points of the compass; the sculptured front of the latter and the gateway being to the south. The appearance of the ruin fully supports the theory that the buildings were never finished, as there is nothing like the requisite amount of material on the spot for completion of the work, and no building near in which the material could have been used up. The nearest building is the Khân Zitza, on the Haj road, of which, if I remember right, there is some account in Mr. Doughty's book. But this place was too far for me to visit conveniently. There is no other building nearer than Madeba (about four hours' journey), where the houses are all recently built out of cut stones found at that spot, and, therefore, the material cannot have been used up there.

The outside of the west and inside side of the east walls of the enclosure at Mashita are much worn and decayed, whilst the inside of the west and outside of the east walls are fresh looking. This is

no doubt due to the west gales and rains. I think that the ground round the building has been somewhat raised, as the beautifully ornamented string course in the sculptured south front is very near the surface of the soil. And on the east side of the gateway I could see, through an aperture, to a depth of three or four feet below ground that the wall was continued downwards in regular courses of stone. Perhaps this particular spot had been excavated as a tomb, as I saw a human skull and some bones there.

The people of Madeba and the Adwân Bedawîn call the place "Umshetta," not "Mashita." It is situated in the country of the Beni Sokr, and to be quite safe one should take an escort of that tribe from Madeba. But in the spring the Beni Sokr move a long way to the eastward, and on neither occasion of our visits did we see anything of them. In 1888 we had four men of the Adwân with us, who, however, made considerable objection to going, and observed great precautions—not allowing us to stay more than about three-quarters of an hour. On our last visit we had two Adwân and four men of Madeba with us, and were allowed to stay fully two hours. The Adwân Sheikh told us that, except an American gentleman whom they conducted at the time of the American exploration of the Dead Sea, we were the only people whom his tribe had escorted to the place.

GRAY HILL.

Jerusalem, *5th May*, 1890.

METEOROLOGICAL OBSERVATIONS.

SARONA, 1888.

THE numbers in column 1 of this table show the highest reading of the barometer in each month; the maximum was 30·272 ins. in December. In the years 1880, 1881, 1884, and 1887 the maximum was in January, in 1882 in February, and in 1883, 1885, and 1886 in December, as in this year; the maximum, therefore, has always been in the winter months. The highest reading in the nine years was 30·285 ins. in 1887. The mean of the eight preceding highest pressures was 30·217 ins.

In column 2, the lowest reading in each month is shown; the minimum for the year was 29·529 ins. in February. In the year 1883 the minimum was in January, in 1881 in February, as in this year, in 1880, 1884, 1885, and 1886 in April, and in 1882 in July. The lowest readings in each year have taken place in the months from January to July. The lowest reading in the nine years was 29·442 ins. in 1887. The mean of the eight preceding lowest pressures was 29·507 ins.

The range of barometeric readings in the year was 0·743 inch; in the eight preceding years the ranges were 0·780 inch, 0·711 inch, 0·704 inch 0·579 inch, 0·757 inch, 0·680 inch, 0·621 inch, and 0·843 inch respectively. The mean for the eight years was 0·709 inch.

The numbers in the 3rd column show the range of reading in each month; the smallest was 0·168 inch in August; in 1883 the smallest was in June, in 1882 and 1886 in August as in this year, and in 1880, 1881, 1884, 1885, and 1887 in October. The mean of the preceding smallest monthly ranges was 0·178 inch. The largest monthly range was 0·725 inch in December; in the years 1883, 1884, and 1887 the largest was in January, in 1882 in February, in 1881 and 1886 in March, and in 1880 in April.

The numbers in the 4th column show the mean monthly pressure of the atmosphere; the greatest, 29·977 ins., was in December. In the years 1880, 1881, 1882, and 1884 the greatest was in January, in 1883 and 1887 in February, and in 1885 and 1886 in December as in this year. The highest mean monthly reading in the nine years was 30·060 ins. in January, 1882.

The smallest mean monthly reading was 29·672 ins. in July; the smallest reading in any month in the nine years was 29·653 ins. in August, 1887, while that in August, 1885, was nearly as small, being 29·657 ins.; in the years 1880, 1882, 1883, and 1886, the smallest was in July as in this year, and in 1881, 1884, 1885, and 1887 in August.

The highest temperature of the air in each month is shown in column 5; the highest in the year was 105° in October, the next in order was 98° in March, and 97° in May. The first day in the year the temperature reached 90° was March 5th, and on six other days in this month the temperature reached or exceeded 90°: in April on one day, the 1st, when the temperature was 91°; in May on one day, on the 26th, when it was 97°; in July on ten days; in August on seven days; in September on four days; and in October the temperature reached or exceeded 90° on nine days; the highest in the year, viz., 105°, took place on the 19th, and on the 17th and 18th of this month the temperature reached 102° and 104° respectively; therefore, the temperature reached or exceeded 90° on 39 days during the year. In the preceding eight years the temperature reached or exceeded 90° on 36, 27, 8, 16, 14, 24, 16, and 25 days respectively. In the eight preceding years the highest temperatures were 103°, 106°, 93°, 106°, 100°, 103°, 112°, and 100° respectively.

The numbers in column 6 show the lowest temperature of the air in each month. The lowest in the year was 37°·0 on January 11th, and on the 12th of January the temperature was as low as 39°·0, and these were the only two nights in the year that the temperature was below 40°. In the preceding eight years, viz., 1880, 1881, 1882, 1883, 1884, 1885, 1886, and 1887 the temperature was below 40° on 13, 2, 13, 2, 9, 3, 3, and 15 nights respectively. In the preceding eight years the lowest temperatures were 32°, 39°, 34°, 35°, 32°, 38°, 37°, and 32°·5 respectively.

The yearly range of temperature was 68°·0; in the eight preceding years, viz., 1880, 1881, 1882, 1883, 1884, 1885, 1886, and 1887, the yearly ranges were 71°, 67°, 59°, 71°, 68°, 65°, 75°, and 67°·5 respectively. The mean of the eight preceding yearly ranges was 67°·9.

The range of temperature of each month is shown in column 7, and these numbers vary from 26° in August, to 58° in March. In the year 1880 these numbers varied from 25° in August to 53° in both April and May; in 1881 from 29° in both July and September to 51° in May; in 1882 from 25° in August to 47° in November; in 1883 from 25° in July to 62° in March; in 1884 from 24° in February to 51° in April; in 1885 from 22° in July to 52° in March; in 1886 from 26° in August to 55° in June; and in 1887 from 27° in July to 54° in April.

The mean of all the highest by day, of the lowest by night, and of the average daily ranges of temperature are shown in columns 8, 9, and 10 respectively. Of the high day temperature the lowest, 61°·7, is in January. In the years 1884, 1885, 1886, and 1887, the lowest was in January as in this year; in 1881, 1882, and 1883 in February, and in 1880 in December. The highest, 88°·5, is in July, whilst that in August is of nearly the same value, viz., 88°·4. In the year 1880, the highest was in May; in 1881, 1883, 1884, 1885, 1886, and 1887 in August, and in 1882 in September. Of the low night temperature, the coldest, 44°·9, was in January; in the years 1880, 1882, and 1884 the coldest was in January as in this year; in 1883, 1885, and 1887 in February, and in 1881 and 1886 in December. The warmest, 70°·3, was in August; in the year 1885 the warmest was in July, and in the years 1880, 1881, 1882, 1883, 1884, 1886, and 1887, the warmest was in August as in this year. The average daily range of temperature is shown in column 10; the smallest, 15°·6, is in December; in the years 1880, 1883, 1885, 1886, and 1887, the smallest was in January, and in 1881, 1882, and 1884, in February. The greatest range of temperature in any month, 24°·4, was in March; in the years 1884 and 1887 the greatest was in April, in 1880 and 1885 in May, in 1881 in June, in 1883 in September, and in 1882 and 1886 in October.

In column 11, the mean temperature of the air is shown, as found from observations of the maximum and minimum thermometers only. The month of the lowest temperature, 53°·3, was in January. In the years 1880, 1884, 1885, 1886, and 1887, the lowest was in January, as in this year; in 1881 and 1882, in February; and in 1883, in December. That of the highest, 79°·4, was in August, as in the eight preceding years. The mean temperature of the air for the year was 67°·7, and of the eight preceding years, viz., 1880, 1881, 1882, 1883, 1884, 1885, 1886, and 1887, were 66°·4, 66°·7, 65°·5, 65°·7, 65°·7, 65°·9, 66°·8, and 66°·5 respectively.

The numbers in columns 12 and 13 are the monthly means of a dry and wet-bulb thermometer, taken daily at 9 a.m. In column 14 the monthly temperature of the dew-point, or that temperature at which dew would have been deposited, is shown. The elastic force of vapour is shown in column 15. In column 16 the water present in a cubic foot of air is shown; in January it was as small as 3½ grains, and in August as large as 8 grains; in column 17 the additional weight required for saturation is shown. The numbers in column 18 show the degree of

RR J. DREHER IMMEI RIA, $1\frac{1}{2}$ MILE FROM THE
EET ABOVE SEA-LEVEL

JAMES GLAISHER, *F.R.S.*

Reading at 9 a.m.		Vap		Rain.	
Wet Bulb.	Dew Point.	Elastic Force of Vapour.	Mean Amount of Cloud.	Number of Days on which it fell.	Amount Collected.
49°·8	46°·1	grs. ·311	5·6	11	ins. 4·94
55·4	51·3	·378	6·6	9	2·74
60·0	52·4	·395	4·1	2	0·28
62·7	57·4	·472	5·8	5	1·12
65·1	59·3	·506	3·0	4	0·28
70·2	64·7	·612	1·4	2	0·01
76·3	70·9	·757	1·9	0	0·00
75·0	68·7	·703	1·7	0	0·00
73·4	67·6	·676	2·7	0	0·00
71·3	64·3	·604	5·5	2	1·67
57·9	53·2	·405	4·9	13	6·27
52·7	50·0	·362	6·3	14	11·53
64·2	58·8	·515	4·1	Sum. 62	Sum. 28·84
13	14	15	29	30	31

humidity, saturation being considered 100; the smallest number indicating the dryest month is 54 in March, and the largest, 83, indicating the wettest month, was in December. The weight of a cubic foot of air under its mean pressure, temperature, and humidity, at 9 a.m., is shown in column 19.

The most prevalent wind in January was S., and the least prevalent winds were N. and W. In February the most prevalent were S.W. and S., and the least were N.E. and N.W. In March the most prevalent were S. and S.W., and the least were N., E., and N.W. In April the most prevalent were W. and S.W., and the least were N. and N.E. In May the most prevalent were N.W., W., and S.W., and the least were N.E., S.E., and S. In June, July, and August the most prevalent were W. and S.W., and the least were N., N.E., E., S.E., and S. In September the most prevalent were S.W. and N.W., and the least were N.E., E., and S.E. In October the most prevalent were S.E. and N.W., and the least was N.E.; and in November and December the most prevalent was S., and the least were N. and N.W. The most prevalent wind for the year was S.W., which occurred on 86 different days in the year, and the least prevalent wind was N., which occurred on only six times during the year.

The numbers in column 29 show the mean amount of cloud at 9 a.m. The month with the smallest is June, and the largest February. Of the cumulus, or fine weather cloud, there were 106 instances in the year, of which 24 were in September, 16 in July, and 15 in June. Of the nimbus, or rain cloud, there were 63 instances, of which 15 were in December and 10 in both January and November, and only 5 from May to September. Of the cirrus there were 64 instances; of the cirro-cumulus there were 23 instances; of the stratus, 14 instances; of the cirro-stratus, 6 instances; and 90 instances of cloudless skies, of which 15 were in August, and 13 in both June and July.

The largest fall of rain for the month in the year was 11·53 ins., in December, of which 2·95 ins. fell on the 18th, 1·95 inch on the 11th, 1·10 inch on the 12th, and 1·05 inch on the 16th. The next largest fall for the month was 6·27 ins. in November, of which 2·10 ins. fell on the 13th. No rain fell from the 4th of June till the 1st of October, making a period of 118 consecutive days without rain. In 1880 there were 168 consecutive days without rain; in 1881, 189 consecutive days; in 1882 there were two periods of 76 and 70 consecutive days without rain; in 1883, 167 consecutive days; in 1884, 118 consecutive days; in 1885, 115 consecutive days; in 1886, 171 consecutive days; and in 1887 there were two periods of 132 and 63 consecutive days without rain. The fall of rain for the year was 28·84 ins., being 0·16 inch, 11·35 ins., 6·75 ins., 10·11 ins., 8·78 ins., 8·75 ins., and 11·78 ins., larger than in 1880, 1881, 1882, 1884, 1885, 1886, and 1887 respectively; and 1·22 inch smaller than in 1883; therefore it was greater than any of the falls of the eight preceding years, with the exception of 1883, when the fall was 30·06 inches. The number of days on which rain fell was

62. In the preceding eight years, viz., 1880, 1881, 1882, 1883, 1884, 1885, 1886, and 1887, rain fell on 66, 48, 62, 71, 65, 63, 66, and 43 days respectively.

JAMES GLAISHER.

ERRATA.

In consequence of the reading of the barometer at Sarona on April 23rd, 1887, as found by comparison with the reading at Jerusalem on the same day, being too low by half an inch, the following corrections in the *Quarterly Statement* for April, 1890, are necessary :—

					ins.		ins.
In general table opposite page 112, col.	2,	April,	for		29·145	read	29·522.
,,	,,	,,	3,	,,	0·848	,,	0·471.
,,	,,	,,	4,	,,	29·765	,,	29·781.
,,	,,	,,	2,	Means for	29·531	,,	29·662.
,,	,,	,,	3,	,,	0·392	,,	0·364.
,,	,,	,,	4,	,,	29·821	,,	29·822.

				ins.		ins.
On page 112,	10th	line from top,	for	29·145	read	29·442.
,,	16th	,,	,,	1·140	,,	0·843.
,,	7th	,,	bottom for	0·848	,,	0·843.
,,	,,	,,	,,	April	,,	January.

I.

THE SITE OF CAPERNAUM.

IN his "Rob Roy on the Jordan" (7th edition, pp. 344-351), the author has conclusively shown that Tell Hûm is too near the place of embarkation after the Feeding of the Five Thousand, and not sufficiently near "the land of Gennesaret;" and that Khân Minia, or some other spot on the Plain of Gennesaret, corresponds to St. John vi, 17-21, and St. Mark vi, 53.

Last spring I explored the rocky promontory to the N.E. of Khân Minîa, so far as the rank thistles (often rising far above one's head) and thorns would allow. On the highest part, about 242 feet above the lake, are the remains of a fortification—possibly the station of the Roman Centurion (St. Matthew viii, 5),—and here and there traces of buildings, but *everywhere* I found broken pottery, showing that there was formerly a large population dwelling on this rock.

I am disposed to consider this to be the site of Capernaum rather than (or perhaps in addition to) the ruins to the south of the Khân. At the foot of the rock is the copious fountain 'Ain et-Tîn.

If this be so, then it must have occupied by far the most prominent position of any city on the Sea of Galilee, and would account for the remarkable expression in St. Matthew xi, 13, "And thou, Capernaum, which art exalted unto heaven, shalt be brought down to hell!"

The ruins of the Khân at the junction of the roads from Cæsarea, Jerusalem, and Peræa with the great Roman road leading north to Damascus, probably mark the very spot where Matthew sat "at the receipt of custom;" and the outlying rocks at the foot of the cliff, to this day the favourite resort of fish, indicate the spot where Peter would naturally go to "cast his hook." (St. Matthew xvii, 27.)

The only difficulty in this identification of the Site of Capernaum is the statement of Josephus, that the Plain of Gennesaret is watered by a fertile fountain, in which is found the *Coracinus*, or cat-fish; "the people of the country call it Capharnaum." Canon Tristram has argued, and with great probability, that he refers to the Fountain 'Ain el Mudauwerah, about $2\frac{1}{4}$ miles from Khân Minîa, in which that fish abounds (as I can also testify), but fails to show that there are any ruins in its neighbourhood which would answer to such an important city as Capernaum.

This identification, though conclusive against Tell Hûm, has far less force against Khân Minîa, as the fountain may have been named after the nearest city of any note. According to the fishermen with whom "Rob Roy" conversed the *Coracinus* is also found at 'Ain et-Tîn, close to Khân Minîa, which may have been used to irrigate a part at least of the plain, though if Josephus used the word διαρδεται accurately, I must admit that this fountain fails to meet its requirements.

I confess I cannot agree with the laboured theory which would make 'Ain Tâbghah the fountain which waters the plain of Gennesaret.[1] For it would be a work of supererogation to bring water at a great cost round the shoulder of a hard rocky promontory to irrigate what was already one of the best watered plains in Palestine. Four considerable streams run through it; Tristram calls it "the marshy plain."

Nor would an aqueduct be needed for drinking water, for no one would prefer the hot and brackish water of 'Ain Tâbghah to the cooler and sweeter water of 'Ain et-Tîn which was close at hand. I very much doubt if this cutting in the rock, now used as a pathway, is an aqueduct at all. Our party were unanimous in holding it to be of considerably higher level than 'Ain Tâbghah. The photograph, No. 59 of the Palestine Exploration Fund gives a good idea of its height above the plain. We had unfortunately no level with us, but the pathway seemed to descend

[1] We could find no *Coracinus* in this fountain, and it is difficult to see how it could get there from the lake.

on either side, and there were no traces of an aqueduct being continued beyond the cutting. I should rather think that this so-called aqueduct was of old neither more nor less than it is now, a portion of the paved road from 'Ain Tâbghah to Khân Minîa, cut deep into the rock at this point to avoid the inconvenience and danger of the natural surface of this shoulder of rock which here slopes down to a precipice; "resembling more the great rock-cutting of the Roman road at Abila, than any of the rock-cut aqueducts of the country." (Conder, "Tent Work," ii, 185.)

I picked up tessaræ in the ploughed fields between 'Ain Tâbghah (the probable site of Bethsaida) and the wooden house just built by German settlers in the middle of the little bay. The inmates told me they had found several while digging their garden.

II

THE CAVE OF ADULLAM.

May I put in a plea for the traditional site of this Cave in the Wâdy Khureitun near Bethlehem, as possessing superior claims in everything but similarity of name to the ones recently discovered at 'Aîd-el-Mâ.

Without for a moment questioning the fact that there was a city called Adullam in or near the Wâdy es-Sŭnt in the *Shephelah*, there may have been more than one city or cave known by that name;[1] indeed Josephus, though he says it was "a cave near the city of Adullam," yet immediately afterwards implies that it was in "the desert," or wilderness of Judæa.

The objections to 'Aîd-el-Mâ are as follows:—

(1) Neither the caves nor the hill in which they are situated are places of very great strength, and are no more entitled to be called "the hold" (1 Sam. xxii, 5; 1 Chron. xi, 16) than scores of others similarly situated They are far too much exposed to be resorted to as hiding places.

(2) 'Aîd-el-Mâ is only 10 miles (as the crow flies) from Gath (Tel es Sâfia), and it is hardly likely that the Philistines would tolerate the presence of such a foe as David so close to their chief city.

(3) In their expedition to Rephaim and Bethlehem (1 Chron. xi, 16), the Philistines would probably pass within sight of David, and it is exceedingly improbable that they would leave such an enemy in their rear to harass them and cut off their communications.

(4) Bethlehem is too far away, and out of sight on the other slope of the watershed. It would take the best part of a day for the three men

[1] There was more than one Kadesh, Carmel, Gibeah, Gilgal, Bethsaida, Ramah, &c.

to get to Bethlehem and back. Besides, why should David so long for water from the well of Bethlehem, when he had a much more copious spring of better water at his feet at 'Aîd-el-Mâ ?

(5) David in taking his family to Moab would have to pass again by or near Bethlehem, which does not so well fit in with the narrative as would a place in the wilderness of Judæa.

In favour of the traditional site :—

(1) It is one of the most remarkably situated caves in the side of one of the grandest and wildest gorges in Palestine, the narrow path to it blocked by a fallen rock, so that a few resolute men could defend it against a host. Moreover, the existence of such a stronghold would not be suspected. Our local guide from Bethlehem even was at fault and had to get the assistance of a shepherd to find out the entrance. There are three caves opening one into the other, of which the first is lofty and of considerable size, and could easily accommodate 400 men. We found the floor dry and dusty even towards the end of the rainy season.

(2) It was in David's own country, "the wilderness of Judæa," where he had been accustomed to feed his sheep (1 Sam. xvii, 28). Such a cave would naturally suggest itself to him as a safe and almost inaccessible hiding place.

(3) It was only three or four miles from Bethlehem (as the crow flies), and from the hills above it Bethlehem could be easily seen encompassed by the Philistines. In that "dry and thirsty land" we can appreciate David's longing for "water from the well of Bethlehem," as his eye rested on his beloved city.

(4) It falls in most naturally with David's bringing his parents from Bethlehem, and then for further security taking them on to Moab (1 Sam. xxii, 1, 3, 4) for this cave lies between Bethlehem and Moab; whereas 'Aîd-el-Mâ is on the wrong side of Bethlehem.

(5) In short it is impossible to conceive of a site, which in every particular (except the modern name) agrees with all that Scripture tells us about the Cave of Adullam.

Would that all traditions were equally fortunate !

I shall not easily forget our visit to this cave. Our guide had provided lights and a ball of string so that we should not lose our way. But when we were in the largest cave we forgot all about our guide, and explored on our own account.

On our return, in the low and narrow passage connecting the first and second caves, we heard groans and cries for help, and were amused to find our guide, who had attempted to *follow* us, lying on the ground with light extinguished, holding on to the end of the string, and "trembling like an aspen leaf"—probably from fear of the ghosts that might haunt the cave.

III.

THE PLACE OF ELIJAH'S SACRIFICE

Is near the edge of a hollow or sloping plateau, about 300 feet below the actual south-eastern summit of Carmel, and probably close to a spring which Tristram shows to be a never-failing one from the fact of the shell-mollusc *Neritina michonii* being found in it. The sea can be seen from the *shoulder* of the mountain, about ten minutes' walk from this spot. Hence it was not necessary for Elijah's servant to go to the very top seven times, as some writers assert.

Everything here, as elsewhere, corroborates the minute accuracy of the Scripture narrative.

HENRY BRASS.

St. Matthew's, Red Hill,
February, 1890.

REV. C. DE CARA AND THE HITTITES.

IN a letter to the "Civilta Cattolica," the Rev. C. de Cara, S.J., has recently announced :—

"Of the similarity of the characters of the archaic alphabet of Cyprus with those of the inscriptions of Hamath near the Orontes, no one has sought the reason which now I have found, and which seems to me convincing, viz., that the origin of the archaic Cypriote is due to the Hittites."

It is curious that the Rev. Father should claim a discovery already indicated by Dr. Sayce in 1880, and which I have endeavoured to elaborate for the last three years; but the result, no doubt independently reached, serves to show the soundness of a comparison so generally accepted.

C. R. C.

PELLA.

DOUBTS having been expressed as to the position of Pella, and its identity with Fahil, the following notes may be of use :—

Jabes, a large village, was six Roman miles from Pella, on the way to Gerasa. Amathus, beyond Jordan, was 21 Roman miles from Pella, towards the south (not the Amathus near Gadara, but the southern town of the name). Arbel, beyond Jordan, was "in finibus Pellæ." Jabesh Gilead was six miles from Pella, on the mountain in the direction of Gerasa (*see* "Onomasticon"). In the Talmud חמתה דפחל or "the Hot Bath of Pella" is mentioned (Tal Jer Shebiith, vi, 1), evidently the springs at Tell Hamma. The name of Jabesh is preserved in Wâdy Yâbis. Amathus is Tell Ammâta, 15 Roman miles in a direct line south of Fahil.

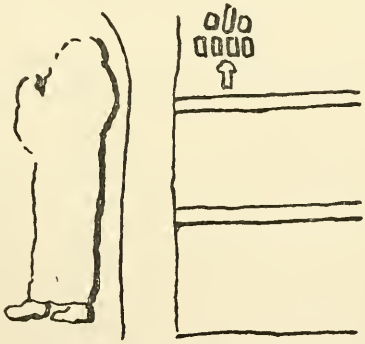
C. R. C.

NEW "HITTITE" BAS-RELIEFS.

In the important work by MM. Humann and Puchstein, just published, a new bas-relief with six lines of the Altaic Hieroglyphs is represented (Plate XLIX), which, though unfortunately so worn as to be for the most part illegible, still furnishes us with several new ideas. This figure, discovered in 1882, comes from Marash (Figs. 4 and 5), and represents a long-robed personage facing to the left. The hair is arranged in a curled-up plait or pigtail. The beard is long; the garment is fringed; the shoes, as usual, curled at the toes. A round skull cap seems to be represented. Marash lies at the foot of the Taurus, 70 miles north-east of the head of the Gulf of Alexandretta, and several Altaic sculptures have been found here previously.

The inscription differs from others, inasmuch as the whole of the lines appear to read from left to right, not alternately, as at Hamath. On the Marash lion the text also reads in the first line from the left (as does Hamath Stone, No. IV), and we may, perhaps, suppose the new text to be later than those of Hamath and Jerablus, especially as the writing seems to be more phonetic in its character.

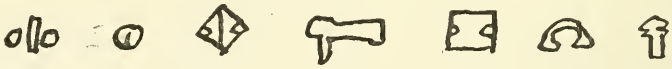
The commencement of the text as shown in the accompanying sketch is also, I believe, the same as that on the lion given below, on the shoulder of which is a figure which may be regarded as a fuller form of the common emblem of "speech." These four emblems



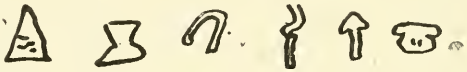
should, I believe, be read EN-NE-ME-KE, signifying "speech" or "invocation." The termination in *mek* is known in other cases on the

Hittite texts, as, for instance, on the Hamath Stones Nos. I, II, III, where we may read the group ZI-KU-KU-ME-KE-LI, which, as an Akkadian expression, I suppose to mean *Zi Kukumekli*, or "spirit protecting."[1] The termination in *mek* is very distinctive of Turanian speech. In Turkish it forms the participle, the infinitive, and the abstract. It also occurs in the ancient inscriptions of Malamir in such words as *tarmak*, "the totality" (Sayce, "Malamir," p. 74), with the same abstract signification.

The new text, like the Marash lion, is written in a very confused manner, and the sketch given is quite illegible for the most part. With the exception of the head and arms the figure is covered as well as the field of the block. This arrangement is the same which occurs on the Assyrian figures in the British Museum. The common Hittite signs given below occur frequently :—



ne *mu* *tam?* *pe?* *e?* *li* *ke*



ko *du?* *ga?* *i* *ti* *a*

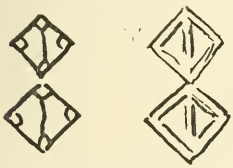
The position of *li* as a termination appears to be the same throughout as in the texts already known. As far as can be judged from the decayed state of the text, there do not seem to be any new symbols unknown before.

On the same plate (Figs. 1, 2, 3) is another "Hittite" monument from Samsat (the ancient Samosata on the Euphrates), which lies far to the

[1] The word *Kuku*, "to help," "protect," "defend," as an Akkadian word is well known, and seems to survive in the Cantonese *chiu-koo*, "to help." It appears also in the Susian *kuku*, "favour," and in the Medic verb *kkuta*, "to help," or "protect," or "favour"; and at Malamir *kukuna*, "of favour." It may be connected with the old Turkish word *kuch* or *koch*, for "power," and in Hungarian it again appears in *kegy*, "favour." Although I pointed out in the *Quarterly Statement* the connection between Akkadian and Chinese before Mr. Ball commenced his interesting papers on the subject, it seems to me that the Tartar, Turkish, and Mongol languages are far safer for comparison than even the most archaic of Chinese dialects, because the phonetic decay in the latter has (as is well known) been so great that comparisons are apt to be misleading.

north-east of Carchemish and south of the Taurus. This is also much decayed, but consisted of nine lines. The deer's head (TAR) and the other signs are the same apparently as in previous texts, and the rare sign MI for "country" may, perhaps, occur in the last line.

MM. Humann and Puchstein have also given copies of two texts (the lion text and the text with two seated figures) from Marash, which were already known, but of which new copies cannot fail to be useful. The latter especially was not well copied before, but the extreme irregularity of the writing renders it unusually difficult to follow. It clearly reads from the right, and seems to be almost entirely phonetic. The new texts seem, perhaps, to confirm what was before doubtful, namely, a reduplication of the sign which (comparing with the oldest Cuneiform) I have supposed to represent the sun with the value *ut* or *tam*. In fact I think it is established beyond doubt that this sign has the latter value in the word *Tam-zi* (Tammuz) found on a seal and at Carchemish.



This is also shown in the new copy of the lion text as occurring in the first line, followed by *Ka-ne-ke Tarku*. It is possible, however, that these emblems have not been quite correctly copied, and that they represent a late form of the emblem *an*, in which case the reduplication may be read ANAN, meaning either "Gods" or "King."[1]

The general impression obtained from these texts is that they are later and (as is natural) less ideographic than those of Carchemish and Hamath, representing a northern extension of Hittite civilisation.

C. R. CONDER.

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[1] By the light of these new copies we obtain the following commencement for the lion text,

	NE	AN	AN		ZU ?		NE	AN	KA	TAR		DU
EN	ME	U	DU	KA	RE	U	TAR	AN	NE		KU	KE
	KE	GAL ?	KE		THE				KE	KU		LI
		A	LI		...							

This seems to be a dedication or invocation, for the second word is well known as the name of a god—at Ibrecz for instance. The commencement is thus very like that of some of the texts on the old statues of the Akkadians at Tell lo; and roughly speaking it seems to run, "Invocations for Anu.... the living god.... the royal prince Tarku (or prince of gods Tarku....). It is known that Tarku was the name of a deity in Asia Minor as well as a word for prince.

THE MALULA DIALECT.

The interesting paper in last *Quarterly Statement* by Dr. Bliss on the Syriac Dialect of Malula gives several indications of the archaic character of the ordinary Fellah dialect of Palestine to which I have lately again called attention.

As regards the phonology—

ك, pronounced ch (as in "chaff"), is the common Fellah pronunciation of the letter.

ق pronounced without guttural sound is also not uncommon among Fellahîn.

ع for hamza, is also a Fellah change ("Lauberg," p. 82, gives many examples).

ش, pronounced س, as in *sejratha*, "tree," is the Fellah *sejerah* for *shejerah*, "tree."

In grammatical forms—

o for 3rd person singular possessive is the Fellah و. *Abu*, "his father," for literary *Ab-hu*.

Phash answers to the common Fellah *Fihâsh*.

Some of the words are also so used in Fellah speech, *e.g.*, *Shenna*, "rock" (as in Hebrew); *Ho*, or *Hey*, "this"; *Blato* (Fellah, *Blâd*), "country"; *Blota* (Fellah, *Belled*), "village."

The Fellah dialect, indeed, seems to have been but little affected by the literary Arabic, and retains much of its old Aramaic character.

C. R. C.

MAR TUKLA.

In the paper on "Ma'lula and its Dialect," by Mr. Bliss, he says, "Mar Tukla is said to have been a companion of St. Paul's, the tradition is doubtless ancient." (*Quarterly Statement*, April, 1890, page 83.) This would, I think, hardly lead one to understand that the story of St. Paul and Thecla, as related in the apocryphal "Acts of Paul and Thecla" (to which I imagine Mr. Bliss refers) was as old as 170 or 180 A.D., which is the date Dr. Salmon assigns to it.

Leslie W. Troughton.

GREEK INSCRIPTION NORTH OF DAMASCUS GATE

In the Jerusalem volume of "Memoirs" will be found a collection of numerous Greek texts of the same character as that published in the last *Quarterly Statement*. They come from the Wâdy Rabâbeh cemetery and from other parts of the town. In the Muristan I found such a Greek text, which cannot well be older than 900 A.D. Θηκι διαφερουσα Μηνα υπερ Ωπρου (Jerusalem vol., p. 426). At the church by Jeremiah's Grotto, Lieut. Mantell and I copied another text of the same character. It was originally written across two slabs, and we only obtained the right hand halves of the lines (Jerusalem vol., p. 392). This was also a deacon's tombstone.

The text from Boeckh given by Mr. A. S. Murray is only a bad copy of the inscription on the tomb of Thecla Augusta (9th century), fully described in the Jerusalem volume of the "Memoirs" (page 418). This is one of texts in the cemetery of St. Sion, in Wâdy Rabâbeh.

The Christians were still powerful in Palestine under the Arab Khalifs, and the tombstones are written with the same contractions and general style, and seem not earlier than about 8th to 9th centuries, A.D.

C. R. C.

NOTES ON DR. POST'S PAPER.

I venture to make a few notes on this paper. The existence of the *Beech* in Syria is of some interest philologically, and it would be interesting to know where it occurs. It is known in Asia Minor and in the Caucasus, and grows on chalky soils.

The Papyrus is not confined to the Jordan valley. I have seen it in several places on the coast near Sidon, in the Zerka, and further south, as noted in the "Memoirs."

It is certain that the lion still existed in the Lebanon in 1300 B.C. ("Travels of a Mohar").

It is certain that the crocodile exists in the Zerka, but I found no native who knew of it in the Kishon.

The wild boar is found in the mountains in all parts of Palestine where cover exists.

I have seen supposed specimens of *Tin* from the Lebanon.

Cholera sometimes spreads in the mountains. It reached Safed (3,000 feet above the sea) when I was there in 1874.

The "ancient language" is not confined to a few villages, I think, being recognisable in Fellah speech throughout Palestine.

C. R. C.

THE INSCRIPTIONS OF EDREI.

Herr Schumacher has given us several Greek inscriptions which are not in Waddington's great work, but those from Edrei are found in the "Inscriptions Grecques et Latines de la Syrie," copied in 1862, and published by Waddington in 1870.

The long text, which is No. 2070 *e.* of Waddington, has, however, been better copied by Herr Schumacher (though some parts seem doubtful), and the date is certain. The following are the parts which appear to me to be quite clear :—

Αγαθη Τυχη

1. Υπερ σωτηριας και νεικης του Κυριου ημων Αυτοκρατορος
2. Γαλιηνου Σεβ. εκτισθη . . . . . του Σεβ. προνοιας
3. (Ιουλ)ιου (Ιουλ)ιανου του κρατιστου . . . . . .
4. . . . . Ισιδωρου . . . . . .
5. . . . . Μ. Αντου. Βασσου . . . . . Αιλιου Βασσ .
6. ου και Ζηνοδωρου Ταυρινου και Σαβινου

ET. P. N. H.

The text is of the reign of Galienus, and of the year 158. Galienus reigned 260–268 A.D., and the date is clearly of the era of Bostra (105 A.D.), which gives us 263, or the fourth year of Galienus.

The Julius Julianus of this text is a person well known from two other inscriptions—one at Bostra and one at Palmyra (Waddington, Nos. 1951 and 2580). From the former we learn that he was Prefect of the 1st Parthian Legion of Philip, or Commander of Parthian auxiliary cavalry. Philip was an emperor of Arab origin, and Julius Julianus may have been of the same race. Philip was killed in battle by Decius, near Verona, in 249 A.D., so that Julius Julianus was a person of importance some 14 years before the date of the inscription of Edrei, but not more than 19 since Gordian III was murdered in 244 A.D.

From the Palmyra text we learn that Julius Julianus was commandant of cavalry at Palmyra. He held the high rank of *militia quarta.*

As regards the other names, that of Bassus is often found in the Hauran. Zenodorus, son of Taurinus, might be a relation of Rabbelus, son of Taurinus, whose name occurs at Dekîr, in Trachonitis (Waddington, No. 2537 *g*). Another Zenodorus, son of Bathanus, is noticed as dying at the age of 42 at Edrei (2070 *l*).

The Hauran texts are of the highest value for the history of Syria from the time of Herod and Agrippa down to the first days of the Moslem Conquest. Of these texts 1,600 are collected. They not only give decrees of the emperors for the rule of the province, and for the discouragement of the *baksheesh* system, with details as to the Roman forces, but they show that as late as the time of Agrippa I the inhabitants of Bashan

were living in underground caves, and had not begun to build houses. They show us how late Paganism survived, a heathen temple having been built in 320 A.D., in the Hauran, to Apollo Aumos, by Arabs. In another case in Trachonitis such a temple appears to have been converted into a church. The gods of Greece—Zeus, Helios, Selene, Kronos, Herakles, Athene—were adored side by side with Arab deities, Dushera, Aziz, Aumu, &c. The Arabs were early converted to Christianity, and a Greek-Kufic bilingual of 586 A.D. shows that they built a church at Harrân only a few years before the Moslem Conquest.

Their creed was apparently heretical and Ebionite. They adored Sergius and Bacchus, Martha, Marthine, Elijah, St. George, and Job, side by side with "the God of Abraham, Isaac, and Jacob," and with Christ and the Virgin Mary.

The earliest distinctly Christian texts here, as in Italy, belong to the 3rd century, A.D. The Saints Martha and Marthine were adored, according to Epiphanius (Adv. Hæres., II), by the Elkaisites and Sampseans in Arabia (*see* Waddington, p. 570). These heretics of the 3rd century A.D. were also found along the Euphrates, and followed a prophet of Hadrian's time. They were great exorcists, and their doctrines as to the successive incarnations of our Lord were shared by the Nazarenes of Syria, whom the Elkaisites also resembled in their austerities. They appear to have been still known to Moslem writers in the 10th century A.D. as *Mughtasileh*, or "baptists."

C. R. C.

MOSAIC AND EMBROIDERY IN THE OLD TESTAMENT.

MOSAIC wall decoration is generally acknowledged to be of ancient origin, and I am inclined to regard this art as of extreme antiquity in Jerusalem, and as being perhaps of Jewish origin. There is, I think, distinct allusion to the use of mosaic ornament, or "embroidery in stone," in 1 Chron. xxix, 2, where King David is enumerating the materials prepared by him for the temple—gold, silver, brass, iron, and wood, onyx stones, שׁוֹהַם, stones for setting, מִלּוּאִים—"glistering stones of divers colours," אַבְנֵי פוּךְ וְרִקְמָה, and every precious stone יָקָר, and stones of marble, שַׁיִשׁ. The words, אַבְנֵי פוּךְ וְרִקְמָה, rendered in our Authorised Version "glistering stones of divers colours," can be translated more closely to the Hebrew words and construction by "stones of colour and embroidery." פּוּךְ "Colour" may imply stain, or artificially produced colour; and רִקְמָה, "embroidery," is rendered in Exodus xxxviiii, 23, &c., &c., Judges v, 30, and Psalm xlv, 14, as embroidery and needlework in stuffs, and it carries with it the idea of overlaid, applied (*appliqué*) ornament (still much used in Egypt, Palestine, Turkey, Persia, &c.). Appliqué embroidery appears to have been used for stuffs

when parti-coloured רקמה designs were placed upon the material of which articles of dress or furniture (curtains, &c.), were made. Travellers are familiar with the bold designs thus placed as ornaments upon Egyptian tents. The Fellaheen of Palestine still embellish in this way the clothing worn by men and women, thus perpetuating the art which was used to decorate Joseph's coat of "*many colours*," literally of "*many pieces*," for that is the exact translation of כתנת־פסים (Genesis xxxvii, 3).[1] "Many pieces" of multi-coloured materials are employed to produce the effect—as may be more fully seen in the splendid embroideries of Resht, in Persia, and in the quaint patterns worked by the Turcoman women in their encampments.

But to return to "the embroidery in stone," known as mosaic. Some writers have ascribed the origin of the art to Moses, the Hebrew Lawgiver. Be that as it may, there is in 1 Chron. xxix, 3, evidence that the art was known to King David and his people.

Josephus also appears to refer to it ("Antiquities," viii, 5, 2) as having been used for wall decoration in the palace of King Solomon:—

"To this was joined another house that was built for his queen. [It is well to remember that the Hebrew word בית, house, often means 'room,' though it is also used for 'mansion.'] There were other smaller edifices for diet and for sleep after public matters were over, and these were all floored with boards of cedar. Some of these Solomon built with stones of ten cubits, and wainscotted the walls with other stones that were sawed, and were of great value, such as are dug out of the earth for the ornaments of temples and to make fine prospects in royal palaces, and which make the mines whence they are dug famous. [This mention of thin marble slabs for wainscotting reminds one of the sculptured slabs used in Assyria for the same purpose which have been found at Nineveh, &c.] Now the contexture of the curious workmanship of these stones was in three rows, but the fourth row would make one admire the sculptures, whereby were represented trees and all sorts of plants, with the shades that arose from those branches and leaves that hung down from them. Those trees and plants covered the stone that was beneath them, and the leaves were wrought so prodigious thin and subtle that you would think they were in motion; *but the other part up to the roof was plastered over, and, as it were,* EMBROIDERED WITH COLOURS AND PICTURES."

This passage brings before us the splendid walls—built of great stones—marble-lined to a certain height; sculptured where on a level with the eye, and then high up, above the marble wainscot, enriched with glowing mosaic pictures of many colours, set in "plaster."

Observe that only the higher parts of the walls were thus embroidered. It is just in the higher parts that we find mosaic work in the Dome of the Rock on Moriah, at St. Sophia at Constantinople, and in the Church

[1] So also in 2 Samuel xiii, 18.

of the Nativity at Bethlehem. These latter were discovered during our residence at Jerusalem, when a happy chance revealed the fact that beneath the whitewash that covered the walls of the nave lay preserved the gold and coloured mosaic work, placed high (and in the Dome of the Rock at an angle), so as to reflect, as only "glistering" mosaic could, every ray of light coming from below or from above. The Church of the Holy Sepulchre at Jerusalem was decorated with mosaic in former times, but this was destroyed by the great fire of 1808. I have myself picked up many fragments of mosaic out of the *débris* from that fire, which still lay (when first we went to Jerusalem) in heaps on the hill west of the city beyond the Valley of Gihon. I still possess some of the little cubes in red, green, blue, and well-gilded glass. I have also found similar mosaics in the ancient baths, probably Herodian, which we discovered in Solomon's gardens at Umtas.

Incomparably the finest specimen of mosaic decoration still existing in Palestine is preserved for us in the Dome of the Rock on the Temple site at Moriah—that treasure-house of exquisite design, execution, colouring, and form, which beautifies the otherwise desolated site of former Temple magnificence. Here we find the sumptuous mosaics above the marble pillars, in the rising of the arches up toward the spring of the great dome, where but for the reflection from their brilliant surface the effect would be dark and sombre. The arabesques are boldly traced in colour on the golden ground to shine and sparkle in a thousand tints, produced by the play upon the mosaic of the changeful lights that reach them through open door or coloured window as the sun passes round from his rising over Olivet to his setting in the west. There is here a faint reminiscence of the Temple splendour, with its carvings wrought in gold—its metal work in silver, brass, and iron—its onyx, its gems—its precious stones and marble, and its mosaics in "glistering stones of divers colours"—"stones of embroidery," used where blended tints and reflected lights could now subdue and now enhance the glory, and bring out the full, rich harmonies of tone and colour in that resplendent sanctuary.

The use of mosaic pavement in Palestine was evidently very ancient. I have found the small stone cubes, red, black, and white, scattered in every part of the country—among the ruins of towns and of villages, and also loose in ploughed fields at a distance from any village. We discovered remains of pavement, in various places, only hidden by a few inches of soil, where little else remained to show that here had been some dwelling or public building.

The finest specimen still extant near Jerusalem is the pavement which covers the floor of the old Georgian Church, in the Convent of the Cross, west of Jerusalem (now in the hands of the Greeks), which still bears sad traces of the murders of the Christians who had sought shelter within their sanctuary, when Chiroses, the Persian king, and his heathen army broke in upon them. The great purple stains testify to the fate of those poor martyrs, while at the same time giving us some certainty as to the age of this most interesting mosaic floor.

While tracing back the history of embroidery in stone, the kindred topic of embroidery in stuff claims attention. I have referred above to the earliest allusion to appliqué work in the history (Genesis xxxvii) of Joseph's coat of many colours, and we find repeated mention of the same art in the history of the preparation of the Tabernacle in the Book of Exodus.

"An embroiderer," רוקם, was one of the artificers mentioned, Exodus xxxviii, 23, as distinct from the "designer" or "thinker," חושב

The embroidery in blue, purple, and scarlet, that is, the laying on of thin and coloured material (for that is the meaning of the verb רקם, with which is closely connected the idea of thinness, as in Arabic, رق and رقيق), was used for the hanging of the gate of the outer court (Exodus xxvii, 16); for Aaron's broidered coat (Exodus xxviii, 4); for his girdle and those of his sons (רקמה); "Appliqué embroidery" (translated "needlework") is also mentioned in Judges v, 30, and in Psalm xlv, 14. The word would also be accurate in describing embroidery wrought on to stuff in gold thread, coloured silks, or braids, and in Judges v, 30, this is spoken of as רקמתים, applied embroidery, the same on both sides. The women of Israel thus appear to have been celebrated in the days of Deborah for their skill in embroidery, and to have practised the art, still preserved among orientals in Turkey if not in Persia, of working so that both sides should do alike—the wrong side as well as the right side; for the word used by Sisera's mother means "embroidery in double" (Authorised Version, "needlework on both sides").

Skill in original design is also expressly mentioned in the history of the preparation of the Tabernacle.

The very same verse (Exodus xxxviii, 23) which mentions Aholiab as the "embroiderer," רוקם also mentions him as a designer, חושב literally "thinker" (Arabic حسب to think, calculate). This word is rendered in our Authorised Version "cunning workman." In Exodus xxxv, 32, חושב מחשבות means "thinker out of thoughts." "To devise curious work," in Exodus xxxi, 4, לחשוב מחשבות, "to think out thoughts," whether in gold, silver, brass, precious stones, wood, or embroidery. Bezaleel and Aholiab were specially given skill in design and in execution, that they might carry out under Moses' direction the plans given upon Mount Sinai.

Who that has watched the "cunning workmen" of to-day in the Bazaars of Jerusalem, Damascus, or any other Eastern city can fail to be reminded of these illustrious artificers who were, to some extent at least, founders of these arts in Israel.

The worker in metal, as he carries out the beautiful design which he devises as he goes on, is no less interesting than the gem or seal engraver, deep in thought as he turns the polished stone hither and thither, pro-

ducing the desired name or couplet, and beautifying it with here a flower and there a leaf cunningly inserted among the flowing lines. Thus (though probably without the added ornaments) were graven the golden plate for the head dress of the High Priest (still existing in our Lord's day), and the inscriptions on the precious jewels for his shoulders and for his breastplate.

And so with the embroiderer. We see the survival of the art in the rich effects produced by the Eastern craftsman as he sits upon his shop front laying braid or fine gold thread in mazy and intricate patterns, designing as he works, and embellishing the velvet, cloth, or silken cushion, or jacket which he is making.

That gold thread was used in the Tabernacle embroideries is certain from Exodus xxxix, 3, where, in speaking of the working of the Ephod, it says that they "beat gold into thin plates and cut it into wires," literally "threads," for the word here, פתילים, is to this day used for the soft threads of lamp-wick, and the same word is used in Arabic for the same thing. (*See* also "lace," for "braid," in Exodus xxviii, 28.)

This gold thread was made to work in with the blue, purple, and scarlet with "cunning work" (design). The "cunning work" of embroidery was used not only for the Ephod, but also for the breastplate (Exodus xxxix, 8, 15), for the curious girdle of the Ephod (xxviii, 27, 28, 39; xxix, 5; xxxix, 5, 20, 21).

It was in this kind of work that the Cherubim were wrought into the ten curtains for the innermost covering (Exodus xxvi, 1), and for the vail before the Ark (xxvi, 31). As to Aaron's coat, כתונת (Exodus xxviii, 4, 39), that was to be enriched with שבץ, "chequered" embroideries. This is the very word used in Psalm xlv, 14, for the golden chequered robe of the King's daughter, "all glorious within," as well as on the outer or right side of the work. The chequered pattern of gold thread embroidery among coloured silks may still be seen in oriental work, and it is one of the most magnificent in effect. Enough oriental art remains to this day to give us some idea of the splendour of the embroideries in stone, and in gold and silk, as wrought by the ancient Israelites for the Tabernacle in the Wilderness and for the Temple on Moriah.

E. A. Finn, M.R.A.S.

The Elms, Brook Green, W.

Note.—For the use of the verb חשב (to think out), see Amos vi, 5, where it is translated "invent" (instruments of music like David); and Daniel xi, 24, "forecast devices."

SUN-BIRDS.

On page 41, January *Quarterly Statement*, Dr. Selah Merrill mentions having seen and shot the Palestine Sun-bird at Jaffa, and in the Jordan Valley. We saw some near Jericho in February, 1847, and obtained specimens; and we had in the museum of our Literary Society at Jerusalem, a specimen which had been shot at Sidon by Mr. Abela, who prepared it and sent it to Mr. Finn. We also, like Dr. Merrill, noticed the great variations in the coming to Palestine, or to parts of the country, of migratory birds. The natives always rejoice when great flocks of storks come, as bringing good crops and prosperity. They eat the locusts. Some years none were to be seen near Jerusalem.

We saw them in August, 1859, nesting in the pine trees near Acre. (Ps. civ). It is very curious to see and hear them on their departure early in November—when they wheel in vast hollow circles over Jerusalem. The numbers of small migrants also varied greatly.

I have also heard in October, on a still starry night, vast numbers of bee catchers passing westwards (or south-westward). I tried in vain to see them; standing in the open air for some time. There was neither cloud nor mist, yet they could not be seen though heard most distinctly, and the snapping of thousands of little beaks had a most singular effect, while the birds were invisible. This snapping sound is familiar enough in the hot summer weather in the day time, when the bee catchers fly and wheel after their prey, their bright plumage glittering in the sunshine. The storks, when wheeling in the air, also make a clapping noise, with either their beaks or their long legs.

E. A. Finn.

NEHEMIAH'S WALL.

Mr. G. St. Clair holds (January *Quarterly Statement*, pp. 47–50) that as the Upper City was (according to Josephus) surrounded by a wall of its own, therefore the defences of the south end of the Tyropœan must have formed a bay or loop line. This was the view taken by Mr. Finn and myself when in Jerusalem, and we hold, as Mr. St. Clair does, that here were the "two walls" between which Zedekiah escaped by the King's garden to the Jordan Valley (Arabah), as Manasseh appears to have attempted before him (2 Chron. xxxiii, 11), when the Chaldeans "caught (or seized) him among the thorns," and as the Jewish leaders attempted to do after Titus had taken the Temple.

"They caught Manasseh among the thorns" is closer to the Hebrew than our translation—

וילכדואת מנשה בחוחים

Was the Tyropœan even then a place for thickets of thorns? as it is now, full of prickly pear cactus.

E. A. Finn.

THE STONE MOUNDS ON THE REPHAIM PLAINS.

On page 22 of the January *Quarterly Statement*, Herr Schick mentions the Seba' Rujum near Bait Safâfa, on the Plain of Rephaim, south-west of Jerusalem. These mounds of loose stone are of great size, and are *unlike* others in the country. It would be very desirable that they should be examined. The accumulation of small stones in them is enormous, and evidently ancient. We always regarded them as artificially made for some special purpose—possibly as burial cairns on a battlefield, and certainly erected with immense expenditure of time and labour. Can they be memorials of the defeat of the Philistines by David? (2 Sam. v; 1 Chron. xi, xiv).

E. A. Finn.

THE WATERS OF MEROM.

The Rev. Canon Gover argues (p. 52 January *Quarterly Statement*) that the expression "the waters" should not be understood to mean a lake, but rather a stream and its head waters.

An instance in point may be found in Joshua xvi, 1. "The waters of Jericho," probably Elisha's fountain and the stream that flows from it.

A similar expression is used in Scotland—"Allan waters," "the water of Gala," &c. Canon Gover also mentions Misrephothmaim, pp. 52–53. I would suggest the great headland north of Acre, now called the "Musheirifeh," as probably Misrephothmaim, even though the Hebrew letter is *Sin* not *Shin*—Misraiphoth of the Sea—as in Symmachus. Was not "the Valley of Mizpeh eastward" of Josh. xi, 8, the Valley of Safet? מיצפה = צפת. Mr. Finn held that Safet was Mizpeh.

It is well to note that the difference in Hebrew between Madom and Marom would only be that between ד and ר (D and R) מדום or מרום.

E. A. Finn.

THE TSINNOR.

So much depends on the identification of the Tsinnor or "gutter" of 2 Sam. v, 8, at which Joab climbed up into the Jebusite fortress, that I venture to contribute a few remarks on the subject based upon the Bible narrative and that of Josephus, and the discoveries of Sir Charles Warren.

First as to the meaning of the word Tsinnor, צנור. It occurs in Psalm xlii, 7, where it is translated "waterspouts," but "gutter" or "watercourse" would seem to be more correct if we take into account the Chaldee form צנרין, as used in the Targum of Ecclesiastes i, 7, for נחלים, brooks (hollow channel).

Secondly as to the site of the Tsinnor of 2 Sam. v, 8. Josephus, in his paraphrase of 2 Sam. v, 8, tells us that there were ditches at the base of the citadel.[1]

It is most important to notice that Josephus declares that the Upper City, "called by us the Upper Market-place," was that upper city which King David took from the Jebusites and called the Citadel (Wars v, iv, 1, and Ant. vii, iv, 1). The "ditch," therefore, by which Joab climbed was a "ditch," gutter, or "narrow watercourse," at the foot of the Upper City on the south-western hill, called in the Bible Zion.

This establishes the identity of Zion (though Josephus never uses that word), the city of David, with the Upper City and Market-place of Josephus, on which he tells us were the palaces of David ; of the Asmonean Princes and of Herod. Now there is but one place connected with the south-western hill, where a narrow watercourse has been found sufficiently important to be mentioned, as the Bible and Josephus mention the "gutter" and "ditch" in the description of the Fortress Hill. That watercourse, ditch, or gutter, is cut in the rock just above the lowest cleft of the Tyropœan, where it separates the east mountain, Moriah, from the South Western Zion. It was discovered and thoroughly examined by Sir Charles Warren, who came upon it at Robinson's Arch, some 70 feet below the present surface of the ground. It is cut in the side of Zion, only 24 feet above the bottom of the Tyropœan, itself a mere gully at this part (and at present filled up to a depth of 89 feet).

At page 124 of "The Recovery of Jerusalem," Sir Charles Warren says : "The west wall of the Sanctuary at Robinson's Arch cuts through an ancient system of rock-cut water ducts and tanks running along the western side of the Tyropœan Valley," *i.e.*, at the base of the south-western hill, Zion.

The discovery was made while examining a pavement (deep down below Robinson's Arch)—a pavement belonging to a roadway evidently of great antiquity. Upon it the great voussoirs of Robinson's Arch were found lying huddled just as they had fallen at its destruction. Below this ancient pavement, at a depth of 23 feet, were found two great voussoirs of an arch (belonging to a still older viaduct) "jammed in over a GREAT ROCK-CUT CANAL running, from north to south, 12 *feet deep and* 4 *feet wide*, its eastern side being about 12 feet from the Sanctuary wall [the western wall], but it does not run parallel to it, and was probably in use before this portion of the wall was constructed" [by Herod the Great ; for here we have his addition to the Temple, which he carried for symmetry's sake across the Tyropœan on the base of Zion.]

Here, then, we have a canal, ditch, Tsinnor or gutter, worthy of mention as a landmark. It was arched over. Sir Charles Warren examined it northwards. At page 107 we read : "Higher up towards the north this canal was found to open into a circular rock-cut pool, of which only half is to be seen, as it is CUT THROUGH *by the foundations of the Sanctuary wall*,"

[1] Considering the then depth of the Tyropœan in its original condition at its narrowest point, Josephus may have held it to be one of the ditches.

which shows that it existed before Solomon built that wall; for here we reach the old part that was built by him.

On page 109 Sir Charles Warren says, "the winding aqueduct was cut in the rock" before the Temple was built. That is to say, we have here at the narrowest part of the Tyropœan, just above its bed, and on the shelving base of the mountain, a vast cutting of 12 feet deep by 4 wide *in the live rock*. This was on the eastern outer side of the Zion fortress, and before the neighbouring mountain of Moriah was built upon or walled, while it was yet the property, the open threshing floor of Ornan the Jebusite.[1] This gutter in David and Joab's time was a deep-cut trench on the right bank of the Tyropœan. From the Bible narrative, 2 Sam. v, 8, we learn that it was David who appealed to his army to smite the Jebusites (whose blind and whose lame scoffed at him), and named the gutter as the point to be reached. From 1 Chron. xi, 6–8, we learn that it was Joab who first went up and won the chief command.

Josephus exactly confirms this: "The King, knowing that the proposal of dignities and rewards would encourage the soldiers to greater actions, promised that he who should first go over the ditches that were beneath the citadel, and should ascend to the citadel itself and take it, should have the command of the entire people conferred upon him. So they were all ambitious to ascend, and thought no pains too great in order to ascend thither. However, Joab, the son of Zeraiah, prevented the rest, and as soon as he was got up to the citadel, cried out to the King and claimed the chief command. And thus were the scoffers silenced."

Later, when the Temple fortress was built, and its stupendous walls on Moriah crowned the left bank of the Tyropœan, this ditch became "the fortified ditch" between the two walls of Zion West and Moriah East. *See* Josephus, Ant. x, viii, 2, as to Zedekiah's escape to the desert. In 2 Kings xxv, 11, Jeremiah xxxix, 4, and lii, 7, we read that Zedekiah fled "by the way of the gate between the two walls which is by the King's garden to the plain" (Arabah, *i.e.*, Jordan Valley), where he was caught in the plain of Jericho. The Temple was already in the hands of the Assyrian army. Zedekiah was therefore fleeing from the citadel, which had not yet been taken, down through the ditch between the two walls of Zion and the Temple (on his way to the Kedron Valley). The same thing was also attempted afterwards by the Jewish leaders in the Upper City after Titus had captured the Temple (Wars vi, viii, 5).

But in David's time the ditch or gutter was not thus protected and shut in. It was, nevertheless, an additional defence for the citadel of Jebus just at the point, where, far up the face of the mountain, the fortress stood upon the scarped cliffs visible to this day as we look from Olivet towards Zion. Truly this part must have seemed to the Jebusites

[1] It is worth notice that David paid Ornan 50 shekels of silver for the threshing floor and for the oxen—(2 Samuel xxiv, 24); but that he gave 600 shekels of gold *for the place*, that is for the whole Temple site—the mountain, which Solomon walled round for the Sanctuary—(1 Chron. xxi, 25.)

so absolutely invulnerable that we can understand the boastful insolence of the blind and of the lame. The Tyropœan, in its then condition—90 feet deeper than it now is—a mere gully between the two mountains—was no insignificant obstacle to any attack from this side.

Well did Joab deserve his promotion when he reached the ditch, and scaled the rock, surprising the garrison, much as the garrison of Edinburgh Castle was surprised in days of yore, when the seemingly inaccessible rock was scaled by a daring soldier.

In searching, while we lived in Jerusalem, for the Tsinnor, we remembered how invariably the eastern mount, Moriah, had been taken before the upper city, Zion. It lies lower, and was more accessible to attack. It must have been still more so in David's time, before it was walled and fortified by the Temple buildings.

But we never could satisfy ourselves that the Tyropœan valley, as it now is, fully answered the idea of a Tsinnor, though it fairly suited that of a fortified ditch between two walls of Zedekiah's time. But the discoveries of Sir Charles Warren have revealed not only the amazing depth and straitness of the Tyropœan gorge, and its true course, bending eastwards, but have also at this very point traced out the great rock canal at the base of Zion, and have demonstrated that this canal, a veritable Tsinnor or gutter, existed before Solomon built the Temple, in the days of David and of the Jebusites.

It is shown in "The Recovery of Jerusalem," in a picture on page 105. And the mouth of it is shown just west of Herod's Temple wall, in the elevation of south front of the noble Sanctuary, which also shows the slope of Zion as it falls into the deep Tyropœan bed on the right (page 119).

If the elevation were continued westwards we could better understand the full height of Mount Zion, the Upper City, 110 feet higher than the summit of Moriah (which is 2,440 above the sea level).

Moriah was the possession of Ornan—a royal possession indeed; and from 2 Sam. xxiv, 23, he would seem to have been the Jebusite king. The Hebrew text here says, "All these did Araunah, a king, give unto the king."

This may help us to understand the references to the king's dale, and to the king's gardens, in the Kedron Valley, between Moriah and Siloam—now and for many ages the property of the Siloam people. In looking for any living relics of the Jebusite people who were still existing in the days of Ezra and Nehemiah, and of whom some probably still exist as native Fellahhîn, the most likely villages would doubtless be Siloam—Et Tûr (on Olivet), Abu Dis, and perhaps 'Aisawîyeh, north of Olivet, and Beit Sahhur, south of Siloam (Josephus, Wars, v, ix, 4, speaks of the Siloam gardens and of the people as being then enemies of the Jews).

It is from some of these villages and others that Sir Charles Warren obtained the sturdy labourers who worked so well under him and his Royal Engineers in tracing the mighty works of Solomon and of the Jebusites before him.

E. A. Finn.

IRRIGATION AND WATER SUPPLY IN PALESTINE.

Mr. William Simpson, in his interesting paper (p. 55 January *Quarterly Statement*), mentions the system of pits for water connected with shafts at intervals, and linked by an underground tunnel, as seen by the Rev. Mr. Harper and the Rev. J. Niel in the Vale of Siddim, also found at Surtabeh and Damascus.

Mr. Simpson found the same system in use in Persia and Afghanistan, where the pit and tunnel are called Karaize. Sir R. Burton also mentions them. The same system is still in use in Cyprus, where professional well and aqueduct makers construct them as in olden times, in what look like waterless districts. The word used in 2 Kings iii, 16, is גֻּבִּים (reservoir), and also in Isaiah xxx, 14, Jeremiah xiv, 3, and again of the Siddim Vale in Ezek. xlvii, 11, where our version gives "marishes." The same word is still in use in Palestine, *e.g.*, the well known Jebb (جبّ) Yussuf between Siberias and Safet.

E. A. Finn.

THE STONE (EBEN) OF ZOHELETH.

As no one has yet produced an instance (1889, 44) from the Bible of *eben* meaning a *cliff*, it may safely be concluded that such is not to be found. Major Conder's note (*id.* 90) fails to meet the case, for he quotes Gesenius as rendering *eben rock* (Gen. xlix, 24), but the dictionary says that "some persons apply the term (*rock*) to a stone of any size, and speak of boys throwing *rocks* at each other—a supremely ridiculous expression."

In the verse above, the A.V. and R.V. render the word "the stone of Israel." The Arabic *Zehwele* (for all that I know) may come from the Hebrew *Zoheleth ;* but it is an utter impossibility for a solid *cliff*, however slippery, at the village of Siloam, ever to have been the moveable stone of Zoheleth, close to Enrogel, several hundred yards distant from that village.

Several explanations have been given of the word *Zoheleth.* If the expression means the stone of "moving to and fro," let me offer the conjecture that it was a *logan* (or rocking) stone which will *log* again, whenever the *débris* of centuries is thoroughly cleared away from near Enrogel.

W. F. Birch.

GIHON.

On p. 124, Dr. Chaplin thinks it not improbable that the name Gihon (Fountain of the Virgin) was derived from "*gahan*, to bow down, to prostrate oneself, and was originally applied not to the fountain, but to

the canal which brought the water from the fountain," *i.e.*, it was applied to the Siloam tunnel.

Thus, as it would be most unsatisfactory to have to take 1 Kings i, 33, 45, as speaking proleptically, when Gihon is named by David and Jonathan, it must in this case follow that the Siloam tunnel existed in the time of David.

Surely Dr. Chaplin does not wish to maintain—

1. That the Siloam inscription in the tunnel is as old as the time of David.

2. Or else that it was cut (perhaps hundreds of) years after the tunnel was made.

3. That the tunnel, therefore, is not the work of Hezekiah referred to in 2 Chron. xxxii, 30; but was made in or before the time of David.

So critical was Hezekiah's position that there was reason in his making the tunnel. It is not easy, however, to see why either David (who fled before Absalom) or the Jebusites should ever have executed in haste such a gigantic work. Accordingly, the proposed derivation seems inadmissible.

Dr. Chaplin's paper satisfies me at last that the Pool of Siloah (the ditch, Is. xxii, 11) was actually enclosed by a wall, *i.e.*, the outer wall of 2 Chron. xxxii, 5; and that "the two walls" (Is. *id.*, 2 Kings xxv, 4) were not a loop-wall defending the pool, but the old city wall, and the outer wall, which thus placed Siloam within the city.

W. F. Birch.

DEFENCE OF THE GUTTER (TZINNOR).

In *Quarterly Statement*, 1885, 62, I expressed my willingness to challenge attack on this question. Let me then try to defend my theory against the objections urged from time to time.

As the *Fund* being mutilated would end in *Fun*, so the quotation (*supra*, 39) from Ewald probably fares likewise, through Major Conder's not reaching to "the lame and the blind."

Though my interest in *Jerusalem* topography is owing to the accident of some of Warren's plans having in 1868 been sent to me through a postal error, still Mr. St. Clair wrongly attributes my theory to a guess. It is due to sheer plodding, superadded to a slight acquaintance with Hebrew characters, and to a resolute adherence to Scriptural Hebrew usage, which neither allows *emek*, *ge*, and *nachal* (1878, 180) to be interchangeable terms, nor "two hundred and a thousand" (as in the commonly accepted version of the Siloam inscription) to mean "one thousand two hundred."

The perception (1878, 182; 1882, 56) that the Tyropœon was the Valley of Hinnom forced me to place Zion (the City of David) on Ophel. The only reason discoverable for choosing such a low site was the proximity of Gihon, while Kennicott's explanation of 2 Sam. v, 8,

revealed the full reason. As some one in the city must have helped Joab to ascend a practically inaccessible shaft, I was driven to search for a traitor.

At this point I find Josephus dragging in Araunah, as not slain with the rest because of his good-will to Israel and special affection for David, while the extraordinary generosity shown to Araunah in his being permitted to possess the hill just above the City of David, indicates that the Jewish king was deeply indebted to him. If Mr. St. Clair, however, cares to argue that it was Araunah's *grandmother* who was the traitor I shall be glad to answer him. My theory is no guess, no product of a vivid imagination—the constant bane of topographical research.

Josephus, in rendering *tzinnor* by ὑποκειμένων φαράγγων, is no opponent of mine, since Kennicott says this means "subterraneous cavities." The *plural* here is of importance; for surely it would not be necessary for the assailant to cross more than one valley or ditch in order to take Zion. Most interpreters agree (1878, 184) in making the word signify something *hollow* and in applying it to water. Those who render the word *watercourse* (R.V., Sp. Comm.) are practically in agreement with me, since the first length of 70 feet from Gihon (Virgin's Fount) into Zion is actually an *aqueduct*. A watercourse, according as it is (practically) horizontal, oblique, or perpendicular, forms an *aqueduct*, as at Gihon; or a *cataract* (as claimed by some for Psalm xlii, 7); or a *waterfall*, as interpreted by Ewald, and urged by Professor Sayce; only unfortunately on Ophel (at Gihon) the water is at the bottom when we first find it, and so both the proposed cataract and waterfall would have to do without water at the top—a most awkward arrangement.

Mr. St. Clair says my theory (or explanation) is "only a guess unsupported by any coincidence with any description in the Bible or elsewhere." Let me show how it is supported by coincidences with both the Bible and "The Recovery of Jerusalem," and also with Palestine topography and history in general.

The account in 2 Sam. v, 8 is certainly concise and obscure, if not elliptical; but 1 Chron. xi, 6, supplies what is wanting (1885, 64). Two words, however, in the Hebrew give us all we need; they are בַּצִּנּוֹר וְיִגַּע. Professor Theodores renders them "reaching as far as the aqueduct." The extreme difficulty of discerning what was meant has produced a variety of interpretations. Bochart, Ewald, &c., from the verb נָגַע appear to have got the idea of hurling persons down the waterfall (or that down which the water fell, *i.e.*, the cliff).

To me, in the verse quoted, יִגַּע seems connected with the verb יָגַע (indeed the LETTERS are identically the same), which means *to labour, to exert oneself, particularly to make strenuous exertions.* I conclude, therefore, that he who was going to smite the Jebusites had before him a task demanding almost superhuman exertions; he would have to make strenuous exertions (literally) *in* the gutter.

Even getting along the watercourse in this luxurious age (when, as Mr. St. Clair tells us, the water flows at a lower level than formerly)

proved a dangerous matter, when Captain Warren was attempting to get up the vertical shaft. He states ("Recovery of Jerusalem," 245), "Once, while the fellahîn were bringing in some frames, the spring suddenly rose, and they were awkwardly placed for a few minutes, being nearly suffocated." How would they have fared if the water, instead of flowing through the tunnel, could only have overflowed into the Kidron? Surely Joab essayed an enterprise hazardous enough in the first 70 feet, and there were worse perils beyond, viz., the Thebez stone, and the Jebusite sword, and possibly the deep pit.

I have ventured to take יגע (2 Sam. v, 8) as referring to *exertion* in the gutter; but as there is apparently something wrong with the passage, I must decline to deal with it grammatically. Certainly Hebrew is a charmingly elastic and reversible language if this one word equally well describes Joab's slowly going *up* (R.V. "Let him get *up* to the watercourse") and the Jebusites' quickly coming *down* (Ewald, "Let him *hurl down* the waterfall the lame, etc.). Therefore waiving this diplomatic word, let me show how the other word *tzinnor* of itself establishes my theory.

I have to prove—

(1.) That the fortress Joab took was immediately west of Gihon.

(2.) That the *tzinnor* meant the passage from Gihon leading to Ophel.

(3.) That it was practically inaccessible.

(4.) That, therefore, there must have been a traitor.

(5.) That Araunah was that traitor, being spared and enriched.

Now as to these several points,

(1.) Has been proved in these pages (1878, 180; 1885, 104; 1888, 46), and he that will dare to attack my arguments must be more venturesome than even Joab.

(2.) Was settled years ago by Kennicott, before the secret passage on Ophel was ever thought of. As Gihon was the only spring hereabouts, so this, consequently, was the only passage that could possibly be alluded to. Let me add, however, that the *tzinnor* at Jerusalem is no solitary instance of this kind of contrivance. The one at Rabboth Ammon mentioned by Polybius, and perhaps as old as Joab's time (1878, 190; Jos. Ant. vii, vii, 8) gave Kennicott the clue to the truth. Another at Gibeon is described and pictured on page 23. I believe there was another at Samaria, and I am satisfied there was another at Bethel. The proximity of the spring and the words in Judges, i, 24, 25, "the entrance into the city" (*see* also Jos. Ant. v, 2, 6) forbid my doubting it. At the castle of Subeibeh there is also a passage, said (but vainly, I believe) to reach to the spring at Banias. After such instances as these it is rather for my opponents to prove that *tzinnor* does not mean the secret passage at Gihon, and to show why the Castle of Zion was ever built on Ophel, except for the purpose of obtaining water by such a contrivance.

(3.) Is proved by the difficulty named above, and by Sir C. Warren's account of his ascent in 1867 (Recovery of Jerusalem, 245).

(4.) Naturally follows from (3). But here again I may add, that as Bethel fared, so afterwards did Zion. From Bethel to Khartoum treachery has always been a common and often the easiest way of taking a fortress. Let the founder of the Hittite Luz witness this, or the *Callidus emptor Olynthi* and his gold-ladened ass, or Demosthenes (De Coronâ, page 324) with his long list of traitors, or the Jotapata deserter (Wars, iii, 7, 33) who might have told us something interesting about Josephus himself. In short, history and the east (if not the west) have always swarmed with traitors.

(5.) David was exasperated,[1] and Joab never scrupled to shed blood. To think that the Jebusites would receive any quarter is absurd. If the Bethelites in the north of Benjamin were put to the sword, why should mercy be shown to an *insolent* enemy in the south? Certainly the Bible does not say that Araunah was spared at the capture of Jerusalem; but all statements in profane historians are *not necessarily untrue;* and Josephus twice distinctly asserts that Araunah, for special reasons, was spared, when the city was taken; and from the Bible we further gather that he was rich, receiving from David 600 shekels of gold. Josephus, I admit, does not positively say that Araunah was guilty of treachery; but it seems to me that either from tradition or his own common-sense he knew this was the case, and that he *meant* his readers to see it too. Traitors, it must be remembered, do not like to be *called* traitors, and after a certain shady transaction and suspicious-looking prediction connected with Jotapata some years before, Josephus probably concluded on reflection that it was coming too near home for *him* openly to brand Araunah as the betrayer of Zion (Ant. vii, 3, 3; 13, 4).

I claim, therefore, on the testimony of one Hebrew word, and of Sir Charles Warren, &c., that my "Gutter" theory, so far from being *only a guess*, is amply corroborated by "coincidence with the description in the Bible and elsewhere."

Further, Joab's exploit seems to be alluded to in Prov. xxi, 22: "A wise (lit. *crafty*) man scaleth the city of the mighty (*gibborim* in Hebrew) and casteth down the strength of the confidence thereof." Joab was *crafty* enough, the Jebusites *confident* enough (2 Sam. v, 6), while Zion, when it became the City of David, was garrisoned by men *mighty* enough (his *gibborim*); though four centuries of successful resistance might well have entitled the Jebusites to the same distinction.

It is open to question how much of the underground passage (from Gihon to the surface of Ophel) traversed by Captain Warren was covered by the term "Gutter;" certainly the first 70 feet; probably the shaft 40 or 50 feet high; possibly from this point Joab may have advanced by the south-west limb of the cave now partly filled (1867,

[1] "*Hated of David's Soul*," 2 Sam. v, 8. Both here and in 1 Chron. xi, 6, *smiteth* occurs. Nabal barely escaped with his life; the Amalekites were *all* slain (1 Sam. xxvii, 9); the Ammonites were tortured to death (2 Sam. xii, 31). Surely at Jebus *all* would be slain, except *the traitor* and, it may be, his family.

Letters, 39) with dry walls and (I conjecture) connected with "the passage" apparently "blocked up" in the chamber at the bottom of the chasm.

Posthumous fame is so greedily sought after, that (I think) it is quite possible that somewhere in the "Gutter" Joab had an inscription cut commemorative of his daring feat. Some day it may be found and read.

W. F. Birch.

THE POOL THAT WAS MADE.

We learn from Nehemiah iii, 15, 16, that the wall of Jerusalem, in its course from near the Pool of Siloah to the pool that was made, passed over against the sepulchres of David.

It is certain (*Quarterly Statement*, 1879, 177; 1889, 209) that the course described above was on Ophel (so-called), and enclosed the sepulchres of David, leaving them on the left hand (1879, 179), and that the Pool of Siloah was in the Tyropœon Valley, at the southern end of Ophel. Mr. Schick's discovery of the old Shiloah aqueduct has entirely removed (*Quarterly Statement*, 1889, p. 37) the great difficulty noticed by Thrupp in regard to Siloam.

If, now, the position of the pool that was made could only be satisfactorily defined, we should be a step nearer, and possibly very near indeed, to finding the sepulchres of David.

Recently, in a totally unexpected manner, fresh light has fallen upon the position of this pool. In *Quarterly Statement*, 1889, p. 51, I proved, at least to my own satisfaction, that the Jebusites, for the sake of obtaining water, hewed the mysterious rock-staircases north of Joab's Well. But if there was any need for this work, and otherwise it would not have been made, they surely would never have allowed the waters from Gihon (Virgin's Fountain) to run to waste, but rather have carefully stored them in some pool. Such a pool must necessarily have been in the Kidron Valley, south of Gihon, unless we suppose that Schick's aqueduct (*Quarterly Statement*, 1889, p. 51) was made by them, and not by Solomon. This seems to me most improbable.

Thus at last we gain a glimpse of a very *old* pool existing at Jerusalem in the Kidron, south of Gihon, even as far back as the time of Joshua. Curiosity eagerly asks, "Is it noticed in the Bible? What was its name? What was its approximate position?"

For twelve years I have been probing this question of the site of the pool that was made, and from time to time have supported or suggested five different positions (*Quarterly Statement*, 1877, pp. 202, 204; 1879, 180; 1883, 107, 155) for it between Siloam and the Virgin's Fountain; indeed, wherever within these limits I could find a pool existing or devise a supply of water to fill one. This troublesome search became necessary (as I stated in *Quarterly Statement*, 1877, 202) "in default of any evidence of a pool situated further south (*i.e.*, than the Virgin's Fountain) in the valley of the Kedron," to represent *the pool that was made.*

Thus the conclusion forced upon me, that the Jebusites themselves made a pool south of Gihon, is most welcome, inasmuch as, by providing a pool in the Kidron, it exactly meets the obvious requirements of Neh. iii, 16; and so another difficulty of long standing entirely vanishes.

So confident am I that this theory is not a mare's-nest that below I request the Executive Committee to undertake an excavation in the Kidron ravine, in order to test and (I doubt not) also to prove the correctness of my conclusion.

It seems to me, however, that one may safely go still further. Stanley ("Palestine," 513) gives the Hebrew word for *pool* as meaning an *artificial tank*. I believe this opinion is correct.

As then every pool had, of course, to be made, it is most extraordinary that one should be described merely as "the pool that was made," without any addition whatever as to *when*, or *where*, or *by whom*, &c., it was made; some such explanation seems absolutely necessary. Now, Isaiah (xxii, 9, 11) says to the people of Jerusalem, "Ye gathered together [or *drew in*, *withdrew*, *i.e.*, into the city] the waters of the lower pool. . . . Ye made also a reservoir [R.V.] between the two walls for the water of the old pool." This lower pool seems to me to be the King's Pool named in Neh. ii, 14, and to be identical in position with the present lower Pool of Siloam; while the reservoir seems to be the pool which (2 Kings xx, 20) Hezekiah made in the Tyropœon, close to Ain Silwân, at the southern end of his rock-tunnel through Ophel. The result of this tunnel or aqueduct being made would be (1) that the waters of Gihon, being thus diverted, would no longer, by means of Schick's aqueduct, supply the lower or King's Pool; and (2) that Hezekiah's pool or reservoir (A.V., "ditch") would receive the waters of (the Jebusite pool, *i.e.*) the pool that was made; by this I mean the waters which, but for the diversion, would have flowed into that pool. Be it observed, however, that Isaiah speaks of the reservoir receiving the waters of (*i.e.*, which used to flow into) the *old* pool. The Jebusite pool would, indeed, be pre-eminently *the old* pool. Hence I conclude without hesitation that "the pool that was made" (Neh. iii) was identical with the old pool (Isaiah xxii).

Further, as the words "that was made," without any addition, appear to me (as stated above) to form an unmeaning description, I strongly suspect that through some defect in the manuscript the Hebrew word for *old* (ישנה) has been misread into "that was made" (עשויה).

I may add that the three pools (the King's Pool, the Pool of Siloah, and the pool that was made) in Neh. ii, iii, seem to me to be necessarily *three different* pools, being mentioned by one writer in one story, but I do not see any impropriety in Isaiah's subsequently describing one of them (the King's Pool) as the lower pool.

It remains to consider the approximate position of the Jebusite, *i.e.*, "old," pool, mis-entitled "that was made." (1878, 187, 5.)

Mr. Schick's excavations, narrated in *Quarterly Statement*, 1886, p. 198, seem to supply a clue to the right answer. In his first shaft, A, in the

Kidron Valley, 350 feet south of the Virgin's Fountain, he says, "We struck a bottom of very hard concrete a few inches thick, consisting of lime and small stone chippings, with pounded bricks in it. Under it there was dry mud, like the deposit in a well or a pool. . . . Has the valley really been so deep here, or have I come into an old pool? I cannot tell." Let excavation decide the question. I would, however, observe that the Jebusite pool would need a concrete flooring, and this is exactly what has been found, while the non-discovery of broken pottery below the concrete seems to suggest that the latter was put down in very early times. By excavation it might easily be ascertained whether this concrete is a part merely of a small cistern or of an actual pool.

If the concrete should be found to extend westwards to the Ophel hill and to end at a point where the rock is perpendicular or scarped, so as to present a steep face, and if remains of an old wall should be found at the top of this steep rock, or even if the rock at the top be found to be such that it is suited for the foundation of a wall, then I am ready stoutly to maintain that the concrete really marks the site of the pool that was made.

Neh. iii, 16, distinctly says that the wall was repaired *to* this pool, and the Hebrew word (עַד) used for *to* or *unto* (R.V.) in this chapter seems to me to mean in this description *right up to* or *close to* (*see* iii, 20, 21, 24). But the wall, so far as I can see, could only come *close to* the pool, not by the wall descending into the valley, which seems out of the question, but by the pool itself reaching to the foot of the rock on which the wall stood; and this would apparently be effected by the rock being cut down so as to present a vertical face, and cut to such a depth that the water would reach the foot of the scarp.

Should excavation happily show the existence of a pool at the shaft A, then the limits within which the sepulchres of David are to be found, become greatly reduced. For then this pool, instead of the Virgin's Fountain, would be the most northernly limit possible. Further, if those sepulchres had been close to the pool, it would hardly have been worth mentioning them as a landmark. I think, then, we might safely strike off quite 200 feet from the end at Siloam, and measure off nearly as many from the southern end of the Jebusite pool. This would leave us a distance about 100 yards long, north and south, within which it is exceedingly probable, if not absolutely certain, that the sepulchres of David are situated. The breath of the area need not now be calculated. This discovery (that is to be, so to say) of the pool that was made, of course, requires the city of David to be extended further south than I have placed it on my plan (1886, 34; 1889, opp. 36), and the position of David's tomb probably must go with it. I cannot help this; but I stated (1886, 34) that "How far the city of David extended *southwards* is *open to question*," and that "the approximate position of the sepulchres of David is a still more difficult question." I earnestly hope that here once more the Executive Committee will decide that the spade shall certainly follow the pen.

W. F. Birch.

Note on the Pool that was Made.

Further consideration satisfies me that the "concrete flooring" was part of an actual pool, and not merely of a well. If excavation should show that I am wrong in this conclusion, the precise position of the pool that was made will still be unknown; yet it is a point gained to find that it was situated in the Kidron.

On the supposition, however, that the concrete marks a pool that was made by a dam across the valley, a considerable difficulty at once probably presents itself, inasmuch as Mr. Schick failed at shaft A to find rock at 2,064 feet, although it is given on the contour plan as lying at 2,099 feet. This difference of at least 35 feet implies that our knowledge of the rock-surface at this part of Ophel is still very imperfect, and it follows that any proposed line of wall based on such imperfect knowledge, *may* easily be very far from the truth.

It may also approximate to the truth. An examination of the rock contours in the Jerusalem Portfolio leads me to the following admissions :—

1. If the Jebusite pool really reached westwards, so as to be almost beneath the wall, then the wall must practically have approached the valley to near contour 2,129. If, however, it should be found that the water of the pool could not have reached within 50 or even 80 feet of the foot of the wall, then the meaning attached above to עד must be given up. Nevertheless this would really prove a great help, since the loss of verbal precision in this case would be a great topographical gain, inasmuch as in Neh. iii, *unto over against* obviously implies a greater intermediate distance than *to* or *unto*.

If, therefore, the Hebrew word for *to* should be found to apply to a distance of 50 or 80 feet, then as the wall was *over against* the sepulchres of David, it follows that they were more than that distance from the wall; and so whenever the wall is found (a comparatively easy matter) there will be no need to search the first 50 or 80 feet from the wall. It will suffice to examine the rock beyond this distance.

2. As the placing of "the pool that was made" near shaft A, apparently requires the City of David to have extended further south than is shown on my plan (*Quarterly Statement*, 1886, 34), and as the contour plan in the Portfolio gives a steep or scarped corner of rock on Ophel, 250 feet north of the Pool of Siloam, it seems to me very probable that the wall of the City of David followed the line of this scarp. Accordingly, I extend the west wall southwards 250 feet, and thence across the ridge of Ophel, until on the eastern side it reaches to contour 2,179 feet. At this point, the outer wall built by Hezekiah to defend his new reservoir, *i.e.*, the Pool of Siloam, came, I imagine, close to or joined the old wall of the City of David, though whether the point of junction was here or more to the west is open to question.

As this point of junction, an important one as a landmark, is not mentioned by Nehemiah, I can only account for its omission by supposing that the Sepulchres of David were opposite this point, or at any rate sufficiently near to render unnecessary the mention of any other landmark.

From Neh. iii, 16, it seems clear (1886, 34) that the Sepulchres of David were within Nehemiah's Wall, and I am more and more inclined to think that they were also *within* and not merely *near* the City of David. On measuring up my plan I cannot make the part of my wall to be *over against* these sepulchres, until a point is reached at least 350 feet distant from Siloam. When a further distance of 150 feet has been struck off from the wall running south from near the Jebusite Pool, there only remains a length of wall amounting to 230 feet, *over against* which the sepulchres could have been situated, while the breadth of the area available for the sepulchres of David, cannot, it would seem, exceed 130 feet. Further, this breadth, for searching purposes, may, as aforesaid, be reduced to 80 or 50 feet, in case the wall is not found to pass close to the Jebusite pool.

I do not at present see any prospect of fixing the position of the Sepulchres of David more precisely than I have attempted above, and therefore, after twelve years' hunt, I must leave to some enterprising explorer the task of bringing matters to a successful termination by actually discovering the long-lost tomb of David.

Any reader observing any defect in my theory will oblige me by pointing it out.

P.S.—The only reason I can suggest why the 148-foot tunnel (*Quarterly Statement* 1889, 48) was made almost on a level with aqueduct leading southwards from the grotto, is that the waters from that grotto, *i.e.*, from En-rogel, might thus be conducted to some point within the wall of Jerusalem. If this work had onl been finished, then (1) by walling up in part the southern entrance to the grotto the waters of En-rogel could have been drawn from within the city by means of a shaft or staircase leading to the northern end of the tunnel; and (2) the tunnel would have afforded a secret way of exit from the city and so afterwards have helped Zedekiah in his flight from the Chaldæans.

W. F. B.

THE SILOAM INSCRIPTION.

The commonly accepted version of the fifth line in the Siloam Inscription is not entirely satisfactory, insomuch as it is inconsistent with Scriptural Hebrew usage.

It stands thus in the Jerusalem Memoirs, 347, and *Quarterly Statement*, 1883, 210: "And there flowed (5) the waters from their outlet (or the spring) to the pool for a thousand two hundred cubits." Professor Sayce gives it again, as follows, in his "Fresh Light from the Ancient Monu-

ments" (87), "The waters flowed from the spring to the Pool for a distance of 1,200 cubits."

Professor Sayce (88) says, "The language of the inscription is *the purest Biblical Hebrew.* If this be the case, the translations given above need correction, since the words, as deciphered in the inscription, stand literally as *two hundred (and) a thousand.* Dr. Neubauer, in the "Athenæum" (1881, 112), remarked that such an expression "is not Hebrew. The thousands are always before the hundreds." We have, indeed, in 1 Sam. vi, 19 (R.V.), the words, "He smote of the people *seventy men* (and) *fifty thousand men,*" but some explanation is obviously required, since there could not be 50,000 men at (or even near) Beth-shemesh. Consequently this passage virtually supports the above-named rule.

The letters in the inscription rendered *two hundred* are במאתים. On this Major Conder observes (1882, 124), "There is no doubt room for the disputed letters . . . . . but I have not been able to find any trace of the ם on either squeeze, cast, or stone." He adds (Jerusalem Mem. 352), "The *Tau* in במאתי seems to us to be very doubtful, though strokes exist which may have belonged to such a letter."

Professor Sayce was content at first with *a thousand cubits* and interpreted the letters במאתי to mean *for a distance of,* but he practically abandons this translation and accepts the other, by "formally retracting (1883, 210) his objection to the reading (translated) *two hundred.*" Accordingly there is no need to deal with his earlier translation.

The question now is, what is the original word that has been metamorphosed into this inadmissible *two hundred?*

We seem to have some six letters of which the first from the left appears to be utterly illegible (really a space and nothing more remaining), and the third from the left is very doubtful, though some strokes exist.

Seven years ago when the true solution of the Shiloah difficulty first presented itself, I wrote in *Quarterly Statement*, 1883, 106, as follows:—"Without question, then, the canal seems to me to be the work of Hezekiah, and to be referred to in two passages in the Bible, 2 Kings xx, 20, and 2 Chron. xxxii, 30. I anticipate that the wording of the inscription will finally be allowed to confirm the identity of this canal with these works of Hezekiah.

On page 148 (1881) apparently,

המוציא (5) represents פוצא in 2 Chron. xxxii, 30.

מאתי (5) represents למטה in 2 Chron. xxxii., 30."

Mr. Schick's discovery (1889, 35) proves that this passage in the Chronicles refers to the Siloam tunnel. Thus the Bible account (R.V.), "Hezekiah stopped the upper *spring* of the waters of Gihon and brought them *straight down* on (rather with A.V. *to*) the west side of the city of David," really answers to the record in the inscription, "The waters flowed from the *spring* to the pool (....י...במא) a thousand cubits."

Now as the *spring* named in the inscription coincides with the *spring*

named in Chronicles, so I believed and now maintain (no other suggestion, so far as I know, having been made) that the required Hebrew word, of which some letters survive, corresponds to *straight down* in the Biblical account. We are told *whence*, and *whither*, and *the distance* the waters flowed. The mutilated word (obviously not referring to the pool) most naturally would and (it seems to me) *must* describe *how* they flowed.

In 2 Chron. xxxii, 30, this *how* is described as *lemattah* and is translated in the Authorised and Revised Versions as *straight down ;* but I am glad to find that at least fifty years ago the word was explained to mean *by a subterraneous course ;* while *subterranean passage* is the very term applied to the tunnel by Professor Sayce in *Quarterly Statement* 1881, 141.

I need not attempt to show how *lemattah* in Chronicles can have assumed the particular combination of letters professedly found in the inscription. It must, however, be assumed that in the inscription, the first three Hebrew letters, viz., במא are *correctly* deciphered by the experts. All that remains for me is to complete in the *purest Biblical Hebrew*, the word thus beginning (and to complete it) in such a way that it may suitably describe the course of the waters through the tunnel.

The only word I can recommend is במאורה (as written in Isaiah xi, 8), meaning *in the hole or cavern.* Genesius says, "Root עור Arab..... to be deep, to be *excavated.*" Accordingly I translate the fifth line thus, "The waters flowed from the spring to the pool *in the cavern* (hole or subterraneous passage) a thousand cubits."

Let me frankly admit that *mearah* is not quite the word I should have expected to meet with in this inscription. A monotonous repetition of נקבה (excavation) would have been more in keeping with the stonecutter's style or the composer's meagre vocabulary.

One, however, who has not seen squeeze, cast, or stone, cannot (where there is obviously no collusion) challenge the unanimous decision of independent inspectors unbiassed, at least, in regard to the first three letters of the mysterious word.

W. F. Birch.

SUTEKH, CHIEF GOD OF THE HITTITES.

The more we learn of the gods of the Hittites, the more we shall know of the Hittites themselves, for the ideal aim of nations and tribes is to become like their own gods. Sutekh was clearly the principal deity of the Hittites, for his name occurs the oftenest, and on the Karnac copy of the Egypto-Hittite treaty he is invoked as the deity of many places.

What was his form and representation? And what was his precise place in the astro-religious system of the ancients? On the engraved silver plate which contained the Hittite text of the treaty, the god was figured in the centre. The silver plate has not come down to us. Yet who knows but that the figure of Sutekh may one day be found surviving among the hieroglyphs of some Hittite inscription! The name is probably

Egyptian, compounded of Sut or Set (= Sothis, the Dog-star) and ekh, meaning ruler. We may look upon it as an Egyptian equivalent for the Hittite name of the deity, or as the name of an Egyptian god corresponding to the Hittite deity, and the actual name used by the Hittites is yet to be sought for. Sutekh is generally accepted as being another form of the name Set. Set was a god whose worship was established among the Hyksos or Shepherd Kings, and who had once been in favour with the Egyptians, but had come to be regarded by them as a personification of the Evil Principle. He thus became connected and confounded or identified with Typhon, as the murderer of Osiris. The place of this evil deity was in the Underworld, the dark abyss below the horizon. This is the astronomical position of the stars ushered in by Sothis, in the slow motion of *precession*. These stars make up the constellation of the whale (*Cetus*, Κητος) which, according to the Greeks, is the sea monster from which Perseus delivered Andromeda. According to Liddell and Scott, the Greek Κητος, besides meaning sea-monster and the constellation of the whale, seems to have the root meaning of gulf or depth or abyss ; and this is surely because the whale constellation is in the same dark region as the abyss, as the abyss is located in the mythological system.

Sutekh, then, may be the god of the constellation Ketos, including as its herald the bright star Sirius. So his worshippers might be called Keteioi or Ceteans, just as the worshippers of Athene were called Athenians, and the worshippers of Assur, Assyrians. The Moabites are called in Scripture the children of Chemosh, after their god, and the Hittites are called the children of Heth (Hebrew *Cheth*, Assyrian *Kheta*)—why not also after their god ? Homer makes mention of some Ceteans (Odys. xi, 521), and the Scholiast says they were "a people of Mysia of whom Telephus was king." Mr. Gladstone has suggested their identity with the Hittites ; and Prof. Sayce thinks Mr. Gladstone may be right. ("The Hittites : the story of a Forgotten Empire," by A. H. Sayce, p. 120.)

The suggested etymological connexion of Kheta with Ketos does not require us to believe that the Hittites borrowed a god from the Greek pantheon, or a name from the Greek language ; for the borrowing may have been the other way. The worship of a sea-monster by the Hittites (if that was so) was but as the worship of Dagon by the Philistines, or the reverence of the Babylonians for Oannes the Fish-man, who brought them civilisation. That the Hittites should reverence, as a god of heaven and earth, a deity discarded by the Egyptians as a ruler of darkness, was only what was charged also upon the Hyksos, and upon the Israelites themselves by their enemies.

The consort of Sutekh is believed to have been Atargatis or Derketo, a goddess half-woman, half-fish (Wright's "Empire of the Hittites," Sayce's "Hittites") ; and this lends further support to the idea that Sutekh himself was a Fish-man, the god of the deep.

GEORGE ST. CLAIR.

NEHEMIAH'S WALL AND THE SEPULCHRES OF THE KINGS.

In the *Quarterly Statement*, April, 1889, I wrote a paper on Nehemiah's Wall, in the course of which I showed the probable position of the royal sepulchres. Mr. Birch criticised my paper, and I replied. The argument might very well have ended there. But Mr. Birch returns to the attack, and it is obvious that the discussion might be prolonged indefinitely. Mr. Birch apologises for his "tedious notes" on the ground that unless he can show my errors the Committee will not excavate (on *his* site) and find the sepulchres of the kings. It does not occur to him as possible that they might excavate on my site and find them. However, I agree with him that the appeal should now be to the spade. If the Committee will resolve to excavate on both sites they will please a good many subscribers; and I, for my part, shall not mind which site is tried first.

George St. Clair.

THE PALESTINE EXPLORATION FUND.

NOTES AND NEWS.

The last number of the *Quarterly Statement* contained a report of the work done by Mr. Flinders Petrie at Tell Hesy and its results. Extracts from Mr. Petrie's journal are now published, which will be found of great interest.

The reports of Herr Schick give accounts of his excavations in connection with the Siloam aqueduct, the discovery of an elaborate tomb near Bethany, and other matters. The tomb, of which a plan and section are given, is remarkable in having its chambers so arranged that each one is on a lower level than that which precedes it. Herr Schick suggests that this is intended to *allow the rays of the afternoon sun to penetrate the innermost chambers of the Tomb.*

Herr Schumacher's report of the sculptured figures at Kânâ is now published, together with facsimiles of some of the photographs of the same Major Conder has kindly contributed some valuable remarks on these curious figures.

The concession for a railway between Haifa and Damascus has been granted and disposed of to an English company. Engineers are already gone out, and have commenced surveying the proposed route. The services of Mr. Schumacher have been engaged, and it is hoped that as the work progresses important archæological observations will be made and reported.

The work of Mr. Guy le Strange on "Palestine under the Moslems" was published in April.

For a long time it had been desired by the Committee to present to the world some of the great hoards of information about Palestine which lie buried in the Arabic texts of the Moslem geographers and travellers of the Middle

Ages. Some few of the works, or parts of the works, have been already translated into Latin, French, and German. Hardly anything has been done with them in English, and no attempt has ever been made to systematise, compare, and annotate them.

This has now been done for the Society by Mr. Guy le Strange. The work is divided into chapters on Syria, Palestine, Jerusalem, and Damascus, the provincial capitals and chief towns, and the legends related by the writers consulted. These writers begin with the ninth century and continue until the fifteenth. The volume contains maps and illustrations required for the elucidation of the text.

The Committee have great confidence that this work—so novel, so useful to students of mediæval history, and to all those interested in the continuous story of the Holy Land—will meet with the success which its learned author deserves. The price to subscribers to the Fund is 8*s.* 6*d.*; to the public, 12*s.* 6*d.*

The new map of Palestine, so long in hand, is now ready. It embraces both sides of the Jordan, and extends from Baalbek in the north to Kadesh Barnea in the south. All the modern names are in black; over these are printed in red the Old Testament and Apocrypha names. The New Testament, Josephus, and Talmudic names are in blue, and the tribal possessions are tinted in colours, giving clearly all the identifications up to date. It is the most comprehensive map that has been published, and will be invaluable to universities, colleges, schools, &c.

It is published in 21 sheets, with paper cover; price to subscribers to the Fund, 24*s.*, to the public, £2. It can be had mounted on cloth, rollers, and varnished for hanging. The size is 8 feet by 6 feet. The cost of mounting will be extra.

Mr. Henry A. Harper's work, on "The Bible and Modern Discoveries" was published last December. It is an endeavour to present in a simple but yet connected form the Biblical results of twenty-two years' work of the Palestine Exploration Fund. The writer has also availed himself of the discoveries made by the American Expeditions and the Egyptian Exploration Fund, as well as discoveries of interest made by independent travellers. The Bible story, from the call of Abraham to the Captivity, is taken, and details given of the light thrown by modern research on the sacred annals. Eastern customs and modes of thought are explained whenever the writer thought they illustrated the text. To the Clergy and Sunday School Teachers, as well as to all those who love the Bible, the writer hopes this work will prove useful. He is personally acquainted with the land, and nearly all the places spoken of he has visited, and most of them he has moreover sketched or painted. The work is in one large, handsome volume of 600 pages. It is illustrated with many plates, and a map showing the route of the Israelites and the sites of the principal places mentioned in the sacred narratives. The work has had a very gratifying reception. The Third Revised Edition is now nearly exhausted. It should be noted that the book is admirably adapted for the school or village library.

The first volume of the "Survey of Eastern Palestine," by Major Conder, has been issued to subscribers. It is accompanied by a map of the portion of country surveyed, special plans, and upwards of 350 drawings of ruins, tombs, dolmens, stone circles, inscriptions, &c. The edition is limited to 500. The first 250 subscribers pay seven guineas for the three volumes; subscribers to the "Survey of Western Palestine" are privileged to have the volumes for this sum. The price will be raised, after 250 names are received, to twelve guineas. The Committee *are pledged never to let any copies be subscribed under the sum of seven guineas.* Mr. A. P. Watt, 2, Paternoster Square, is the Sole Agent. The attention of intending subscribers is directed to the announcement on the inside of the cover of this number.

Considerable progress has also been made with the second volume, which consists of M. Lecomte's beautiful drawings, illustrating the Mission of M. Clermont-Ganneau in 1874. The illustrations for the third volume, Mr. Chichester Hart's "Fauna and Flora" of the Wâdy Arabah, are nearly ready.

The Committee have added to their list of publications the new edition of the "History of Jerusalem," by Walter Besant and E. H. Palmer (Bentley & Son). It can be obtained by subscribers, carriage paid, for 5*s.* 6*d.*, by application to the Head Office only. The "History of Jerusalem," which was originally published in 1871, and has long been completely out of print, covers a period and is compiled from materials not included in any other work, though some of the contents have been plundered by later works on the same subject. It begins with the siege by Titus and continues to the fourteenth century, including the Early Christian period, the Moslem invasion, the Mediæval pilgrims, the Mohammedan pilgrims, the Crusades, the Latin Kingdom, the victorious career of Saladin, the Crusade of Children, and many other little-known episodes in the history of the city and the country.

The books now contained in the Society's publications comprise an amount of information on Palestine, and on the researches conducted in the country, which can be found in no other publications. It must never be forgotten that no single traveller, however well equipped by previous knowledge, can compete with a scientific body of explorers, instructed in the periods required, and provided with all the instruments necessary for carrying out their work. The books are the following (*the whole set can be obtained by application to Mr. George Armstrong, for £2, carriage paid to any part in the United Kingdom only*):—

By Major Conder, R.E.—

(1) "Tent Work in Palestine."—A popular account of the Survey of Western Palestine, freely illustrated by drawings made by the author himself. This is not a dry record of the sepulchres, or a descriptive catalogue of ruins, springs, and valleys, but a continuous narrative full of observations upon the manners and customs of the people, the Biblical

associations of the sites, the Holy City and its memories, and is based upon a six years' experience in the country itself. No other modern traveller has enjoyed the same advantages as Major Conder, or has used his opportunities to better purpose.

(2) "Heth and Moab."—Under this title Major Conder provides a narrative, as bright and as full of interest as "Tent Work," of the expedition for the *Survey of Eastern Palestine.* How the party began by a flying visit to North Syria, in order to discover the Holy City—Kadesh—of the children of Heth; how they fared across the Jordan, and what discoveries they made there, will be found in this volume.

(3) Major Conder's "Syrian Stone Lore."—This volume, the least known of Major Conder's works, is, perhaps, the most valuable. It attempts a task never before approached—the reconstruction of Palestine from its monuments. It shows what we should know of Syria if there were no Bible, and it illustrates the Bible from the monuments.

(4) Major Conder's "Altaic Inscriptions."—This book is an attempt to read the Hittite Inscriptions. The author has seen no reason to change his views since the publication of the work.

(5) Professor Hull's "Mount Seir."—This is a popular account of the Geological Expedition conducted by Professor Hull for the Committee of the Palestine Fund. The part which deals with the Valley of Arabah will be found entirely new and interesting.

(6) Herr Schumacher's "Across the Jordan."

(7) Herr Schumacher's "Jaulân."—These two books must be taken in continuation of Major Conder's works issued as instalments of the unpublished "Survey of Eastern Palestine." They are full of drawings, sketches, and plans, and contain many valuable remarks upon manners and customs.

(8) "The Memoirs of Twenty-one Years' Work."—This work is a popular account of the researches conducted by the Society during the past twenty-one years of its existence. It will be found not only valuable in itself as an interesting work, but also as a book of reference, and especially useful in order to show what has been doing, and is still doing, by this Society.

(9) Herr Schumacher's "Kh. Fahîl." The ancient Pella, the first retreat of the Christians; with map and illustrations.

(10) Names and Places in the Old and New Testament and Apocrypha, with their modern identifications, with reference to Josephus, the Memoirs, and *Quarterly Statements.*

(11) Besant and Palmer's "History of Jerusalem," already described.

(12) Northern 'Ajlûn "Within the Decapolis," by Herr Schumacher.

To the above must now be added Mr. Henry A. Harper's "The Bible and Modern Discoveries." Price to the public, 16*s.*; to subscribers to the Palestine Exploration Fund, 10*s.* 6*d.*, carriage included. And Mr. Guy le Strange's important work "Palestine under the Moslems," price to the public, 12*s.* 6*d.*; to subscribers to the Fund, 8*s.* 6*d.*

Branch Associations of the Bible Society, all Sunday School unions within the Sunday School Institute, the Sunday School Union, and the Wesleyan Sunday School Institute, will please observe that by a special Resolution of the Committee they will henceforth be treated as subscribers and be allowed to purchase the books and maps (by application only to the Secretary) at reduced price.

The income of the Society, from June 21st to September 20th inclusive, was —from annual subscriptions and donations, including Local Societies, £131 18*s.* 6*d.*; from donations for excavations, £24 7*s.* 6*d.*; from all sources, £516 7*s.* 3*d.* The expenditure during the same period was £464 8*s.* 9*d.* On September 20th, the balance in the Bank was £827 19*s.* 6*d.*

Subscribers are begged to note that the following can be had by application to the office, at 1*s.* each:—

1. Index to the *Quarterly Statement*, 1869–1880.
2. Cases for Herr Schumacher's "Jaulân."
3. Cases for the *Quarterly Statement*, in green or chocolate.
4. Cases for "Abila," "Pella," and "'Ajlûn" in one volume.

Early numbers of the *Quarterly Statement* are very rare. In order to make up complete sets, the Committee will be very glad to receive any of the following numbers:—

No. II, 1869; No. VII, 1870; No. III, 1871; January and April, 1872; January, 1883, and January, 1886.

It having again been reported to the Committee that certain book hawkers are representing themselves as agents of the Society, the Committee have to caution subscribers and the public that they have no book hawkers in their employ, and that none of their works are sold by itinerant agents.

Sir W. Q. Ewart, Bart. has kindly consented to act as Honorary Local Secretary for Belfast.

We have to acknowledge, with thanks, receipt of Smithsonian Reports for 1886, 1887, in 3 Vols.

While desiring to give every publicity to proposed identifications and other theories advanced by officers of the Fund and contributors to the pages of the *Quarterly Statement*, the Committee wish it to be distinctly understood that by publishing them in the *Quarterly Statement* they neither sanction nor adopt them.

Subscribers who do not receive the *Quarterly Statement* regularly are asked to send a note to the Secretary. Great care is taken to forward each number to all who are entitled to receive it, but changes of address and other causes give rise occasionally to omissions.

The only authorised lecturers for the Society are—

(1) The Rev. Henry Geary, Vicar of St. Thomas's, Portman Square. His lectures are on the following subjects, and all illustrated by original photographs shown as "dissolving views:"—

The Survey of Western Palestine, as illustrating Bible History.

Palestine East of the Jordan.

The Jerusalem Excavations.

A Restoration of Ancient Jerusalem.

(2) The Rev. Thomas Harrison, F.R.G.S., Member of the Society of Biblical Archæology, 38, Melrose Gardens, West Kensington Park, W. His subjects are as follows:—

(1) *Research and Discovery in the Holy Land.*
(2) *In the Track of the Israelites from Egypt to Canaan.*
(3) *Bible Scenes in the Light of Modern Science.*

JOURNALS OF MR. W. M. FLINDERS PETRIE.

31st March to 6th April, 1890.

I DID not mention that as I went down to Jaffa (or Yafa, as it should be called) the sky became clouded, and a strong east wind that we had had, broke; puffs from the south-west came, and as I neared Ramleh I saw a low light cloud bowling forward from the south-west below the black overcast, and was astonished at the rate it altered (curls of it rolling up as I looked at it), and the rate it went along, 30 or 40 miles an hour apparently. Then came rain—most had passed to the north nearer the sea; we only had the tail of the storm, but such rain I have seldom seen; and the curtains which formed half the side of my conveyance being—one gone and the other without fastenings, I had all my time occupied in holding something as a shutter, while my saddle-bag of clothing I gripped between my knees to keep it out of the water which collected in the carriage.

After I got to Mr. Hall's I heard what a storm had raged there. Wherever shutters were left loose the glass was all smashed, and they referred to it as a sufficient test of the security of their roof, which looks looser than it is, the top storey being smaller than the lower, with a deep verandah all round, leaving an open-air promenade. Everywhere as I have gone over the country I have seen the great effect of this storm: fields high upon the hills are washed over with mud, and paths are constantly cut by the waterfalls of the receding channels.

Wednesday, when I had intended to leave, was so wet in the morning that I could not go out, so I had to postpone, and finished shopping in the afternoon. Then there was an uncertainty about camels. It had been so wet that none had come from the country to be hired, and my man was very desirous of going off home in the evening and getting up a man and camels, whom he wished to employ. So after some bother he hired a horse and rode off that night to Jimzu, beyond Lydd, where he comes from. The camels came duly next morning by 9, and we got loaded from the goods agent and the Hall's, and all off by 12. Thus we just got to Yebna by dark, and pitched by moonlight.

Yebna, Jamnia, or Jabniel, is a dirty cluster of grass-topped mud huts, which rises above the general level of the rolling plain of Philistia. This plain, or wide expanse of slightly wavy ground, is one of the greenest sights I have ever seen. Most of it is in corn, without a trace of break or ditch or hedge from hill to hill. The separation of the different strips can just be traced by the growth; but each plot seems to be about 30 feet wide and over half-a-mile long, as it went on from the road up to the top of the next rise, and where to I know not.

The straightness of the ploughing is striking—seldom could I see six

inches of bend in the line. Some regions are all left in pasture, some in heather or wild plants, some in fallow. Everywhere the west boundary is the mass of sand-dunes, which gradually eat up the land, now covering some four or five miles wide from the sea coast and ending in steep slopes which stand up 20 feet or more above the cultivated plain. Next day we went on past Ashdod, which has been partly swallowed by the sand-dunes, but still bears a mass of green-topped houses on its heap. After looking over some sites on the way, I pushed ahead of the camels to Bureir, and looked out for the best camping. I could get no shade of trees, but found a wide meadow east of the town beyond the well, which was good ground, and sloped down sharply into a little watercourse, so that it is well drained. Here we pitched, with some cactus-hedged gardens a little way off on three sides, and Burier on the west.

During the night I was awoke by a dog getting in, and again by a slight noise, and looking up, saw a gap in the tent—in it, a man's head and shoulders, and heard the intruder fumbling over the tool-bag, too heavy to carry off, and awkward to open. I challenged, he ran, and four bullets went over his head to improve his pace. I had noticed the chance of an opening being tried there, and had put all small articles far from the place, which was an ill-secured and needless doorway. Next day I sewed it all up, and generally improved the arrangements. I went to the Sheikh, and he much wanted me to pitch in a dirty courtyard, with beasts and fowls about. I could not, but proposed to have two guards out near the tents, so as to make the village responsible.

The Sheikh is an oldish man, quiet and sensible, and I think there will be no troubles there. It is curious to hear, not only of *El Kuds* (Jerusalem), but *Kudes*, as some say, much near *Kadesh*. The Arabs, in whose region 'Ajlûn is, are not called "Amarin" so often as *El Amar*, exactly the Egyptian name of Amorites. I expect it is the same name, and perhaps more from the locality than from the origin of this tribe. The people here use subterranean corn and fodder bins; and I saw several letting down baskets and pulling them up full of stuff. The places are much like the cisterns, apparently, with a round hole flush with the ground. It suggests that many old cisterns, as we suppose them to be, in the ruins may be granaries. One of my guards was for four years servant to an English doctor in Constantinople, as he says. I explained my object and intention to the folks, but I find trouble in understanding their Syrian with my Egyptian. I went off next day for a round to see the country. *Umm Lakis* (supposed to be Lachish) is nearly all cultivated, and the surface stuff is Roman; so I do not see much to try for. 'Ajlûn is worse. There is very little pottery about; what there is, is Roman, and it is all with barley around, and on the top an onion garden, a hovel, and an old man. Then I went to Sukariyah (where there are also Roman things) to see the head Sheikh of the Bedawîn of the district—the Amarin. I found him a pleasant fellow sitting under an enormous flat tent, with a number of his following. I did a deal of silence, for that is orthodox; and in the

intervals stated my business. Soon after I arrived there was a chorus of dogs, and a man came up bearing a wide wooden bowl on his head, with the midday meal. It was set before us, and we gathered round, about half-a-dozen at once. The mixture was bread in sour curds, and plenty of butter melted amongst it, with a layer of pieces of fat mutton on the top. I smelt the sourness, and judiciously grabbed a good bit of plain meat, which kept me in play as long as the others. It was amusing to see them grasping handsful of the fearful mixture, and stuffing it into their mouths. When one set had put down enough, they rose and another party squatted round the big bowl, until at last there was little or nothing left. Some favoured folks, not in the first circle, had bones and lumps handed over to them before the second or later circles of squatters came on. Before beginning, the best society rinsed hands, and when done, they went across and rubbed off the grease on a flap of the black goat's-hair tent, and then rinsed again. After coffee, I bid good-bye, slipping a napoleon into the Sheikh's hand as a smoother for future business.

Then I went to Tell Hesy, a striking place. The mound is about 60 or 80 feet high, cut away on one side by an encroaching stream. There was much pottery about, but none of it Roman—all earlier ; and I think this is worth a dozen of all the other places put together. But it is mostly cultivated, and is six miles from here. The nearest village, Khurbet Hazzârah, is nothing to notice. Tell abu Shukf has much pottery about, as its name implies ; but it is half cultivated. The pottery seems to be mainly pre-Roman. Khurbet Summeily has also some early pottery, but it is not important. The astonishing matter to me is, how closely these Bedawîn cultivate the ground. There is but a small proportion of pasture, nearly all being arable, some fallow, but mostly in barley. This will make any thorough work difficult, as we must buy out the crops.

7th to 16th April, 1890.

A curious survival, or revival, is seen here in the pottery. The black pottery found in early Greek sites is considered Phœnician ; here all the pottery in common use is black, and is made at Gaza. Moreover, the ancient was painted with red lines, and so is the modern, only with red lead instead of ochre. Around modern tombs they do not build *welis*, as in Egypt, but open courts or enclosures. Around the inside there are niches in the wall, in which fire is burnt on potsherds every Friday. Also stone tables are built against the wall, and within these lamps or stands with fire are placed. These are identical with the curious arrangements all round the inside of the so-called Phœnician temple at Hagiar Kim, in Malta. Then on these tables, and also on graves, are placed old mill-centres or querns, which do not appear to be worn out. These are all found in old sites, and, I hear on inquiry, are not made now. They remind one of the conical black stone worshipped at Emesa, of which Elgabalus was priest.

I have been twice over to Gaza now, and made friends with

Rev. R. Elliott, M.D., medical missionary there, and his wife and her sister. He is a north Irishman, capable and energetic, and as kind and helpful as he possibly can be. He is excellent friends with the Kaimakam (Governor), and will attend to any official matters for me, and I am to stay with them any night that I may want to be in Gaza. His dispenser, moreover, is a most useful fellow, an Arab-Austrian, who writes and speaks Arabic, Turkish, English, &c. I am really more within "humanity's reach" here than in the Fayum with such friends (and a dispensary) only 12 miles off. The present Kaimakam in whose district I am is very favourable. He has been a journalist most of his life, and lived in Berlin, Vienna, &c. He has no fanaticism, and is much Europeanised in ways and feelings. The Effendi never turned up until a note came from Gaza on Thursday, asking me to go there about the business. I went and found him at the Kaimakam's. He began with every sort of objection to coming or doing anything, evidently wishing to spin out the time of all pay and no work. The old Kaimakam quite took my part, and answered "a fool according to his folly" more than once. Afterwards they came to Dr. Elliott's, and we had another talk. Dr. Elliott said very soon to me that he had seen many men object to their work, but he never saw one so set against doing anything.

At last, Monday, 14th, I began at Umm Lakis (called Laggis), and it turned out much as I expected, all Roman or Cufic. I made trench pits in many different parts, and everywhere the result is 4 to 8 feet of earth and burnt dust, &c., with Roman and Arab pottery. Beneath that is clean, untouched, red earth, veined with white infiltration, evidently undisturbed soil.

The latest date of surface pottery is probably about Omayyid or Tulunid, but pre-Crusading. I doubt if the place was much occupied before the second or third century, A.D. It is tolerably certain that therefore, in spite of the name, this cannot be Lachish; nor does the distance from Beit Jibrin accord with what Eusebius states. Tell Hesy is nearer the right distance, and is certainly a great city and early, agreeing better to Lachish being one of the fenced cities of Judah, and being besieged by both Sennacherib and Nebuchadnezzar.

What with too much tea, and men talking, and dogs and donkeys, and my man being inside my tent because the Effendi had the other, I only got two hours' sleep last night, and this morning there was a steady misty rain, which makes it wretched for standing about in wet grass, and which did not clear for two or three hours.

So far nothing appears which is probably pre-Roman, and we found a worn coin of Maximin just about where I should have expected, 2–3 feet above the native soil.

16th to 21st April, 1890.

The third day's work at Umm Lakis only confirmed what I had already noticed. Within a couple of feet of the bottom of the made

ground a very worn coin of Maximin Hercules was found. And on a rise near the town I noticed pieces of walls, which proved to be part of a Roman villa with a bath, as far as we cleared the place. It being then pretty evident that Umm Lakis is not Lachish, and that there was nothing pre-Roman there, I moved over to Tell Hesy, which is 6 miles from Bureir, and therefore too far to go every day (to those without a detailed map I may say that Tell Hesy is 17 miles east of Gaza). This is entirely in the Arab country, and though those gentry do not pay any land taxes to the Government yet they are considered to have a certain right to the ground, simply because no Turkish Governor is strong enough to reduce them to obedience. There is not a house in sight all round the country, only straggling groups of low, brown tents.

I had intended to go to the principal sheikh of the district, make friends with him, and offer to pay liberally for Arab guards as appointed by him, as a means of giving cash, slice by slice, according to time; but the Effendi would not hear of my saying anything to the Arabs, because of their rapacious expectations, but he would attend to all that by asserting his official authority. In fact, it was just a question who was to get the *pickings*, the Arabs as *de facto* masters of the situation, or the authorities as *de jure* masters. And the Effendi guessed that if I paid one party I should cold-shoulder the other. So as he took all the responsibility I left the matter entirely to him, and he had to attend to it with a vengeance. For two whole days he was in constant parley with interminable sheikhs of all the neighbourhood. Some decent and and friendly, some demanding money, some threatening, and all feeling their way. He had once to begin a letter to the Kaimakam at Gaza, asking for some soldiers to be sent before one fellow would knuckle under, for the one thing these Arabs dread is a party of even pacific soldiers, as their horses would be turned loose into the standing barley and wheat to feed.

The final situation is that the Arabs will not get backshesh, and our guards consist of two from Bureir (the Constantinople doctor's servant and one who knows all the Arabs here very well), one Arab from the nearest settlement, and one appointed by the big sheikh. So everybody is responsible for us. All this is needful as the whole country is very unsettled, though not unusually so. Only the other day a big Effendi of Gaza and some others were stopped within a few miles of the town and stripped of everything. The work is overrun all day by lounging Arabs from the neighbourhood, whom I get on with very well as they are pleasant and civil enough, when not out for plunder. A few small jokes, and especially a little mimicry of any peculiar manner or ways, will set them all laughing, and make us good friends for the time, and probably less touchy afterwards. So far there is no difficulty in getting people over from Bureir to work, as I have increased their wages to 1*s.* a day for a man and woman or girl. But they are poor workers after the Egyptians, not doing more than one-half or two-thirds of what my old hands in Egypt would have done. I am getting them better fixed to the work

now, but at first they were all over the place, talking and smoking—anything but work. How we shall get on in Ramadan is doubtful. I want them to begin work directly after their last meal before sunrise, and (with a short pause) go on till 3 P.M., after which they can sleep on their hunger till sunset, when the feasting begins. They and the Effendi all highly approve of such a plan, so I hope to get some work out of them. Now for the place and results.

The place roughly is a high mound, cut away on the east by the stream, and a circuit of natural ridges around a slight valley on the south of it. All of this area has pottery scattered over it, and the mound itself is artificial, consisting of about 60 feet of successive town levels piled one on the other, and the river-worn stones laid down for floors to the rooms, showing all over the sides of the mound as lines of blocks. All my digging in the mound is on some given floor, which we clear. The top of the mound is all cultivated, and, if needful, I shall buy up the crops; but the man wants £4, which is rather much for it, so I wait to see what we can do around the wide sloping sides of the mound and on the river face.

This is an excellent place to work, as the storm floods have kept up so much scour as to leave the face a clean section from top to bottom of the mound, so I can work at any period I wish. I have three parties (six men) at the top level and as many at the bottom level, besides others at the sides, we have already found plenty of potsherds, and some walls of rough stones which we are following. Outside of the town circuit on the south-west, is a sand hill with much pottery buried in it, the purpose of which is not clear. The pots are intentionally buried, generally jars with a basin or cup on the top; often there is a smaller vase inside; they are altogether filled with clean white sand, like what they rest on, but cleaner than the brown humus sand around them. In one or two some small bones were found, and some bones in the sand without jars.

It reminds me much of a great burial of jars at Zuwelen near Tanis, of about 1000 B.C., which contained animal bones; and probably this is a cemetery of the sacred animals of the Amorite age. Perhaps where no bones can be found they buried the sacred flies of Baal-zebub!

Now, as to chronology. This cemetery pottery is mainly of little brown flasks, which I have this season precisely dated by finding them in a tomb about 1100 B.C. at Illahun. So that pretty well dates the cemetery to the time of the Judges. Then certain peculiar handles in this pottery are also found in the lowest part of the town which is, therefore, probably quite as old.

Then in the top of the town is peculiar pottery, which I know at Naukratis, to be about 600 B.C., and two bits of black Greek ware have been found about the same age. I conclude, therefore, that the place is as old or older than the Judges, and was destroyed at Nebuchadrezzar's invasion. This tallies very well with what we know of Lachish. Certainly out of thousands of sherds that I have looked at here, I have seen only one stray piece of Roman age, lying on the surface. As we

have only worked for two days yet, too much must not be expected of me as to preciseness or detail of history. We are badly off for water, our three sources being : (1) springs here, clear but too brackish to drink comfortably ; (2) surface ponds of rain-water, contaminated, at Bureir, to be brought 6 miles on a donkey ; and (3) deep well at Bureir, stagnant and very green, and rather salt, but probably not contaminated. The last is what we trust to, and though I boil it well, yet the colour and taste of it are almost too much for me. When boiled, it is three courses in one—soup, fish, and greens.

It is very curious how akin the pottery on the top of the *tell* here is to the Naukratite ; and, strangely, not so much like the Daphniote, which is so much nearer. There are the same large jars with *sliced* surface around the lower end and massive loop handles, the same drab dishes of thick stuff, and the same pinched up saucer lamps, and some purely Greek pottery of black glaze and red face. So far as these give a date, I should say between 600 and 550 B.C., and being like Naukratis and *not like* Defneh, it appears like a Greek settlement, and not a geographical link across from Egypt. I have suspected that the Jews may have employed Greek mercenaries like the Egyptians.

22nd to 29th April, 1890.

At last I got down here another tent from Jerusalem, to supply the place of the one I had to give up to the Effendi. For more than two weeks I had never had an uninterrupted night's sleep, and generally had to go out to silence the guards and men about. Having to be about all day as well, I was becoming rather helpless in consequence ; and so I pitched the fresh tent about 100 yards off, with a slight rise between it and our present camp. There was a great talk about the insecurity of my sleeping there, and the Effendi said he would go rather than assent to it ; but I calmed him by agreeing to two of the four guards extending their region out to there, under promise of strict silence at night, and so now I have necessary sleep. The constant noise, and impossibility of shutting it out, is the great trouble of tents, instead of walled dwellings. The town is developing. On the north side, at the base, I have found the wall of the first (Amorite ?) town, thirty feet thick, of brickwork ; and we are now clearing along the inside of it. There, at the top of the same side, I have the wall of the last town, possibly Rehoboam's fortification, but most likely rather later ; and there is the gap of a gateway, and outside, a platform of stones and probably steps leading down the mounds. Then on the east (river) face I found a part of this same wall remaining, though most of it has fallen away by the scour of the watercourse. On the south I find the first town wall, I believe, again ; and I am tracing other walls on that side also. I have begun a plan of the place, but it is not much time I can take from looking after the men.

It is an unpromising place for a temple or sculptures. During the Jewish period it is not likely that there was any shrine here, and to

reach the temple of the Amorite time we should need to remove all the Jewish stuff, many months' work and heavy cost, before baring the Amorite level. The only reason that I can work in all periods at once is by the denudation of the river face; but that only touches one side of the town, and there may likely be no important buildings just there.

I examine all the potsherds (and from 500 to 1,000 a day we turn out) for marks, but as yet only three have been found, all of the later period, in and by the last wall. This cannot be later than the reoccupation after Sennacherib's attack, 713 B.C. (2 K. xviii, 13, 14, xix, 8), and may be possibly Rehoboam's wall, 960 B.C. (2 Chron. xi, 9). In it was a pot marked with the potter's marks, and not owner's. Unfortunately I know nothing in detail of Egyptian pottery between 1000 and 650 B.C. So the difference can hardly be settled, but I incline to the earlier date. Our further work has suggested that there is a series of walls, one over the other, which I can trace by cleaning down the east face, from the thirty feet Amorite wall to a thinnish wall at the top, probably about 700 B.C.

I find that there is another great and important town near here, Tell Nejîleh, which, like this, was never occupied since Nebuchadrezzar, or more probably Sennacherib. Unluckily the whole of it is covered with an Arab cemetery, so that only just the edge of the slopes could be dug into, until the day when these useless Arabs are cleared out, and a reasonable people settled here. I dined with the biggest sheikhs the other night, and could not but feel what total barbarians they were; manners and customs I set aside, as they depend on taste; but the utter ignorance, and lack of all ideas outside of their daily life, and impossibility of talking on any matter but what they had already talked of hundreds of times, was crushing. I urged on the sheikh that if they would only dam the deep watercourses and hold up the winter rains (which all run down to the sea at present), they would have good water, and could cultivate as they like with it, instead of being dependent on showers. He only said that no one had a head to do that, and they did not care to cultivate (beyond the interminable barley), as they might go anywhere, at any time; so the sooner they are moved off the better. They pay 5,000*l.* a year to the Government for what might bring in five millions in proper hands.

30th April to 7th May, 1890.

The post brought in not only its regular allowance, but a lot of arrears—letters from home, and newspapers. Probably these had been detained for the Turkish censor to examine, for there is a long list of proscribed papers and books in this enlightened rule, and prohibited journals have to be sought for.

On the Tell we have been tracing the fortifications on the north and west sides, where walling 10 or 12 feet high remains, buried in rubbish.

Also I found a wall to the great outline of the inclosure, about 1,000 feet across, which I must trace out. On the Tell one or two dated things have turned up: a Greek vase with pattern, which looks as late as the Vth cent. B.C., and a chip of early red figured vase, about 450 B.C., or 400 probably; showing that the Tell was reoccupied after the Captivity, though only very slightly. Also a small coin, Persian or of Tarsos? bearded head, Rev. king attacking a ramping lion. But as yet no sculpture, inscription, or metal work, has been found. I see from Perrot and Chipiez, however, how very little is known about Syrian pottery, and how much the work here will help to put that on a firm basis. On the river face of the Tell I have had the surface all cleared down at the north end, and have spent hours there tracing out the sections of the various brick-wall fortifications of the town. These are far the best source for its history, when combined with the notices in the O. T. of Lachish. I can find 9 successive wallings: a huge Amorite wall, 28 feet thick, two Amorite rebuildings on that; then is a period of no walls, but ruined habitations of rough stone, overthrown and spread about, probably of the Judges' period. Then a fairly stout wall, 13 feet thick, which must be Rehoboam's, then four small walls, rebuilt on the ruins of that by different kings; and, lastly, a thin and hasty wall on the top of all, which must, I think, be due to Josiah, when he tried to keep out Hophra, in 610 B.C. No one later than that would fortify down here probably, and the Persian coin was just above the bottom of this wall. The artificial mound is altogether 75 feet high, and the hill under it 45 feet, making 120 feet altogether, in one slope down to the stream.

The weather has been very tolerable till to-day, when it is 104° in the shade; and, as you may see, I cannot touch my writing without smudging the ink, I am so moist. I have finished a plan of the place, with 20-feet contours all over, which I have sent to the P. E. F.

There are some stirrings here; for when I came there were 150 soldiers down in the Gaza district after some unruly Arabs, and they seized and carried off 13 sheikhs in irons to Jerusalem. Now, the other day there was a skirmish between the Terabin and the Azizin down at Nejîleh, where I went last Sunday, with the result of eight killed—5 of one and 3 of the other—only leaving happily a blood balance of 2 to be wiped out in future. The Effendi is, no doubt, of considerable use here, as he is well known to be a Pasha's man at Jerusalem, and they would think twice before getting into a scrape by interfering with him. So far we are on very good terms with the sheikhs here, though the underlings do continually steal our men's donkeys, and try to screw a ransom for them when discovered: the four donkeys taken have all been recovered. The country will never be worth anything until all these savages are thrust back into the deserts they came from, and kept there by a border garrison. Then, with proper water storage, which would cost next to nothing, this might be a thickly populated land, and very profitable. As it is, most of its profit goes into the hands of corn dealers

of Gaza, who buy up the Bedawîn crops, and export them to France, &c. Oh! joy! here is a cool wind down to 98°, and I am feeling quite lively. Next day is better, a pleasant west wind, only about 95°. It is miserable work driving these wretchedly lazy Syrians this hot weather in Ramadan. They are desperately thirsty, and I constantly find a man lying down asleep. Sometimes a fellow who is out of the way does absolutely nothing for hours, between one visit to him and another; and dismissals seem to have no effect on the survivors, for I clear off about one-quarter to one-third of the men every week, and have fresh ones, who prove even lazier. It is most untoward that I should have been cast on a hot Ramadan to work such people.

We have had a fine pair of snakes dug out in the work, 7 feet long each, bright and steely grey. Though hot, it is very dry, as may be imagined when the wet bulb is 28° below dry, 96° and 68°.

I have said nothing yet about the awful subject of coinage here. It stands thus: every place has its own valuation of all the coins in an arbitrary standard which does not exist. Thus the sovereign is 137 piastres at Jerusalem, 154 at Jaffa, 274 here. And every other coin varied in proportion. That there is no such thing as the nominal piastre in existence is a fearful puzzle to the beginner. Why the rate varies thus in each place no one can tell; it is supposed to somehow be a device of the Jewish changers for securing profits, but no one knows why or how. Then the small coins are all odd fractions of the nominal piastre—

6	3	$1\frac{1}{5}$	$\frac{3}{5}$	$\frac{1}{3}$	$\frac{1}{6}$	$\frac{1}{12}$

worth respectively about—

5*d.*	$2\frac{1}{2}$*d.*	1*d.*	$\frac{1}{2}$*d.*	$\frac{1}{4}$*d.*	$\frac{1}{8}$*d.*	$\frac{1}{16}$*d.*

though I always think of them in Egyptian piastres or francs.

(2.) *From a Letter.*

I went over to dine at the biggest sheikh's the other night. A blessed simplicity in going out to dinner without collar or socks, and kicking off your boots and sitting squat, barefoot. The notion that Ramadan fasting mortifies the body is a monstrous fallacy; true, great discomfort and incapacity result from it, but as it is made up by gorging at night with extra delicacies, and thinking of nothing but the perfect gorge all the weary day, it is hard to devise a more perfect way of making the question of the stomach *all in all.* We all sat round the mutton and messes put in the dingy copper-tinned dishes, waiting for the Gaza gun, which announces the lawful moment for feeding. Once or twice it was thought to be heard, at last every one grabbed snatches of flesh off the sheep, and pinches of rice and sundry odd dainties. To get any conversation out of them was impossible. I tried to make talk to the sheikh, but in vain. They seem incapable of connected ideas or thoughts; at first I thought I misunderstood them, but it was too true. The Arab has a vast balance of romance put to his credit very needlessly. He is as

disgustingly incapable as most other half savages, and no more worth romancing about than Red Indians or Maories. I shall be glad to return to the comparatively sensible and shrewd Egyptians.

6th to 12th May, 1890.

Around the walls of the north-west we have done a good deal. The whole of the main wall of fortification (Rehoboam's) is now found at that part and planned; we have also found the thickness of it at several parts, and I am clearing out the north-west tower, which is a good piece of ground to work, as it is clear of crops, with a steep fall around it to carry away the stuff, and some large stones already uncovered there in our work. Outside and below that I am tracking along the outside of the first Amorite wall, mainly for the sake of the chance of early pottery in the black ash earth. It would be too heavy a business to work it all along, as the earth is about 20 feet deep outside it.

On the south side, just at the edge of the cliff washed away by the wady, we lit on some masonry; and by the level I should say it could not be later than Rehoboam, and might probably be earlier. There is but little left, about two courses of small stones on each side of an entrance 5 feet wide; unhappily most of the building it led into has been washed away. But this masonry is very valuable, as it is drafted work with rough central lump, but there is no trace of comb-pick dressing, it is all the hammer-work, which I already believe to be Phœnician. At last we have some positive datum as to stone dressing, which is absolutely clear of the suspicion of Herodian origin. I have photographed the stones. There are two steps at one side of this masonry, which we are clearing and following. Then at a rather higher level, but well within the mound in level strata, and about half way up, or not later than the early Kings, we found more masonry, some fine white limestone paving, broken blocks, and a slab of wall facing. On this block is a precious example of architectural decoration, about 4 feet high. In low relief, about an inch forward, is half of a pilaster with volute top. The edge of the block is slightly projecting: perhaps a corner ornament of a room, with a similar half on the other wall. I had a paper mould on it within a couple of hours, and so I shall be able to make a plaster slab cast in London. The block itself is broken in two, and happily the Effendi and the Kaimakam are not impressed with it, and will probably not want it removed. If it could go straight to any safe museum, it would be well, but probably it would never reach Stambul, and if it did, it would be used for old stone in building. So I contemned it to the authorities, and probably shall be able to leave it buried here for some future opportunity. It is too large and heavy for me to wish to do anything with it at present. But it is a very interesting find, as we have no such complete piece of Jewish decoration before.

It is most like the pilaster in the chamber by the Haram at Jerusalem, but the main value is its completeness, showing the base and the volute

entire. I cannot photograph it until the work hole is larger, so I have turned it face down for the present to avoid injury.

The chamber fallen in, as I thought it to be, now proves to be a well, but I am not certain about clearing it out, as it will be 60 feet deep to

INSCRIBED FRAGMENT OF POTTERY FROM TELL HESY.

water, and I have no rope ladders, as they were borrowed long ago by Schumacher. Moreover, I see the side of it still extends up to the level of about 700 B.C. ; and may have been higher still, so that we should not get any early things from it.

To my surprise, Dr. Cobern (whom I met in Cairo waiting to go to M. Naville) turned up on Thursday, and has stayed on with me for five days, a very pleasant change of society from the continual Effendi. Then Count D'Hulst and Dr. Goddard came on Friday and stayed a day on their way to Jerusalem.

And then the Kaimakam and officer in command at Gaza came over to stay a day or two with the Effendi. Happily the Kaimakam quite agrees with the Effendi that the broken pottery is quite useless and insignificant.

12*th to* 19*th May*, 1890.

There is very little to report, as we have been mainly clearing away stuff from large spaces. The general state of things is that I have cut into about every space available without working in crops. To dig the crop land would be fully double cost, as not only must we buy the crops, but the Arabs insist that we must level the ground again. All the trenching, sometimes over 20 feet deep, and all the clearing of the section on the east side, on the valley cliff, has only produced two stone buildings. Both are, happily, in regions which I can clear out, so that, having traced the walls as far as I can, I have now put nearly all the men on to these buildings.

One is masonry, in the north-west tower, or bastion; it is very rough, but built of squared blocks from an older wall. So we are clearing the whole space of that bastion, as there might be bits of sculpture or inscription used up in this later wall. The other building is by the east face and under the bare south slope of the tell; it is where we found the pilaster slab last week and some drafted masonry. On clearing about it, I see that the pilaster slab belongs to a much earlier date than the drafted masonry, perhaps 900 and 600 B.C. respectively; and the drafted stone gateway and a flight of steps by the side of it were built in the later wall, being the entrance to the town on this side, contemporary with the wall.

To go far in this clearing would be serious. I am already cutting away 10 to 20 feet deep of earth to reach it, and to clear it from the crop land on the top of the mound would be 30 feet deep. For the same reason I have ceased to clear along the Amorite wall on the north; we had to cut out 20 feet deep, and never found anything but broken pottery. Some way further on I tried a trench to reach it, but not finding it when about 20 feet deep I then tunnelled, and had to go a dozen feet in before I reached it.

By trenching and undermining I brought down about 50 tons of earth in a lump, and so saved a deal of cutting, as it was a hard wall.

18*th to* 26*th May*, 1890.

As I was quite out of money, and Dr. Elliott had kindly drawn for me at Jerusalem, I had to go to Gaza to get cash. I found Dr. Elliott and Dr. Bailey, who has been *loc. ten.* at the dispensary while Dr. E. was up at Jerusalem. This dispensary is a very serious affair, as they have it three times a week, and out-patients as well, at the rate of 12,000 a year. To get to Gaza is a long day there and back. I rode a donkey for 13 miles; then left it with Muhammed, and walked on five miles to Gaza, a matter of six hours altogether, and six hours back again. The last hour was dark, and we lost the road and had to track across fields by star guidance. I was walking; as Muhammed was so fagged by Ramadan, I let him ride. In all, it was 20 miles donkey and 16 of walking for me. After about eight days' work we have cut back the face of the cliff, a thick slice of 5 or 6 feet, and can reach more of the stonework. We find more pavement with charcoal and burnt earth on it, evidently from the burning of a building; and another slab with pilaster on it, like the first one, so if we could have duplicates I could have brought one away. However, I have taken a good paper mould of it and photograph. The form of the volute at the top is just the same, and also the slight swell out in the shaft at the base.

With regard to the date, more details have appeared, and I do not think it could be later than Uzziah (800 B.C.), and more likely of Asa or Rehoboam (970).

I find on that side of the town a thick brick wall high up, some 25 feet through ; this can hardly be later than Manasseh, who garrisoned the fenced cities (650 B.C.), and is the last king recorded as attending to the defences. This was built over the *glacis* of a previous defence, formed of blocks of stone, bedded in the slope of earth, and plastered over smoothly, at about 40° slope. This *glacis* may very likely be a hasty work before Sennacherib's siege in 713 ; at least, it is not likely to be later. But this has been made after some 10 feet of earth had accumulated by the side of a large brick building, 86 feet long, divided in chambers. This depth would probably take a century to accumulate, placing the long building back to Uzziah's buildings in 800. And the long building is 10 feet over the pavement, and remains of the stone building, which would go back therefore to about 900 B.C., or to Jehosaphat, who did much in garrisoning and building. I have taken the shortest intervals that are at all likely for these successive stages ; and, looking at it in the broadest way, the pavement is about half-way between the top (500 B.C.) and the bottom of the Amorite town, which I concluded to be 1500 B.C., roughly, so thus we should get 1000 B.C. for the building, or rather later, allowing for the slack time of construction under the Judges, bringing on to about 950 B.C. So it seems fairly likely that this stonework must date to about 950 or 900 B.C. of Rehoboam, Asa, or Jehoshaphat. The drafted stone gateway and steps which I mentioned before seem as if belonging to the *glacis* period, about 700 B.C., as the steps lead up to the line of *glacis*, in which the staircase was probably continued, though now all lost in the valley. Certainly the great 25-feet brick wall was built *over* both the steps and the *glacis*. The curious volute on the pilaster is evidently the Asiatic type, which later became the Ionic capital. As such it is of value in the history of Greek motives, as well as of unique importance for Jewish art. It seems evidently designed from a ram's horn, and such a decoration of wooden pillars would be not unlikely (compare the Greek decoration of *boukrania*). But the immediate idea before the sculptor seems to have been a horn of metal work, to judge by the uniform calibre of the volute. We can hardly refuse to see here the form of the "horns of the altar," and not standing up, as usually supposed. There is nothing to prove whether they were rams' or bulls' horns, and the binding the sacrifice with cords to the horns, and Adonijah and Joab catching hold of the horns of the altar, do not prove the shape either way. I do not remember any other mention of the horns. The pavement remaining of this building is laid on a bed of about 4 inches of yellow sand, which yet remains where the stone has been removed. One slab of stone stands upright, but has only been so placed by some re-builders, as on it is a graffito of a lion (?), but upside down. I need hardly say that I carefully clean and examine every surface of smooth stone in search of graffiti or inscriptions. At last the misery of Ramadan is over and people venture to use salt again, which they dare not, when they must not drink all the day. As a negro guard remarked the happy evening it was over, "By my God, Ramadan was beastly !" and howls and shouts of "Ramadan goes !

Ramadan goes! go to your father, oh son of a dog!" greeted the last sunset.

Probably people who have not seen the place will cry out aghast at the idea of leaving any chance of a building of the Jewish kings not being utterly cleared out; but I have done all that was under the lower part of the cliff, and now it is a matter of cutting 30 feet depth of stuff to reach any more of that level, and, moreover, cutting into the crop land, which will need some rowing with the Arabs about compensation. When one has to remove the height of a three-storey house before reaching the ground wanted, it needs a good prospect to make it worth while. I shall take another slice off the face, four or five feet, and mine into it, leaving buttresses, and then inform the Pasha that work is suspended here for four months, as he agreed for the hot season. If then this is preferred to any other place for work, it can again be attacked in October, but I think some less encumbered sites would be better; and, at least, this could be taken up in future years if there is nothing better. There is no chance of anyone interfering with such a tough place, and all the weathering and falls of the cliff, which are sure to happen, will be in favour of later work.

I have got some improvement in the men at last, and most of them work at least just passably, so long as they are watched. At first the only difference between watching them and not seemed to be that, in one case you always saw them doing nothing, and in the other you never saw them doing anything. But I have weeded and weeded almost daily, until of the first 26 there are but 4 left, of next week's 10 only 4 left, of the next 8 only 2 left; and of 12 only 4; of 8 only 3, and this residue is the pick of the place, and they do moderately. I had a row at the end of Ramadan, as, instead of half-hour's rest at 10 a.m. and leaving off at 4, I gave 2½ hours at 10½, so that they should be recruited for the afternoon work, and required them to go on till 6. While I was at the other side, all of one-half the men broke off at their own fancy about 5, and went down to their evening wash at the stream. I sighted them and pitched into them, and one or two were impudent. I paid off four at once, and only ceased discharging on all the rest promising to keep to my hours in future. Next afternoon I hung about that part making measurements, and, well supplied with change in my pocket, and ready to pay off instantly anyone who proposed to stop. But the effect of the four going (and not being taken back after most urgent entreaty of everyone up to the Effendi) had completely settled them, and not one slacked in his work till I whistled them off. But I doubt if I could ever get them up to Egyptian obedience; at Naukratis I have known them go on working after sunset, because I was delayed at some special point and could not whistle off.

I now see that our building is not of stone, but only of mud brick, like the rest of the town, though it had stone doorways, and these pilaster slabs facing some part about the doors. There are also pieces of

cavetto-moulding like that of the rock-shrine at Siloam, and of a rib moulding which runs under the cavetto.

The whole place was burnt, and plundered for stone, and then re-used with a rough re-setting of some slabs. I doubt if we shall get any more stone by cutting further, unless we were to clear away a great distance in, and so reach some other doorways of the same building. I have a slight third dose of influenza, sore throat, very sleepy and lazy, developing into a sort of causeless cold in head and chest. Happily the returns are slighter and will wear away ; but it is astonishing what a virulent and persistent infection it is. A third pilaster slab has been found, set upside down in its re-use.

27th May to 1st June, 1890.

This wretched influenza still plagues me, and I made it much worse by dining with the Effendi and the Bimbasha out of doors one night. As I had refused the Effendi's invitation the night before, on the ground of business, even when he announced that he would not eat unless I came, I felt it would be uncivil not to go, even at the cost of a cold on the chest. Happily his socialities are over ; he has gone again to Gaza, and will only return here on his way to Jerusalem, on Saturday, end of the month.

A grand riddance has been the harvesting here, leaving the ground clear to get about. Hitherto I have had to go about five times the direct distance round the crops, to get at the work, up and down hill too. I tried buying out the crop on the tell, and a path to it, by offering fully the value of the grain, when reaped and threshed, five weeks before it was got in ; and the fool of an Arab thought to get more, and would not take it. Then, about a week before harvest, he came round to my terms, but too late, for I did not then want the ground or paths, and I had bought fodder all the time for the donkey, and did not want the crop for feeding. He was paid out for his troublesomeness, for the Arabs, who came constantly to stare about the work, trampled his crops mercilessly. He comes for eye lotion in the meekest way now, and he has learned some lessons by this time ; among others, that what is said will be done ; and instead of futile rows, such as we had daily at first, he is now quite content with my assurance that I will level the crop ground again before I leave. So soon as the reapers were over the ground within a few hours I had the men sinking pits all about the crop land, to test the depth of the earth. I find that the ground close to the tell is just like that all over the enclosure ; only a few feet of made soil with Amorite pottery and a little later stuff, and then native clay. The town had no suburb, but was strictly limited by its walls.

A question of manners. Query, when a man greets you in a narrow path by drawing his sword, flourishing it about, and seizing you by the arm, what should you do ? I had no precedents, so I fell back on intui-

tive perceptions, and *tickled him under the chin*—a light and sufficiently deprecatory way of meeting such advances, as I presume. I have made the fresh cut down the face, but found no more stone, "and never expected I should." I have cleared the fourth doorway, and found the fourth pilaster slab, and we should have to go a long way into the 30-feet land to reach to the west end. I am doing a little tunnelling along the insides of the north and south walls, but the whole cliff is not worth clearing, I think. There is some puzzle about these pilaster slabs, as the later two I found were upside down (lining the side of the doorway), according to our notions. That the stone in the building was re-used is proved by the lion graffito upside down in one of the door-posts, and I can only suppose that the pilaster slabs were inverted in order to get the thickest part of the stone, to cut the hole for the door lock or fastening. But it is strange that all the half pilasters are left-handed. Another point that shows they did not belong to this position originally, is that they are not nearly high enough for a whole doorway, being 3 feet 9 and 4 feet 1½ high, so they must have been eked out by brickwork above, as their top edges are not dressed flat. The stone lintels were only facing slabs. I found one full height (though broken) shewing both the top and the under edge duly photographed (stereoscopically), measured, and buried, also a second duly recorded. I have got some notion now as to the *classes* of pottery and their range.

The Amorite pottery extends from about 1500–900 B.C., and the Phœnician and Cypriote begins about 1000 and goes to 700 B.C. Then the Greek influence begins at 700, and continues to the top of the town. I get the approximate dates, by the age of the walls, from historical presumption This is just what might be expected from quite other considerations. The Jews were under Amorite (Canaanite) influences entirely until Solomon. Then the Phœnician trade set in 1000 B.C. with Hiram, and soon the Phœnician drowned out the native style by 900 B.C. That the Greek influence should come in by 700 is not surprising, when we know that by 670 the Greeks were stronger than the native Egyptian troops in Egypt.

I had a good illustration of how hopeless it is to excavate without constant watching. The morning my cold was worst I did not get out till 6.30, instead of 5, as usual. I found that the men had in two places been carrying off earthbanks, which I had specially made to cover over buried blocks of stone ; result, labour wasted. I sat a long time watching them, feeling too bad to stand, and at last, urged by my man, I gave full directions, and went back to my tent for two hours. When I came out again I found that a man had cut right across a buttress which I had left to support the earth-face, and so not only made the buttress useless but dangerous as well. The result was that for a whole day he was occupied in getting at the almost inaccessible top of the buttress and cutting it away. The face being then 20 or 25 feet high, any undercutting below was most troublesome to remedy. All this high cliff cutting is worked into bays with buttresses between as the strongest way to leave such

earth ; and now we are tunnelling in at the bottom of the bays. The result of the tunnelling has been to find another doorway on the south side of the building, which I have marked in as "door found later" on the preceding plan. But there is only a threshold pavement, and no side posts, or pilaster slab at the side of the doorway, as in the four other doorways. It is most difficult to get these fellows to go as you tell them. I found a bit of brick face in a man's hole, showing where the wall came, and specially told him to leave it, and deepen the hole elsewhere ; in five minutes he had hacked away the very brick I wanted kept. Another man's work I marked out expressly to follow the line of a wall, and explained to him. When I came round again he was cutting away the wall, according to a whim of his own that it ran in a totally different way. I have been racing the work as hard as I can the last three days to track the great wall through the crop land, and I have just about done it. But the face twists and turns, with bends and buttresses, so that it is very difficult, and the bricks are all but the same as their washed down *débris* against them. I only get on by laying out feeler pits in advance, so that wherever it turns we are sure to get at it. This saves time, though it does not save labour.

I have now finished up, and shall pack in the next few days, and then travel round the country for a week to Jaffa, as I hope, my cold being much better, and the weather fairly bearable—80°–90°. So no more letters need be expected till I arrive, which will, I suppose, be a fortnight later than this letter.

1st to 27th June, 1890.

I was reckoning on sending one of my village guards with the baggage to Jaffa, and taking the other with me as a walking companion, leaving my man to go with my camel man. But all my plans dissolved mercilessly. First one guard and then the other said they must go off to harvesting. Then the Arab guards did not stay by day, and when my man went off (as he was fond of doing) I was left entirely alone to look after three tents, some way apart, and to do my packing.

Not a man could I get out of all my workers to come and fill in the holes in the crop-land, everybody went to harvest. Then the difficulty came to get anyone responsible to send with my baggage to Jaffa. At last I agreed to send 30 miles to Jimzu for the first camel-man I had. But no one would go ; so I had to send one of my Arab guards. When the camel-man came he was alone, for no one would come with the second camel.

So he had to be sent to Jaffa with the baggage, in which there was a large sum in gold, surplus funds, which I thought that the best way to get back safely ; I put it in the bottom of a tin box full of photographic plates, the weight of which would prevent thieves suspecting anything

below them, and of course no one had a notion about it. Then my Arab guards refused to go with me to the next village eastwards—Dawaimeh—as they had a feud there and dare not show themselves. So I had to give up my zigzag exploring, and stick by the camel with my man, Muhammed, only. In fact, not a single one of the villagers or of the Arabs could I get to go a mile with me, one because of harvest, the others because of their squabbles. The other day I saw dozens of sheikhs all riding past to go and see the Pasha at Gaza. They fell out by the way, and at a village, Beit Hanun, two were killed.

We slowly wound our way up from 300 to 900 feet into the hills, and the only sites I could visit were er Resûm, where there are large ruins of stones, but Roman age by a tablet, and a bit of moulding. Then close to Dawaimeh I saw Mejdeleh, where a building of largish stones, five courses in part, remains. Stones are drafted, and probably Herodian; Roman pottery lay about.

On the way I was astonished at the hills being covered with an emerald crop of young durra (maize), which grows here without any rain in dryish ground.

The Dawaimeh folk are a decent lot, but their water supply is tea ready made; when poured out in a thin stream from a kettle it is dark brown, strong tea colour. The guards were most troublesome, however, about talking at night; they had talked all their lives, and the pernicious habit clung to them. I only got stray dozes, until about 3, in despair, I rolled up some blankets and walked off down the valley, and found a cave where I settled; there was a hole at the end suggestive of jackals or wolves, but I got some sleep there. I was not astir till the sun was high, and so lost my time for looking over the ruins about there.

I went to Mejdeleh again, and looked at the tombs there. Then after breakfast we packed up, and moved on to Edh Dhâherîyeh. After starting Muhammed went back and asked a man to come as guide, as the road was of a very slight and rough kind over the hills. After some time we reached Deir el 'Asl, and a huge well, Bir el 'Asl, now all but dry. I went up the hill to look about it, but, as might be expected from the name, it is all Roman. Muhammed and the guide stayed by the well, and some of the men harvesting there from Dura were inquisitive as to my baggage. We went on up the hills, a rugged trace of a path, where the camel and donkey could hardly get footing. At the top the guide said he would not go further, as he had objected at first to going all the way, and Muhammed tried to persuade him to come on, yet strange to say he did not clamour for his pay. We went a little farther on the top of the hills, the camel straggling on in advance, I next, and Muhammed riding the donkey behind.

Suddenly I saw a man, with his face tied across up to the eyes, pass from one bush to another over the road, and I guessed mischief. Then two, three, and at last four, showed themselves, all with faces tied across.

They seized the camel and threatened to fire; I also threatened, being about 30 yards behind, and two of them tried to close behind me, but I backed up a slope to one side, revolver in hand. I then reckoned that there was nothing worth much on the camel, but as I had eight or ten pounds in my pocket, I had better get rid of it. Meanwhile Muhammed had run back to fetch up the guide (whom he found quietly sitting down), and it was no use for me alone to tackle four, as there was a pistol and four swords among them, and stones all about handy and continually doing duty. So I backed away towards cover, and when Muhammed and the guide appeared they and the camel load completely occupied the four men, and I dropped my purse and bag of change into two bushes; leaving by accident, rather fortunately, a roll of ¼-mejidis in my pocket, about 8*s*. or 10*s*. worth, and there was nothing worth the risks of bloodshed on either side. The men were Fellahin and not Arabs, and not at all bent on stripping us, but only on some small loot. They did not attempt to search all the baggage, but grabbed out a new suit and a couple of flannel shirts from my portmanteau, and got hold of a waistcoat of Muhammed's, which had about 30*s*. of his and, unluckily, about 50*s*. which the camel man had entrusted to him for safety, and which I did not know of. My revolver was the main attraction, and all four made a rush for me; as the money was safe I took it quietly, and let them find that it was quite needless to grab me by the throat. They were immensely disgusted that I had hardly any money (the ¼-mejidis were enough for a show), and they turned my pockets inside out, felt me all over, and searched for a money-belt, but in vain. The elder man particularly returned to me my note-book, measure, and handkerchief.

Altogether I think the business was conducted quite as pleasantly as such affairs ever are. They then made off down the road we had come, to Deir el 'Asl. I had some difficulty in making Muhammed collect his mind to the needful business of roping up the camel again, tying the cut ropes, &c. I sat down to make notes of what was gone, by where my money lay, so that if the robbers were watching to see if I picked up anything they should not detect it. I then pocketed it, and we went on. I had forgotten to take off my watch, and one of the robbers was much disposed to have it, but I immediately reminded him that it was numbered, and that decided them to leave it. The whole affair was much of a scuffle and there was not time to be too precise in one's arrangements. Happily all my note books and papers are safe. We soon found our guide-man gone on ahead. What share had he in it? He could not have conspired at Dawaimeh, as he was only picked up suddenly at Muhammed's choice at the last moment. He cannot have conspired at Deir el 'Asl, as he was with Muhammed all the time. But I think he saw the men go off before us at Deir el 'Asl, and suspected mischief, and hence his reluctance to go on. That he went on afterwards all the way looks, on the one hand, as if he was not really anxious to return, on the other hand, as if he had no thought of being charged with complicity. On the whole I should not

accuse him. The thieves were almost certainly not from Dawaimeh, as I had there said to everyone that I was going by a different road to that which the guide took.

We reached Dhâherîyeh about an hour before sunset, owing to the delays, and pitched in a high north wind. The cold wind, after being heated in the valleys, gave me a sore throat. Really the result of the robber's grip, as I had it for weeks after. I wrote a full account and inventory of stolen goods to the acting Consul, W. H. Kayat, a Syrian, at Jerusalem, Mr. Moore being gone to England ; and a line to the Halls, as I thought they would hear some exaggerated report of it, and also asking them to order a new suit for me at Jaffa. These I send off by a horseman as soon as the moon rose, and expect now to hear of soldiers, &c., in the next few days. The messenger was to be paid at the Consulate ; he is a wild maundering-looking *sherif* with long locks.

It is a very hot day with east wind and burning sun, so I shall do very little until the evening. Everything feels hot to the touch, showing that it is well over 98°, and here I am, 2,000 feet above the sea, so what it is in the plain, I cannot guess. After, a cool west breeze sprang up and blew hard, it was still 97° by the clinical thermometer. This is well named Dhâherîyeh, as it is at the back of the world in both senses, being on the high ridge between the Dead Sea and Philistia, and being at the end of all things without any settled habitation south of this, away, away, right down to Arabia.

Three coins were brought to me, none worth buying as they had been much ground down by the finders, and as I could see at a glance what they were. Two were potin of Antioch under Trajan, and the other a denarius of Trajan. They are good historically, as, being all of one time, they point strongly to the buildings about here being of that reign, when there was a great consolidation in the East, as witness the only coins of Nineveh, under Trajan. There is a fine stone building just by my tent, and a very civil man asked me to go round into a courtyard to see more of it : arched passages, two great chambers and a staircase.

The people here are far from agreeable, quite a different manner to the Dawaimeh folks. There is only one pleasant and intelligent man I have yet seen, who showed me the coins and the building. The others are always prowling and peering about as if trying to see if they could steal. When I went only a mile from the village, among the harvesters of the place, I was cursed and threatened with a big stone, and now the night guards began to refuse to come, although well paid. This is all so nasty that I have buried what gold I have, and packed all my irreplaceable note books and papers together, clear of my other baggage, and ready to save them if nothing else. I can't expect every thief to return my note books. The Sheikh is away harvesting, and every man seems to do what is right in his own eyes. Happily, I can always get up to Hebron on foot in four hours from here, in case of a row, and there is the German inn to fall back on there. The people here refuse us water, except for payment. I went all over the hills about this village, and though there

are plenty of natural cave dwellings, &c., yet there is not a bit of Amorite or even Jewish pottery ; what little there is, is Greek or Roman. Then I went on a round walk with a native, but he did not know much of the country. However, he got great faith in the map, from my predictions, and was willing to go as I wanted. We went to Shuweikeh (Socoh) but all the buildings are late, and the main one is a mosque. Then on to Deir es Shems, but, as the name shows, it is Roman, late pottery and tesseræ abound. Then on to Es Semua (Eshtemoah), which is still inhabited ; but Roman work all over the place, and a large castle which they attribute to Mamun, and probably is Arabic. Then to Ra-fat, but again a mosque and late buildings. Then to Attir (Jattir), where the buildings seem again late. Then to Zânûta (Zanoah), where again there is a ruined mosque. In short, none of these Jewish sites show a trace of remains older than the Roman rule of the district, and the active civilization which seems to have remained here into early Arabic times. I suspect that the Jews here were a skin-and-wood-using people, and did not make pottery any more than the modern people. Though there was a good breeze all day, it was hot wind ; and I only took one bottle of water, and was fearfully thirsty. At Zânûta I lay flat on my back for half an hour, done for ; the thirst made my heart so troublesome up the hills ; for though the actual distance was only about 16 miles, the hills were certainly equal to half as much again.

The harvesting of the ants is everywhere to be seen ; and how anyone can have doubted that the ants (either grubs or mature) do use grain, seems impossible. Not only are the tracks leading out of the cornfields converging all on to the mouths of the ant holes, but every ant hole has about it a fringe of husks and chips carried out as waste material. The *débris* is proof positive that the useful material has been consumed. At the present moment there is a line of ants, each struggling with a grain of barley which they are carrying off from what is spilt from the donkey's food

At last, after nearly three days, my messenger returns from Jerusalem, with a reply from Mr. Kayat that he will make a strong representation to the local authorities on the subject.

I want the soldiers to appear about here before I move to Hebron, for otherwise I expect to be robbed again. My camel man (who has safely delivered my boxes at Jaffa) was stopped between Hebron and here, and searched for valuables, on his way down this morning. I hear also that the Arabs are busy, and have carried off sundry cattle, horses, donkeys, &c., in a raid.

I went on a short day's round with a man again, feeling rather lazy in the morning after yesterday. I went first to Somerah (Shamir), where there are many ruins, but all late apparently, with Roman pottery about, and some very debased moulding. On two slabs I saw curious basin hollows, with grooves, altogether too small for collecting rain-water ; perhaps for clothes-washing, where water was scarce. Thence to some wide-spread ruins called, altogether, 'Anab. A mosque remains there

entire; but there is a puzzling point in the lintel having ornamental crosses on it. Is it possible for Muslims to have not objected to putting them up prominently thus? Yet the kibla niche is certainly the same age as the building. A short way off are the foundations of a church, with a regular apse, and two pillars remaining. If Tiberias is the palace of the king of the fleas, assuredly 'Anab is a "hunting box" of his. While I was just measuring the mosque I welcomed a large population, insomuch that I afterwards picked off 20 from the outside of my clothes; and how many more were inside, I will not venture to guess. From 'Anab, I went to 'Aseilah and Resm el Muketat, where are very similar ruins, but the latter probably Herodian by the bossing of the stones.

Then to Umm Deimnah (Madmanneh) where there are many more ruins, with two lintels bearing crosses, which prove the late date.

At Umm Kusab there were again similar ruins. Nowhere to-day did I see a fragment of Amorite or Jewish pottery. The old Sheikh of the village has turned up at last, very civil and pleasant, and will keep folks in order, I hope. All my country of to-day is sown with *durra*, and we did not meet a single person or see any one on the hills, from leaving to returning to Dhâherîyeh; the corn harvest in the other valleys occupies every one.

Next day I made another round to Dômeh (Dumah), where there are Roman building and pottery and another early mosque. Then to Kûrza, where there are some more Roman buildings and a spring half way up the hill, far above the level of innumerable caverns lower down. The water is reached by a well about 20 feet deep, very narrow, lined with rough blocks, and my guide went down and drank and washed and refreshed himself for some time. Then on to Râbûd (? a Rabbath); the west part Roman, but the main hill is the first pre-Roman place I have seen about here; the pottery is mostly about 600 B.C. and some perhaps 800 B.C.; but nothing Greek or Roman. Rabîyeh near it is nearly all Roman. Here my guide—whom really I guide—stuck behind, praying, *he* says, sleeping, I think, and didn't follow me up to Es Simia, and I saw nothing more of him until long after I had got back to my tent. Es Simia is a large place—streets of buildings of drafted stones. Tesseræ and Roman pottery show the late date of it. This morning a lad came and said he heard I was packing up; if not, when was I going? This evening a man lounges up, puts his head in, and cross-questions me persistently as to when I am going, is it to-morrow, or in two days? or in four days? All this looks as if some one was intending to overhaul our baggage on the way. There is no sign of soldiers, nor any result of the "strong representation" from the acting Consul, though it is three days since, and this is only 9 hours' ride from Jerusalem. I rather think of quietly going off to Hebron and telling the Kaimakam that he must send a soldier to escort the camel and baggage.

Next day I determined to go up to Hebron with an escort of villagers So after packing the things all ready quietly in the tent, I suddenly sent

for the Sheikh, who came, very reasonable and polite as before, and appointed three men to go with us. Another man, a pedlar with a donkey, was also going, so with the camel driver, Muhammed, and myself we were seven. I got off as quickly as possible after letting out that we were going, so as to leave less time for any party to waylay us. What with the crops, and not going far from the party, I could see but little of the ruins on the way. The two springs at Ain Dilbeh and Ain Hejeri make a beautiful green patch of cultivation, and it seems to me almost certain that they are the "upper and the nether springs" which Caleb gave to his daughter. From the account they must have lain between Hebron and Dhâherîyeh, and nearer to Hebron probably, and one being much higher up than the other exactly agrees to the upper and nether. Khurbet Kan'ân I went over, but it is Roman.

As soon as I had pitched tent at Hebron, by the spring on the Jerusalem road, I went off to see the Kaimakam as to my robbery, since Dura is all in his district. He was not in the office so late in the afternoon, but no letter whatever had come about the business. Here is Thursday, and Mr. Kayat's "strong representation" was to be made on Monday. If I had disregarded the consulate altogether and sent to the Kaimakam direct, I should probably have had all my things by this time. As it is nothing has been done. The suspicious guide had told his niece (who lives at Dhâherîyeh) that if I would give a little I could have all my things again; this proves that he does know the thieves, and, moreover, that it only needs a touch of Government force to make them restore the clothes, &c.

Next morning I went over to the Beit Khŭlîl, the early ruin which I saw with Dr. Chaplin. There I caught sight of an inscription, and then remembered how we had hunted for one said to exist by the well. This is

ΔΟΜΝΑC
ΔΗΜΕΤΡ

but very weathered. I presume it records one Domna, daughter of Demetrius. The slip of Δημετρι for Δημητρι being a provincialism. This lady must have been born about 210 A.D. (being named after Julia Domna) and the inscription cut about 240 A.D. as a medium date. Moreover, it was cut in its present place, as the inscription is on the edge of the block which runs deep into the wall, and cannot therefore be a re-used tomb-stone, as I at first supposed. This shows that the building, &c., and the relining (in which this is) existed before the time of Constantine, and cannot be his basilica. So far satisfactory; as my impression was and is that the building is Amorite or early Jewish, and the relining is Herodian. I found the dressing marks on the stones, and they are pre-Herodian being cut with a small pick (*long stroke dressing* I should call it) and *not* a comb pick. There

are traces of a second inscription on a block by the side of Domna's: this is BY . . . . . IC.[1]

I then went off after breakfast to look for the Kaimakam, but found, contrary to what I had been told, that he would not come, being Friday. So I made up my mind to stop a day and see him to-morrow. I let off Muhammed and the camel man to go to the Haram, and wished that I could have changed places with one of them, but it would be much as one's life is worth to be caught inside.

Muhammed tells me that the masonry of the wall inside is like the outside, but much finer. Some day, when the French or Russians come, the Hebronites will have their claws cut, and we shall be able to go all over the place.

I then went off in the afternoon to see some other sites, but they all proved Roman. I heard a new variant on the regular Syrian curse. *Ikra beitak*, "May your house be ruined;" this was *Ikra beit abuk ala netfit*, "May the house of your father be ruined to bits." The Egyptian *ibn el kelb*, "Son of a dog," is here amplified to *ibn sitash kaleb*, "Son of sixteen dogs," *i.e.*, back to the great-great-grandfather, all were dogs. I wonder if any one will write a comparative history of *Curses*; this is a fine subject to let, properly studied with reference to countries and habits of the people. I can imagine comparative tables, showing the racial proportion of (1) personal, (2) ancestral, (3) possessional, (4) actional, (5) extra mundane, &c. Of course the blessings must be treated with them as their nature is similarly direct or indirect. "The comparative study of reflective wishes," is a neglected branch of Anthropology.

I had another look over Beit Khŭlîl, but did not see anything fresh. I measured the old lintels and door sills built in *on edge* in the relining; the door was bivalve, each half 4½ feet wide, 9 feet in all, and each half was fastened by two bolts on the sill.

From the lintel being slightly shorter between the pivots than the sill is, I suspect the doors swung to by their own weight, rising slightly when pushed open. Next morning, at ten, I went again to the Governorate, but neither Kaimakam, nor any other officials were there, nor would be there till some time after noon. I could not stay indefinitely in Hebron in this way, so I had to leave the matter to the "strong representation" of H.B.M. Consular Agent.

We then went off to Beit Jibrin, over no sort of a road in some part of the hills. I looked up one or two Khurbehs on the road. Beit Jibrin is essentially Roman, with mediæval rebuilding, and all the places around, so far as I have seen, are Roman also, with one great exception. Tell Sandahannah (mediæval name Sant' Yohanna) is a high commanding mound, all the surface of which is Seleucidan, so far as can be seen, with only single scraps of Roman pottery. But at the north-west side, where

[1] A copy of this inscription, forwarded by Rev. J. E. Hanauer, was published in the *Quarterly Statement* for October, 1889.

it joins to the ridge of Khurbet Merash, there is a large tract of Jewish pottery back to the earlier kings, I should say.

My belief is that this is only an outcrop of the Jewish pottery not buried by the Seleucidan town, and that the whole mound is Jewish beneath. It is too high to have been all the accumulation of Greek times. Now this joining Merash (which was evidently a great place, as the battle (2 Chron. xiv, 9–12) was named after it), I take it that this Sandahannah is the original Marasheh, the name of which has only clung to a spur of the hills. This seems to have been a great fort commanding one of the main roads into the hill country and Jerusalem; and the tactics of Asa seem to have been to let the Egyptians enter a valley past the fort, and then attack them with the army in front, and the garrison in the rear, thus taking them so that their numbers were useless.

I think it would be well to cut into Sandahannah and see what there is under the Seleucidan. There are plenty of Greek buildings to clear, the walls of which show all over the surface, and they might give some inscriptions. It is a good point finding the early date of at least a part of this great mound, especially as it links on to history.

It is curious how very short the Syrians are as to thirst. In Egypt I do not remember any difference between the natives and myself. Here they are wanting water every hour or half-hour; not that they take much at a time, only half a pint or so. On the contrary, I go quite happily for four or five hours, by which time I am a quart in arrear and begin to be thirsty. Two quarts in arrear, I feel bad, and three quarts gone, I can hardly stir. But these fellows are utterly miserable before they need a quart. One would have thought that Ramadan would have trained them.

From Beit Jibrin we went on to Akir (Ekron). I looked over Tell Bornât, which seems to be later Jewish on the surface, certainly not Roman.

Next at Dhikerîn, though there are pieces of Roman and Arab pottery about, I found some Amorite pottery on the top, showing that it is nearly all early. I then came to Tell es Sâfi (supposed to be Gath), which is a large mound on the top of a ridge of chalky limestone; a village now covers one side of it. Here I found Amorite, or early Jewish pottery, up to nearly the top, and no Greek or Roman. A polite inhabitant showed me a place where they have uncovered an ancient wall of drafted blocks, which they were gradually quarrying away for stone. From the method of the stone dressing I should suppose it to be Jewish.

Hence I went to Mekennâ (Meconna), where the slight mound appears to be of the later Jewish and Persian period, but there was no Roman nor later Greek pottery. At Umm Kelkah there is another of those strange bottle-shaped caves, which I have not yet mentioned. They are common all over the district of Beit Jibrin, and in fact wherever the rock is of the firm, yet soft, white limestone. The usual form is thus about 25 feet deep, and 20 to 25 feet across. They are probably early, but were certainly used, and made down to Roman times, as some have rows of columbarium

niches. Some, I presume the later ones, have a winding staircase down the side, entering by a side cut apart from the top hole. There is very little pottery at Umm Kelkhah, probably both Jewish and Roman.

'Akir is entirely modern, apparently; there is no mound, the village lying in a slight hollow by the well, and it cannot have been a city of much size. I rather think that it had its reputation and importance from the oracle of Baal-zebub, and was not a political or commercial place. The only ancient thing I saw was a large mortar of black trachyte, with handles pierced so as to turn it over on pivots to empty it. On one side is a design, apparently the Egyptian *tat*, with the sun and moon on each side, and palm branches above. The well at 'Akir is a pretty spot; a large wide spreading tree stands over it, a waterwheel with a band of rope, with jars fastened on to it, is worked by a mule, and raises a constant stream of water; this flows into a tank, from which the cattle are watered, and all the women and girls of the village bring their jars to fill at the stream.

I have had a constant difficulty all this trip in getting sufficient sleep at night; what with guards, dogs, donkeys, and villagers, I have been cut down sometimes to four hours, and I have been all day nearly falling asleep on my donkey, and with a miserable headache. This is a disadvantage in going about in the summer, the nights are only ten hours, and there is not much time left out of that if you are disturbed.

At Dejan the ground is being dug into for quarrying, and I could see by a clean section that there is only 3 or 4 feet of stuff, and that is Roman.

I then reached Jaffa and found Mr. Hall at home and most kind in every way. I turned over the baggage, put together what should go into store, and sent it off by the camel-man to Dr. Wheeler at Jerusalem.

I saw a very interesting sight at Jaffa. On a piece of waste ground, almost out of the town, were five miserable tents, and in them, or rather under their shadow, were some of the wandering iron-workers, the descendants of the primitive smiths, who went from place to place.

They were not at all of the Arab or Syrian types. Most of the men were away, looking for jobs, but I noticed one with a close thick short beard. The women varied much in type, one was of sallow complexion, with very rounded features, another was of a European type, with fairish skin, and a handsome intelligent face, with an enormous luxuriant head of black hair. She was blowing double bellows of goat skins. They reminded me more of gipsies than of any Semitic people.

I arranged with Mr. Hall about the sets of photographs of Syrian types, of which he had sent out some already for me. They will go to Dr. Elliott, at Gaza; Revs. C. T. Wilson, Jerusalem; H. Sykes, at Salt; T. F. Wolters, at Nazareth; Dr. Torrance, at Tiberias, all of whom are photographers, and one set remains at Jaffa for any one else to see.

I drew up suggestions to these gentlemen for selecting and photographing groups of natives, classified according to the ancient race types in such a way as to get statistical percentages of the different types in each place, and made six copies of the paper to go with the photographs. If this succeeds we may learn a great deal as to the distribution of the Amorite, Hittite, Hyksos, and other races in Palestine.

HERR SCHICK'S REPORTS FROM JERUSALEM.

I.

The New Road North of the City.

In one of my reports made during last year, I spoke of some discoveries made when the new carriage road along the northern wall of the City of Jerusalem was constructed. This report was published in the *Quarterly Statement*, 1889, page 63. It comprised the *western* part, and now I have to report on the *eastern* part—namely, from Damascus Gate to the north-east corner of the city.

The sill of the Damascus Gate is 2,471 feet above the Mediterranean, and 200 feet north of it the ground on the Ordnance Survey Map, scale $\frac{1}{2500}$, is 2,481 feet, giving a slope of 5 per cent. This slope is now greater, as the crossing-point of the new road is made about 5 feet higher, or 2,486 feet above the Mediterranean. It was made higher in order that the new carriage road coming from the west should not descend so much and ascend so much again. On both sides the hills of rubbish were cut through, so that the carriage road is much more level than the former road. South of Jeremiah's Grotto it was raised about 6 feet by filling up the depression, and at the south-eastern foot of the Jeremiah's Grotto Hill, where there is a little "tomb" building, lowered and cut through the rubbish, so that at the crossing-point, where the road comes out from Herod's Gate, or Bab ez Zahiré, and goes northwards on the eastern slope of Jeremiah's Grotto Hill, the level of the new road is about 6 feet deeper than that of the old one. By this it was seen that there is *no* "Roman road," as Dr. Merrill supposes in his little pamphlet, "The Site of Calvary." If such had been here, it would have been cut through; but no traces of such a road were met with. Further east, in the depression of the ground, the new road was elevated by filling up, forming a dam or causeway, with a small bridge for the water to go through under it. Then, further east, in the fosse, it was lowered, by which means it was shown that there is much earth in the trench, which originally was much deeper. The real bottom was not seen in any place, so the exact depth cannot be stated. By this lowering of the road, the wall, and especially the rock scarp, was laid more bare, and it was

seen that at the eastern part the ancient wall formerly stood several feet further out, and ran more straight; and the same is the case for 240 feet along the eastern wall. There are also some indications that the ancient corner tower was somewhat longer and wider than the present one. It seems also that before the fosse was made there had been a pool sunk into the rock, which became destroyed when the fosse was excavated. This pool had sides of unequal length and unequal angles, like the pool of "Sitti Maryam," on the east side of the tower; the latter is somewhat larger than the former one had been. I always had an idea that if excavations were made at the angle of the fosse, a door or outlet for the water accumulating in the fosse might be discovered; but unhappily in making the road the neck of the rock had to be cut through, and a bridge built over it for the road on a higher level which crossed it, so that no excavations were possible. East of the said neck is a continuation of the trench, the bottom of which forms the bed of the new road for about 100 feet, and at the end, on the northern side, is some masonry on the top and edge of the cliffs, which I consider to be the remains of an ancient gate (*see* Ordnance Survey Map, $\frac{1}{2500}$).

Here the new road makes a bend and runs south and south-east on a course where much filling up was necessary. Lower down, in widening the old road, rock-cut tombs were laid bare, and partly destroyed. They are the usual smaller kind of Jewish rock-cut tombs, and of no particular interest. I counted five small chambers. So far the road was finished at my last visit. In my next I will report what has been done further. The level is, at the corner tower, 2,456 feet, and at its lower part, where it meets the old road coming down from Stephen's Gate, or "Bab Sitti Maryam," 2,351 feet—hence a difference of 105 feet in 1,400, or 7½ per cent.

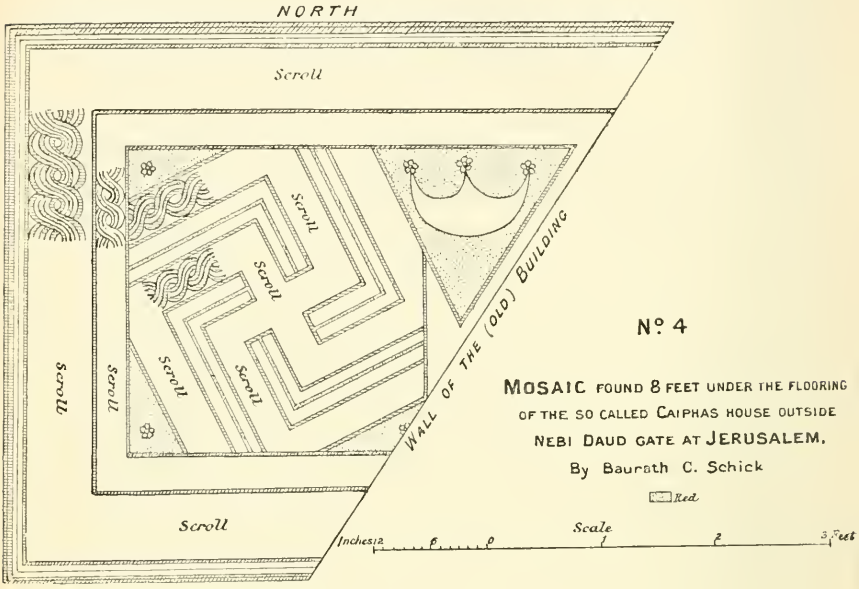
II.

New Discoveries at the House of Caiaphas, on the so-called Mount Zion.

The so-called "House of Caiaphas," outside the southern part of the city wall, and 150 feet distant from it, belongs to the Armenians. It consists of a little church, a small convent, and rooms embracing a small court, the whole being enclosed by a high wall, without any windows or openings, except a little entrance door on the north side. This wall had been for a long time defective, and one day the eastern and part of the southern side fell down.

In digging foundations for a new wall and other additional buildings, an underground passage was found, and in the court under an arch, which is also to some degree unsound, there was found, 5 feet deep under the present floor, an older floor, laid throughout with fine Mosaics, of which

I give a pattern, as I could not find time to draw out the whole. The Mosaic cubes are of three colours—white, black, and red. At other



points, also on the same level, similar Mosaics were found, proving that some building of importance once stood here.

III.

A newly-discovered Rock-cut Tomb at Aceldama.

In one of my former reports I spoke of a newly-discovered rock-cut tomb near Aceldama, at a place called Es-Shamma. It was illustrated by a plan and section, and a copy of the inscription found there. The piece of ground in which this tomb and some other things (which I reported at the time) were found was soon afterwards sold to the Latin Convent, and is now their property. They went on excavating the ground and found some more rock-cut tombs, of which I send plans and section.

The newly-discovered one was certainly made in a quite different time from that in which the others were made. The workmanship is rather rough, and the floors and ceilings are slanting down, according to the decline of the strata. Some of the *kokim* are rather wide and high, especially one, which is also unusually long (8 feet), so that one gets the

impression they were not intended to be for one corpse only, but for several. At the door was found a very large stone with broken corners, so that it might be rolled more easily when the tomb was to be opened or shut, but it was far from being circular.

Another tomb, a short distance east of the former, has rather a large court hewn out in front, with an elevated table of rock. This, and also the inside, gives the appearance of being unfinished. The door is a usual one, but the room is in every respect irregular. The inner room is only 7 feet 6 inches by 7 feet wide, and about 6 feet 6 inches high, without any mark of *kokim* or bench, but has in the floor a kind of pool, 3 feet wide each way and 2 feet deep. This tomb also seems to be unfinished, and was very likely used as a collective tomb, dead bodies being put one upon the other. I saw no bones in it.

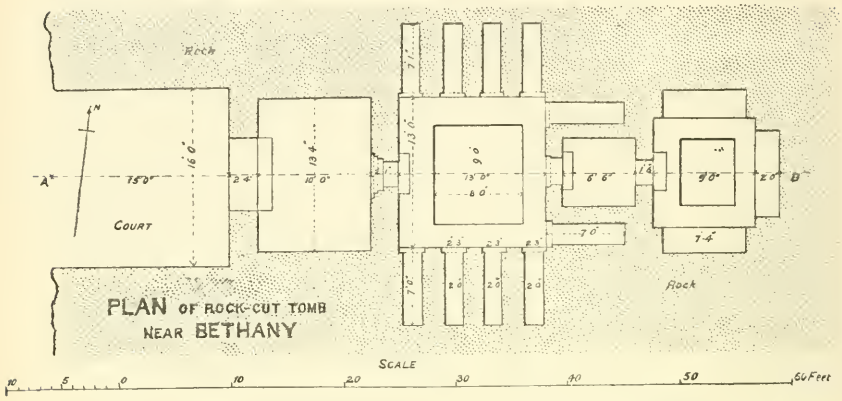
IV.

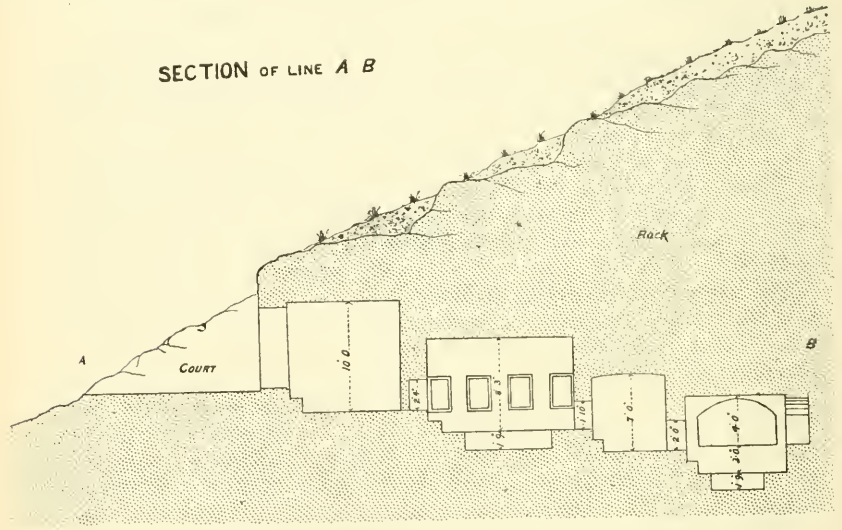
Newly-discovered Rock-cut Tomb near Bethany.

When the road from Jerusalem to Bethany and the Jordan was made, people had to gather not only small stones, but also material for covering them—"hower," as it is called in Arabic. "Hower" is a kind of chalk, and very good for roads. When digging to find such they came to an opening, and on going in, found several chambers, all hewn in the rock. When I heard of it I went there, examined and measured, and made the adjoining plan. The tomb is in the valley which runs from near the top of Mount Olivet southwards down to the Wâdy en Nâr, or Lower Kedron. The road to Bethany crosses this valley, making a large bend. The newly-discovered tomb is south of the road on the eastern slope of the valley, just opposite the lower quarry where stones are broken for buildings in Jerusalem. All this neighbourhood is of a soft or chalky limestone, and in this the tomb is hewn very exactly and regularly, the lines being straight with exact angles, as is seldom seen. First, on the decline of the hill, the rock is cut down perpendicularly so as to form a court 16 feet wide and long. On the eastern side of this court a doorway, 6 feet wide and 7 feet high, is hewn in the rock, the partition wall being 2 feet 4 inches thick, and two steps downwards lead into a square chamber, 13 feet 4 inches wide and 10 feet deep and high. Flooring and ceiling horizontal. On the eastern side, and close to the bottom, is a doorway 2 feet square in a wall 2 feet and a few inches thick. Towards the west, or outside, the door is widened by three rebates, the outer one forming a kind of cornice and arch over the entrance

Creeping through this doorway and downwards two steps, one comes into a similar, but larger room, exactly square, 13 feet by 13 feet, and more than 8 feet high; looking round one sees on three sides exactly equal-sized *kokim* in the walls, and at the same height as the doorway.

There are four in the northern and four in the southern wall, each 7 feet deep, and three in the eastern wall. Of the latter the one to the right and



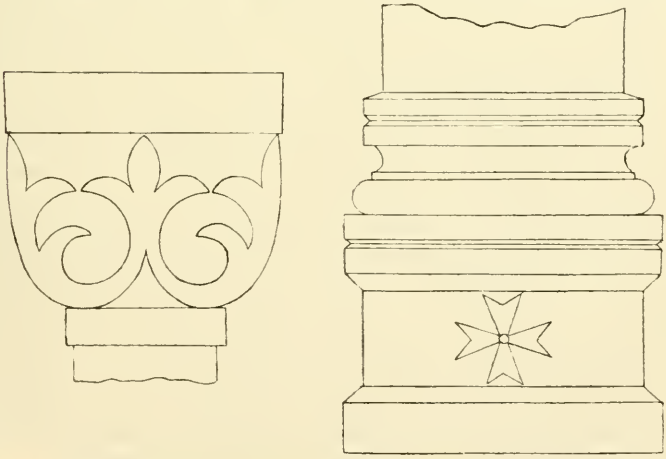


to the left are similar to the others and of the same dimensions, but the middle one is a doorway (opposite the former) in a wall only 1½ foot thick. Each of the ten *kokim* has on its outer end a cutting or fold around it into which a stone slab was fitted, and so the hole shut up. I found these slabs no more before the holes, but lying about, showing that the tombs had been rifled; also I could not see any bones, or inscription, or marks. On the floor of the room there is sunk a pool about 1½ feet deep, and 9 feet by 8 feet wide

Passing through the last-mentioned doorway, and also two steps downwards, one comes to a small and lower room, a kind of ante-chamber, without any receptacle for dead bodies, 6½ feet deep and 6 feet 2 inches wide. Seeing on the eastern wall an opening, the explorer gets the impression that there will be no end of rooms, one behind the other, but on creeping in, and also two steps downwards, he finds himself to be in the last, which is a regular tomb-chamber with three alcoves or niches for dead bodies, on each side one, except the door side. These niches are benches, covered with an arch of rock, as shown in the section. The rest of the ceiling is exactly horizontal. On the bottom there is a pool about 1½ feet deep, 4½ feet by 6 feet wide. The room itself, without the recesses, is 10 feet by 9 feet wide, and 7 feet high. It is remarkable that the floor of each room is about 20 inches lower than that of the one before it, for which there must be some reason. All the rooms could have been made on one level, and with the same effect if the doors had been put 20 inches higher, except perhaps for one thing: in the afternoon the sun's rays can fall even in the innermost chamber as it is now, but if all were on one level this could not be, or at least only at sunset.

Note.—When reporting on the eastern part of the north wall of the city and the new road going down to Gethsemane, I omitted to mention that the rock on which the north-east tower once stood was laid bare. It extends as far west as the bend-point of the modern wall. The present tower, or Burj Lac Lac, is only 37 feet wide, whereas the old one was about 76 feet, or nearly the same size as "David's Tower" and the one found by M. Maus east of the Church of St. Anne. These observations are against the idea that the old city did not extend so much to the north-east, but that the Moslems added this quarter to the old city.

In building shops outside the Jaffa Gate the foundation of the present



town wall was laid bare at another point, and shown also here to stand on

earth and not on the rock, as I reported in a former communication. I observed also a capital and a pillar base which had been found at this spot, built into the modern building, of which I give sketches one-tenth of the real size. The pedestal is of red mizzy stone, but the capital of a whiter and better sort of stone.

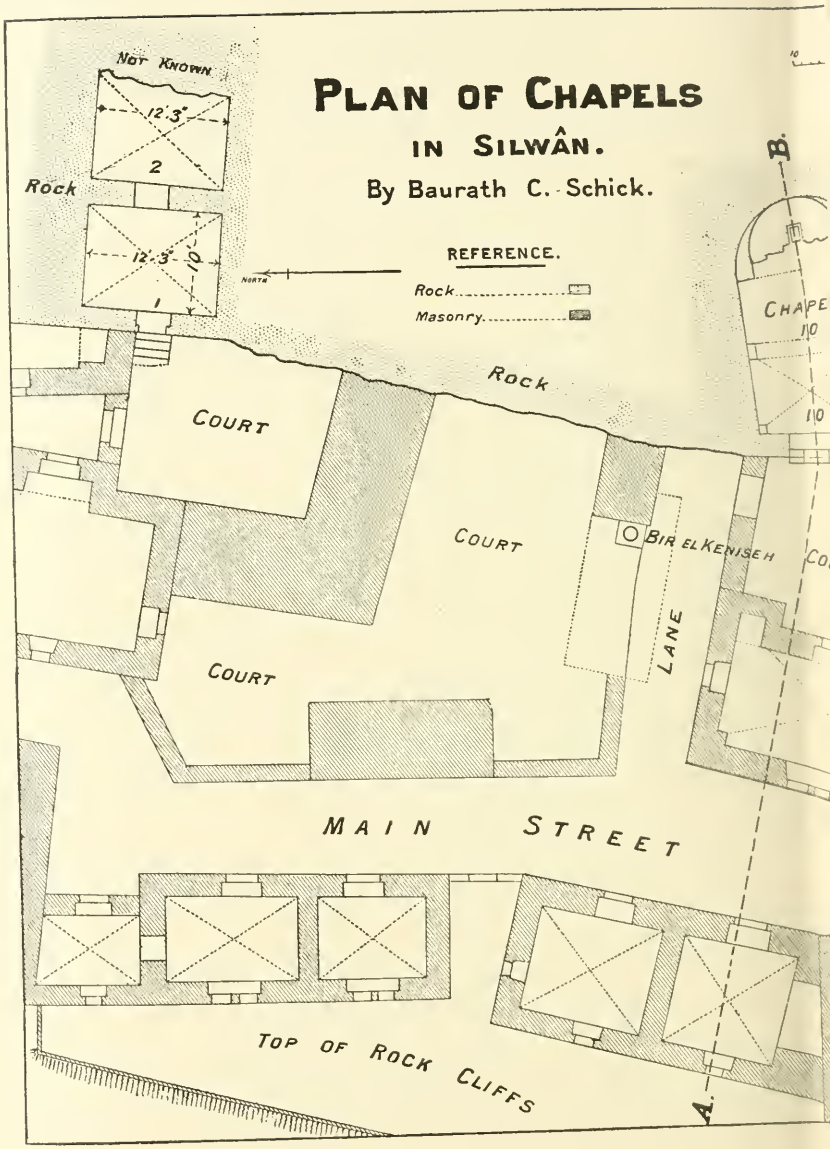
V.

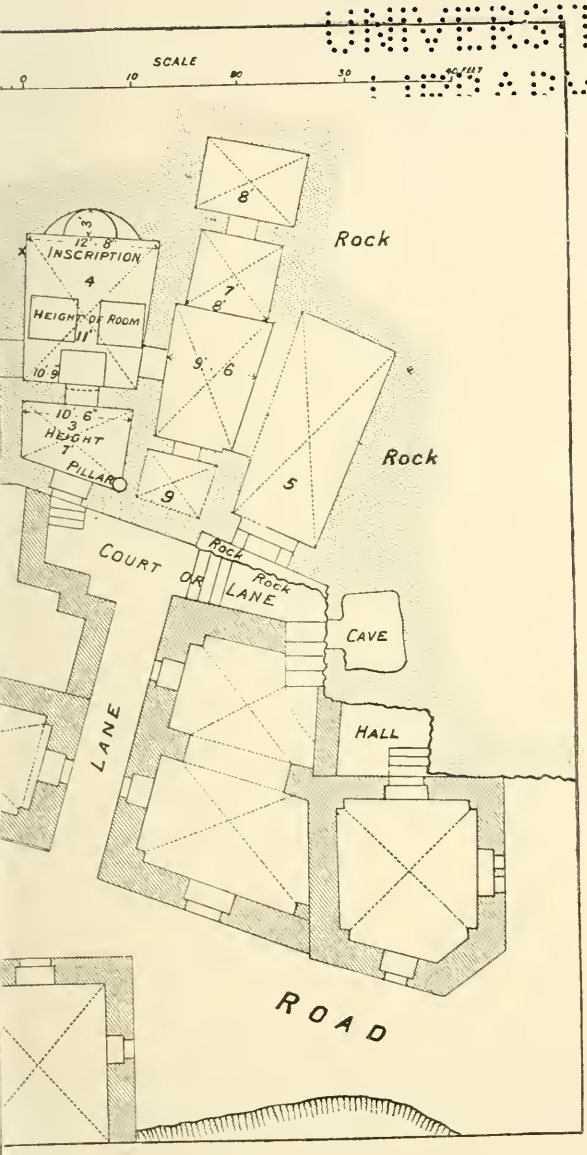
Another Rock-cut Chapel at Silwân.

About ten days ago I was told that more rock-cut chambers had been found in Silwân, the walls of one being covered with old inscriptions. As soon as possible I went down with two of my men, in order to see and examine them. But it was a harder task than we expected. The people told us no such things had been found, or, at least, that they had not heard of it. Going through the village and inquiring, we had already come without result to its other end, and I had become convinced that the chambers which I some time ago examined and reported upon must be meant. However, a man, very likely hoping to get *bakshesh*, at last said he would show us such a place, and so our examination began, and I will now describe the results.

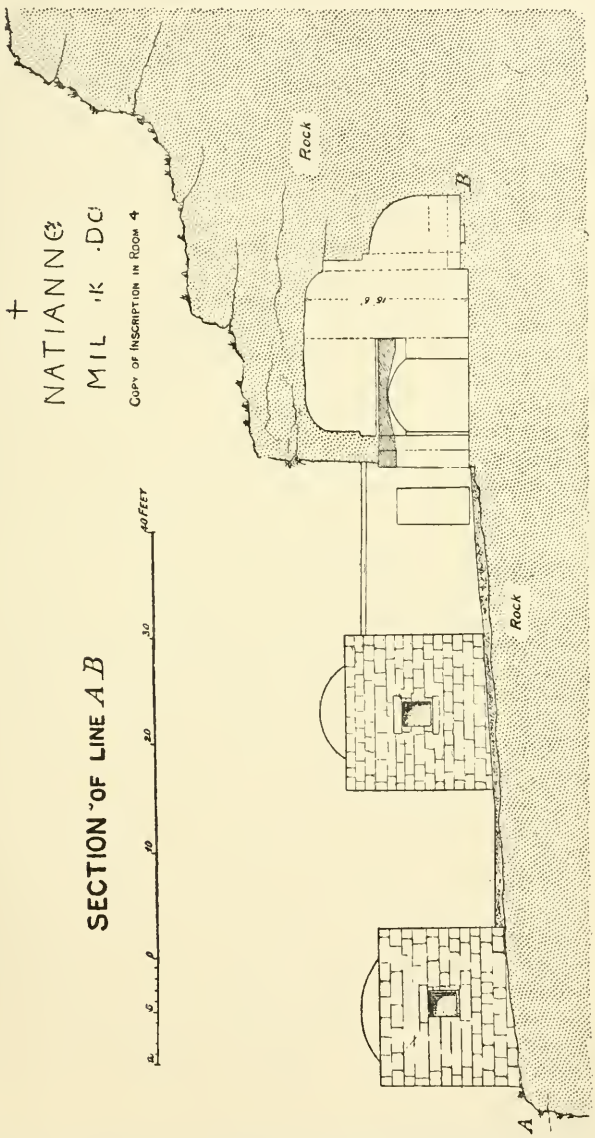
Below the Tomb of Zacharias, in the Kidron valley, the road divides, one branch going down the valley to the Virgin's Fountain, &c., the other eastward and upwards, to the threshing-floor of the village. This is an even horizontal terrace of some size, situated between the lower or western cliff and the eastern and higher one. At its southern end the main road or street of the village begins, having houses on both sides. On the second house on the eastern side there was pointed out to me a depression or niche in the wall, caused by cutting out a large piece of stone bearing an inscription, which had been sold by the proprietor. As the spot is so exposed, that any explorer visiting the village must have seen it, it is probably one already known, and perhaps published. The man went with us a little further, and then in a lane branching off eastwards from the main road, and near its end, showed us a door in the southern wall, passing through which we came into a court, having on its eastern wall, which was formed of the upper rock cliff, a door, which stood open. A child was crying inside, and the mother, appearing at the door, allowed us to enter and see the caves. The child became quiet when taken up, and so we could examine the cave at leisure. It is a double room, one part behind the other, of no special interest. The rooms were never tombs, but chambers for habitation; as people now live in them, so it was from the beginning. They are entirely cut in the rock; the outer 12 feet by 10 feet wide and 8 feet high, the partition wall about 2½ feet thick, with a door in the centre. As there was much "nettish," or brushwood for fuel in it, I could not get its dimensions exactly.

In order that this and my further explanations and descriptions


PLAN OF CHAPELS
IN SILWÂN.
By Baurath C. Schick.
REFERENCE.
Rock
Masonry
NORTH
NOT KNOWN
12'3"
2
12'3"
10'
1
Rock
Rock
COURT
COURT
COURT
BIR EL KENISEH
LANE
MAIN STREET
TOP OF ROCK CLIFFS
A.
B.
CHAPE
110
110



may be better understood, I prepared the adjoining plan of the caves and surrounding houses, also a section and view of one part of



them. As I told the old man this was not what I wanted to see, he said there are some others, not recently discovered ones, but

inhabited, and one of them with an inscription. So we went back into the main road, and about 70 feet southward, in another lane which branches up eastward, we found near the end in its southern wall a door leading into a similar court, and with an opening in the cliff, or eastern wall of the court. This door was locked, so we went back to the main road, and in it, 25 feet further south, came to another lane which branched off eastward (the fourth when counting from the north). This lane ends at the cliff, or high scarp of the rock, in which several doors or openings were visible. Along the cliff is a kind of passage, in the northern corner a few steps lead up to the door of a room, inhabited by a fellah family. On entering, we found this to be a double chamber, entirely cut in the rock, but the outer part arched or vaulted by masonry. The reason of this I could not learn, but very likely it was because of unsoundness of the rock ceiling, for I found this room only a little more than 7 feet high, whereas the inner is much higher. The vault rests for the greater part on the rock walls, but at the south-western corner, on a piece of a granite pillar-shaft. This room is rather small, averaging about 10 feet by 7 feet, of an irregular shape; very likely it had once a door near the pillar leading to the adjoining room, but as the wall is plastered I could not ascertain whether this was so. In the centre of its eastern (the partition) wall is a door like all the inner doors, and the curiosity is that immediately inside the door there is on the floor a pit, 4 feet by 3½ feet wide and 3 feet deep, and close to it further in two similar ones, as will be seen in the Plan. The purpose of these pits is not clear. They were not tombs or graves, being too short and too wide. They were either for keeping water, or storing other things, when the rooms were used as lodging-places, or, perhaps, when for a time this inner one was used as a chapel, bones—not corpses—might be placed there. When the rooms were inhabited these pits required coverings, which must have been of wood, as I found no indication of their having been of stone. The inner room is (without the apse) 14 feet long, 10½ feet wide in the west and 12½ feet in the east, and about 10 feet high. The eastern wall had a regular half-circled apse of 3 feet radius, which at a later time has been much damaged by rock being broken off in the north and south, as shown in the Plan. The floor of the apse is smooth, and about 8 inches above the main floor of the room. The rock looks rather unsound, and is full of small cracks, and, it having been recently white-washed, these cracks and marks of the chisel, or other unevenness, being dark, give the appearance of *writing*. I explained to the proprietor the real state of things, but he still believes the marks to be writing, which only I do not understand. On the north wall, near its eastern end and 7 feet above the ground, there is really a small Latin inscription, which I copied (*see* section), as it was impossible to make a squeeze, owing to the unevenness of the surface.

On the southern wall I could see that there was once a door communicating with the next room, No. 6. The question arises whether this room

has once been a special Christian chapel, as the apse seems to indicate? One is inclined to say, yes! although it cannot be definitely proved, as even a dwelling, or a place where bones were stored, might have a shrine. To me it seems that in the middle ages, or even later, a Convent or Laura of Monks or Anchorets may have been here, using already existing Jewish and Canaanite rock-cut chambers.

When we came out I was told that the key for the southern door had been brought, so we went to it and found the door itself and surrounding masonry to be quite new. A few rock-cut steps lead up from it to a higher ledge, while the way goes horizontally into the room No. 5, which is on an average 9 feet wide, 20 feet long, and about 7½ feet high. It is connected with another room, No. 6, which is on an average 13 feet long, 9 feet wide, and about 9 feet high—a good deal higher than the former. The partition between is only observable on the ceiling; there is not an arch but a kind of ledge projecting a little downwards, and immediately under the ceilings of both rooms there is a cornice all round, the workmanship of which is excellent. On the north wall there is a door, now walled up, which led to No. 4, and also one in its western wall, once leading to No. 9. As I could not go into the latter I give its size on suggestion. On the eastern side of room No. 6 there is a large recess, No. 7, about 8 feet wide, 7 feet deep, and 8 feet high, somewhat lower than No. 6, also this recess has a cornice all round under the ceiling. On its eastern wall is a door leading into another room, No. 8, done in the same way, and 10 feet by 8 feet wide, and about 8 feet high, without any apse or recess. That all these rooms were once human dwellings is without question, and that Christians once lived in them is shown not only by the Latin inscription with a cross over it, but also by a larger cross chiselled into the rock, over the door of chamber No. 5. The cross is that of the Knights of St. John, with 8 sharp points, standing in a double ring, the largest nearly 2 feet in diameter. Over it, on the top of the scarp, there is another room, made of masonry in a partly natural cave. To climb up to it was dangerous for me, and it seemed to be without further interest.

South of room No. 5 the cliff (or scarp) forms a kind of projecting angle and here also a chamber of minor interest and smaller form is cut into the rock. A few steps lead up to another corner now used as a kind of hall or ante-chamber for the next house (*see* Plan). When leaving this place and coming into the main road, followed by a number of people, I was told that the door of No 10 was now open; so we went there. On the north side of the lane and partly under it, there is a cistern, called —as the people told me—Bîr el-Kenîseh, *i.e.*, the "Well of the Church;" it is cut into the rock or built into a cleft, and the arching stones project above the surface of the road. East of its mouth there is a block of masonry of considerable height, its purpose I could not learn, but think it is the covering of a stair leading down into the cistern. Opposite the latter is a door leading to the court already mentioned. Its level is nearly the same as that of the threshold of the door in the cliff leading to No. 10.

This door was also made lower and narrower by masonry. On entering one finds himself in a room 12 feet wide and 7½ feet high, vaulted by masonry, its four legs or resting points on small pieces of masonry, but further in there is a part much higher, 15½ feet, and at the same time also wider, the east wall rounded as a large and regular apse; but in some degree slanting. The floor of the apse is 8 inches higher than the floor of the room, but it is partly broken away now. It had in the centre a square hole about 1½ feet long, 10 inches wide, and 8 inches deep, with groove all round for letting in the cover, which is gone. The apse has on the ground a diameter of 10 feet, but about 1 foot higher, 13 feet 6 inches, with a radius of 6 feet 9 inches, an arrangement which I observed here for the first time. Also its ceiling is unusual, as will be seen from the Section. I found no inscription; perhaps, if the room were whitewashed, some might appear. The people told me there was, formerly, also a communication between these rooms and the others, the whole forming a "Monasterion," as they said. It may be so, but I observed no indications of a door. That this chamber, No. 10, was a chapel, is quite clear.

VI.

Some Excavations on Mount of Olivet.

An English gentleman, Mr. Gray Hill, has recently bought a piece of ground on the northern top of Mount of Olivet, or perhaps already belonging to the Scopus. He intends to make a cistern and to build a house there, also to make a wall round about the land; stone quarrying and excavations are, therefore, going on, and some old remains have been found. First, a small square pool, only 5 feet by 5 feet wide, and about 4 feet deep, hewn in the rock, with its "musfaih," or filter, at the side; further, two caves, hewn in the rock, which were originally Troglodite dwellings; the northern one is a square room, 7 feet 3 inches by 8 feet 6 inches wide, and somewhat over 7 feet high; the roofing no more exists, and its northern wall, in which was the door, is also for the greater part destroyed; in the western and eastern walls are small recesses. The southern chamber is about 105 feet distant from the latter, the pool mentioned above being between them. It is not so regular as the other, is rather larger and of a rounder form; there are also two recesses in the wall, but much larger, and of irregular form; one of these formed the fire-place, as there is a chimney. A stair, forming a kind of trench, led downwards to a square door, nearly 5 feet high, and 2 feet 4 inches wide; three of the steps are preserved. On the western side of this trench, which is about 4 feet 6 inches wide, is a ledge of rock, in which is cut a small channel to carry the surface-water to a small pool 2 feet 10 inches by nearly 2 feet wide, and about the same deep, situated partly

on the side, partly over the room close to the door. These arrangements were made to avoid the surface-water running down into the room, and at the same time to gather it as a supply. The greater part of the roof being gone, the room became in course of time full of earth and *débris*. When this was cleared there were found a pillar-shaft, 13 inches in diameter, and 2 feet $1\frac{1}{2}$ inches long, and many hewn stones of peculiar shape. Further were found pieces of Mosaic flooring, the tesseræ being of white stones, and still holding together; also jar handles and many pieces of pottery, a small metal vessel, some old coins, &c.

VII.

Recent Excavations at Siloah.

1.—*Searching for a second Aqueduct.*

The idea of a "second" aqueduct from the Virgin's Fountain to the Pool of Siloah met with several opponents, although I had found such a one, or at least the southern part of such a one, for a length of about 400 feet, which I reported at the time and referred to on several subsequent occasions (*see* especially *Quarterly Statement*, 1886, page 197, illustrated with plan and sections). As it was desirable to look for traces of this more to the north, and the Secretary wrote to me: "the Committee hope that you will do something in the way of excavation," I made the necessary arrangements and started work in the middle of April, although with only a small number of men, in order to keep down the expenses. As the Committee had not fixed the actual points where I had to dig, I chose them to the best of my judgment, commencing high up on the slope of the Ophel-hill, where I might be in some degree sure to find the rock on a level a few feet above the bottom of the famous aqueduct of the Virgin's Fountain. The point fixed upon is about 190 feet north of my former shaft, C (*see Quarterly Statement*, 1886, page 198, and plan), and at the contour of the present ground, 2,125 feet above the Mediterranean (*see* Sir C. Wilson's Plan of Jerusalem, scale $\frac{1}{2500}$; or Sir C. Warren's portfolio, plate iii).

On sinking a shaft there was found earth for 4 feet, then for about 4 or 5 feet small stones and small stone chippings, so that it was necessary to put in wooden cases; after this, at a depth of 8 or 9 feet, the earth was hard, and we could go down to any depth, the earth being mingled sometimes with stones and boulders. At 27 feet the rock was found at a level of 2,098 feet, falling towards the east, with a decline of 12°, but on the north-west corner of the shaft a scarp was visible 2 feet 6 inches high, and opposite there was masonry, so one might think there had been here an open channel from 2 feet 6 inches to 3 feet wide; but seeing no traces

of any cementing, and at the same time the level being too high, I decided to fill up the shaft, and to make another one 23 feet lower down, as we could not drive a gallery. This second shaft, on a level 2,117 feet, is a little more south, and only 55 feet west of the road in the valley. The nature of the ground was similar to that at the first shaft, and the rock was struck at 35 feet deep, level 2,082. It had a decline towards the east of 25°, which seems to be the average decline of the eastern slope of Ophel-hill. The earth being hard, the workmen undertook to make a gallery towards the site of the first shaft, but as the rock rises rapidly, they had to make the gallery higher and higher, and so gradually filled the shaft again for about 8 feet. Having worked westwards for about 10 feet they came to a rock scarp, on the bottom of the gallery, so the latter was driven further on the surface of the rock to a distance of 16 feet, where a massive wall was met with which the workpeople, without having cased the gallery, would not try to break through. If it is the same which was met in the first shaft it must have a thickness of 5 or 6 feet. I wished now to descend on the scarp, which was rather a difficult work, going on very slowly, and when at 6 feet deep small boulders appeared I had to give up the work. As in this ground, from level 2,082 to 2,094 feet, no trace of an aqueduct was found, I thought very likely the wall above-mentioned, which is situated at the desired height, might be the very aqueduct, and that the scarp might be the wall of a pool, into which the water from the Virgin's Well came; so I thought it best to make a third shaft, south of both, in the position where the wall would be if it went straight, and so come upon the wall, and find the aqueduct, if really there is one. Unhappily no wall was found, nor any aqueduct, but at 30 feet 6 inches deep, on a level 2,091, the rock was met horizontal! Disappointed, I made short galleries on three sides of the shaft, but without success. Convinced that what I looked for was not to be found here I gave up the work, and filled the shafts again.

2.—*Searching for Gate of City of David.*

During the time these three shafts were being made, four others were also sunk, much more to the north, and not in connection with the aqueduct, but rather with a view to find out the old gate of the city of Jebus, the gate at the end of the road coming up from the Virgin's Fountain to the fortress of the Jebusites and the City of David. As in the *débris* on the eastern slope of Ophel many pieces of old pottery are found, the fellaheen sometimes dig in the ground in order to find them for making "hamra" (pounded bricks), which is used for cementing cisterns. Whilst doing this they came to a place where there were walls on two sides, and having observed that further up the hill traces of walls were seen in the same line, I thought that probably this once formed a kind of tunnel, with door at each end, and forming an underground access to the City of David. I wished, therefore, to find out (1) if there were on the bottom steps hewn into the rock; and (2) if there were openings in both

end walls. Shafts were therefore sunk, and the locality carefully examined, but neither steps nor doors were found.

The tunnel is situated just where we should look for one, and runs in the desired direction. It very likely formed an underground approach to the city, which became destroyed, and was not properly restored in later times, but became converted into a pair of rather poor cisterns, which in turn got out of repair and fell to ruins.

C. Schick.

SCULPTURED FIGURES NEAR KÂNÂ.

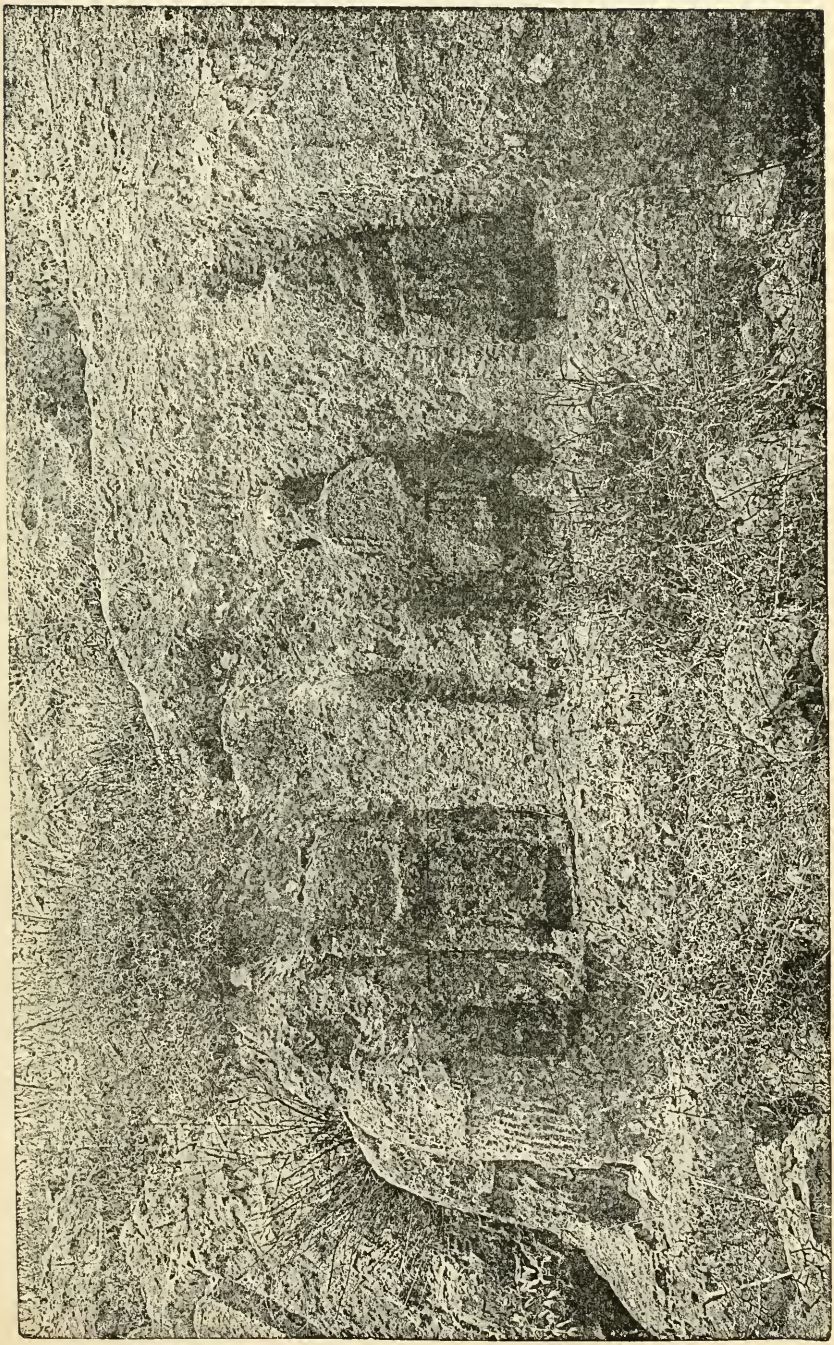
Last Saturday (24th) I returned from my trip to near Tyre, where, in accordance with the desire of the Committee, I had proceeded to photograph the ancient figures mentioned by Guérin and Rénan.

I started at six in the morning from the new Khân Skanderûna, a tolerably clean native inn built close to the sea shore on the site of ancient Alexandroschene, near Râs el Bayâda, and proceeded to the white "ladder of Tyre." This narrow defile, above the steep rocks of Râs el Bayâda, is becoming a rather dangerous path on account of the crumbling rock, masses of which roll down to the road from the overhanging cliffs above and partly narrow the path, partly in their fall ruin its borders on the sea side. It is, too, becoming again a hiding place for highwaymen, who, as I hear, lately committed several crimes here; unfortunately the new "chaussée," which would avoid the Bayâda road entirely and cross the mountain higher up, is not yet finished. I continued the usual road to Tyre along the sea coast, and arrived at Râs el 'Ain at 8 o'clock in the morning. From here I took a directly eastward course, passed the column 'Amud el Atrash, followed the wâdy up to the brackish 'Ain Furâwîyat, left the small village Beit Hûlêi to my right, and arrived in a terrible sirocco heat at the "Kabr Hirâm" at about 9 30. This ancient monument has not been in any way destroyed; the proprietor of it and of the surrounding ground has excavated on the north of the Kabr, and opened a rock-hewn tomb-cave, but the Governor of Tyre stopped his work, so that nothing as yet can be said of the interior disposition of the cave. It seems as if it had a communication with the monument, its entrance not being more than about 3 yards to the north of the Kabr Hirâm. I encouraged the proprietor to continue excavating, but he declared he was not able to do so without a firman. A few minutes later I passed the well-built and populous village of Henâweh, leaving it on the right hand, and continued my road in a south-easterly direction across the rocky shoulder lying between Henâwei and Kânâ, on which here and there remains of wine or olive presses, basins and cisterns, are found. The ride along the rocky road from Henâweh to Kânâ took me 50 minutes.

My object now was to look for the curious figures above mentioned. I enquired, but not one of the exceedingly suspicious and fanatic sect of the Metâweli natives, with whom these mountains abound, would know anything of them. I therefore examined, first, the slopes lying right of the road and west of Kânâ (or Âna, as the natives pronounce it), following thus the guidance of Rénan, as given in the "Memoirs" (vol. i), who says: "turning to the right in the valley," &c.; but I discovered nothing else but cisterns, presses, and round holes in the rocks of the upper slopes which now are used as stone quarries. I also examined the Wâdy Kânâ, north of Kânâ, but without effect. Finally, an old Moslem had an idea that somewhere to the east of the road leading from Henâwei to Kânâ he had seen "tasawîr" (figures) on the rocks, but he was not able to indicate their exact position. I continued nevertheless my researches, and was finally lucky enough to find a large ancient quarry, and below this, along a rock wall bordering the second third of the heights of the steep Wâdy el 'Akkâb, strange figures cut into the rock. The spot where they are found lies, therefore, in following the road from Kânâ to Hanâwei, about one mile north-west of the village of Kânâ, and 200 yards off the road from this spot eastwards down the slope of Wâdy el 'Akkâb.

The vicinity of the antiquities is a very rocky, wild one; the rock walls are built up in great terraces one above the other. I proceeded without delay to photograph the figures, and succeeded in doing so. The figures are carved on the perpendicular and sloping sides of a worked limestone rock *facing east;* all look towards the rising sun. The figures are found on two different rock walls; the first wall above has a length of about 40 yards, along this figures of a very strange appearance are found one by one standing in an upright position; some are shown to the breast, others show merely the head and a long neck. One figure, probably a chieftain, is stretching out his arms as if he was commanding or uttering a benediction; two figures are worked in a corner of the rock and stand on a small pedestal; three others are folding their hands. Every figure, or every group of two or more figures, is surrounded by a round or cornered niche 2 to 3½ inches deep, the relief work on an average projecting 3 inches from the rock. Special attention was paid to a female figure, the only one among all of which the sex can be made out with certainty. It has a female dress falling in folds, the left arm is stretched as if holding a cane, the right arm is hanging down, the head is mutilated as in all the figures. To the left of it, on another portion of rock, there is a probably unfinished figure—perhaps a hieroglyph.

There is another figure, which I hold to be also female. Unfortunately it is worked on a detached piece of rock and is almost entirely weatherworn and broken; but the contour lines of the left arm seem to show a higher skill and art than some of the remaining figures. Among these figures, generally, as above said, surrounded by a niche, we find others which evidently are unfinished; such incomplete figures are seen on nearly every photo., especially on Nos. 5 and 6, and on the general view, No. 7. This upper row represents 20 finished figures and 11 un-



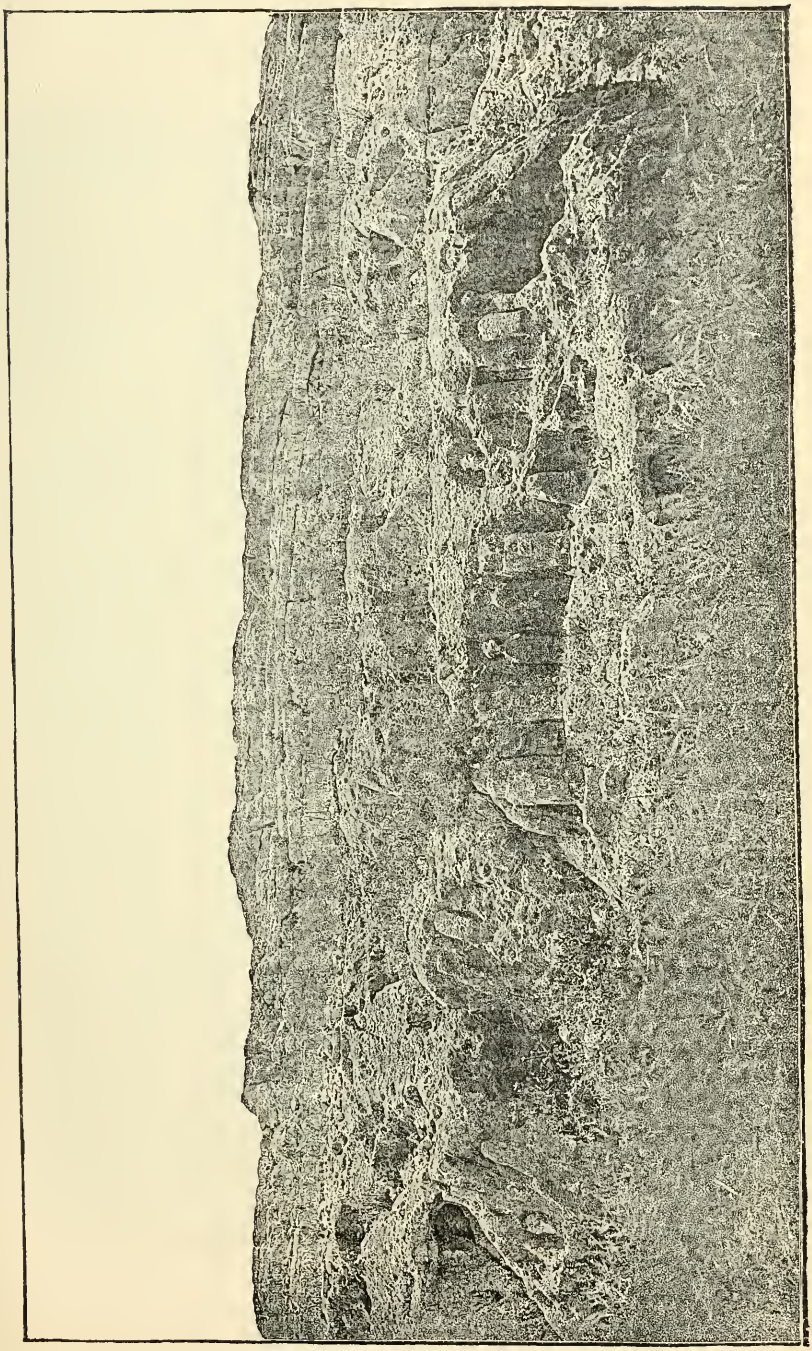
FIGURES CUT IN ROCK NEAR KÂNÂ. (*From a Photograph.*)

finished ones. The figures vary in height from 2 to 2½ feet, most are 2 feet 2 inches high. The work is very rude in general, only two or four figures show a more developed art, but the principal obstacle which prevents a thorough study of these highly interesting figures is the fact that they are without exception almost entirely defaced ; the heads, feet, and fingers broken by human hands, and, as the limestone rock is not very compact, also greatly weatherworn. Most of the figures do not show anything more than outlines ; no physiognomy whatever is discoverable, therefore my thorough search for inscriptions and hieroglyphs was not rewarded by any favourable result. Above the central part of the upper line of figures I discovered on the rock a smooth portion framed by a simple cornice, which may once have contained inscriptions, but now none are discoverable.

The second series of figures is found on a rock wall 25 yards below the above-mentioned ; this rock wall is not straight like the other, but the figures are hewn on the perpendicular sides of a rock of round shape. They face east and south. Whilst we found among the upper row figures showing some skill and art, we could not discover any such art on the figures below ; they all without exception show merely a round ball, representing the head, and a long straight neck placed on the remainder of the body formed by a simple quadrangle. This quadrangle often is not broader than the head, and therefore of a very primitive appearance. Most of the figures are in a niche ; they are in relief of 2 inches to 3 inches. Most of these lower figures are evidently unfinished, and like the upper ones entirely weatherworn.

On photo. No. 9 we find several figures close to each other ; none of them have any peculiarity, only the middle figure is higher than all the rest ; it has a height of 4 feet 3 inches, and stands in an own niche. One figure on photo. No. 8 seems to be of the following shape, but I must confess that I could not make out whether it originally was like all the others of the lower row and defaced by the influence of the weather, or whether it really was of a different kind. Photo. No. 10 shows also some figures of the lower row, which contains in all 15 finished and 12 unfinished figures. I venture to think that the figures of the lower row represent a more ancient period than those of the upper, but it is very difficult to state at what epoch they may have been created. I think Guérin is right in calling them anterior to the Greek-Roman epoch, probably Egypto-Phœnician. The bearing of the upper straight wall is due north-south ; the spot is, according to the barometer, 70 feet lower than Kânâ.

Rénan speaks of a third series of figures hidden in the bushes. I found, 35 yards below the second row, a large natural cave, with a smoothed rock covering it, but no sign of any sculpture ; in fact, I explored the whole vicinity without finding any other works than the above-described. Bushes, in fact, exist no more in this part of the country, the slopes are bare, naked rocks. I also could not find any "sitting divinity," "towards which three men and a woman march in procession," as Guérin



FIGURES CUT IN ROCK NEAR KÂNÂ. (*From a Photograph.*)

states ("Galilee," ii, p. 402), unless the corner figure (photo. No. 1) with the neighbouring figures with folded hands are meant.

My road homewards by the Wâd er Rasâs, the village el Keneiseh, and Mutniyeh, offered nothing of general interest.

SCHUMACHER.

Haifa, *May 29th*, 1890.

THE FIGURES NEAR KÂNÂ.

IT is satisfactory that this point has been cleared up; but the expectations raised by M. Guérin's account have not been fulfilled. I do not think that these figures can be assigned to a very remote period. In size and character, and in their arrangement in niches, they resemble other figures which I have drawn in various parts of Syria.

It is to be observed that they are all full-face, which may be taken as an indication of late date. The Egyptian, Hittite, and Assyrian *bas reliefs*, almost without exception, represent figures in profile.[1] On the other hand, the busts carved on rock of the Greek and Roman period are usually full-faced. If any inscriptions had been found, they would probably have been Greek.

At Abila of Lydanias I copied several such busts over tombs with Greek inscriptions, not earlier than the second century A.D. Near Amman such a bust, but better executed, has been noted in the "Memoirs." The figure from Wâdy et Tin, near Tyre (*see* "Syrian Stone Lore") is of the same type, but rather better executed. Near Es Salt I found a similar pair of busts inside a tomb which had been used as a Christian chapel. The tomb had *loculi* and not *kokim*. Another bust of the same class was found on a tomb of about the second century A.D., which I discovered at *El Kahf*, in Moab.

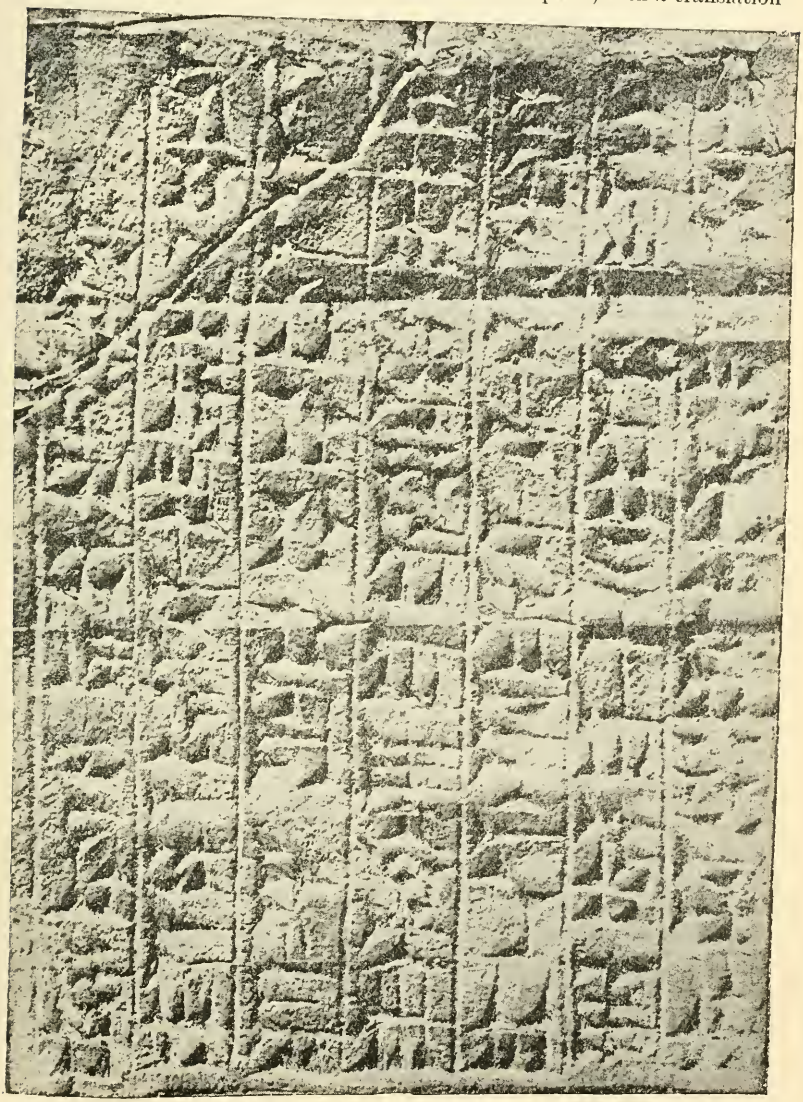
I should suppose that these, as well as the figures lately found at Sairs, belong to the Roman period and represent native work. The Palmyrene statues of the second and third centuries A.D., though much more considerable as works of art, are of the same class of rude native attempts to reproduce classic types, and the great figures found at Tell Nemrûd, on the Upper Euphrates, represent the same style, but are more considerable as art productions dating from the century before Christ. The size of the busts above mentioned is about the same as that of the figures. Still rougher examples of this class were sketched in 1877 by Sergeant Malings, R.E., at the *Mughâret esh Shahl*, near 'Almân ("Memoirs" i, p. 108), over a tomb, and at *Khârbet Yârîn* ("Memoirs" i, p. 185), also near a tomb with *loculi*. These busts may have been intended to represent persons buried in the tombs, and they have no connection with Hittite or true Phœnician art. They may even be as late as the Byzantine age. I found a small statue of the same class at Kadesh, on the Orontes.

C. R. CONDER.

[1] Sir C. W. Wilson reminds me that the Niobe of Mount Sipylos is full-faced. So is one face on the Karnak Monument.

AN ASSYRIAN TABLET FROM JERUSALEM.

I SEND herewith a "squeeze" of an Assyrian inscription, with a translation



of it, which has been kindly made for me by Mr. E. Wallis Budge, of the British Museum.

He states that it is a fragment of an inscription of Sargon (B.C. 721, 705), and comes from that monarch's palace at Khorsabad.

The tablet from which the inscription was taken was found at Jerusalem at the Convent of the Sisters of Sion; and Miss Amy G. Smith, who procured the squeeze of it for me, was informed by them that it had been found many years ago (they thought more than fourteen), when the sisters were making excavations near the Viâ Dolorosa. From that time until last autumn it had been laid aside and neglected. When found it was perfect, but is now broken in half.

T. HAYTER LEWIS.

76. as-kup-pi abnu pi-li [kabuti daadmi kišitti kâtâ-ia]
77. ṣi-ru-uš-šun ab-rig (?) [ma a-šurru-šin ušaashira ana tabraati]
ušalik 4 saru 3 niru [1 šuššu 1½ ša 11 amtu mišiiḳti dûri-šu
78. aškun ma ili šadi-i zak [ri ušaršid timîn-šu]
79. ina ri-e-ṣi [u] arka[ati ina sili killallân miḳrit VIII šâṛî]
80. VIII bâbî apte-ma ilu [Samšu mušakšid irnittia ilu Rammanu mukin]
81. higallia šunu abullu

"With large slabs, hewn out of blocks of stone, upon which I had chiselled representations of the prisoners I had captured in war, I lined the walls, and I set them forth for admiration (or marvelling).

"I made the mass of their walls 16,280 cubits, and I laid their foundation stones upon a rocky bed; in front, and behind, and on both sides towards the eight winds I made eight doors open.

"Samas makes my strength to conquer (?)" and "Rimmon the establisher of my kingdom," called I the names of the doors, &c."

ZOAR.

IT has not been noticed in the *Quarterly Statement* that the Septuagint seems to have considered the Zoar of Gen. xiii, 10 a different place from the Zoar of Gen. xix, 22. In the former passage we read—*ἕως ἐλθεῖν εἰς Ζόγορα*; in the latter—*εἰσῆλθεν εἰς Σηγώρ*. I take it that neither name is declinable, and that Zogora and Segor are not the same place.

This, as far as it goes, confirms the identification of the Zoar of Gen. xiii with Zar. But there is no authority for suggesting that Zar or Zor should be read in Ps. lxxviii, 12, 43. The Septuagint translators must have known the localities in Egypt perfectly well, and in this psalm they read Tanis or Zoan.

J. H. CARDEW.

AN ANCIENT HEBREW WEIGHT FROM SAMARIA.

When recently at Samaria, I purchased from a peasant boy a hæmatite weight of the size and shape here represented. It is flattened on one

ANCIENT WEIGHT FROM SAMARIA.

side, so as to stand on a smooth surface without rolling, and on the upper part there is an inscription in two lines of ancient Hebrew characters.

In the "Athenæum" of August 9th, Professor A. Neubauer writes respecting this weight:

"Professor Sayce has communicated to me the following inscription on a small weight found on the site of Samaria, and purchased by Dr Chaplin last spring: Face 1, רבעשל; face 2, רבענצג; which seems to read רבע של רבע נצג, 'a quarter of a quarter of a נצג.'

"Mr. Flinders Petrie, to whom Professor Sayce communicated this interpretation, writes that he has discovered from other sources that the standard weight of Northern Syria amounted to 640 grains, of which the quarter of a quarter would be 40 grains, that is, exactly the value of the Samaritan weight in the possession of Dr. Chaplin. Whether נצג is derived from the root יצג cannot be decided yet, but the use of של is important at the probable date of the eighth century B.C., which the forms of the characters indicate, and in the northern kingdom. של which is a contraction of אשר ל=ש ל, is found in Canticles, which is considered a production of the Samaritan kingdom, in Jonah, and in Ecclesiastes. The early use of של might perhaps help to bridge over the gulf which Professor Margoliouth has found between classical Hebrew and that of Sirach."

Mr. Petrie adds:—

"In discussing the weights which I found at Naukratis in 1885, I found a standard of 80 grains in common use, and suggested that it might be an eighth of the 5 Assyrian shekels; again, at Defenneh, in 1886, I found the same standard, and I then proposed its identity with the standard indicated by the tribute of the Hittites and Syrians on the Egyptian monuments ('Nebesheh and Defenneh,' pp. 91–2). The weights showed a variation of 77 to 83 grains, and by the tributes I deduced 77 to 80 grains. I concluded that it was five Assyrian shekels halved successively into 320, 160, and 80 grains, and used in Syria and imported thence to Egypt.

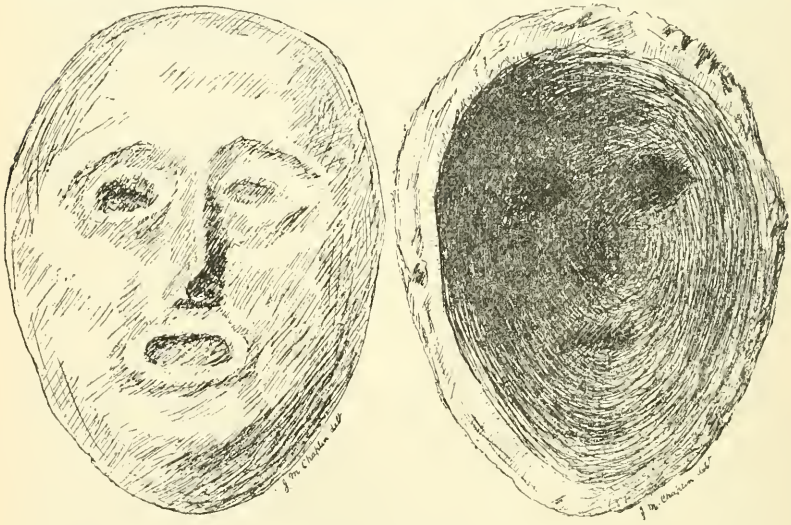
"Now all this, which was a tentative deduction, is exactly confirmed by Dr Chaplin's weight, and explains that weight. It is 39·2 grains,

and is said to be 'quarter of a quarter of a Netzeg.' The Netzeg was, therefore, 627 grains, which is well within the variations of 5 shekels; and it was divided by halving down to a sixteenth. The one-eighth is 73·4 grains, which agrees with the 77 to 80 grains which I had previously reduced for this Syrian standard. So we now know that the Syrian (or Hittite ?) name for 5 shekels was Netzeg."

THOMAS CHAPLIN, M.D

A STONE MASK FROM ER-RÂM.

As I was riding through Er-Râm one day and enquiring for "antiques," a woman brought me a very curious stone mask, which I immediately purchased for a small sum. It seemed, however, that the object was regarded in the village as a sort of talisman which it would not be well to part with, so a number of men ran after me with their guns and demanded it back. Fortunately the Arab is always open to argument, and I had not much difficulty in persuading the men that it was to their own interest, if not for the good of the village, to let me take



STONE MASK FROM RAMAH.

the thing away; and I was soon permitted to ride off with my prize. It is of the variegated reddish limestone of the country, of the shape represented in the drawing, and measures about 7·3 inches by 5·7 inches

R
El
J
Re

Its thickness to the broken tip of the nose is 3 inches. The back is hollowed, and the sockets representing the eyes there are very deep, particularly that on the right side. The place of the mouth also is scooped out behind, but there is no mark for the nose there. The mask seems to have been handled a great deal, as its edges are worn very smooth. Mr. Flinders Petrie thinks it is probably of Canaanite origin.

THOMAS CHAPLIN, M.D.

METEOROLOGICAL OBSERVATIONS.

SARONA, 1889.

THE numbers in column 1 of this table show the highest reading of the barometer in each month; the maximum was 30·185 ins. in December. In the years 1880, 1881, 1884, and 1887, the maximum was in January in 1882 in February, and in 1883, 1885, 1886, and 1888 in December as in this year. The maximum, therefore, has always been in the winter months. The highest reading in the ten years was 30·285 ins. in 1887. The mean of the nine preceding highest pressures was 30·223 ins.

In column 2, the lowest reading in each month is shown; the minimum for the year was 29·494 ins. in July. In the years 1883 and 1887 the minimum was in January, in 1881 and 1888 in February, in 1880, 1884, 1885 and 1886 in April, and in 1882 in July, as in this year; the lowest reading in the ten years was 29·442 ins. in 1887. The mean of the nine preceding lowest pressures was 29·510 ins.

The range of barometric readings in the year was 0·691 inch; in the nine preceding years the ranges were 0·780 inch; 0·711 inch; 0·704 inch; 0·579 inch; 0·757 inch; 0·680 inch; 0·621 inch; 0·843 inch; and 0·743 inch. The mean for the nine years was 0·713 inch.

The numbers in the 3rd column show the range of readings in each month; the smallest was 0·201 inch in August; in 1883 the smallest was in June; in 1882, 1886, and 1888 in August, as in this year; and in 1880, 1881, 1884, 1885, and 1887 in October. The mean of the nine preceding smallest monthly ranges was 0·172 inch.

The largest monthly range was 0·542 inch in December; in the years 1883, 1884 and 1887 the largest was in January, in 1882 in February, in 1881 and 1886 in March, in 1880 in April, in 1885 in September, and in 1888 in December, as in this year. The mean of the nine preceding largest monthly ranges was 0·628.

The numbers in the 4th column show the mean monthly pressure of the atmosphere; the greatest, 29·967 ins., was in November. In the years 1880, 1881, 1882, and 1884 the greatest was in January; in 1883 and 1887 in February; and in 1885, 1886, and 1888 in December. The highest mean monthly reading in the ten years was 30·060 ins. in 1882. The

smallest mean monthly reading was 29·648 ins. in July, this being the smallest reading in any month in the ten years. In the years 1880, 1882, 1883, 1886, and 1888 the smallest was in July, as in this year; and in 1881, 1884, 1885, and 1887 in August.

The highest temperature of the air in each month is shown in column 5. The highest in the year was 102°·0 in April; the next in order was 100° in both May and June. The first day in the year the temperature reached 90° was on March 4th, and on four other days in this month the temperature reached or exceeded 90°. In April on three days, the highest in the year, viz., 102°, took place on the 20th; in May on four days; in June on four days; in July on six days; in August on five days; and in September on four days, when the temperature reached or exceeded 90°; therefore, the temperature reached or exceeded 90° on 31 days during the year. In the nine preceding years the temperature reached or exceeded 90° on 36, 27, 8, 16, 14, 24, 16, 25, and 39 days respectively. In the nine preceding years the highest temperatures were 103°, 106°, 93°, 106°, 100°, 103°, 112°, 100°, and 105° respectively.

The numbers in column 6 show the lowest temperature of the air in each month. The lowest in the year was 38° on December 30th; and on both the 26th and 30th of November the temperature was as low as 40°; thus on only three nights in the year the temperature was as low or below 40°. In the preceding nine years the temperature was below 40° on 13, 2, 13, 2, 9, 3, 3, 15, and 2 nights respectively. In the preceding nine years the lowest temperatures were 32°, 39°, 34°, 35°, 32°, 38°, 37°, 32°·5, and 37° respectively.

The yearly range of temperature was 64°·0; in the nine preceding years the yearly ranges were 71°, 67°, 59°, 71°, 68°, 65°, 75°, 67°·5, and 68°·0 respectively. The mean of the nine preceding yearly ranges was 67°.9.

The range of temperature of each month is shown in column 7, and these numbers vary from 23°·0 in August to 58°·0 in April. In the year 1880 these numbers varied from 25° in August to 53° in both April and May; in 1881 from 29° in both July and September to 51° in May; in 1882 from 25°·0 in August to 47° in November; in 1883 from 25° in July to 62° in March; in 1884 from 24° in February to 51° in April; in 1885 from 22° in July to 52° in March; in 1886 from 26° in August to 55° in June; in 1887 from 27° in July to 54° in April; and in 1888 from 26° in August to 58° in March.

The mean of all the highest by day, of the lowest by night, and of the average daily ranges of temperature are shown in columns 8, 9, and 10 respectively. Of the high day temperatures, the lowest monthly value was 64°·2 in January. In the years 1884, 1885, 1886, 1887, and 1888 the lowest was in January, as in this year; in 1881, 1882, and 1883 in February, and in 1880 in December. The highest, 88°·4, is in July, whilst that in August is of nearly the same value, viz., 88°·3. In the year 1880 the highest was in May; in 1888 in July, as in this year; in

1881, 1883, 1884, 1885, 1886, and 1887 in August, and in 1882 in September.

Of the low night temperature, the coldest or lowest monthly temperature, 47°·8, was in February; in the years 1880, 1882, 1884, and 1888 the coldest was in January; in 1883, 1885, and 1887 in February, as in this year; and in 1881 and 1886 in December. The warmest, 70°·3, was in August; in the year 1885 the warmest was in July; and in 1880, 1881, 1882 1883, 1884, 1886, 1887, and 1888 in August, as in this year. The average daily range of temperature is shown in column 10; the smallest, 15°·2, is in January; in the years 1880, 1883, 1885, 1886, and 1887 the smallest was in January, as in this year: in 1881, 1882, and 1884 in February; and in 1888 in December. The greatest range of temperature in any month was 23°·8 in October; in the year 1888 the greatest was in March; in 1884 and 1887 in April; in 1880 and 1885 in May; in 1881 in June; in 1883 in September; and in 1882 and 1886 in October, as in this year.

In column 11, the mean temperature of the air is shown as found from observations of the maximum and minimum thermometers only. The month of the lowest temperature, 56°·5, was in January. In the years 1880, 1884, 1885, 1886, 1887, and 1888 the lowest was in January, as in this year; in 1881 and 1882 in February; and in 1883 in December. That of the highest, 79°·3, was in August, as in the nine preceding years. The mean temperature of the air for the year was 68°·4, and of the nine preceding years, 66°·4, 66°·7, 65°·5, 65°·7, 65°·7, 65°·9, 66°·8, 66°·5, and 67°·7 respectively.

The numbers in columns 12 and 13 are the monthly means of a dry and wet-bulb-thermometer, taken daily at 9 a.m. In column 14 the monthly temperature of the dew-point is shown, or that temperature at which moisture would have been deposited. The elastic force of vapour is shown in column 15. In column 16 the water present in a cubic foot of air is shown; in December it was as small as $3\frac{3}{4}$ grains, and in August as large as $7\frac{3}{4}$ grains. In column 17 the additional weight required for saturation is shown. The numbers in column 18 show the degree of humidity, saturation being considered 100; the smallest number, 54, indicating the month with the driest air is October; and the largest, 82, indicating the month with the wettest air is January. The weight of a cubit foot of air under its mean pressure, temperature, and humidity, at 9 a.m., is shown in column 19.

The most prevalent wind in January was S., and the least prevalent was N. In February the most prevalent was S., and the least were N., N.E., E., and N.W. In March the most prevalent was S.W., and the least was E. In April the most prevalent was W., and the least were N.E. and E. In May the most prevalent was S.W., and the least were N.E. and S. In June the most prevalent was S.W., and the least were N., N.E., and E. In July and August the most prevalent was S.W., and the least were N. N.E., E., and N.W. In September the most prevalent were S.W. and W., and the least were N., N.E., and S.E. In October the

most prevalent were N., E., and S., and the least were N.E. and S.E.; and in November and December the most prevalent was S., and the least were W. and N.W. The most prevalent wind for the year was S.W., which occurred on ninety different days in the year; and the least prevalent wind was N.E., which occurred on only nine days during the year.

The numbers in column 29 show the mean amount of cloud at 9 a.m.; the months with the smallest are July and October, which are of the same value, and the largest is January. Of the cumulus, or fine weather cloud, there were 109 instances, of which 29 were in August, and 18 in both July and September. Of the nimbus, or rain cloud, there were 52 instances, of which 15 were in January and 11 in December, and only 7 from May to October. Of the cirrus, there were 43 instances. Of the cirro-cumulus there were 23 instances. Of the stratus, 35 instances. Of the cirro-stratus, 9 instances. Of the cumulus-stratus, 2 instances; and 92 instances of cloudless skies, of which 15 were in October, 14 in November, and 13 in July.

The largest fall of rain for the month in the year was 5·85 ins. in January, of which 0·95 inch fell on the 7th, and 0·86 inch on the 26th. The next largest fall for the month was 3·46 in December, of which 0·63 inch fell on the 25th, 0·59 inch on the 22nd, and 0·57 inch on the 11th. No rain fell from the 25th of May till the 21st of September, making a period of 118 consecutive days without rain. In 1880 there were 168 consecutive days without rain; in 1881, 189 consecutive days; in 1882 there were two periods of 76 and 70 consecutive days without rain; in 1883, 167 consecutive days; in 1884, 118 consecutive days; in 1885, 115 consecutive days; in 1886, 171 consecutive days; in 1887 there were two periods of 132 and 63 consecutive days; and in 1888, 118 consecutive days without rain. The fall of rain for the year was 13·50 ins., being 15·18 ins., 3·99 ins., 8·59 ins., 16·56 ins., 5·23 ins., 6·56 ins., 6.59 ins., 3·56 ins., and 15·34 ins. respectively, smaller than the falls of the nine preceding years. The number of days on which rain fell was 50; in the nine preceding years rain fell on 66, 48, 62, 71, 65, 63, 66, 43, and 62 days respectively.

JAMES GLAISHER.

RELATION OF A VOYAGE TO TADMOR IN 1691.

By Dr. William Halifax, of C.C.C., Oxford, Chaplain to the Factory at Aleppo, from the original manuscript in the possession of Mr. Albert Hartshorne.

THE following *Relation of a Voyage to Tadmor* is an exact reprint of a manuscript now in the possession of Mr. Albert Hartshorne, which was obtained in Rome in 1774 by Mr. Thomas Kerrich, afterwards Principal Librarian to the University of Cambridge, and a well-known antiquary and connoisseur of his day.

It appears to be the earliest exact account of Palmyra in modern times that has been preserved. Since it has been set in type, a MS. copy, similarly written, was found in the possession of Mr. E. G. Western. In Mr. Western's copy the following note appears :—"Published in ye Philosophical Transactions of 1695, by Dr. William Halifax, of C.C.C., Oxon., Chaplain to the Factory at Aleppo."

On comparing Mr. Western's copy with the Philosophical Transactions of 1695, it was found that some of the inscriptions in Mr. Hartshorne's MS. were not included in the Transactions. It has, therefore, been decided to reprint the MS., together with all the inscriptions in facsimile.

A RELATION OF A VOY^E TO TADMOR BEGUN Y^E 29TH SEPT. 1691.

THE Name of Tadmor occurring in Scripture among ye sumptuous buildings of K. Solomon, and ye acct. of ruines of an extraordinary Magnificence still remaining there, having bin brought to Alep^o partly by ye inhabitants of ye countrey and partly by those who had occasionally passed by y^t place, together wth its vicinity not being s^d to be above .3. or .4. dayes distant from hence, excited ye curiosity of some of our Merch^ts, together wth Dr Huntington, An^o 1678, to make a voy^e thither : But these Gentlemen were no sooner arrived there at Tadmor, but they fell unhappily into ye hands of a Comp^e of Arabian Robbers, comanded by one Melham, to satisfy whom they were constrained to part wth their very clothes ; wch great los & ye ffright together so palld their curiosity y^t

they staied not to take a more exact survey of ye ancient ruines, but imediately returned home & glad to escape so. Since y^t misfortune tho ye voy^e had bin often discoursed of yet none had ye courage to undertake it, til having obtained a promise of security from Assine K. of ye Arabs, & one of his own people to shew us ye way, on y^e .29th. Sept. 1691, we ventured upon it a second time, making in all ffrankes and serv^ts about 30 men, well armed. The first day of our road pointed S. & by E. & in .4. hours we came to a fountain called Caphor Abiad, leaving old Alep^o about an hour on ye right hand : here we made but a very short stay, but proceded to a better fountain at ye foot of a very high hill covered wth loose stones, ye Ruines of a village called Broeder, of wch there was not one house remaining, & dining there, we advanced in 1¼ hours more in ye afternoon, through a fertile open plain to a place called Emghire, famous for ye best wheat y^t is brought to Alep^o. This we made our first stage, & mount^g again in ye morning about .5. a clock in les than ½ hour past by an uninhabited village called Urghee, our road pointing as before through ye same fruitfull plain even & pleasant : But when we came to ascend ye Hills, when I reckoned we entered ye Desert & were to take our leave of Mankind, at least of an inhabited countrey for some dayes, we had a troublesom passage over loose gr^t stones w^thout any appearance of a road. Our Guide had promised to conduct us through pleasant groves & florests, but no such thing appeared unless we would bestow y^t title upon some low withered shrubs y^t grow in ye way : only one tree we saw wch was of good use to us, serving as a landmarke, & when we were come up wth it, being left at a little distance on ye right hand, we gained ye prospect of a remote ridge of hills before us, & on ye top of one of them an old castle, wch we were told was known by ye name of Gazur Eben Wordan, but what it anciently was, or in what condition it is at present, I could not learn ; therefore not unwillingly I turned mine eyes from it to a little round hill more on ye left, by wch we were to direct our course, & about ¼ hour from wch stood a Sheckes house called Sheck Aitha, where we were to bait, and a well of water by it ; but such y^t we had but little gusto to tast, though it served our horses ; all ye countrey thereabouts is stored with gazells, and there is a barbarous sort of people there, y^t have nothing hardly else to live upon, but what of these they can kill ; & necessity hath taught them to be no mean artists in their way, for they lie down behind ye stones, & as ye poor harmles creature passeth by, shoot them, & though their guns be ordinary, exceeding heavy & thick, wth match locks, & instead of bullets they have only round stones covered wth a thin plate of lead, yet are such excellent marksmen y^t they kill many. This morning we travelled about .5. hours to reach Sheck Aitho's, yet finding nothing to invite our stay there, though there were .4. or .5. tombs not ill made according to ye Turkish mode ; about .1. a clock we mounted again, bending to ye S.E. or somewhat more E. In our way we had 2 remarkable Prospects, one on ye right hand, of ye ruines of an ancient citty called Andrine and sometimes Londrine, wch we were told had bin formerly inhabited by ffrankes, & y^t

there[1] many inscriptions there, but it was too far out of our way, & too dangerous too, for Rogues, for to take a view of them. The other on ye left hand was another Tree, not far from wch our Guide assured us of good water, where we designed to take up our lodging. Y^e^ hopes of y^t^ water made us slight a well we past by, at wch we afterwards repented we had not staied : for when we came up wth ye tree from wch we had declined a great way to ye right, but found our water still at a very great distance, & were constraind to take new directions from a white chalky hill, almost as far as we could see, & yet not much beyond ye place y^t^ was to be our stage : on therefore we proceded, til sunset very weary, & almost w^thout hope of coming to water y^t^ night, tho at ye same time near dead wth thirst, & what ye more surprised us, our guide was advanced a great way before, out of our sight, upon w^t^ design we knew not : but upon his return we found it was only to assure himself ye better of ye way, & in an hour or two he brought us to ye side of a Bog called Zerga, where such as it was we had water enough ; but it was neither palatable nor wholesom, neither did ye ground seem proper to sleep on, yet we were forced to be content, there being no removing hence y^t^ night.

Oct. 1*st.*—We dep^td^ from Zerga about .2. hours before sunrise, & as soon as it was light had ye Prospect of a very high hill, wch was to be ye bounds of our travell y^t^ day : to this we made as directly as we could look, finding nothing in our way observable, except a multitude of holes made in ye sandy earth by ratts, serpents, & other animalls, wch rendred our riding a little troublesom, as we had found it on ye same acc^t^ ye afternoon before about .2. hours short of our Stage we were shewn .3. little round hills lying to ye right in a direct line, known by ye name of Tenage, where we were told there was good water, & it is for y^t^ reason only they deserve ye notice of those y^t^ travel throw such a thirsty desart : ye place to wch we directed our course was called Ezree, where we found to our great satisfaction y^t^ our guide had not deceived us in his promise of excellent water : here we could discern ye ffoundations of a spatious citty, & a piece of a thick wall built of a chalky stone was standing, wch we judged to be ye remaind^r^ of a Castle situate of a hill, so as both to defend & comand ye citty : on ye top of ye hill above ye Castle stands ye ruines of a ffabrick in appearance very ancient, built of a hard stone, yet exceedingly worn out by ye weather : it is of an oblong figure pointing near to ye N.E. & S.W. wth only only one door in ye E. end, wch was once adorned wth extraordinary good carvings, of wch some yet remain, but ye greatest part is either worn away or purposely defac'd, & those markes of antient beauty y^t^ rem^e^ are very obscure ; the outside of ye wall is beautified wth Pilasters quite round, wth their Pedestalls & Capitalls regular & handsom ; but ye roof is all fallen down, & w^thin^ appears nothing wch lookes like either great or beautiful ye situation & placing of ye door hindreth one from conjecturing it to have bin a Christian oratory or chappel, & therefore in probability it must have bin a heathen temple ; & if so, then ye piece of

[1] *were*, evidently omitted : M.S. p. 3 ; line 9 from top.

ye Castle being of a softer stone must be much more modern. The goodnes of ye water brings ye Arabs wch rove up & down this Desart, & ye Turkmen frequently hither, wch hath occasioned a great many graves about this temple, & some have had leisure, & what is more difficult to be imagined skill enough to scartch in ye walls ye first letters of their Names, & many other words in Arabick caracters, wch we could make nothing of no more then of an Arab Inscription wch lay hard by, but appeared not ancient.

Oct. 2d.—We dep^td from Ezree about 1½ hour after midnight, and in 6½ hours arrived at .2. wells of water .18. ffathom & .2. foot deep known by ye name of Impnalea giub : through ye greatest p^t of this Stage we had a beaten road, & where y^t was not discernible we guided our selves by a ridge of chalky Hills under wch ye wells lay. The water we found exceeding bad, of so noisom a scent y^t we could not endure it so much as at our noses : wch made our guide laugh at us, who told us ye Arabs, and even ye K. himself used to drink freely of it, wch I am sure our horses would not doe, though they were under a necessity of drinking y^t or none : as for our selves we had brought sufficient from Ezree for one day at least : in our way hither we were shown ye true Plant wch they burn for soap ashes, wch has no leaves, but a soft juicy stalk shooting into several branches & something resembling our Sampierre, only it is more round then y^t. Y^e ashes likewise we saw wch were made not far from ye wells, wch in burning run into cakes, not much unlike ye cinders of a forge, only they are heavier, not so full of pores nor so hard as they. In ye afternoon we proceeded on our voy^e 2½ hours to a place called Almyrrha, passing rather between then over ye Hills, tho we had something of an ascent too : this we did to shorten our stage next morning, for we were told before hand we should find no water on those mountains, so for our selves we lived y^t night upon our old stock, & our horses were constrained to pass ye night w^thout water ; our journey had bin hitherto altogether southerly, & but little varying to ye E. of ye S.

Oct. 3d.—We mounted from Almyrrha between .5. & .6. in ye morning, making to ye point of a high ridge of mountains through an uneven Desart way, frequently interrupted wth guts & channells, probably made by ye descent of sudden rains : we came to ye ascent after about .4. hours travell, wch we found not difficult, & when we were on ye top we had a pleasant prospect of ye Countrey, & what we rejoyced in most, we were shewn a little hill behind wch we were told lay Tadmor : this mountain was covered on both sides wth great plenty of Turpentine trees, wch was an object very pleasing, having seen but very few greens in our whole journey. This tree growes very thick & shady, & some of them we saw loaden wth a vast abundance of a small round nut, ye greatest use whereof is to make oil (tho some eat them & acc^t them as great a regalio as Pistachee) their outward husk is green & more oily then y^t of Pistachees, & w^thin a very thin shell is containd a kernell both in color & rellish very much resembling them, but those y^t eat them seldom take ye pains to search for ye kernell but eat husk, & shell & kernell & all together

wch have no ungrateful tast: from this hill we had a tedious descent, & coming at ye foot met a narrow gut, winding this way & yt way between ye Mountains; our passage seemed long, hot & tiresom: our want of water however obligd us to proceed, whereof we now began to be in great necessity, especially for our horses & mules, wch had had none ye night before nor all yt day: wth this we had hopes of being supplied .2. different wayes: having had a showr of Rain ye night before, we hoped to have found water in ye Hollowes of ye Rockes, but either ye Rain had not reached so far, or not in such plenty, as to fill those naturally hewed cisterns: our other expectacon was from ye Wells yt were in ye road, but these, our guide advancing before & examining met us wth ye unwelcome newes yt they were all dry, & yt ye best advice he could give us was to pitch where we were, & content our selves wth ye remains of what we had brought .2. dayes in our Caravelts til our horses & mules might be led to a fountain .2. hours out of ye way, & being watered there ymselves bring a fresh supply for us: this was wth some difficulty assented to as most eligible: we resolved therefore to send our guide first wth one or .2. of our servts in search of ye water, & afterwards others wth our horses, while in ye mean time we pitched our Tent, it being then about .2. in ye afternoon: As soon as they were gone, a small drisling rain wch we had had for ½ hour encreased to a very plentiful shower, wch put us on producing all ye vessels we had to catch it as it fell from ye heavens, or ran down ye skirts of our tents, our horses at ye same time greedily sipping it from ye ground; but we might have spared our pains, for in les then an hours time, our camp was in a manner afloat, & we were furnished wth water not only for us sufficient, but for an army of .20/000. men: those hollow gutts we passed over wthout ye least appearance of moisture, were by ye cataracts wch descended from ye mountſ become rivers, & a cavity wch those servantſ we had sent out passed over dry, was swoln to such a torrent, yt they were put to some difficulty to repas it; so plentifully was God pleased to provide for us in our greatest strait: & what encreaseth both ye wonder & ye mercy, ye next morning when this quantity of rain was past away, in about .2. hours riding we could hardly discern yt they had had any rain at all. This memorable place is known by ye name of Al withal.

Oct. 4th.—ffrom Al withal we proceeded for Tadmor, some of ye ruines of wch we ꝑswaded our selves we could see ye day before, ꝑhaps it might be ye Castle, wch is more than ½ hour distant from ye citty: our way lay Sd, but ye gut in wch we travelled, would not ꝑmit us to keep a direct course: however, in about .1. hours walk we passed by ye Anter Mountains (our guide called them Tul Anter) through a gap or Rent, both sides of wch so exactly answered one to ye other, they would tempt a man to believe they were separated by art for an Entrance into ye Countrey; but it must have bin a work of prodigious labor & charges to cut through such vast Mountſ: & if any one was so hardy as to attempt it, he must certainly have grown weary of his undertaking, for ye ground is levelled but a very little way & almost as soon as we were well got wthin ye open

space, we were obliged to ascend another hill ; & so our road continued through hills & valleyes interchangeably all ye way. On ye left hand, at some distance from ye road, we saw a Shecke's house on ye top of a high hill, wch made a better shew then usually those buildings doe ; but being assured by our guide it was a modern structure, and eager too to come to ye principal place we aimed at, we would not prolong our stage so much as to turn out of ye road to see more of it ; so pressing still forwards we hardly proceeded .4. hours, when we came to ye brow of a rocky Mountain, separated from y^t^ whereon stands ye Castle of Tadmor, but by a narrow valley : In wch hill by ye way appeared some quarryes of very fine stone wch probably might afford Materials for ye curious buildings in ye Citty. Our guide here according to his accustomed diligence advanced some few paces before, & having espied .3. or .4. countrey fellows driving asses towards us, he caused us to make a short halt, to give them opportunity to come nearer to us, resolving to speake wth them to know whether ye coast was clear or any of ye Mountain Arabs then at Tadmor or not : after a little space, wth our arms in our hands, we marched in as good ord^r^ as ye way would pmit, down a rocky & steep precipice into ye valley, & our guide making greater speed then we could, galloped after ye poor affrighted countrey fellowes who seeing such a comp^e^ unexpectedly descend ye hill, left their asses, & fled towards ye citty with all speed possible : But they were soon overtaken & brought again to us, to whom they related ye good newes y^t^ there was no force at all in Tadmor, y^t^ we might proceed wth courage & see what we would wth all safety, wch newes obtained them their liberty to return again to their asses, & we continued on our way in good ord^r^. As soon as we came under ye Castle, we could easily discern y^t^ it was no old building, retaining no footsteps of ye excellent workmanship & ingenuity of ye antients, & upon enquiry we were informed y^t^ it was built by Man Ogle, a Prince of ye Druses in ye reign of Amurath ye 3^d^, who florished An^o^. 1588, but I know not how to give cred^t^ to ye story, because I find not this Man Ogle or any Drusian Prince was ever powerful in these parts, their strength lying in Mount Lebanas, & along ye coast of Sidon, Barute, &c. It is a work of more labor than art, & ye very situation alone is enough to render it almost impregnable, standing on ye top of a very high hill enclosed wth a deep ditch cut out of ye very rock, over wch there was only one sole passage by a draw bridge : its bridge too is now broke down, so y^t^ now there is no entrance remaining except you will be at ye pains to clamber up ye rock, wch is in one place feasible, but w^thal^ so difficult & hazardous y^t^ a small slip endangers yor life ; nor is there any thing w^thin^ it to be seen sufficient to recompence ye trouble of getting up to it, ye building being confused, & ye rooms very ill contrived ; upon ye top of ye hill is a well of a prodigious depth, as certainly it must be a great way to come to water from ye top of such a rock, ye ditch y^t^ surrounds it not having ye least appearance of moisture therein, wch made it therefore seem more strange y^t^ a wild Boar should rush out thence amongst our horses when we rode up to take a more par-

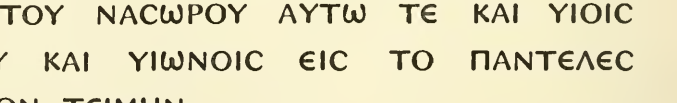
ticular view of ye place. This Castle stands on ye N. side of ye town, & from hence you have ye best prospect of ye countrey al about: you see Tadmor under you enclosed on .3. sides wth long ridges of Mountains wch open themselves towards ye E. gradually to ye distance of about an hours riding; but to ye S. stretcheth a large plain beyond ye reach of ye eye: in ye plain you see a large valley of salt affording great quantity thereof, lying not above an hours distance from ye citty, and this more probably is ye Valley of Salt, mentioned 2 Sam. 8. 13, where David slew .18000. Syrians then another wch lyes about 4 hours from Aleppo, wch has sometimes passed for it. The air is good, but ye soil exceeding barren, nothing green to be seen therein save some few Palm trees in ye gardens here and there above ye Town, & from these trees I conceive it obtained ye name, both in Hebrew, Tadmor wch signifies a palm tree, & in Latine, Palmyra, & ye whole countrey is from thence denominated Syria Palmyrena. & sometimes Solitudines Palmyrenæ, or ye desarts of Palmyra, so y^t ye Latines did not change, but only translate ye old name, wch therefore still obtaines in these Eastern parts, and ye more modern is wholly unknown.

The Citty it self appears to have bin of a large extent, by ye ruines y^t lie scattered here & there at a good distance one from ye other but there are no footsteps of any walls discernible, nor is possible to judge of ye antient figure of ye place. The present inhabitants as they are poor miserable dirty people, so they have shut themselves up to ye number of about 30 or 40 families in little huts made of dirt w^thin ye walls of a spacious court, wch inclosed a most magnificent heathen Temple. Hereinto also we enterd, ye whole power of ye village if I may so call it, being gathered at ye door, whether to stand upon their defence in case we proved Enemies, for some of them had their guns in their hands, or meer curiosity to stare upon us I know not: however our guide being a man known among them, we had an easy admittance, & wth a great many welcomes in their language, were conducted to ye Shecke's house, wth whom we were to make our abode & to mention here what ye place at first view represents, certainly ye world it self canot afford ye like mixture of ye remains of ye greatest state and magnificence together wth ye extremity of filth & poverty: ye nearest parallel I can thinke of is ye Temple of Baal destroyed by Jehu, & converted into a draught hous 2 Kin: 10, 25, and if, what is not improbable, this was a temple of Juppiter Belus ye similitude will run upon all four. Being thus lodged in this place I shall begin wth ye description thereof, & then proceed to what observed remarkable w^thout. The whole space enclosed is a square of 220 yards each side encompast wth a high and stately wall, built of large square stones & adorned wth Pilasters w^thin & without to ye number, as near as could be computed of w^t is standing of ye wall wch is much ye greater part, of .62. on a side, & had not ye barbarity of ye Turkes, Enemies to every thing y^t is splendid & noble, out of a vain superstition purposely beat down these beautiful cornishes both here & in other places, we had seen ye most curious and exquisite carvings in stone,

wch phaps ye World could ever boast of, as here and there a small remaindr wch has escaped their fury doth abundantly evidence. The West Side wherein is ye entrance is most of it broken down, & near ye midle of ye space, another higher wall erected out of ye ruines wch shewes to have bin ye ffront of a Castle, strong but rude, ye old stones, & many pillars broken or sawed asunder being rolled into ye ffabrick & but ill cemented. Wthin were to be seen ye foundations of another wall, wch probably might answer ye ffront, & yt ye Mamalukes, whose workmanship it is most likely it must have bin, built ye Castle here for ye security of ye place Before ye whole length of this new ffront except a narrow passage, wch is left for an Entrance is cut a deep ditch, ye ascent whereof on ye inner side is faced wth stone to ye very foot of ye wall, wch must have rendered it very difficult to assault it. The passage to, & ye door it self, is very narrow, not wider than to receive a loaded camel, or yt .2. footmen may walke abrest, & as soon as you are wthin ye first door, you make a short turn to ye right & pas on a little further to another of ye like bignes wch leads into ye Court: but all this is but a new building upon an old, & by ye outward wall is quite shrouded ye magnificent entrance wch belonged to ye first ffabrick, of ye statelines whereof we were enabled to judge by ye 2 stones yt supported ye sides of ye great gate, each of wch is .35. foot in length, & artificially carved wth vines & clusters of grapes very bold and to ye life: they are both standing in their places, and ye distance between them, wch gives us ye wideness of ye gate, is .15. foot. But all is now walled up to ye narrow door before mentioned. Over this little door there is an Inscription in Greek, & also another in another language & caracter, wch I never saw til in Tadmor: from yt we hoped for some information; but it will be evident to any yt reades it that ye stone was brought from another place & casually put in there; it is thus—

ΤΟ ΜΝΗΜΕΙΟΝ ΤΟΥ ΤΑΦΕΩΝΟϹ ΕΚΤΙϹΕΝ ΕΞΙΔΙΩΝ ϹΕΠΤΙΜΙΟϹ ΟΔΑΙΝΑΘΟϹ ΟΛΑΜΠΡΟ-ΤΑΤΟϹ ϹΥΝΚΛΗΤ[ΙΚΟϹ] ΑΙΡΑΝΟΥ ΟΥΑΒΑΛΛΑ-ΘΟΥ ΤΟΥ ΝΑϹΩΡΟΥ ΑΥΤΩ ΤΕ ΚΑΙ ΥΙΟΙϹ ΑΥΤΟΥ ΚΑΙ ΥΙΩΝΟΙϹ ΕΙϹ ΤΟ ΠΑΝΤΕΛΕϹ ΑΙΩΝΙΟΝ ΤΕΙΜΗΝ.

Underneath this was ye unknown caracter as well as it could be taken—



The Є in MNHMEION is not upon y^e stone, but was doubtless omitted by mistake, & y^e Inscription nothing else but y^e inscription of a Sepulture, ye like to which we saw several, & shall have occasion to mention some of them hereafter; & as for ye other caracter, it being added almost under every Greek inscription we saw, & very rarely found alone, I am apt to beleive it ye native caracter & language of ye place, & ye matter it containes nothing else, but what we found in ye Greeke. As soon as you are entered wth in ye Court, you see ye remaind^rs of .2. rowes of very noble marble pillars, 37 foot high, wth their capitalls of most excellent carved work, as also must have bin ye cornishes between them, before by rude & supstitious hands they were broken down: of these there are now no more than 58 remaining intire, but must have bin a great many more for they appear to have gone quite round ye whole court, & to have supported a most spacious double Piazza or Cloyster of this Piazza ye walk on ye west side, wch is opposed to ye ffront of ye temple, seems to have excelled ye other in beauty & greatnes & at each end thereof are .2. niches for statues at their full length, wth their pedestals, borders, supporters, & canopyes carved wth ye greatest artifice & curiosity. The space w^thin ye once beautifull inclosure, now filld with nothing but filth and vermin, I conceive to have bin an open court, in ye midst whereof stands ye Temple, encompassed wth another row of pillars, of a different ord^r & much higher than ye former, being about .50. foot high: of these remain now but .16., but there must have bin about double y^t Number, wch whether they inclosed an inner Court, or suported a Cloyster is uncertain there being nothing of a roof remaining, only one great stone lies down wch seems to have reached from ye row of pillars to ye wall of ye Temple. The whole space contained w^thin these pillars we found to be .59. yards in length, & in breadth near .28. In ye midst of this space is ye temple, containing in length more than .33. yards, & in breadth about .13. or .14.. it points N. & S., having a most magnificent Entrance on ye W. exactly in ye midle of ye building, wch by ye small remaines yet to be seen seems to have bin one of ye most glorious structures in ye world: I never saw clusters of grapes cut so bold, so lively, so natural in any place; and we had doubtles seen things abundantly more curious, if they had not bin malitiously broken to pieces: Just over ye door we could make a shift to discern p^t of ye wings of a large spread Eagle, extending ye whole widenes thereof, ye largenes of wch led me at first to conjecture it might have bin a Cherubin overshadowing ye entrance there being nothing of ye body remaining to guide ones judgm^t, & some little angells or cupids appearing still in ye corners of ye same stone: But afterwards seeing other Eagles upon other stones wch were fallen down, I conclude this must have bin one likewise, only of a much larger size. Of ye temple there is nothing now but ye outward wall standing: in which it is observable y^t as ye windowes were not large, so they were made narrower at ye top than below. W^thin these walls ye Turkes have built a roof suported by small Pillars & arches, but a great deal lower as well as in all other respects disproportionable

& inferior to what ye ancient covering must have bin, & have converted ye place into a Mosque, and to ye S. end of this they have added new ornam^ts. after their manner wth Arab inscriptions, & sentences out of ye Alcoran written in fflourishes & wreaths and not without art But at ye N. end of ye building wch is shut out of ye Mosquee, are reliques of much greater artifice and beauty: whether they were in ye nature of Canopies placed over ye altars there, or to w^t other use they served I am not able to conjecture: they are beautified wth most curious ffretwork & carvings in ye midst of wch is a Domo or Cupola above .6. foot diameter, wch we found above to be of one piece, whether hewed out of a rock intire, or made of some artificial cement or composition by time hardened into a lapideous substance, seems doubtful, tho I am rather inclined to believe ye latter: It is in fine a most exquisite piece of workmanship, & on what I could have bestowed more time in viewing then what was allowed us, hastning to other sights.

Having taken a survey of ye Temple we went abroad, where our eyes were presently arrested wth an amazing sight of a multitude of marble pillars, standing scattered up & down for near a mile of ground this way & y^t, but so dispersed as to afford no solid ffoundation to judge what sort of ffabricke they formerly made. I past by ye ruines of a mosquee wch directing our course N.ward, was ye first thing occurred to our view, after we came out of ye court of ye Temple, wch tho of a more artificial frame & composure then many I have seen yet is not worthy to stop us in ye way to things both of greater antiquity, & every way more noble and worthy of consideration. Having therefore past this, you have ye prospect of such magnificent ruines, y^t if it be lawful to frame a conjecture of ye original beauty of ye place by what is still remaining I question whether any citty in ye world could have chalenged precedence of this in its glory: But it being impossible to reduce them to any regular method, I must be forced to give you a rude acc^t of them as they come in sight, and wch will fall much short of ye greatnes & statelines wch they shew. Advancing then towards ye N. you have before you a very tall & stately Obelisk or Pillar, consisting of .7. large stones besides its capital, & a wreathed work above it, ye carving here as in all other places being extraordinary fine: ye height of it is above .50. foot, & upon it I conceive may have stood a statue, wch ye Turkes (zealous Enemies of all Imagery) have thrown down and broken in pieces. it is in compas just above ye pedestal .12.½ foot. On each hand of this towards ye E. & W. you see .2. other large Pillars, each a quarter of a mile distant from you, wch yet seem to have some correspondence one to ye other, & there is a piece of another standing next to y^t on ye E. wch would incline one to believe there was once a continued row of them. The height of this to ye E. I tooke wth my quadrant & conclude it to be more then .42. foot high, & ye circumference is proportionable. upon ye body thereof is this following inscription

Η ΒΟΥΛΗ ΚΑΙ ΟΛΗΜΟϹ ΑΛΙΛΑΜΕΝΑ ΠΑΝΟΥ ΤΟΥ ΜΟΚΙΜΟΥ ΤΟΥ ΑΙΡΑΝΟΥ ΤΟΥ ΜΑΘΘΑ ΚΑΙ ΑΙΡΑΝΗΝ ΤΟΝ ΠΑΤΕΡΑ ΑΥΤΟΥ ΕΥϹΕΒΕΙϹ ΚΑΙ ΦΙΛΟΠΑΤΡΙΔΑϹ Κ[ΑΙ] ΠΑΝΤΙ ΤΡΟΠΩ [ΕΥ]ϹΕΙΜΩϹ ΑΡΕϹΑΝΤΑϹ ΤΗ ΠΑΤΡΙΔΙ ΚΑΙ ΠΑΤΡΙΟΙϹ ΘΕΟΙϹ ΤΕΙΜΗϹ ΧΑΡΙΝ ΕΤΟΥϹ Ν̅ Υ̅ Λ̅ ΜΗΝΟϹ ΞΑΝΔΙΚΟΥ.

& under this was ye caracter & language before menc̃oned, wch not being understood was neglected. I pswade my self it would be but lost labor to spend time in making reflections upon this or ye foll; inscriptions, as for ye knowledge they may exhibit to ye world, yor own thoughts will more happily lead you into it, then any thing I am like to suggest: it seems however evident they were a free State, governed by a Senate & people, tho phaps under ye protection of greater Empires, ye Parthians first & afterwards ye Romans, who for a long time contended for ye mastery here in ye East: & this governm^t might continue among them til about ye time of Aurelian, who destroyed ye place, & led Zenobia, wife to Odenatus, captive to Rome, who tho shee be called Queen, yet I find not y^t ever her husband had ye title of King,(*a*) but was only one of ye chief inhabitants, a leading man in ye Senate (as it is probable this Alilamenes & Airanes were afore him) who while ye Romans were busied in Europe made himself great here, & by his own force repelled ye Parthians, who having mastered whatever was held by ye Romans on ye other side of Euphrates, made an incursion into Syria, but were by Odenatus beaten back beyond ye river. In ye course of these warrs Odenatus was slain, but his wife Zenobia being a woman of a masculine spirit, not only kept her ground against her enemies abroad, but maintained her authority at home, keeping ye government in her hands: afterwards, out of a desire to cast off ye Roman yoke, she caused ye whole garrison, wch was left there by Aurelian, to be barbarously cut of, wch bringing Aurelian back wth his army, he quickly tooke ye citty & destroyed it, putting ye inhabitants to ye sword, & carrying Zenobia captive to Rome. This custom of theirs, of running their pedigrees up to y^e .4.th or .5.th generation, shewes them to have borrowed some of their fashions from their neighbors ye Jewes, wth whom they had doubtles of old great commerce, & prhaps many of them were descended from y^t people, Zenobia her self being said to have bin a Jewesse; or else this must have bin ye manner of all ye Eastern nations. Their æra, or acc^t of

(*a*) He was saluted Cesar by ye army in his warrs ag^st ye Parthians, & was one of those 30 Tyrants who usurped ye Empire under Galdenus, & were suppressed by Fl.: Claudius.

time, they begin from Alex^{r} ye Great, as ye Syrians generally doe, y^{e} very Xans at this day foll. y^{e} same usage : yet tho they marke y^{e} date of y^{e} year by Greek numeral letters, you may observe they place y^{m} a different way from y^{e} Greekes, setting y^{e} lesser number first, as if they were to be read backward from y^{e} right hand to y^{e} left ; as $\overline{\text{N}}.\overline{\text{Y}}$ here denoting .450. The 3^{d} letter, $\overline{\Lambda}$ I take to stand for y^{e} day of y^{e} month vis^{t} y^{e} .30.th of y^{e} month Xandicus, y^{t} is wth us April. this & other names of months wch are found in other inscriptions being borrowed from y^{e} Macedonians w^{t}th very little variation. That they were idolaters is plain by y^{e} mention of their Countrey gods, both here & in other places so y^{t} their commerce wth the Jewes did not it seems bring them to ye knowledge of ye true God, or else they must have degenerated therefrom, & relapsed into Idolatry. The other pillar towards ye W. in height & circumference answers this, & hath upon ye side engraven ye foll. inscription.

Η ΒΟΥΛΗ ΚΑΙ Ο ΔΗΜΟϹ ΒΑΡΕΙΧΕΙΝ ΑΜΡΙϹΑΜ-ϹΟΥ ΤΟ ΙΑΡΙΒΩΛΕΟΥϹ ΚΑΙ ΜΟΚΙΜΟΝ ΥΙΟΝ ΑΥΤΟΥ ΕΥϹΕΒΕΙϹ ΚΑΙ ΦΙΛΟΠΑΤΡΙΔΑϹ ΤΕΙΜΗϹ ΧΑΡΙΝ . . . .

the date of this is not legible, neither doth one know what judgm^{t} to make of ye thing it self : y^{t} such a Pillar should be erected only to support ye Inscription, & convey these mens names to after ages, w^{t}hout pticularizing what they did to deserve ye honor is something strange unles we may supose it was a prevailing vanity in these Eastern countries thus to endeavor to eternize their fame : an instance whereof we have in Scripture, in Absalom's setting up a pillar .2. Kin. 18, 18. and phaps before him in Saul y^{e} .1. Sam. 15, 12. otherwise it may appear no improbable conjecture y^{t} ye pillar was erected long before upon some other occasion, & afterwards made use of to this end, & I looke upon it as past all doubt y^{t} several other inscriptions wch we saw were much more modern then ye Pillars on wch they were engraved.

Proceeding still forward directly from ye Obelisk about .100. paces, you come to a magnificent entrance vastly large, & for ye exquisitenes of ye workmanship, nothing inferior to any thing before described, I wish I could ad y^{t} it had not suffered ye same fate wth ye rest, & then we might have seen a rare piece of ye antient beauty of ye place. This entrance leads you into a noble Piazza of more than ½ a mile long .938. yards according to our measuring, & .40. foot in breadth, inclosed w^{t}hin .2. rowes of stately marble pillars .26. foot high, & .8. or .9. about : of these remain standing & intire .129., but by a moderate calculate there could not have bin les at first then .560. Covering there is none remaining, nor any pavem^{t} at ye bottom unles it be buried under ye rubbish : but upon almost all ye pillars we found inscriptions both in Greeke & ye language unknown, of w^{e}h we had time to take very few, & those not very

instructive: But such as they are I'le present you them here, w^th^out observing any other ord^r^ then as they hapned to be transcribed

ΙΟΥΛΙΟΝ ΑΥΡΗΛΙΟΝ ΖΕΒΕΙΔΑΝ ΜΟΚΙΜΟΥ ΤΟΥ ΖΕΒΕΙΔΟ . . . . ΑC ΘΩΡΟΒΑΙΔΑΟΙCΥΝ Α[Υ]ΤΩ ΚΑΤΕΛΘΟΝΤΕC ΕΙC ΟΛΟΓΕCΙΑΔΑ . ΕΝΠΟΡΟΙΑΝ ΕC ΤΗCΑΝ ΑΡΕCΑΝΤΑ ΑΥΤΟΙC ΤΕΙΜΗC ΧΑΡΙΝ· ΞΑΝΔΙΚΩ ΤΟΥ $\overline{\text{Η}}$ $\overline{\text{Ν}}$ $\overline{\Phi}$ ΕΤΟΥC.

I give you these inscriptions, as those before, just as I found them w^th^out any amend^mts^ so much as of literal faults, only when a letter or a piece of a word was not legible, where I could make a probable gues what it ought to be, I have ventured to ad it wth this inclosure [ ]. This seems to have bin put up in memory of an Embassy ꝑformed by those men y^t^ are named therein, for settling commerce & traffic, wch was to their satisfaction accomplished; but wth whom til I can find what place is meant by ΟΛΟΓΕCΙΑΔΑ I must remain Ignorant. I am unwilling to entertain any thoughts of Getia, in Macedonia, or of Olgassus a place mentioned by Strabo in Bythinia, wch comes a little nearer ye name, being both so remote, & ye citty of Tadmor so ill contrivd for a place of trade being far from ye sea, & w^th^out ye advantage of a river: yet ye magnificence of ye place shews they wanted not riches among them, & their salt is a com^e^ which stil brings them considerable advantage. The ord^r^ of ye numeral letters you may observe is again inverted, but taking them ye right way ye yeare .558. falls in wth ye last year of Alex^r^ Severus, wch is of our Lord .284.

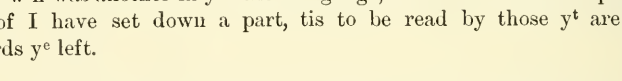
About ye middle of ye Piazza, on another pillar, was this foll: inscription

Η ΒΟΥΛΗ ΚΑΙ Ο ΔΗΜΟC ΙΟΥΛΙΟΝ ΑΥΡΗΛΙΟΝ ΖΗΝΟΒΙΟΝ ΤΟΝ ΚΑΙ ΖΑΒΔΙΛΑΝΔΙC ΜΑΛΧΟΥ ΤΟΥ ΝΑCCΟΥΜΟΥ CΤΡΑΤΗΓΗCΑΝΤΑ ΕΝ ΕΠΙ-ΔΗΜΙΑ ΘΕΟΥ ΑΛΕΞΑΝΔΡΟΥ ΚΑΙ ΥΠΕΡΕΤΗCΑΝΤΑ ΠΑΡΟΥCΙΑ ΔΙΗΝΕΚΕΙ ΡΟΥΤΙΛΛΙΟΥ ΚΡΙCΠΕΙΝΟΥ ΤΟΥ ΗΓΗCΑΜΕΝΟΥ ΚΑΙ ΤΑΙC ΕΠΙΔΗΜΗCΑCΑΙC ΟΥΗΞΙΛΛΑΤΙΟCΙΝ ΑΓΟΡΑΝΟΜΗCΑΝΤΑ ΤΕ ΚΑΙ ΟΥΚΟΝΙCΩΝΑ ΦΕΙΔΗCΑΝΤΑ ΧΡΗΜΑΤΩΝ ΚΑΙ ΚΑΛΩC ΠΟΛΕΙΤΕΥCΑΜΕΝΟΝ ΩC ΔΙΑ ΤΑΥΤΑ ΜΑΡΤΥΡΗΘΕΝΤΑ ΥΠΟ ΘΕΟΥ ΙΑΡΙΒΩΛΟΥ ΚΑΙ ΥΠΟ ΙΟΥΛΙΟΥ . . . . . ΤΟΥ ΕΞΟΧΩΤΑ ΤΟΥ ΕΠΑΡΧΟΥ ΤΟΥ ΙΕΡΟΥ ΠΡΑΙΤΩΡΙΟΥ ΚΑΙ ΤΗC ΠΑΤΡΙΔΟC ΤΟΝ ΦΙΛΟΠΑΤΡΙΝ ΤΕΙΜΗC ΧΑΡΙΝ ΕΤΟΥC $\overline{\Delta}$ $\overline{\text{Ν}}$ $\overline{\Phi}$

This is one of y^e most pfect inscriptions y^t I met w^th, by y^e help of wch we may make a judgm^t of all y^e rest, at least thus far, y^t they were put up in memory of some who had behaved themselves in those publick offices wch they bore, either in their own Republick, or under y^e Romans wth comendation, this being a publick place where their names & publick actions were recorded & so transmitted to Posterity. W^t I further observed was ye want of ye name after ΙΟΥΛΙΟΥ. and tooke notice of a like space vacant in ye Inscriptions of ye other language under it : & in both places it seemed to be not worn out wth time but voluntarily scratcht out, wch confirms me in ye opinion y^t they are both one, & y^t ye unknown was ye vulgar & ye greek ye learned language of ye place upon another pillar in ye same wall was this

ϹΕΠΤΙΜΙΟΝ ΟΥΟΡΩΔΗΝ ΤΟΝ ΚΡΑΤΙϹΤΟΝ ΕΠΙΤΡΟΠΟΝ ϹΕΒΑϹΤΟΥ ΔΟΥΚΗΝΑΡΙΟΝ ΚΑΙ ΑΡΟΑΠΕΤΗΝ ΙΟΥΛΙΟϹ ΑΥΡΗΛΙΟϹ ΕΑΛΜΗϹ ΚΑϹ-ϹΙΑΝΟΥ ΤΟΥ Μ . . ΛΕΝΑΙΟΥ ΙΠΠΕΥϹ ΡΩΜΑΙΩΝ ΤΟΝ ΦΙΛΟΝ ΚΑΙ ΠΡΟϹΤΑΤΗΝ ΕΤΟΥϹ Η̄ Ο̄ Φ̄ . . ΜΗΝΕΙ [Ξ]ΑΝΔΙΚΩ.

under wch was another in y^e other language, of wch for another specimen thereof I have set down a part, tis to be read by those y^t are able, towards y^e left.



the rest of this we took not, nor I supose will any one ever find so much in this, as to be troubled for y^e want of y^e other part from another pillar in ye same Piazza was transcribed this broken inscription wch followes, wch I have endeavored to make up from ye preceding, believing them in substance ye very same wth some little alteration of names.

ϹΕΠΤΙΜ[ΙΟΝ ΟΥΟΡΩΔΗΝ]
ΤΟΝ ΚΡΑ[ΤΙϹΤΟΝ ΕΠΙΤΡΟ]
ΠΟΝ ϹΕΒΑϹ[ΤΟΥ ΔΟΥ Κ]Η
ΝΑΡΙΟΝ ΚΑ[Τ ΑΡΟΑΠΕ]ΤΗΝ
ΙΟΥΛΙΟϹ ΑΥ[ΡΗΛΙ]ΟϹ Ε[ΑΛΑΜΗϹ]
ΠΥΙΛϹΟϹ Μ[ΕΛΕΝΑΙ]ΟϹ ΜΑΛΩ
ΧΑ ΝΑϹϹΟΥΜΟ[Υ] Ο ΚΡΑΤΙ
ϹΤΟϹ ΤΟΝ [ΦΙΛΟΝ] ΚΑΙ ΠΡΟ
ϹΤΑΤΗΝ ΤΕΙΜΗϹ ΕΝΕΚΕΝ
ΕΤΟΥϹ . . . [ΜΗΝΕΙ Ξ]ΑΝΔΙΚΩ

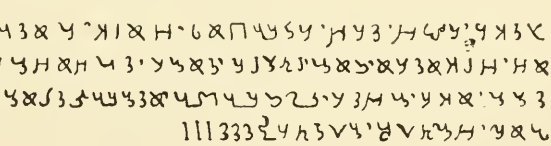
This is so like ye former y^t^ I thought I might fairly take ye liberty to make these additions to it, & it appears highly probable from both & divers others of a like import y^t^ as ye State, ye Senate & ye people did sometimes honor those y^t^ had bin in publick trusts, wth inscriptions upon these pillars, so where y^s^ was not done by them, private ꝑsons had ye liberty to doe ye same for their ffreinds : & I shall give you an instance by and by of an Husband who engraved one in memory of his wife : upon several of these pillars, are little pedestals jetting out, sometimes one way only, sometimes more, wch seem to have bin ye bases or standing places of statues but none of these are remaining, neither is it to be expected they should, in a place wch has bin so long in ye hands of ye Turkes On these pedestals we saw many inscriptions, sometimes w^n^ there were none on ye body of ye pillar, & sometimes when there were. As for instance this y^t^ followes upon ye pedestal thus

ΣΕΠΤΙΜΙΟΝ ΑΙΡΑΝΗΝ ΟΔΑΙΝΑΘΟΥ ΤΟΝ ΛΑΜΠΡΟΤΑΤΟΝ ΣΥΝΚΛΗΤΙΚΟΝ.

& upon ye body of ye pillar this imꝑfect one, wch I have not venturd to fill up, but I shall give it you as we found it

ΕΞΑ . . . ΝΤΩΝ ΑΥΡΗΛΙ . . . . Ρ ΗΛΙΟΔΩΡ . . . . ΣΤΡΑΤΙΩΤΗΣ ΛΕ . . . . . ΚΗΣ ΤΩΝ ΠΑΤΡΩΝ ΤΕΙΜΗΣ ΚΑΙ ΕΥΧΑΡΙΣΤΙΑΣ ΧΑΡΙΝ ΕΤΟΥΣ Γ̅ Ξ̅ Φ̅.

we see they esteemd it a very hon^ble^ thing to have their memories thus preserved, but it is but little knowledge of them we can get from thence, save now and then ye time when they lived. As here .563. years after ye death of Alex^r^ reach to y^e^ year of our Lord .239. under this was upon y^e^ same pillar an inscription in y^e^ other caracter, wch because it was very fair, & I think well taken, I will here ad, not designing to trouble you wth any more of this kind.



if this should chance to come to your hands when you have little to doe, ꝑhaps you may be tempted to throw away ½ hour in considering these odd caracters, wch I wish you may doe wth better success than I have done, who remain wholly in ye darke about them, nor have hopes of finding out what they contain. But if you are inclined to let them pas

wthout further notice, be pleased to walke on in ye same Piazza, to another inscription wch is as foll^s.

Η ΒΟΥΛ[Η ΚΑΙ ΟΔΗΜ]ΟC CΕΠΤΙΜ]*ΙΟΝ ΤΟΝ ΚΡΑΤΙCΤΟΝ Ε[ΠΙΤΡΟΠΟΝ C]ΕΒΑCΤΟΥ ΔΟΥ ΚΗΝ]ΑΡΙΟΝ . . .] ΕΟΔΟΤΗΝ ΤΗC ΜΗΤ[ΡΟΚΟΛΩ] ΝΕΙΑC ΚΑΙ ΑΝΑΚΟΜΙCΑ[C]ΑC CΥΝΟΔΙΑC ΕΞΙ-ΔΙΩΝ ΚΑΙ ΜΑΡΤΥΡΗΘΕΝΤΑ ΥΠΟ ΤΩΝ ΑΡΧΕΜ-ΠΟΡΩΝ ΚΑΙ ΛΑΜΠΡΩC CΤΡΑΤΗΓΗCΑΝΤΑ ΚΑΙ ΑΓΟΡΑΝΟΜΗCΑΝΤΑ ΤΗC ΑΥΤΗC ΜΗΤΡΟΚΟΛΩ-ΝΕΙΑC ΚΑΙ ΠΛΕΙCΤΑ ΟΙΚΟΘΕΝ ΑΝΑΛΩCΑΝΤΑ ΚΑΙ ΑΡΕCΑΝΤΑ ΤΗ ΤΕΑΥΤΗ ΒΟΥΛΗ ΚΑΙ ΤΩΔ-ΗΜΩ ΚΑΙ ΝΥΝΕΙ ΛΑΜΠΡΩC CΥΜΠΟCΙ ΑΡΧΟΝ ΤΩΝ ΤΟΥ ΔΙΟC ΒΗΛΟΥ ΙΕ[Ρ]ΩΝ ΤΕΙΜΗC ΕΝΕΚΕΝ ΕΤ . . . . ΞΑΝΔΙΚΩ.

this affords a sufficient confirmation of what I before observed, yt there were Honorary Inscriptions in memory of those yt had behaved themselves well in publick offices, wch there are several mentioned here, whereof some are very well known, and ye others not easy to be met wth in Bookes. By the word ΜΗΤΡΟΚΟΛΩΝΕΙΑ we may be assured, yt tho ye citty was reduced by ye Romans into ye form of a colony, yet it had a peculiar mark of Honour set upon it, to signify yt it was ye cheif of their colonies in these Oriental parts. that ye authority also of their Senate & people was continued to them, & besides yt there was a Society of men either curators of ye Temple of Juppiter Belus (to whôm ye Temple before described ꝑhaps was dedicated) or overseers of ye sports & festival solemnities, wch were celebrated in honor of him: of wch Sodality this Septimius was, when this inscription was made ye Symposiarch, ꝑhaps their chief and governor: By this too we find they did not wait for ye deaths of those they thus honored, before they provided for ye preservation of their memories: but famous men were thus registered for after ages, even while they were alive. upon one of those little Pedestals before I described, not far from ye former was this foll: inscription, wch I valued ye more for ye little remaindr. it has preserved of ye name Palmyra, by wch ye place was known to ye Romans

* Brackets so arranged in M.S.—(Copyist).

ΥΠΙΛΙΟΝ ΟΥΟΡΩΔΗΝ [CYNKA]ΗΤΙΚΟΝ ΚΑΙ ΒΟΥΛΕΥ ΤΗΝ ΠΑΛΜΥΡΗΝΟΝ ΒΗΛΑ ΚΑΒΟCΑΡCΑΤΟΝ ΦΙ[ΛΟΝ] ΤΕΙΜΗC ΧΑΡΙΝ ΕΤΟΥC $\overline{O}$ $\overline{\Phi}$

The upper end of this spacious Piazza was shut in by a row of pillars, standing somewhat closer then those on each side, & ꝑhaps there might have bin a kind of banquetting house above, but now no certain footsteps remain thereof: But a little farther to y^e^ left hand, & it may be once continued wth ye former, by ye ruines of a very stately building, W^ch^ I am apt to beleive might have bin for such an use: it is built of better marble, & hath an air of delicacy & exquisiteness in ye work beyond what is discernible in ye Piazza: the pillars wch suported it are of one intire stone, & one of y^m^ that is fallen down, but so firm & strong, y^t^ it has received no injury thereby, we measured & found .22. foot in length, & in compos .8. & .9. inches. In these ruines we found ye only latine Inscription we saw in ye place, & y^t^ so imꝑfect there is but little of it intelligible

. . . Es orbis Sui, & propagatores generis humani D. D. N. N. Dioclesianus. . . . simi Impp. & Constantini, & Maximianus nobb. Cæss: castra foliciter condiderunt.

And upon ye same stone, a little lower

. . . nets ossiano Hieroclete . V. P. Præs. Provinciæ. D. N. M. O. eorum.

The name of Maximianus who was partner in ye Empire wth Diocletian, wch should have followed in ye inscription, seems to have bin on purpose scratched out & defaced, for what reason I canot gues. The rest is lost by ye breaking of ye stone. In ye W. side of ye greater Piazza are several openings for gates leading into ye court of ye palace, two whereof one would easily believe, when they were in their ꝑfection were ye most magnificent & glorious in ye World, both for ye elegancy of ye work in general, & particularly for those stately Porphyry pillars wth wch they were adorned. each gate had .4. not standing in a line wth ye others, but placed by couples in ye front of ye gate facing ye palace, .2. on one hand & .2. on ye other: of these remain but .2. intire, & but one standing in its place They are about 30 foot in length, & 9 in circumference, of a substance so exceeding hard y^t^ it was wth great difficulty we broke of a few shivers to bring home wth us for a pattern of ye stone, ye art of making wch I thinke is quite lost. We saw several other broken pieces of Porphyry, but neither of so accurate a mixture & composition nor so large as ye former: the hard fate of one I could not but regrett, when I saw it debased to suport ye corner of a little Hutt, scarce good enough for a Dog kennell or a Hogsty. The Palace it self is so intirely ruined, y^t^ no judgm^t^ can be made w^t^ it was in its ancient splendor, either for ye figure or workmanship thereof: there is only here and there a broken piece of a wall remaining, beat into pieces by violence, and consumed by time to y^t^ degree, y^t^ without ye help of tradition we could

be hardly well assured y^t a Royal Palace did once fill ye space: we may gues however y^t it fronted ye famous Piazza before menc̄oned, & was surrounded wth rowes of pillars of different ord^rs, many of wch are still standing, some plain and some wrought & channeld as those in ye Temple, & upon those little Pedestals in ye midle of some of them, I observed several Inscriptions, but could not conveniently take any more then one, wch together wth y^e pillar y^t supported it was fallen to y^e ground. it was thus

ΜΑΡΘΕΙΝ ΑΛΕΞΑΝΔΡΟΥ ΤΟΥ ΚΑΠΑΔΗΤΟΥ ΟΥΑΒΑΛΛΑΘΟΥ ΤΟΥ ΣΥΜΩΝΟΥ ΣΟΡΑΙΧΟΣ ΑΙΡΑΝΟΥ ΑΝΗΡ ΑΥΤΗΣ ΜΝΗΜΗΣ ΕΝΕΚΕΝ ΜΕΝ[ΕΙ] ΔΥΣΤΡΩ ΤΟΥ $\overline{\text{Ϟ}}$ $\overline{\text{Υ}}$ ΕΤΟΥΣ.

If y^e rest were of a like nature wth this, we have lost no great matter by not taking them, this being only a memorial wch a kind husband caused to be set up in honor of his Wife. The month Dystrus answers our March, & y^e year .490. from y^e death of $Alex^r$. y^e great y^t of our L^d 166. I omitted to mention before y^t under y^e long walke, runs a current of hot sulphureous waters, & there is a well & other passages down to them, but whatever they may have bin of old, they are not now so convenient as another about ½ a mile W. ward from hence, where there is a very good descent into ye Waters, and it is still used by ye people of ye countrey to bath in, near to wch upon y^e Pedestall of a broken pillar (or p̄haps it might be an altar) remains this foll. Inscription

ΔΙΙ ΥΨΙΣΤΩ ΜΕΓΙΣΤΩ ΚΑΙ ΕΠΗΚΟΩ ΒΩΛΑΝΟΣ ΖΗΝΟΒΙΟΥ ΤΟΥ ΑΙΡΑΝΟΥ ΤΟΥ ΜΟΚΙΜΟΥ ΤΟΥ ΜΑΘΘΑ ΕΠΙΜΕΛΗΤΗΣΟΗ ΑΙΡΕΘΕΙΣ ΕΦΚΑΣ ΠΗΓΗΣ ΥΠΟ ΙΑΡΙΒΩΛΟΥ ΘΕΟΥ ΤΟΝ ΒΩ[forsan ΒΩΜΟΝ]* ΕΞΙΔΙΩΝ ΑΝΕΘΗΚΕΝ ΕΤΟΥΣ $\overline{\Delta}$ $\overline{\text{Ο}}$ $\overline{\text{Υ}}$ ΜΗΝΟΣ ΥΠΕΡΒΕΡΕΤΑΙΟΥ Κ.....

I am pretty confident y^t y^e word I have marked wth a line under it is rightly taken, & therefore believe it to be a proper name of y^e fountaine. & upon y^t suposition y^e Inscription is easily intelligible, shewing y^t Bolanus son of Zenobias $\&c^a$. being elected overseer or Curator of y^e fountain under Iaribolus built this altar to Juppiter in y^e year of $Alexand^r$ .474. i.e. of our Lord .150. & on y^e .20. Oct., if y^e last K. be a numeral as I supose it

* Bracket not closed in MS.

must. But who this Iaribolus was, on whom they bestow as generally on y^e Roman Emperors, whose names occurr in their inscriptions y^e title of ΘΕΟC is not so facil a conjecture. They were under ye Parthians before ye Romans fell in among them, but ye date shows this to be after ye time of Hadrian, & so after their coming nay & in an Inscription before mentioned wch is of a later date then this by .80. years we have ye name of ye same p̄son. Hot sulphureous bathes are things very frequent in this countrey, & thence it was y^t it obtained ye name of Syria Salutifera. The scent of ye Waters here is much like those of ye Bath in England, but not so strong, neither is ye tast so offensive on ye contrary when they have run in ye aqua-duct so far from ye fountain as to become cold, they are very potable, & are ye only waters ye inhabitants use. But we during our stay there, sent to a fountain of very excellent water about an hour distant from ye citty. On ye E. side likewise of ye long Piazza stands if I may use such an Expression, a wood of marble pillars, some p̄fect, & others deprived of their beautiful Capitalls, but so confused, y^t it is not possible to reduce them into any ord^r, so as to conjecture to what they served. In one place are .11. together in a square after this manner

. . . .
: · paved at ye bottom wth broad flat stone, but w^thout any
. . .

roof or covering, & at a little distance from y^t, stands ye ruines of a small Temple wch by ye remaines seems to have bin for ye workmanship very curious, but ye roof is wholly gone & ye walls very much defaced & consumd wth time. Before ye entrance wch lookes to ye S., is a Piazza suported w^th .6. pillars, .2. on one hand of ye door & .2. on ye other, & at each end one, & ye Pedestalls of those in ye front have bin filled wth inscriptions in both ye Greek and ye other language, but they are now so obliterated & worn out as not to be intelligible. See an instance of y^t next ye door on ye right hand as you enter

ΛΟΥΚΙΟΥ ΑΥΡΗ[ΛΙ]ΟΥ ..... ΗΛΙΟΔΩΡΟΥ
.....Ο..... [ΤΕΙ]ΜΗC ΧΑΡΙΝ ΕΤΟΥC.....
[ΜΗΝΟC ΑΠ]ΕΛΛΑΙ[ΟΥ]

you see where I thought I might venture I have filled up ye vacancy ye rest I am forced to leave imp̄fect as I found them, there being .3. whole lines wanting together, except this single o. in ye middle of one of them. The month Apellaus answers our Decr. upon y^t to ye left hand opposite to ye former, is this.

ΜΑΛΗΝ ΤΟΝ ΚΑΙ ΑΓΡΙΠΠΑΝ ΙΑΡΑΙΟΥ ΤΟΥ ΡΑΑΙΟΥ ΓΡΑΜΜΑΤΕΑ ΓΕΝΟΜΕΝΟΝ ΤΟ ΔΕΥ-ΤΕΡΟΝ ΕΠΙΔΗΜΙ[Α] ΘΕΟΥ ΑΔΡΙΑΝΟΥ ΑΛΙΜΜΑ ΠΑΡΑCΧΟΤΑ ΞΕΝΟΙC ΤΕ ΚΑΙ ΠΟΛΕΙΤΑ[ΙC]

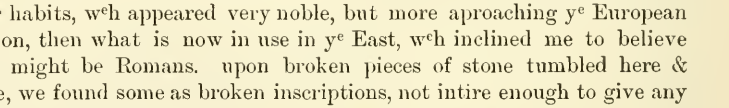
And a little below

ΕΝΗ . . . Ν ΥΠΕΡΕΤΗCΑΝΤΑ ΤΗΤ . . . CΤΡΑΤΕΥΜΑ
ΤΟΥ . . . ΥΠΟ . . . . Η ΚΑΙ . . . . ΤΟΝ ΝΑΟΝ ΤΟΝ . . .
ΔΙΟC . . . Ν ΤΩΤ . . . .

I should have imagined y^e ΚΑΙ to have bin a Copulative, & ye second name Agrippa distinct from ye former, but ye words foll: will not admit of such a construction. The p̄son then in memory of whom this inscription was made must have bin Malineus Ca'agrippa who bearing such an office as scribe or ye like in ye expedition of Hadrian ye Emperor, pformed an act of publick beneficence and generosity both to strangers & citizens denoted by ye word ΑΛΙΜΜΑ wch signifies unicion, phaps he distributed among them sweet oils to be used in or after their bathings. tis pitty what foll. is so impfect, & especially y^t we canot find out ye date, for this might have directed us to ye precise time of Hadrian's Expedition into these oriental parts, where he made great conquests, & enlarged ye bounds of ye Roman Empire. But as great a curiosity as any were their sepulchres, being square towers .4. or .5. stories high & standing on both sides of a hollow way on ye N. side of ye citty, stretching for about a mile, & phaps formerly they might extend a great deal farther. at our first view of them as we enterd ye place we could not conjecture what they were, some thought them ye steeples of ruind churches, & were in hopes we should have found some footsteps of Christianity here; others tooke y^m to have bin Bastions, & p^t of ye remaining fortifications, tho there is not so much as any foundation of a wall to be seen: But when we came, a day or two after, more curiously to enquire into them, we quickly found their use. they were all of ye same form but of different splendor & greatnes according to ye circumstances of ye founder. The first we viewed was intirely Marble, but it is now wholly in ruines, & nothing but a heap of broken stones among wch we found ye pieces of .2. statues, one of a man & another of a woman, cut in a sitting or rather a leaning posture, ye heads & part of ye arms of both being broken of, but their bodies remaining pretty intire, so y^t we had ye advantage of seeing their habits, wch appeared very noble, but more aproaching ye European fashion, then what is now in use in ye East, wch inclined me to believe they might be Romans. upon broken pieces of stone tumbled here & there, we found some as broken inscriptions, not intire enough to give any sense: but being short, & y^e unknown caracter of a larger size than elsewhere, I will not omit them

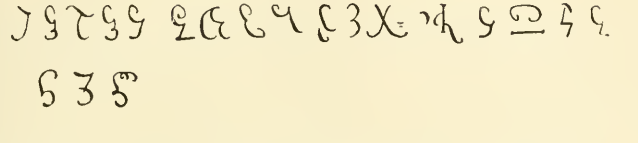
. . . . . ΟΙΝΩΝΟΝ ΑΥΤΟΥ ΠΡΟC ΛΑΒΕΙΝ ΚΑC . . . .

& underneath this



upon another stone in y^e same ruine were y^e foll: Greek and other caracters

....APCECIEΠI TW KATAMHΔEN ATPOΠON K....



Upon another piece of stone in y^e same ruin were these

HETWKAYIOIC KAIYIWNOIC

If y^e first word were to be changed into .AYTW KAI &c., it would agree wth some other inscriptions we find upon these monum^ts, but at present I can make nothing of it. Several others there were as much gone to decay as this, wch therefore we past by to goe to two wch stood almost opposite to one another & seemd most pfect of any, tho not w^thout markes of ye Turkish malice: they are .2. square towers rather larger than an ordinary steeple, & .5. stories high, ye outside being of common stone, but ye partitions & floors w^thin of marble, & beautified too wth very lively carvings & paintings, & figures both of men & women as far as ye breast & shoulders, but miserably defaed & broken: under these statues, or by their sides are, in ye unknown caracter probably ye names of ye psons there buried or by them represented or else some other memorial of them; but these, not understanding we did not transcribe. we entred one of these by a door on ye S. side, from wch was a walk cros ye whole building just in ye midle but ye floor was broke up, & so gave us ye sight of a vault below divided after ye same manner. the spaces on each hand were again subdivided into .6. partitions by thick walls, each partic̄on being capable of receiving ye largest corps, & piling them one above another, as their way appears to have bin, each of these little spaces might contain .6. or .7. bodies, for ye lowest, 2^d. & .3^d. stories these partitions were uniform & altogether ye same, save from ye 2^d floor, wch answered ye main Entrance one partic̄on was reserved for a stair case, higher than this ye building being something contracted towards ye top, would not afford space for ye continuation of ye same method, therefore y^e .2. uppermost rooms were not so parted, nor phaps ever any bodies laid therein unles it was y^t of ye founder alone, whose statue wrapt in funerall apparel & in a lying posture is placed in a Nich or rather window in y^e ffront of y^e Monum^t. so as to be visible both w^thin & w^thout. Near to y^s statue is y^e foll. inscription.

ΤΟ ΜΝΗΜΕΙΟΝ ΕΚΤΙCΑΝ ΕΛΑΒΗΛΕC ΜΑΝ-
ΝΑΙΟC CΟΧΑΙΕΙC ΜΑΛΧΟC ΟΥΑΒΑΛΛΑΘΟΥ
ΤΟΥ ΜΑΝΝΑΙΟΥ ΤΟΥ ΕΛΑΒΗΛΟΥ ΑΥΤΩ ΚΑΙ
ΥΙΟΙC ΕΤΟΥC $\overline{\Delta}\,\overline{\text{I}}\,\overline{\text{Y}}$ ΜΗΝΟC ΞΑΝΔΙΚΟΥ.

it is a little doubtful whether ΑΥΤΩ should not rather be read ΑΥΤΟΙC because of y^e verb plural, or else there must be a fault in y^e verb, & all those are but y^e names of one single ꝑson I leave every one to chuse wch likes him best. the other monum^t on y^e other side y^e way is very much like this, only ye front & Entrance are towards ye North, & it is not altogether so polite nor so well painted, but ye carvings are as good, & shews altogether as magnificent and stately as ye former : besides it has ye advantage in age of a whole century of years, as appears from y^e date of y^e foll. inscription : tis placed above a Nich in y^e stone adornd w^tth handsom borders & cornishes y^e place doubtles of some statue, & probably y^t of y^e founder

ΜΝΗΜΕΙΟΝ ΑΙΩΝΙΟΝ ΓΕΡΑC ΩΚΟΔΟΜΗCΕΝ
ΓΙΧΟC ΜΟΚΙΜΟΥ ΤΟΥ ΚΑΙΛΚΙΑΛCΙCΟΥ ΤΟΥ
ΜΑ....ΟΥΕΙC ΤΕ ΕΑΥΤΟΝ ΚΑΙ ΥΙΟΥC ΚΑΙ
ΕΓΓΟΝΟΥC ΕΤΟΥC $\overline{\Delta}\,\overline{\text{I}}\,\overline{\text{T}}$ ΜΗΝΕΙ ΞΑΝΔΙΚΩ.

this is y^e most ancient inscription I met wth in Tadmor. y^e .314. year from y^e death of Alex^r y^e great preceding y^e birth of our blessed Saviour .7. or .8. years. the other also is between .20. & .30. years before y^e time of Hadrian, & consequently both of them before y^e Romans got footing here, & from these sumptuous structures these costly Mausolœa, we may reasonably conclude they were a potent & opulent people, before they became subject to ye Roman Empire, & were not obliged to them for their greatnes & now I beleive I have wearied you sufficiently, by leading you up & down this famous & antient citty of Tadmor, & giving you such a dry acc^t of our employm^t for y^e .3. or .4. dayes we abode there we had at least tired our selves in ye time, roving from ruine to ruine & rumaging among old stones from wch little knowledge was to be obtained ; for this reason & w^thal thinking it not safe to linger too long in a place, where should ye mountain Arabs who are enemies to Assine Abas our friend, have intelligence of us, they might either fall upon or endeavour to intercept us in our return, for wch reason also we had all along conceald our intended course, under a pretence of proceeding for Damascus on Thursday

Oct. 8th.—About ½ hour after .4. in ye morning we dep^td from Tadmor, being well satisfied w^tth what we had seen, & glad to have

escaped so dreaded a place wthout any trouble or pretence upon us, but else wth some regret for having left a great many things behind wch deserved a more particular & curious inspection. our road lay almost due E. or a little inclining to ye N. & on ye left hand a ridge of hills stretched along for a great space, sometimes about ½ hour distant from ye road, & sometimes opening wider these hills, we were told were stored wth rich veins of divers mineralls, & afforded all y^{t} vast quantity of marble, ye remaines whereof we had seen at Tadmor, & it was from a fountain called Abul-faras at ye foot of one of them y^{t} they fetcht our water wch we drank there, ye inhabitants contenting themselves wth y^{t} wch runs from ye hot springs. To ye right hand lay a vast barren plain, pfectly bare, & hardly any thing green to be seen therein except it were a few gourds, wch our servant^{s} found on ye side of a little rising ground, where there was no shew of any thing moist to feed them: our way being plain we had ye sight of Tadmor especially ye castle for above ½ ye stage, til we came to an old Caphar house. We made indeed but a short dayes journey in ye whole, finding a fountain of excellent water in about 5½ hours riding, wch as it was a most wellcome refreshm^{t} to us in such a thirsty desart, so was ye only good water we met wth, til we came to Euphrates, wch was not til ye 3^{d} day from y^{s} place. at y^{s} fountain we pitched near to wch is a village, but almost wholly ruined & deserted: twas some time before any body would be seen, for they were afraid of us: at length .3. men came to our tent, spectacles of a miserable Poverty, occasioned by their being frequently pillaged by ye mountain Arabs, & to a great duty they pay to Assine their King for his protection. Three hundred dollars they pay him annually, when one would think ye whole village could not make up ye sum of q^{rs} .100. yet being ye remotest place y^{t} way under his jurisdiction, they often suffer by ye inroads of ye other. The name of ye place is Yarecca, a name it received, as we were informed, from a victory obtained thereabouts by ye Turkes over ye Mamalukes.

Oct. 9—From Yarecca we mounted early & travelling N.E. or thereabouts in .7. hours arrived at Souckney: ye road we found much like what we had ye day before, lying over a barren plain, only we had hills on both sides, & sometimes closing wthin ½ an hours riding one of ye other. The village has its name from ye hot waters (for so ye word imports) wch are of ye same nature wth those of Tadmor. herein they bath frequently, ye same little dirty hole serving both for men and women, only they have so much modesty remaining that they have different hours for one & ye other, & to say ye truth it was ye only marke of modesty I could observe amongst them. In other respects they seemed a confident or rather impudent generacon of people: before we could pitch our tents they flockt about us in multitudes, men, women, & children, and of ye last many of them as naked as ever they came into ye world, & so numerous they appeared y^{t} if we had reason to think Yarecca wanted inhabitants, we had no les to conclude Souckney overstockt. At this place usually resides an officer of Assine's, who is

ther Sub Basha or Governor; he whom we found there was called D'or of a good family among ye Arabs, to whom we made a Present, & he civilly returned it in barley for our horses: afterwards he came under our tent, & invited us to an entertainm^t^ wch considering ye circumstances of ye place was very splendid, tho it was nothing but Pilaw at last a little diversified by dressing, & to speake seriously I judge we could not have les then a bushel of rice set before us: his palace indeed was not stately there being few cottages in Eng^d^ but might vye wth it. to ye room wherein we were entertained, wch doubtles was ye best, if not ye only one he had, we were forced to clamber, rather then ascend, by broken steps made of stone & dirt; but when we were got in & comodiously seated after ye Turkish mode, it seemd large enough for about .12. or .16. people. At ye upper end was a little space separated from ye rest by a ridge made up of earth w^th^in wch I suppose he slept. The walls were mean, but ye roof much worse, having no other covering but faggots, so y^t^ certainly it could not be proof ag^st^ a shower of rain wch fell y^t^ night, & forced us out of our tent, into an old ruined Cave for shelter: however it served well enough for our afternoon's collation, & we had come away wth a good opinion of ye gentlemans civility, had he not afterwards endeavoured to make a pretence upon us, & so would have forced us to pay dear for our rice: he pretended to a customary duty of a chicqueen a head for all ffrankes y^t^ past y^t^ road, tho probably neither he nor his grandfather before him had ever seen a ffranke there before: but when he understood by our guide y^t^ we were not easy to be so imposed upon, & w^th^all y^t^ we were Assine's ffreinds, & in our way to his tents, & especially our Trẽar a pson he very much esteemed, who therefore would be sure to acquaint him wth any exaction or injury offered us, his mouth was quickly stopt & he grew so sensible of his error y^t^ he sent to excuse it, and presented our Trẽar wth a fan of black Ostriche feathers; & not only so but in ye morning came himself, and begg^d^ pardon desiring y^t^ nothing might be s^d^ of what was past, & so conducted us about an hour on our way. this village payes to Assine q^s^ 1500 a year.

Oct. 10.—Continuing our voyage still to ye N.E. or somewhat more Easterly, we found it another pleasant, & easy stage to another village called Tiebe, so called as they say from ye goodnes of ye waters, ye word signifying good, but we found them not so over excellent, they had ye tast, & were doubtlesly tinctured wth ye same minerall wth those of Suckney & Tadmor, tho not so strong, but ye village it self made a better shew than usuall, & ye people appeared of something better fashion & more civilized then those we had left: it is pleasantly situated, & makes a good appearance as one comes up to it, ye prospect being helped by a well-built steeple, to wch is now adjoined their mosquee: but I am apt to beleive it ye remaind^r^ of a Christian church, being built with more art & Beauty then you shall easily find in Turkish ffabrickes. There are also several ruines about it, wch speake it to have bin a more famous place then now it is. Within ye Mosquee, wch we were permitted to enter

wthout any disturbance there is a stone clapt ye wrong way into ye wall, wth ye foll. Greek inscription upon it :—

ΔΙΙ ΜΕΓΙCΤΩ ΚΕΡΑΥΝΙΩ ΥΠΕΡ CΩΤΗΡΙΑC ΤΡΑ: ΑΔΡΙΑΝΟΥ CΕΒ: ΤΟΥ ΚΥΡΙΟΥ ΑΓΑΘΑΝ-ΓΕΛΟC ΑΒΙΛΗΝΟC ΤΗC ΔΕΚΑΠΟΛΕΟC ΤΗΝ ΚΑΜΑΡΑΝ ΩΚΟΔΟΜΗCΕΝ ΚΑΙ ΤΗΝ ΚΛΙΝΗ ΕΞΙΔΙΩΝ ΑΝΕΘΗΚΕΝ ΕΤΟΥC Ε̅ Μ̅ Υ̅ ΜΗΝOC ΛΩΟΥ....

& under this was another in ye same strange language & caracter wch we had seen at Tadmor. I was surprised to find such an Inscription in this place, nor can any way gues how they should come by it, & ye mention of Decapolis makes me still more in ye darke. if one extend ye bounds of Decapolis as some are sd to have done as far as all Cœlosyria, & comprise under this name again all Syria, Phœnicia only excepted, then need it not be brought from elsewhere, but set up first in ys place : but this will not be allowed by those who make Decapolis only a part of Palestine. The matter of fact it containes is only an acct of ye magnificence of this Agathangelus Abilenus whoever he was, who for ye safety of ye Emperor Hadrian, erected at his own charges, & dedicated to Juppiter the thunderer a royal banquetting house (for so I take ΚΑΜΑΡΑ to signifie) & a bed of State, for after ΚΛΙΝΗ there is doubtles a letter omitted, and it ought to be ΚΛΙΝΗΝ. the date, .445., agrees to ye year of our Ld .123., wch was ye .7.th of ye Reign of Hadrian, & ye month ΛΩΟC is our Augt. this village lyes in one of ye roads from Alepo to Bagdat & payes to Assine an annual tribute of qrs .1,000. from hence we mounted again in ye afternoon & proceded about .2½. hours further to shorten our next daye's stage having travelld ys day in all between .7. & .8. hours. the place we pitched at was a fountain known by ye name of Alcome but neither town nor house near it, neither was ye water fit to be drunk being of ye same nature wth those of Souckney, & almost as warm

Oct. 11. From Alcome we rose about 1½ hour after midnight our guide grooping out of ye way by ye help of ye stars, wch now bended more to ye north then formerly. As soon as it was light enough to look about us, we found our selves in a wide open desart, ye ground in some places covered wth a sort of Heath, & in others quite bare, nor had we marched long after ye sun was up, before by ye help of a rising ground we discovered Arsoffa ye place whither we were bending, wch gave us hopes we should be quickly there; but having a dry tiresome plain to traverse, & ye hot sun causing our Mules a little to slacken their pace it was after .10. a clock ere we reached it, & what was more vexatious still, finding no water any where near, we were necessitated to proceed forward

to ye river Euphrates wch we found .4. hours distant from hence. Arsoffa or as ye Arabs call it Arsoffa Emir, seems to be ye remaines of a Monastery, having no town nor village near it, & being one continued Pile of building, of an oblong figure, stretching long wayes E. & W. and inclosing a very spacious area, at a distance it makes a very glistering shew, being built of Gypsine stone, or Rock Izinglasse resembling Alabaster, but not so hard, severall quarries of wch we past by in our way to it. where ye sun shines upon it, it reflects ye Beams so strong y^t they dazle ye eyes of ye Spectator. Art or accuracy in ye Workmanship you find none, & but very little carved stone, & y^t mean enough, nay the very cement they made use of is but little better then dirt, so y^t it is no great wonder to find it in ruines, though it hath not the appearance of any great antiquity. Round about were ye little apartm^ts or chambers for ye monkes, built archwise, only one story above ground ; but underneath are several cells or vaults, larger then ye chambers, wch phaps might serve for their schools or working houses In ye midst of ye area stand ye ruines of several buildings some of wch seem to have bin cisterns for water, & it may be bathing places ; but ye most remarkable was one wch was probably ye Abbot's or Bishop's house, there having bin something more pains bestowed upon it, then ye rest, & another wch was ye Relickes of their Church This was formerly no unhandsom structure, being built in ye form of our churches, & distinguished into .3. Isles, of wch ye midle one is supported w^th .18. well turned marble Pillars wth Capitalls upon them, not of Marble, but of a sort of clay cast into ye shape they are in, but of a color exactly resembling ye pillar it self. That wch perswades me to beleive them cast is a Greeke Inscription to be seen upon all of them, ye letters whereof are not made by incision in ye stone, but seem to be stampt standing out higher then ye distances between them, & in one of them by Mistake they are so placed as to be read after ye manner of ye Oriental languages from ye right hand to ye left ye words are these wth ye Crucifix before as foll :

✠ ΕΠΙϹΕΡΓΙΘ ΕΠΙϹΚ°. ΤΘ ϹΥΝΓΕΝ̃ ΜΑΡΟΝΙΘ ΤΘ ΧΩΡΕΠΙϹΚ°.

The name of Maronius made me conclude it a monastery of ye Maronites, who were formerly very numerous in Syria & inquiring of one of their ffathers here, I find they had a monastery of this Name, but he aprehended it to be beyond ye river Euphrates : but y^t is an easie Mistake, & tis more probable it was this place, wch is but .4. hours from ye river. Our guide lead us to ye river by ye assistance of .2 little hills wch are known by ye name of Affdien our way lying to ye N., a little bending to ye east. the sight of ye river was a pleasing prospect, & to our great comfort we found ye water very clear, hapning to be there before ye rains & after ye snow waters, wch swell & disturb it in summer time, were all past, and our hapines seemed ye greater having had so tedious

& thirsty a journey of at least .14. hours, & neither our selves nor horses touched a drop of water all day. We pitched upon a reach of ye River where it was not very broad, not being above ½ a Musket shot over.

Oct. 12. This morning about Sun rise we proceeded on our voy^e keeping along ye bankes of ye River, wch for ye main led us W. or N.W. & here we had pleasant travelling, having ye river on ye right hand, & hills of Marble on ye left or other fine stone, & delightful groves of Tamarisk, Mulberry & other trees to pas through : here every thing about us looked fresh and verdant, & we met frequently men & women passing on their occasions, a thing to wch in our former travells we had not bin accustomed. Wee had also a Prospect of ye opposite shore, & could see a great way into Mesopotamia, but could meet wth no convenience to crosse ye river, wch we were very desirous to have done There are no places of note remaining on ye River, either on one side or ye other, only on ye farther side we saw an old Castle called Giaber, wch made a good shew, being situate on ye top of an high hill, & both for y^t & ye way of building very much resembling y^t of Alep^o, only y^t is ye larger & in ye midst of a citty, this les & has neither town nor house about it. On ye other side we past by a Sheekes house called Abul Rarra & ye ruines of a town a little further where there was a square tower built of very ordinary brick, but pretty intire. after we had left these ruines we rested to bait under ye Shadow of a rock wherein were many apartm^ts & conveniences cut to lodge in, wch I supose are made use of in ye winter by ye people who during ye summer pitch among ye trees by ye river side. In ye afternoon we continued our journey as before keeping allwayes at a little distance from ye river, till a little before sunset, we came to a very convenient place upon ye bankes, where we took up our lodging for ye Night, having travelld between .7. & .8. hours ye whole day

Oct. 13. This day we had ye same satisfaction as ye day before proceeding as near ye river as ye road would p̃mit, & having made a stage of about .6. hours, we rested under ye shade of ye Tamarisk trees by ye river side, hoping to have found conveniences to have crost it ; but we ould not. In our way we saw nothing observable, but ye ruines of a citty called Baulus, where ye Turkes had formerly a Sangiacke but now there is never an inhabitant in ye place, nor house standing, nothing but ye ruines of houses, & an octagonal tower of a considerable height viz. .107. steps & beautified only outside wth flourishes & an Arabick inscription round about it. it is a handsom structure, & probably ye worke of ye Mamalukes since whose time little has bin done to adorn, but much to destroy & wast ye countrey. After dinner we mounted sooner then usual because, hoping to reach ye tents of Assine, we were unwilling it should be late when we arrived, yet we made it near sun set before we got to Fay, a fountain by wch he lay. We had travelled still by ye same point N.W. & had ye prospect of ye river ye greatest p^t of ye way, ye nearest reach thereof being not above .1. hour's riding from ye fountain. On ye road we met several Bandieras of ye Emirs soldiers, who knowing our guide & understanding we were going to him, gave us

a very courteous Salam, who else ꝑhaps might have treated us wth another sort of civility. The Kings tents spread over a very large plain, & tooke up so vast a space yt though we had ye advantage of a rising ground, we could not see ye utmost extent of them : His own peculiar tent was pretty near ye midle of ye rest, wch were pitcht about it not in a circular manner, but stretching out in length as ye plain opened for ye better convenience of a current of water, wch form ye fountain ran through ye midst of them. It was not all distinguished from ye rest but by its bignes, & a little more company about it, being all made of a sort of hair cloth wch seemed hardly a defence agst either rain or sun : But certainly they must find otherwise else their necessity spending their whole lives in such moveable habitacõns, would have taught them to have contrived something better. It canot well be doubted but they are descended from ye old Arabes Scenitæ seeing they live just after ye same manner, having no settled abode but removing from fountain to fountain, as they can find gras for their sheep & camells, & water for them & themselves. They themselves love to derive themselves from Ishmael ye son of Abraham, & it may be they are descended from him, but I beleive they would be hard put to it to prove their pedigree. As soon as we alighted we were attended by ye officers of ye Emir, & conducted to a very noble tent built after ye Turkish mode, & pitcht next to his own. hither he sent to bid us wellcom & to inquire how we past in our voyage, & presently after we had a repast of several dishes of meat set before us to stay our appetites till a more plentifull supper could be got ready : But before supper ye King himself made us a visit in person bidding us wellcome to Fay, & asking what we had seen in our travells yt pleased us ? how we liked Tadmor ? & whether we had found a treasure there ? for this notion stickes in ye heads of all these people, yt the Frankes goe to see old Ruines only because there they meet wth Inscriptions wch direct them to some hid Treasures, & therefore tis no unusuall thing wth them, when they find a stone wth an inscription on one side to turn yt down to ye ground, yt it might not be seen or read of any : But we assured him we went with no such Expectation, but only out of a desire to see ye place ; neither had we brought any thing away wth us but a piece of Porphyry stone wch upon his request we shewed him : we let him see, too, a rude draught, wch we had taken of ye place wch he seemed to like : he made his visit ye shorter yt he might not incommode us after our journey, but desird yt we would live after our own pleasure, & to our satisfaction & command freely whatever ye Camp would afford, ordering some of his people constantly to attend upon us. When there was mention made of our design to be gone next morning, he answered it must not be, himself was invited ye next day to a great entertainmt by one of his Grandees, & we should accompany him ; but ye day foll : he would goe out wth us & hunt pt of our way towards Alepo. When supper was brought in, there was victualls enough for .3. times our number. A large dish of pilaw in ye midle & .12. or .15. dishes of severall sorts of meat about it, all drest after their manner but exceeding good, & such as one

might have fed heartily upon, had he not spoiled his appetite before. after we had eat & drank what wee pleased, we rose up & ye serv^ts^ sat down in our places it being ye custom of ye Arabs & Turkes too, from ye highest to ye meanest, all to eat at ye same table : The best sort sit down first, & so in ord^r^ till a'l are satisfied, & then what remaines is carried away. we might if we had pleased, lodged in ye same Tent where we eat, but, having tents of our own pitcht, some of our comp^e^ chose rather to retire thither, to avoid being disturbed by too many visitants

Oct. 14.—The next morning about .10. a clock we were told ye King was gone to ye entertainment & expected we should follow him, & y^t^ .2. young camells were killed to furnish ye sumptuous feast, wch is ye highest piece of Magnificence & greatnes, to wch these people whose greatest riches consists in camells can arrive. The tent was above a furlong from us, so mounting our horses we rode to it, & found it surrounded wth a numerous train of Guests, .300. at least, of different sorts & qualities : it was very large of it self, & still to be more capacious it was left open to ye West : The King was seated at ye N. end, about ye midst of ye Tent upon a place raised wth Cushions, & quilts, & carpets before him, neither did he sit cros leggd, as all ye rest of ye Comp^e^ were obliged to doe, but in a leaning posture. they seemd to observe an exact ord^r^ in their places, & when any pson of note enterd, those y^t^ were near his place rose up, & stood til he was seated : But ye far greatest p^t^ could not come w^thin ye compas of this Ring, but stood behind ye backes of ye rest, leaving a spacious area in ye midst. When we entred they made room for us on ye Kings left hand, wch here is esteemd ye more honorable, where we sat down in ye same position wth those about us cros leggd upon a thin Carpet. Before midday a Carpet being spread in ye midle of ye Tent our dinner was brought in, being served up in large wooden Bowles born between .2. men, & truly to my aprehension load enough for them. Of these great Platters there were about .50. or .60. in Number, perhaps more wth a great many little ones, I mean such as one man was able to bring in, strewed here & there among them, & placed for a border or garnish round about ye Table. In ye midle of all was one of a larger size than all ye rest, in wch were ye camell Bones & a thin broth in wch they were boiled : ye other great ones seemd all filld wth one & ye same sort of provision, a kind of plum Broth made of rice, & ye fleshy part of ye Camells, wth currans & spices being somew^t^ of a darker color, then what is made in our countrey, the lesser were for ye most p^t^ charged wth rice, dressed after severall Modes, some of them having Leban a thick sour milk poured upon them. This Leban is a thing in mighty esteem in these hot countries, being very usefull to quench thirst, & truly we had need of it here, for I did not see a drop of any sort of liquor except a dish of Coffee before dinner drunk at this splendid feast. Knives, forkes, spoons, trenchers, &c^a^. are silly impertinent things in ye esteem of ye Arabs ; however we being known to make use of such things, had large wooden Spoons laid before us. when ye table was thus plentifully furnished, ye King arising from his seat, went & sat down to ye dish wch was directly

before him, & so did ye rest as many as it could contain, wch could not be much short of .100. & so w^thout further ceremony they fell to, thrusting their hands into ye dishes & eating by handfulls, neither was there any occasion of carving, only, because ye dishes in ye midle were too remote to be reached, there was an officer on purpose who stepping in among them, & standing in ye Spaces designedly left for y^t end wth a long ladle in both his hands, helped any one according to his desires. when ye K. had eaten what he thought fit, he rose up, & washt, & retired back to his former seat, & we also did ye like, others being ready for to fill our places: nor did we continue much longer under ye Tent in y^t numerous crowd: for Assine perceiving y^t we were a little uneasy, & suposing y^t we had now sufficiently satisfied our curiosity, tho not our appetites, told us we might take our liberty, & if we thought fit retire to our tents. This favor we gladly accepted, & w^thout any Ceremony returned, several of his attendants waiting on us back. Here we* [had another] dinner set before us, & having some of our own [wine &] water to drinke wth it, it went down better wth me [than] ye famous camell ffeast. In ye evening ye K. mounted to [see] ye fflight of a new Hawke, & stayed abroad very late, his Hawke fflying away; but shee was afterwards taken up by his ffaulkenor: otherwise he had not bin in a good humour y^t night, being a man y^t delights very much in Sport: after his return from Hawking we went to wait upon him at his own tent to return him thankes for his most courteous & Royall acception of us, & to desire leave to depart next morning. here we found him surrounded wth ye chiefest of his people, & being placed again on his left hand, he entertained us wth a great deal of pleasant discourse & asked such questions, as shewed him to be a p̃son of extraordinary capacity & judgm^t. As for learning, they have no such thing among them and therefore it is not to be expected y^t he should be a scholar; but were he not a p̃son of more then common prudence & understanding, he could never have managed y^t wild and unruly people, as he has done ever since his advancem^t to ye throne, wch must therefore have bin ye more difficult, because as he came to it by ye deposing of his ffather (tho not imediately) who now lives wth him as a private man, so has he never wanted competitors. To his ffather he payes a great deal of outward respect, but is forced to keep a very watchful eye over him. After about an hours discourse we were dismist, &

Oct. 15.—In ye morning Assine not being at leisure to goe out a hunting, we proceeded on our voyage homewards wth a great [& joyful] alacrity, & finding nothing remarkable in our [way, after] about .3½. hours arrived Serag, & hence, after a sh[ort] repast, we continued our journey to Shirby fountain, [w]^ch took us up ye like space of time here we accounted our selves as good as at home, being at a place wth wch we were well acquainted, & to wch several times in ye year, some or other of our nation usually resort, either for Gazell or Hog-hunting,

[* M.S. torn away; words in brackets supplied by copyist.]

according to their seasons, nor had we hence above .7. or .8. hours to Alep°.

Oct. 16.—Getting up pretty early in ye Morning, we resolved to hunt ye greatest part of our way home, as we did, & dining at ye famous round Hill, whereon has bin spent by ye English more money then would purchase ye fee simple of it & a noble Estate round about it. In ye afternoon we arrived safe and sound at Alep°. God be praised for His gratious Protection and Providence over us.

NOTES ON THE VOYAGE TO TADMOR.

The discovery of Palmyra by the English from Aleppo in 1678 is the first hasty visit mentioned in this account. Already, in 1714, Reland (p. 526) published two Palmyrene texts, but it was not until 1751 that Dawkins and Wood made good copies (published in their standard work on Palmyra—Paris, 1812). In Reland's time, however, the Palmyrene alphabet was already recognised to be a Semitic alphabet of 22 letters. It is, however, unknown to our travellers.

With four exceptions, all the texts given in this early account occur in Waddington's collection; but the early copies are interesting, and made by a careful student who understood well both the language and the history connected with them. The differences from Waddington's text are few, and of no great importance. The unknown characters are Palmyrene, and these texts are given by De Vogüé. Being unknown to the earlier writer they are, as he admits, imperfectly copied, but he was quite correct in supposing these texts to be the bilingual translations (in native letters and language) of the Greek. The dates, however, do not, as he supposes, reckon from the death of Alexander (324 B.C.), but from the era of the Seleucidæ (26th September, 312 B.C.), which era was used at Palmyra and in Syria with the Macedonian calendar, the same found in the works of Josephus. The native calendar was at Palmyra the same as among the Jews, except that Marchesvan was called Kanun as among the Syrians.

The first text dates about 230 A.D. (Waddington, No. 2621), being the monument of Septimius Odenathus, who was the father-in-law of Zenobia. The Palmyrene version has been given by De Vogüé (No. 21). There is no date. The Greek agrees letter by letter with that of Waddington, including the word ΜΝΗΜΙΟΝ for μνημειον. It was copied by Waddington, and found in the same position over the door. The original is in two long lines.

The second text, also bilingual, is No. 2586 of Waddington, and the Palmyrene is No. 1 of De Vogüé. Waddington gives the date as ΝΥ or April, 139 A.D. The third numeral can hardly be the day of the month, as in that case it would stand after the month name, and the date seems, therefore, to be really 169 A.D. The proper name is ΑΑΙΛΜΕΙΣ

and there are two other inscriptions of this personage, one (Wadd. 2617) in which he is also called Zenobius, and another (Wadd. 2571 *c*) in which as Zenobius he raises an altar in 162 A.D. This seems to show that the date in the present text (169 A.D.) is more correct than that of Waddington. Zenobius was a priest of the moon god, as we shall see later.

This text appears to have several errors; for Α ΠΑΝΟΥ we should no doubt read Αἰράνου, and for [ΕΥ]ΣΕΙΜΩΣ Waddington has Φιλοτείμως, the τοις appears to have been omitted before πατρίοις according to Waddington's copy. The original is written in seven lines of Greek, and is complete, the last line ending with a leaf.

The third text is Waddington 2587, and the Palmyrene version is De Vogüé's No. 2. The Greek has no date, but the Palmyrene gives Nisan 450, or a generation earlier than the preceding, viz., 139 A.D. The pillar was raised in honour of Bareiches by the Council and people. The text is in four lines, and apparently complete.

The fourth text is 2599 of Waddington, and is also bilingual, the Palmyrene being No. 4 of De Vogüé. The letters of the present copy are correct, but the spacing is incorrect. The Greek in the original occupies seven lines, and is complete. The date is April, 247 A.D. The column was raised by his caravan companions to Julius Aurelius Zebeidas. He appears to have been the leader of one of the regular caravans to Vologesias near the Tigris (Ptol. v, 20, 6). This shows the extent of Palmyrene trade in the time of Zenobia. For ΑΣ ΘΩΡΟ Waddington reads Ἀσθώρου. The speculations on this text would have been controlled had the traveller found Waddington's 2589, which shows that trade and not "an Embassy" is intended, and mentions Vologesias with another place in the same region, and with the title ἐννοδιάρχης or "chief of caravan," as early as 142 A.D.

The fifth text is Waddington, No. 2598, and the Palmyrene version is De Vogüé's No. 15. It dates 242–3 A.D. The original is in 19 lines. The name which has been hammered out after Julius and is so described by our author, was Philip according to Waddington—the prefect of the Pretorium The inscription is raised by the Council and people in honour of Julius Aurelius Zenobius, serving under Rutilius Crispinus (with others) in the army of Severus Alexander, who, in 229 A.D., marched through Palmyra against the Persians. This Zenobius is thought to have been the father of Zenobia. He merited well, it appears, of his country, and of the god Yaribol, who, as his name shows, was the moon god—Lunus. For ΜΑΡΤΥ ΡΗΘΕΝΤΑ Waddington reads Μαρτορηδῆναι. There are, as before, several errors of spacing in the early copy, but the rest of the lettering is correct.

The sixth text is Waddington's No. 2609, and the Palmyrene is De Vogüé's No. 27. The date is April, 267 A.D. The Greek of the original is in nine lines, the last with the month name having two small leaves, showing that the text is complete. This with the next is one of several in honour of a Palmyrene named Worod, and with the Roman

name Septimius. The word ΑΡΟΑΠΕΤΗΝ should be Ἀργαπέτην, and, according to De Vogüé, means commandant of the fortress.

The seventh text is Waddington's No. 2608, erected two years earlier to the same Worod. The Palmyrene version is illegible, and the upper lines of the Greek (ten in all) are injured. In both this and the preceding for ΕΑΛΜΗΣ we must read Σάλμης, and for Ε (ΑΛΜΗΣ) Σεπτίμιος. The first is evidently more probable, the latter (in 2608) is a more careful copy. In the former case (2609) also we are controlled by the Palmyrene. In the present text (2608) Waddington asserts that the engraver has written Σεπυιμιος in error.

The next text, No. 8, is Waddington's 2600, and the Palmyrene version is De Vogüé's No. 22 ; it is the most important of all, being in honour of the brother of Odenathus II, husband of Zenobia, called in the Greek, Epiarch of the Palmyrenes, and in the Palmyrene, " Head of Tadmor." It dates from October, 251 A.D. The Palmyrene supplies several lacunæ in the Greek, and allows of a much better copy than that given by our traveller. The Greek in the original occupies nine lines, but is much damaged towards the centre. Odenathus is here called "Stratiotês, of the Cyrenaic Legion," but in the Palmyrene, "of the Legion of Bostra"—Bostra being the head-quarters of the third Cyrenaic Legion, as we learn from a Latin text (Waddington, 1942), and another, also Latin (1956), which have been copied at Bostra itself. It appears that Odenathus I died in 251, and was succeeded by this Heiran or Herennius, the elder brother of Odenathus II, who succeeded him as early, at least, as 258 A.D. (Waddington, No. 2602).

The next text, No. 9, is Waddington's No. 2606*a*, consisting of 17 lines of Greek, and is in honour of Worod, according to Waddington. The month is April, but the year is erased. The copy by Waddington contains minor improvements. There are four other inscriptions in honour of Worod, dating 262, 263, 265, and 267 A.D. He was one of the principal inhabitants, a caravan leader, and subsequently procurator for the Emperor and Judge of the City.

The next text, No. 10, appears not to be in Waddington's collection. It carries on the history of the same Worod to the year 268 A.D., as a Palmyrene Senator.

Text No. 11 is Waddington's No. 2592, and is nearly a century earlier, *i.e.*, March, 179 A.D. Instead of ΚΑΠΑΔΗ Waddington reads καὶ Ἰαδῆ. The Greek in the original occupies six lines and is complete.

Text No. 12 is Waddington's No. 2571*c*, and written on an altar of *Yarhibul*, the moon god ; it has already been noticed under No. 2, being by Aailmeis Zenobius, dating from 20th October, 162 A.D. The altar was a gift from Zenobius to the deity at his own expense. The spring of Ephka, mentioned in the text, might perhaps be the famous Afka fountain in Lebanon, or (as the name in Syriac means " spring") some other nearer Palmyra.

Text No. 13 is Waddington's No. 2581. It has a Palmyrene text on

the other side of the base, now illegible. The Greek occupied eight lines, which would not be guessed from the copy of our traveller. It is in honour of Lucius Aurelius Heliodorus, but the date of the year is lost. The month is December.

Text No. 14 is Waddington's No. 2585, and has a Palmyrene version (De Vogüé's No. 16) which gives the date 130–1 A.D. This text fixes Hadrian's visit to Palmyra as having already occurred, a statue of the Agrippa here mentioned being raised in memory of his services to the Emperor. The *naos*, according to Waddington, was consecrated to Helios—the sun. The original Greek occupies twelve lines. The first part of the text, Ἡ Βουλὴ καὶ ὁ δῆμος, is not given by our traveller.

Three short texts, 15, 16, 17, which follow, are not given by Waddington, and are too imperfect to be of any great value.

No. 18 is Waddington's No. 2615. He reads Μάλιχος for ΜΑΛΧΟΣ and ἀντοῖς for ΑΥΤΩ. This is the tomb of the family of Elabel, and dates from 103 A.D. The Greek occupies four lines.

No. 19 is the tomb of Iamlichos, one of the finest at Palmyra, dating 83 A.D. It is Waddington's No. 2614, and the Palmyrene is No. 36 *a b*, of De Vogüé. Both Greek and Palmyrene are twice repeated. The Greek occupies five lines.

The text (No. 20) from the village of Taiyibeh is Waddington's No. 2631 ; it dates from 134 A.D., and is in honour of Hadrian, by a certain Agathangelus, of Abila, in the Decapolis. This text is now in the British Museum. The Palmyrene text, which accompanied it, appears to have been lost. Waddington has Καμέραν for ΚΑΜΑΡΑΝ. The Greek is in nine lines.

The last text (No. 21), from Risaffa, is much later. It is Waddington's No. 2631 *a*, and is Byzantine and Christian.

The Palmyrene Greek texts being dated show us how early the uncial forms of the Greek letters were used in the East, sometimes side by side with more classic forms.

In spite of his diligence, our traveller did not exhaust the riches of Palmyra. Some 100 Palmyrene texts are said to remain in the ruins, and of Greek ones more than 60 have been copied, out of which he gives only 18, including, however, some of the most important.

C. R. Conder.

INSCRIPTION FROM THE CHURCH OF ST. STEPHEN.

The inscriptions on page 158 of the July number just received, from the Church of St. Stephen at Jerusalem, are clearly the opening words of Psalms lxxi and xci (lxx and xc in the Septuagint), only very roughly and incompletely written.

The first begins—

επι συ (= σοι) κ(υρι)ε ηλπισα μη κατ(αισχυνθειην εις τον αιωνα).
"O Lord in thee have I trusted, let me never be confounded."

The second—

✝ *ο κατοικω(ν) εν βο(ηθειᾳ) του υ(ψιστο)υ.*
"Whoso dwelleth under the defence of the most high."

Possibly some of your readers may have collected similar Christian inscriptions in Palestine tending to show the liturgical or general use of certain psalms.

Faithfully yours,
JOHN SARUM.

THE NATIVE NAME OF PALMYRA.

THE revised version has given us Tamar for Tadmor (1 Kings ix, 18), but retains Tadmor in 2 Chron. viii, 4. Tadmor in the Wilderness, according to the detailed account of Josephus (8 Antiq. vi, 1) was the later Palmyra, and the name Tamar signifies "Palm," yet it is allowable to doubt whether the reading Tadmor to which we are accustomed is not the true one, for we have a bilingual text of Herennius, son of Odenathus I, dating about 251 A.D. In the Greek he is called *ἔξαρχον παλμυρηνῶν*, and in the Palmyrene רש תדמור. Thus down to the middle of the 3rd century A.D. the Palmyrenes called their city Tadmor. The alteration might therefore very well have been dispensed with, being contrary to the balance of even literary evidence.

C. R. C.

THE MOABITE STONE.

IT is much to be regretted that attempts have been made to cast discredit on one of the most important of the monuments of Palestine, and even countenanced by a learned Hebraist, though not by any other scholar. I have not had the opportunity of reading M. Clermont Ganneau's recent paper in defence of the stone, but it seems to me that there can be no two opinions as to its genuineness, for many reasons. It was found before the forgeries of Jerusalem forgers began to multiply, and by a missionary whose character sufficiently attests its genuineness. It is carved on hard basalt, difficult to engrave and heavy to transport, and the worn surface of the stone could only be produced by age.

The cavils are of three classes: 1st, as regards the letters; 2nd, as regards the language; 3rdly, as regards the history of the conquest and the geographical names.

1st, as regards the letters. If the photograph of the stone is placed side by side with that of the stone of Jehumelek, king of Gebal, it will be seen that it presents the same appearance of antiquity. It has been argued that the letters are sharp, and may have been engraved on an old monument by a forger. Such sharpness of incised letters is common on other genuine texts which I have found in ruins. It is due to the mud which fills the letters, and thus preserves them while the face of the stone remains exposed.

2nd. As regards the language, it seems to have been supposed that at so early a date the Moabite should coincide with Hebrew. The objectors have called the dialect Chaldee, and "full of grammatical blunders." It is clear that they have given little attention to Phœnician inscriptions, and have not been acquainted with Assyrian grammar. The Moabite peculiarities it shares with these two dialects, as for instance, אנך, "I," as in Phœnician; זת, "this," Phœnician and Assyrian. The plural masculine is Aramean. The verbal forms to which exception has been taken, as not being ancient, occur in Assyrian. There is not a single objection that has been urged against this inscription that cannot be met by comparison with yet older texts.

3rd. The date given by the objectors for the stone is too early by half a century, and is not founded on any solid basis. The objections are also in some cases due to following the earlier and less correct translations of the stone, and they disappear when more correct renderings are followed. The word *Aral* does not mean a "champion," but an "altar." Whether we are to understand an altar of the god Dodo (well known to the Assyrians as a Phœnician god), or whether we understand by *Aral Dodo* Ariel of David, a town conquered, it is equally certain that the term does not apply to human beings.

Difficulty has been made as to the notice of Machærus in the text. It seems to me very doubtful if Machærus is mentioned at all, and possible grammatically that the word so rendered only means "afterwards."

If a forger had attempted such a work he would probably have written in Hebrew; at all events, he would not have used verbal forms only known in Ayssrian, unless he was himself a good scholar. Nor would he have invented the peculiarities of the alphabetical forms on the stone, which are of the greatest value, or the name Istar-Chemosh, which preserves the old Akkadian form *Istar* instead of the Biblical Ashtoreth, another most important note of antiquity.

It will be highly interesting to compare the newly-found Aramean text of Panammu with the Moabite Stone. Language and lettering alike will then be elucidated further, for the text shortly to be published is even older than that of King Mesha. Meanwhile, it may be asserted with confidence that the genuineness of the stone is only disputed by those whose monumental studies are not far advanced, and who forget that Moabite is not Hebrew.

C. R. Conder.

A PASSAGE ON THE MOABITE STONE.

On the Moabite Stone the word אשב has been taken in two senses: Line 12, "I carried off;" and line 13, "I caused to dwell." Is it not possible that in both it answers to the Hebrew ישב, "I turned" (*cf.* 1 Sam. xv, 31, from the root ישוב). In Assyrian the aorist takes *a* as a prefix (*cf. asib*, "I sat"), and the Moabite dialect approaches Assyrian in some particulars (pronouns, plural, and verbal forms). This change, if there is, as I suppose, no real grammatical objection, makes a great difference in the historical meaning of the text—

ואשב משם את אראל דודה ואסחב(ה) לפני כמש בקרית
ואשב בה את אש שרן א · · מחרת

"And I turned thence (from Ataroth) to Ariel of David, and I pulled it down before the face of Chemosh by war, and I turned by it to the men of Sharon (and . . . .) afterwards."

The fourteenth line records the taking of נבה, either Nebo or Nob, where the altars of Jehovah" were pulled down, but this word is used in the Bible of pulling down the walls of a city (2 Sam. xvii, 17).

In this case if, as is generally supposed, the Ariel of the Bible is Jerusalem, King Mesha claims to have taken Jerusalem and to have gone on to Sharon, and to have overthrown Nob in the time of Omri's son Ahab, or more probably later, after his death (*cf.* 2 Kings, iii, 4). The victories of Mesha would follow Jehoram's attack, and in the same reign (2 Kings, viii, 16–22) there was a general revolt from Edom to Libnah, which would agree with this rendering. But we do not know for certain where Ariel—the "city where David camped" (Isaiah xxix, 1, 2, 7) should be placed, and the term Sharon was applied to other grazing plains besides that near Jaffa—notably to one near Tabor.

C. R. C.

THE BATTLE OF KADESH.

(3rd Sallier Papyrus, "Records of the Past," II, pp. 67–78.)

The conquest of Kadesh by Rameses II was preceded by a surprise nearly fatal to the king. He was told that the Hittites had retired to Aleppo, and riding alone to the north-west of Kadesh, was cut off from his army by the Hittites, who were in ambush, and who came out by the ditch south of the town west of the Orontes.

The position of the Egyptian army in rear is minutely described. The legion of Amon was behind the king (*i.e.*, towards the south), the legion of Phra was by the ditch, west of the town of Sabatuna, divided by a long distance from the legion of Ptah "in the midst," which was

near the town of Arnama. The legion of Sutekh was on the road, apparently at the "Lake of the Land of the Amorites," or of "*Amuli*." They were all at a considerable distance from Kadesh and from Rameses, on their way from the south.

This account is easily explained if Kadesh be placed at *Kades* close to Tell Neby Mendeh. Arnama will then be *Hirmil* in the Orontes valley, Sabatuna, *Zabun* further south, and the Lake of Amuli, the great lake of *Yammûneh* on the east slope of Lebanon. All these places I have visited. They lie on the direct road between Kadesh and the Lebanon Pass to Afka. This agrees also with the statement in the poem of Pentaur, "He marched through the valley of the River Orontes." The Egyptian corps were each 14 miles or a day's march apart.

C. R. Conder.

16*th June*, 1890.

CONQUESTS OF RAMESES IN GALILEE.

In his eighth year Rameses II attacked Galilee, and took the towns of Shalama (Shunem), Marona (Merom), Ain Anamin (probably Engannim), Dapur (Tabor), and "the town Kalopu on the mountains of Beitha Antha."

This last is apparently Beth Anath in Upper Galilee, which Sir C. W. Wilson fixed at 'Ainitha. Looking at the map, I see that the ruin *Shelabun* is on the hill to the west of Ainitha. The site (Mem. 1, p. 245, Sheet IV) is ancient and important, and may very well be the Kalopu of this campaign.

C. R. C.

JEWS AND GENTILES IN PALESTINE.

To draw a picture of Palestine about the Christian era, it is necessary not only to understand the Jews, but to know also all that can be known of the non-Jewish population of the country, and to judge their relations to the Jewish population. Outside the New Testament we have no literary aid except in the works of Josephus; though the Mishna, put into its present form about 190 A.D., no doubt represents the conditions of Jewish society before the destruction of Jerusalem. Our monumental information is confined to a very few inscriptions in Hebrew and in Greek, but it is here proposed to show what light can be thrown on the subject by the occurrence of foreign words in the language of the Talmudic books; and to carry down this inquiry as late as 500 A.D. This philological inquiry may be divided into three parts: First, as regards the words used in the Mishnah in the second century A.D. Secondly, those occurring in the Jerusalem Gemara, the Bereshith Rabba, and the Targums in the third and

fourth centuries. And thirdly, the additional foreign vocabulary of the Babylonian Talmud in the fifth century A.D.

The Greeks in Palestine are mentioned in the New Testament (John xii, 20; Acts xi, 19); but without the aid of philology and of inscriptions we should hardly be able to discover how important an element of population the Greek-speaking people of the country must have been.

Greek first appears in Palestine on the coins of Alexander and the Seleucidæ, then on those of the later Hasmoneans, of the Herods, of the Procurators, and down to the reign of Titus, after which the inscriptions of the imperial coinage are Latin. Greek architectural ideas form the basis of all the Syrian styles from the second century B.C. to the third century A.D., or for five hundred years.

As regards other inscriptions, we have in Syria, as yet, none of the time of the Seleucidæ in Greek, but at Hosn Suleiman, in the mountains west of Homs, there is a Latin text of the second century A.D., which includes a decree in Greek of one of the Antiochuses. The discovery of texts written in cuneiform and in Greek (bilingual), shows us that the use of this language early spread much further east than Palestine, and the recent discoveries of Humann and Puchstein show that about 70 B.C. Greek was the court language of the kings of Kommagene near the Euphrates. Antiochus the First already calls himself about that date "the friend of the Romans and of the Greeks;" but though he places Rome first, and was himself half Persian by birth, the language of his inscriptions is Greek.

That Greek was extensively understood in Palestine in the days of our Lord, is proved by the Greek inscription from the Court of Herod's Temple, discovered by M. Clermont Ganneau, and by the inscriptions of Herod's Temple at Siah, in the Haurân, which are of special importance,[1]

[1] See Waddington, Nos. 2364, 2365, 2366, 2367, 2368, 2369. They belong to the time of Herod the Great and Agrippa II:—

Βασιλεῖ Ἡρώδει κυρίῳ Ὀβαίσατος Σαύδου ἔθηκα τὸν ἀνδριάντα ταῖς ἐμαῖς δαπάναις

Ἐπὶ βασιλέως μεγάλου Ἀγρίππα φιλοκάισαρος εὐσεβοῦς καὶ φιλορωμαίου τοῦ ἐκ βασιλέως μεγάλου Ἀγρίππα φιλοκαίσαρος εὐσεβοῦς καὶ φιλρωμαίου Ἀφαρεὺς ἀπελεύθερος καὶ Ἀγρίππας υἱὸς ἀνέθηκαν

Ὁ δῆμος ὁ των Ὀβαισηνῶν ἐτείμησεν Μαλείχαθον Μοαιέρου ὑπεροι κοδομήσαντι τὸ ἱερον ἀρετῆς τε καὶ εὐσεβείας χάριν

Σεειηνῶν τὸ κοινὸν ἀνεθηκαν Μαλειχάθῳ Αὔσου τοῦ Μοαιέρου ὅτι κατεσκεύσας τὸ ἱε[ρὸν καὶ το]ν περὶ αὐτ[ὸ πάντα κόσ]μον

Μαλείχαθος Αὔσου τοῦ Μοαιέρου

Μαλείχαθος Μοαιέρου.

as showing no less than others of later date that Greek was understood by a native population, and Greek texts carved by people to whom the language was not entirely familiar. The longer text in honour of Malichathus, son of Ausus, at this pagan temple of Herod's east of the sea of Galilee is bilingual, the other script and language being the Aramaic, which in the time of Christ was the native speech of Palestine.

Immediately after the destruction of the Temple, we find the power of Rome recognised by the Palmyrenes in 79 A.D., when a tribe, called the "Claudian tribe," after the Emperor Claudius, existed in the city Another Greek text from Palmyra dates from 83 A.D. The trade of Palmyra with the East is witnessed as early as 240 A.D. by a Greek text. In the third century the Palmyrenes assumed Roman names, but the texts are bilingual, the native Aramaic being the language of the populace, and Greek apparently that of the rulers and traders.

Under the great Emperors, Greek was the literary language not only of the East, but even in Rome itself. The inscriptions of Roman governors and military chiefs in the Haurân are in this age all written in Greek, and among these the most remarkable is the decree attributed to the Emperor Anastasius, which regulates trade and military affairs (Waddington, 1906). After the separation of the Empire, the language of Christianity in all parts of Syria continues to be Greek, though we have evidence that the native tongue and script continued also in use, and that Cufic was found in use among the Christian princes of the Haurân when the Moslems broke in from Arabia.

Latin was much less frequently used in inscriptions by the Roman rulers of Palestine than was Greek. A Latin text of Vespasian's at Beirut dates about the time of the fall of Jerusalem. The Roman milestones of the second century are also inscribed in Latin, and Roman funerary texts are in the same language. So too are the texts describing the making of the military road at Abila, and the dedication of the Baalbek temple; at Jerusalem the statue of Hadrian also bore a Latin inscription; two other texts occur at Husn Suleiman, and at Nejha (Wadd., 2720a, 2559); but the first of these, though headed with the Imperial order in Latin, whereby Valerian and Galienus confirm the ancient rights of the inhabitants of the town, contains the details of those rights in Greek. There are also two Latin texts at Bostra of the time of Marcus Aurelius. Hence it appears that Greek must have been much better known to the native population than Latin, and indeed it was evidently used much as French is now used in Turkey, as the diplomatic language.

It is evidently natural therefore that the Gospel, intended for Gentiles as well as for Jews, should have been written in Greek; and Josephus in like manner uses Greek in writing for the information of the Romans. As regarded the use of this language and character among the Jews themselves, we have various indications in the Talmud, which show considerable differences of opinion. According to the Babylonian Talmud

(Sota, 49 *a*) it was forbidden during the war against Titus to teach children Greek or "Ionian" (יונית), but in the Jerusalem Talmud (*see* Buxtorff, col. 942) it appears that notes on the Scriptures were to be written in Greek, no doubt to prevent such notes from being copied afterwards as part of the text. The Rabbis allowed children to be taught Greek where it was necessary, and a knowledge of Greek was esteemed an accomplishment for girls. Even the phylacteries might, according to another account (Megella, 9, *a*), be inscribed in Greek. On the other hand, the more prejudiced view is expressed in the words, "cursed is he that rears swine, and he who shall teach his son the wisdom of the Greeks" (T. B. Sota, 49 *b*). Yet logic, arithmetic, and astronomy might be learned from Greeks. It appears even that the Greek translation of the Scriptures was used in Palestine in some synagogues. Rabbi Levi went to Cæsarea (which was reckoned to be outside the Holy Land) and found the Jews reading the *Shema* ("Hear, O Israel") in Greek. He desired to prevent this but Rabbi Jose approved it (Tal. Jer. Sota, vii). Another Rabbi said it was lawful to teach Greek wisdom (חכמת יונית) to a son, in a time which should be neither day nor night—because of Psalm i, 2.

From such passages we may judge that the old hatred of the Greeks which dated from the days of Judas Maccabæus continued down to 500 A.D., yet that it was found impossible entirely to forbid the study of the Greek language.

It is now proposed to inquire what were the classes of society in contact with the Jews who must have spoken Greek even before the destruction of Jerusalem. Our guide in this matter is found in the foreign words used by the Jews.

The Rev. A. Löwy ("Proceedings Soc. Bib. Arch.," April, 1884) gives a good many such words, not all here enumerated, but he apparently includes very late Rabbinical writings not here mentioned. He classes as follows the technical words of the Hebrew Scriptures :—

Artificers' work	160	words.
Building	140	,,
Implements	130	,,
Garments	50	,,
Food, drink, ointments	40	,,
Weights and measures	35	,,
Colours	15	,,
Weaving....	130	,,
Total	700	

The language of the Mishna is the literary language of the Jews of Palestine in the 2nd century of our era. It is much purer than that of later centuries, yet at least forty Greek and Latin words used in the

Mishna will be found in Buxtorff's great Lexicon. These which I have there noted are as follows[1] :—

אכסידרא	Εξέδρα	"Porch" (of the Temple), Middoth, 1, 5.
אנגריא	Ἄγγαρος	"A porter," Baba Metzia (78, 1) cf. Mark xv, 21.
אינומלין	Ἐνομελι	"Wine and honey," Sabbath (39 *b*).
אנפוריא	*Amphora*	"Wine jar," Baba Metzia, ii, 1.
אסטדיא	*Stadium*	"A city square," Aboda Sara (16).
איסטוא	Στοὰ	"A cloister," Nidda (59 *b*).
אסטרובלין	Στρόβιλος	"A millstone," Baba Bathra (65 *a*).
אסטרטיא	Στρατεία	"A name list," Kiddushin (76 *a*).
אסכלא	Ἐσχάρα	"A cooking pot," Pesakhim, vii, 1.
אסקוטלא	*Scutella*	"A dish," Moed Katon, iii.
אסר	Ἀσσάριον	"A farthing," Cholin (end), Matt. x, 29.
אפיקומן	Ἐπίκωμος	"Dessert," Pesakh (119 *b*).
אפיקורוס	*Epicureus*	"An Epicurean," Sanhedrin, xi, 1.
ברסיא	Βυρσεὺς	"A tanner," Ketuboth, vii.
זיתוס	Ζύθος	"Egyptian beer," Pesakh, iii, 1.
טבלא	*Tabula*	"A tablet," Erubin, v.
טופס	Τύπος	"A type," "copy," Gittin (26 *a*).
מלוגמא	Μάλαγμα	"A plaster," Shebiith, viii.
מרקוליס	*Mercurius*	"Mercury," Aboda Sara, iv, 1.
נימוס	Νόμος	"Law," Gittin, vi.
ננס	Νάνος	Nanus, "dwarf" (pillar), Middoth, iii, 5.
סיטון	Σιτώνης	"A provisioner," Demai, ii, &c.
ספוג	Σπόγγος	"A sponge," Sabbath, xxi.
סרך	Συρικὸν	"Syricum" (red colour), Kelim, xv.
פילא	φιάλη	"A vial," or "bowl," Sota, ii (Rev. xvi, 2).
פולמוס	Πόλεμος	"War," Parah, viii, 9.
פרגול	Περίγρα	"Compass," Kelim, xxix.
פרקליטא	Παράκλητος	"An advocate," Pirke Aboth, iv, 11 (1 John, ii, 1).
קטיגור	Κατηγορος	"An accuser," Pirke Aboth, iv, 11 (Rev. xii, 10).
פרוזבול	Προσβολή	"Defence," Sabbath, x, 3.
קולא	Κόλλα	"Paste" (for books), Pesakhim, iii, 1.

[1] Those cases in which [the chapter and verse is quoted I have, as a rule, verified in the Hebrew of the Mishna.

קולבון	Κόλλυβον	"Discount," "agio," Bechoroth, ix.
קוליים	Κολίας	"A species of fish," Sabbath, xxii.
קמוליא	*Cimolia*	"A kind of earth," Sabbath (89, 2).
קנון	Κανοῦν	"Basket," "sieve," Kelim, xvi.
קרדיקוס	Καρδιακὸς	"Heart disease," Gittin, vii.

These thirty-five words, to which others may perhaps be added, refer to government, law, medicine, coins, trade, and in two cases only to the Roman philosophy and religion. We may fairly conclude that the upper and middle classes with whom the Jews came into contact spoke Greek, and, as has been noted, some of the words are used in the Greek of the New Testament.

The relations of the Jews with Gentiles may be gathered from many passages in the Mishna which agree with the deductions thus reached. The tract on "strange worship" (*Aboda Sara*) contemplates trade with idolaters, but precautions were to be taken lest the Jew should even seem to encourage or take part in any idolatrous custom. The feasts of the idolaters are explained (1, 3) to be "the Kalends, the Saturnalia, and the Quartesima." Certain things were not to be sold to idolaters (1, 6), because they would be used for idolatry, but Jewesses were allowed to have pagan nurses for their babies (ii, 2). Medicine might be bought of pagans (ii, 3), but not for human disease, only for "property." Food might be prepared for them under certain restrictions (ii, 6), and cooking vessels bought from them (v, 12) if purified before use. It would seem, therefore, that the relations between the non-Jewish and Jewish population of the country must have been intimate.

The Jews themselves were engaged in trade. The most famous and honoured Rabbis were artisans or traders in many cases. The Jews are described in the Mishna (Sheviith, v, 6) as agriculturists; also (Sabbath, vii, 2; Pesakhim, iv, 6) as bakers, shearers, dyers, weavers, butchers, tanners, scribes, builders, goldsmiths, porters, tailors, barbers, washers, and shoemakers.[1] Many of these trades (especially as dyers) they continued to follow in the Middle Ages, and down to the present time in Palestine. A Jewish colony of traders was established in Palmyra in Zenobia's time, and their descendants were found there by Benjamin of Tudela about 1160 A.D. The trade with India and the East was as old as Persian times (*cf.* Ezek. xx, 19), and Josephus ("Contra Apion," 1–12) says that trade was carried on along the coasts. This is probably why the word Canaanite, or "lowlander," takes the meaning of "merchant" in certain passages of the Bible (Job, xl, 30; Prov., xxxi, 24; Isaiah, xxxiii, 5; Ezek., xvii, 4; Zeph., i, 11). Yet it was not only by trade relations that the Jews came into contact with Gentiles, for we learn that "astronomy and geometry are ornaments of wisdom" (Pirke Aboth, iii, 18), and these

[1] In the twelfth century, Benjamin of Tudela speaks of the Jews in Palestine as shipowners, glass-makers, and dyers.

sciences we see that they were allowed to learn from the Greeks, though Josephus complains that his "nation does not encourage those that learn the languages of many nations" ("Antiq.," xx, xi, 2).

II.

We may next consider the foreign words, Greek and Latin, found in the Early Targums in the *Bereshith Rabba* (before 400 A.D.) and in the Jerusalem Talmud (*circa* 370 A.D.), of which about 200 are noted in Buxtorff's Lexicon. The large majority are Greek, as in the Mishna also. We have here to deal with a period when the capital had been removed from Rome to Constantinople; yet the use of Latin words is not entirely discontinued, and trade with Italy continued to exist. The words to be studied related to (1) government and the army; (2) medicine and disease; (3) trade; (4) the sea and sailors; (5) objects bought or sold, furniture, &c.; (6) the Pagan customs and idolatry; (7) philosophy, science, literature, and architecture; (8) names of trees and plants; and a few other words connected with the lower classes and with various other matters. These will be considered in order.

In this list it seems unnecessary to give references, since they can be found in Buxtorff, and since I have not the opportunity of verifying his citations, which, though in the case of the Mishna I have found generally correct, are here and there misprinted. The star put to certain words indicates that they also occur on the contemporary or earlier monuments of Palestine and Syria, due to the Romans and to the native Greek writing population.

Greek Words.

1. *Government, Law, and the Army.*

אנדיקוס	Ἔνδικος	"Legal."
אותנטיא	Αὔθεντια	"Authority."
אטימיטון	Ἀτίμητος	"Precious."
אכסיומא	Ἀξιώμα	"A pleading or axiom."
אנטלר	(Ἐντελλω)	"A prefect."
אנטידיקוס	Ἀντίδικος	"An adversary."
אספיר	Σπεῖρα	"A cohort" (Matt. xxvii, 27).
אפופסין	Ἀπόφασις	"Judicial sentence."
אפיקליט	Ἐπικριτὴς	"A Judge."
איפרכיא	Ἐπαρχία	"Prefecture."
* אפרכוס	Ἔπαρχος	"Governor."
* אורכניס	Ἀρχώνης	"Prince."
ארכיון	Ἀρχεῖον	"Archives."

* בולווטיס	Βουλευτὴς	"Councillor."
* בסיליוס	Βασιλεὺς	"King."
גניס	Γενὰς	"Noble."
גינוסא	Γένεσις	"Birth."
הוגניסים	Ἐυγενέια	"Nobility."
הגמונא	Ἡγεμων	"A chief."
הגמוניא	Ἡγεμονία	"A prefecture."
זמי	Ζημιόω	"To fine."
זימין	Ζημία	"A fine."
טקסא	Τάζις	"Order," "arrangement."
טורנא	Τυράννος	"A ruler."
ארכיודקי	Ἀρχίδικος	"Chief judge."
* מגיסמי	Μέγιστοι	"Magnates."
* מטרופולין	Μητρόπολις	"A metropolis."
מרגן	Μάραγναν	"A scourge."
פרגול	Φραγελλιον	"A scourge" (Matt. xxvii, 26)
סנהדרין	Συνέδριον	"Sanhedrin" (also in Mishna).
כנקתדרון	Συγκάθεδρος	"An assessor."
פולימרכוס	Πολέμαρχος	"A captain."
פלסון	Φυλάσσων	"A guard."
פרוטגמא	Πρόσταγμα	"An edict."
קוזמוקרטור	Κοσμοκράτωρ	"Prince of the world."
* קיריס	Κύριος	"Lord."
קלוסין	Κέλευσις	"A precept."
קלמין	Κάλλιμος	"Noble."
קלסטר	Κολαστὴς	"A torturer."
קומנטריסין	Κομενταρήσιος	"A criminal judge."
קריטיס	Κριτὴς	"Judge."
קתוליקוס	Καθολικιανὸς	"A treasurer."

2. *Medicine, Disease, and Doctors.*

אנדרלומוסיאה	(Ἀνδρὸς and λοιμὸς)	"Pestilence."
אסטומכא	Στόμαχος	"The stomach."
אסטניס	Ἀσθενὴς	"Ill."
אספרמקון	Φάρμακον	"Spices."
אהיטרוס	Ἱππίατρος	"A horse doctor."

בולמוס	Βούλιμος	"Diseased hunger."
גנדריפס	Κυνάνθρωπος	"Melancholy."
מיטרא	Μήτρα	"The matrix."
מלניא	Μελανία	"Melancholy."
תרפיון	Θεραπεία	"Medicine."
צפדינא	Σηπεδών	"Gangrene.

3. *Trade, Coins, and Weights.*

אבריזין	Ὄβρυζον	"Fine gold" (Pliny, H.N. xxxiii, 3).
אוניתא	Ὤνησις	"Sale."
אולוכריסון	Ὁλόχρυσον	"Pure gold."
אמפורין	Ἔμποροι	"Merchants."
דניסטס	Δανειστὴς	"Creditor."
דורון	Δῶρον	"Gift."
המינין	Ἡμίνα	"A coin" (tenth of sextarius).
טסברין	Θησαυρὸς	"Treasure."
כרכומא	χάλκωμα	"Ore," "bronze."
כריסון	χρυσὸν	"Gold."
כרוספלה	χρυσοπέδιλος	"A gold anklet."
מילתא	Μηλωτὴ	"Lambs' wool."
סגוס	Σάγανον	"A seal."
ספרגוס	Σφαγὶς	"A woollen dress."
* פונדיק	Πανδοκεῖον	"An inn."
פרגמטיס	Πραγματευς	"A merchant."
פרגמטיא	Πραγματεία	"Merchandise."
פרזביס	Πρέσβυς	"Messenger," "interpreter."
פורנא	Φέρνη	"Profit" (LXX, Exod. xxii, 15).
פראפרנון	Παράφερνα	"Bridegift."
קסטא	Ζεστης	"Sextarius, a coin."
קפילא	Κάπηλα	"A market."
תריטא	Τρίτη	"A third."
אנטיכריסיס	Αντίχρησις	"A kind of usury."

4. *The Sea and Sailors.*

אוקינוס	Ὠκεανὸς	"The ocean."
ארגסטוס	Ἀργέστης	"A storm."
גליני	Γαλήνη	"Smooth sea."
לבוס	Λευκός	"White" (fish).
למין	Λιμὴν	"A port."
נוטא	Ναυτὴς	"A sailor."
ניסא	Νῆσος	"An island."
פילגוס	Πελάγος	"The sea."

5. *Objects Bought and Sold.*

אסטולי	Στολῇ	"A robe."
גלוסקמא	Γλωσσόκομον	"A basket," or "box.'
דיאטריטין	Διάτρητον	"A glass cup."
דיסקוס	Δίσκος	"A dish."
טרפיזא	Τράπεζα	"A table."
לונכא	Δόγχη	"A lance."
מטכסא	Μέταξα	"Silk material."
מלוטמיה	Μελίτωμα	"A sweetmeat."
פוטיריון	Ποτήριον	"A goblet."
פלכין	Πελέκυς	"An axe."
פיקויל	Φάκελλος	"A cap."
קולרין	Κολλάριον	"A collar."
קילורין	Κολλῦριον	"Eye salve" (Rev. iii, 18).
קולבוס	Κολώβιων	"A kind of dress."
קומקום	Κουκούμιον	"A pot."
קונמא	Κύναμου	"Cinnamon."
קרטיל	Κάρταλλος	"A basket."
קרוכא	Καρούκα	"A chariot."

6. *Pagan Customs and Idolatry.*

אטליטין (Pl.)	Αθλητὴς	"Athlete."
איקונין	Ἐικώνιον	"Image."
בלן	Βαλανεὺς	"A bathman."
לונטיה	Λέντιον	"Towel" (John xiii, 4, 5).
מומוס	Μῶμος	"Comic mask."

מנמכוס	Μονομάχος	"A gladiator."
מסתורין	Μυστήριον	"A mystery."
נמיפי	Νύμφη	"Nymph," "bride."
סיבנא	Σάβανον	"A towel."
פרוטגמיא	Προγαμεία	"A wedding gift."

7. *Philosophy, Science, Literature, Architecture.*

אוסיא	Ὀυσία	"Substance."
אימירא	Ἡμερα	"Day."
אנדרוגינינוס	Ἀνδρόγυνος	"Androgyne."
אנטיגרפא	Ἀντιγραφη	"A copy."
אנגקי	Ἀναγκη	"Fate," "necessity."
אסטרולוגיס	Ἀστρόλογος	"An astrologer."
אסכולי	Σχολὴ	"A school."
ארכיטוקטוס	Ἀρχιτέκτων	"Architectus," "architect.'
אורולוגין	Ὡρολόγιον	"A clock."
אתנסיאה	Ἀθανασία	"Immortality."
בסיליון	Βασίλειον	"Royal."
כסילקי	Βασιλικὴ	"A Basilica."
גריפיס	Γραφεὺς	"A scribe."
דוגמא	Δείγμα	"Figure."
דיוטגמא	Διάταγμα	"A copy."
דונמיס	Δύναμις	"Power" (Gnostic term).
הדרוולה	Ὕδραυλος	"An organ."
טטריגון	Τετράγωνος	"A tetragon."
כמרוסא	Καμάρωσις	"A vault."
קרקומין	Χαράκωμα	"A fortress.
מטכסא	Μεταξὺ	"The centre."
מלתרא	Μέλαθρον	"A beam."
מנגנון	Μάγγανον	"A machine."
מיסון	Μέσον	"The middle."
סיסמא	Σύσσημον	"A sign."
סופיסטא	Σόφος, *Sophista*	"A wise man."
פדגוגא	Παιδαγωγὸς	"A schoolmaster."
* פילא	Πύλη	"A gate."
פנטגון	Πεντάγωνος	"A pentagon."
פנקס	Πίναξ	"A book."

פרדוקוס	Παράδοξος	"Paradoxical," "incredible."
קוזמיקון	Κοσμικὸς	"Ornaments."
קילון	Κήλον	"A canal."
קמין	Κάμινος	"Chimney."
* קמרון	Καμάρα	"A vault."
קופלא	Κεφάλαιον	"Capital" (of a pillar).

8. *Trees and Plants.*

אסטיס	Ἰσάτις	"A purple flower."
אסטקטון	Στακτὴ	"Balm."
איסטרוביל	Στρόβιλος	"Pineapple," "fir cone."
אספרגוס	Ἀσπάραγος	"Asparagus."
בלסמון	Βάλσαμον	"Balsam."
זנבילא	Κινναβαρις	"A kind of cedar."
טרגימא	Τραγήματα	"Fruits."
טרוקסימא	Τρῶξίμος	"Endive."
מלפפוניא	Μηλοπέπονες	"Melons."
פוליטריכון	Πολύτρ εχον	"A kind of herb" (Pliny, xxii, 21).
פיקטינון	Πύξινον	"Box wood."
פקסינון	Πυξὸς	"Box tree."
קיק	Κίκι	"Castor-oil tree."
קנבוס	Καύναβις	"Hemp."
קינרס	Κινύαρος	"Artichoke."
קקיל	Καυκαλὶς	"An herb."
קרינטון	Κήρινθον	"A kind of flower."
תורמוס	Θέρμος	"Lupine."
גוגידין	Γιγγίδιον	"An herb" (Pliny, xv, 5).

9. *The Lower Classes.*

אגריון	Ἄγριος	"Peasant."
אוכלוסא	Ὄχλος	"A mob."
דימוס	Δῆμος	"The people."
הדיוט	Ἰδιωτης	"A fellow."

10. *Other Words.*

איטימוס	Ἕτοιμος	"Prompt," "ready."
אימירון	Ἥμερος	"Tame."
אסיט	Ἄσωτος	"A guest."
אספטי	Σπάθη	"A sword."
איקונומוס	Οἰκονόμος	"Steward" (Luke xii, 42, &c.).
דימוס	Δεῖμος	"Fear."
המיונוס	Ἡμίονος	"Mule."
זומית	Ζωμός	"Juice."
כילוי	Χέλυς	"Tortoise shell."
כלינוס	Χάλινος	"A bridle."
למפד	Λαμπά(δος, *gen.*)	"Lamp" (Dan. v, 5, lxx).
לסטיס	Λῃστὴς	"Robber."
לוקוס	Λύκος	"Wolf."
מגוש	Μάγος	"Magian" (of Persian origin).
מגיריון	Μαγειρεῖον	"Kitchen."
מונטר	Ἀμυντήριον	"Armour."
סלפינגא	Σάλπιγξ	"Trumpet."
סימן	Σημεῖον	"A sign."
סמרון	Σήμερον	"To-day."
סוניתא	Συνήθεια	"Custom."
סיס	Σῆς	"Small worm."
פיגי	Πήγη	"Spring" (*cf.* عين فيجي *'Aïn Fiji.*)
אפנטי or פנטי	Ἀπάνθησις	"Meeting."
פסנטרין	Ψαλτήριον	"Psaltery" (Dan. iii, 5).
אקלידא	Κλεῖς (Κλειδος)	"Key."
קתרוס	Κίθαρις	"Harp" (Dan. iii, 5).
שבנא or סבכא	Σαμβύκη	"Sackbut" (Dan. iii, 5).

With regard to the Greek in this list, the words are not always native to the Greek tongue. Suidas says that Ἄγγαρος was a Persian word used by Greeks, and as the Talmudic אנגריא has not the Greek ending, it may have been separately derived. Μάγος also appears as *Magush* on the Persian monuments, and as the Talmudic מגוש is not spelt with ס, which usually represents the Greek σ, it is perhaps more probably derived straight from the Persian. Ζύθος may be an Egyptian word for beer, and Σαμβύκη is said by Strabo to have been a foreign word in Greek. But these represent a very few exceptions compared with the large majority

of true Greek words used by the Talmudic writers. Χρυσὸν for "gold" in Greek (*cf.* Sansk. *hiranya*, Zend. *Zaranya*) is believed to be of Semitic origin (Assyrian *hurasu*), the Hebrew being חָרוּץ (Ps. lxviii, 14; Prov. iii, 14, viii, 10, xvi, 16; Zech. ix, 3), but the Talmudic בריסון is clearly only a transliteration from the Greek.

Latin Words.

אגוסטוס	Augustus	For an Emperor generally.
אסטרט	Strata (Italian *Strada*)	"A road."
לבריא	Liburnæ (pl.)	"A light vessel."
דומינוס	Dominus	"Lord."
טורמנטין	Tormenta	"Siege machines."
לימצא	Limax	"Snail."
מוניטה	Moneta	"Money."
מקילון	Macellum	"A meat market" (1 Cor. x, 25).
מרמר	Marmor	"Marble."
סודר	Sudarium	"A towel."
סטטיונר	Stationarius	"A sentinel."
ספוקלטור	Spiculator	"A satellite."
פלטידין	Palatium	"A palace."
פוליטיקון	Politicum	"Civilised" (not rustic).
פולר	Folleralis	"Small coin."
פפיליון	Papilio	"A pavilion."
קלמריון	Calamarium	"An instand."
קולקס	Colocasia	"A plant so called."
קמיליא	Camella	"A kind of vase."
קנדיל	Candela	"A candle."
קנקל	Cancelli	"Rails."
קסיטוליון	Castellum	"A castle."
קדרינטס	Quadrans	"A coin."
קורלין	Corallium	"Coral."

There are other Latin and Greek words which might be added, but chiefly from late writings.

III.

The additional words of interest found in the Babylonian Talmud now follow, but do not represent the language of Palestine.

Greek Words.

Ἀηρ, "air" (also Targ. Jon.); Ξύλινος, "wooden"; Ξενὸς, "guest"; Ὀψώνιον, "military pay"; Στατὴρ, "a coin"; Ορυζα, "rice"; Γαστὴρ, "a pot"; Γύψος, "gypsum"; Διάγων, "diagonal"; Δάφνη, "laurel"; Τόμος, a "volume"; Τρυτάνη, "a weight"; Τρισκελὴς, "a table"; Ιάσμη, "jasmine"; Μάχαιρα, "a sword"; Μέλιαν, "the ash-tree"; Μαλακία, "softness"; Μῶλος, "a weight"; Μομὴ, "an ulcer"; Συνήγορος, "an advocate"; Αμυλος, "unground"; Ποδαγρὸς, "Podagrosus"; Πίθος, "a vase"; Φολλις, "a small coin"; Πομπὴ, "a pomp," or "ceremony"; Φανὸς, "lantern"; Παράδεισος, "a paradise"; Πρώσοπος, "face"; Κυβερνήτης, "rudder"; Κέδρος, "cedar"; Κώμη, "hair"; Κηρὸς, "wax"; Κώθων, "cup"; Κυνηγία, "hunting"; Καθέδρα, "chair"; Κρατὸς, "mighty"; Θήκη, "box."

Latin Words.

Evangelium, "gospel"; *Stabula*, "stable"; *Castra*, "camps"; *Tribula*, thrashing machine"; *Notarius*, "notary"; *Polypus*, "polyp"; *Familia*, "family"; *Furnus*, "oven"; *Comes*, "Count"; *Calamus*, "pen"; *Calathus*, "a vessel"; *Contus*, "a club"; *Costus*, "a sweet root"; *Velum*, "a veil"; *Patronus*, "master" (Midrash, Ps. 4); *Triclinium*, "table."

Persian Words.

As might be expected in the literature of the Babylonian school, Persian words also occur, of which the following are instances:—

טונס, Tunny, Cholm, 66 *b*, said by R. Solomon to be Persian, and דנקא Δανίκη, a coin known in Persian. The word שלטונא (سلطان) *Sultân*, used in the Targum, also comes from the East, and appears to be non-Semitic, though very ancient in Mesopotamia.

IV.

The language of the lower classes was not Greek. The עם הארץ, "sons of the soil" (a term also used in Phœnician for the populace), spoke an Aramaic dialect not very remote from that of the Jews of the same age. They have left us monuments of this speech in the Palmyrene, Nabathean, and Sinaitic inscriptions of the 2nd, 3rd, and 4th centuries, and in the Christian Cufic text of Harrân in the 6th century, before the Arab invasion.

It is interesting to note that some of the words above mentioned still survive in the peasant dialect of Palestine. The following are known to me as in common use:—

طاولا	"table"	טבלא	*Tabula*
اسفنج	"sponge"	ספוג	Σπόγγος

وقيه	"ounce"	אונקי	Οὐγκια
اصطبل	"stable"	אצטבלא	*Stabulum*
المينه	"port"	למין	Λιμὴν
ترمس	"lupine"	תורמוס	θέρμος
مرمر	"marble"	מרמר	*Marmor*
صابون	"soap"	ספון	*Sapo* (*saponis*)
صوفى	"wise man"	סופיסטא	Σόφος
بقس	"boxwood"	פקסינין	Πυξὸς
فردوس	"paradise"	פרדס	Παράδεισος
قمقم	"a pot"	קומקום	Κουκούμιον
قنديل	"candle"	קנדיל	*Candela*
خارطا	"map"	קרטיס	Χάρτης, *Charta*
فانوس	"lantern"	פנס	Φανὸς
فندق	"inn"	פונדיק	Πανδοκεῖον
قلقس	"colocasia"	קילקס	*Colocasia*
قلم	"pen"	קולמוס	*Calamus*
فلوس	"small coin"	פולסא	Φόλλις

Though remarkably free from foreign words, considering the conditions, the Fellah dialect has absorbed Turkish, Persian, and Italian words in a few instances. Words relating to the Government and the Army are naturally Turkish. Other examples are :—كاشان "summer house" (Persian) ; كاورك "cucumber" (Persian) ; يزك "sentinel" (Turkish) ; سكملا "stool" (*scamnum*, also Persian and Turkish) ; طواد "pot" (Turkish) ; رشته "macaroni" (Persian) ; عليق "wages" (Persian) ; زط "gypsey" (Persian جت = gitano) ; ستف (*stivare*, Italian) ; ميزا "sweetmeat" (Persian) ; طنجرد "a copper" (Turkish) ; سرمايه "slipper" (Persian جرم) ; اوضا "room" (Turkish) ; انجباري "workman" (Persian رنج بر) ; برتقانه "orange" (*Portugallo*, Italian) ; برج "tower" Italian, *Borgo*) ; منجريا "food" (Italian *mangiari*, "to eat"). The weights مدّ *Modius*, وقيه "ounce," رتل Λιτρα, are of more ancient

origin, as noted by Mr. Guy L'Estrange ("Palestine under the Moslems," p. 48). These foreign words have, as we see, in many cases come down among the peasantry from the time of our Lord. In others they denote the influence of later civilisation, Persian, Greek, Turkish, and Italian, on the peasantry, exactly as foreign influence on the Jews is marked by the 280 words detailed in this paper.

C. R. Conder.

MONUMENTAL NOTICE OF HEBREW VICTORIES.

Most of the Tell Amarna tablets refer to affairs in the north of Syria, but three appear to refer to the south of Palestine, as rendered by Professor Sayce ("Proc. Soc. Bib. Arch.," June 4, 1889, and June 5, 1888). These letters are as follows :—

"To the King my Lord and my father I speak, T . . . thy servant. *Arudi* . . . seven times and eight times I smote . . . when he made a raid, *Milki*, son of *Maratim*, against the country of my Lord the King, commanding the forces of the city of *Gaturri*, the forces of the city of *Gimti*. He took the country of the city of *Rubute*, (belonging) to the country of the King for the *Abiri* people. And again entirely the city of the Hill of *Ururusi*, the city of the House of Baal, whose name is *Marru*, (belonging to) the place of the men of the city of *Kilti*. And twelve cities of the King he led into revolt and . . . . . (belonging to) the country . . . of the men of the race of the *'Abiri* . . ."

The second letter—

"To the King my Lord, my God, my Sun, by letter I speak, Suardaka, thy servant, the dust of thy feet, at the feet of the King my Lord, my God, my Sun, and seven times seven I prostrate myself.

"The King of the Land of . . . gave command to make war. In the city of *Kilti* he made war against thee the third time. A complaint was brought to me. My city belonging to me (. . . to me). *Ebed Tob* sent to the men of *Kilti*. He sent 14 pieces of silver, and they marched against my rear, and overran the domains of my Lord the King. *Ebed Tob* removed my city from my jurisdiction. The . . . of my Lord the King and the fortress of *Baal Nadanu*, the fortress *Emeri* from him and his justice he removed. *Lubapi* (or perhaps *Laaba*, "the lion") with (wicked) speech he, together with *Ebed Tob*, occupied the fortress of - . *nu* . . ."

The third letter—

". . . . and again the city of *Pir* . . a fortress which is east of this country, I made faithful to the King. At the same time the city of *Khazati* (or *'Azati*), belonging to the King, which is on the shore of the sea west of the land of the city of *Gimti Kirmila* fell away to *Vrki*, and the men of the city of *Gimti*. In . . . I rode a second time, and then we marched up and *Labapi* (or *Labaa*), and the country which thou holdest revolted a second time to the *'Abiri* people with *Milki-Aril*, and he

took the sons as (hostages). Also he makes request to the men of the land of *Karti*, and then we defended (or perhaps "became free") the city of *Ururs*i; all the men of the garrison whom thou hadst left in it, *Khapi*, my envoy collected. *Addasirakan* (is) in his house in the city of *Khazati* (or *'Azati*) . . . ."

With regard to these letters, Professor Sayce has recognised the names of several of the towns as places in the south of Palestine as follows :—

Kirmila is probably Carmel of Judah, south of Hebron.

Gimti, mentioned with Ashdod by Sargon, is supposed by Dr. Delitzsch to be Gath.

Kilti—the Hebrew Keilah, now *Kîla*.

Karti, one of the places called Kirjath.

Gaturri, probably Gedor or Gederah.

Khazati, or *'Azati*, Gaza. In this case the cuneiform *Kha* stands for the Hebrew gutteral *Ain*.

*Ururs*i is a doubtful reading, and Professor Sayce is tempted to read *Eru-sha-lim*, or Jerusalem.

Aril is the Hebrew Ariel, "the Altar of God."

As regards the people of the *'Abiri*, Professor Sayce reads *Khabiri* "confederates," but, as above noted, the cuneiform *Kha* stands in the name of Gaza for the Hebrew *Ain*, and indeed *'a* is one of the values of this sign.

It is evident that there was a general outbreak of people from the Judean mountains into the plains, even Gaza being taken from the Egyptian governor. What I would now urge is that the *'Abiri* are the Hebrews (Hebrew *'Abri*[1]), and that this account represents the victories of two Hebrew chiefs called Arod and Ebed Tob. The first is a Hebrew name, "the wild ass" (Num. xxvi, 17), which belonged to an important family of the tribe of Gad. *Ebed Tob*, "the servant of the Good (or just) One," might also be a Hebrew name. Lababi, or Labaa, was apparently a deserter who joined them. If this explanation be correct, we have in these letters the earliest notice of the Hebrews in existence, and a contemporary account of the wars of Joshua, or of his successors, in the Philistine plains.

The objection which will be taken to this view is that the letters belong to an age before the Exodus. They were written either to Amenophis III, or to Amenophis IV, about 1450 B.C., and scholars as a rule have accepted, unquestioned, the date of the Exodus given by Dr. Brugsch, about 1300 B.C., but the argument on which this is founded is of the most unsatisfactory nature, and several scholars of late have rejected this late date, and have placed the Exodus earlier.

[1] The word *Abiru*, plural *Abiri*, means the people from beyond; either referring to the Abarim or regions beyond Jordan, whence the Israelites came, or, as is more generally supposed, to a derivation from beyond the Euphrates (*see* Gesenius' *Lexicon*).

In the 1st Book of Kings (vi, 1) it is stated to have been 480 years from the 4th year of Solomon to the date when "the children of Israel were come out of the Land of Egypt." The 4th year of Solomon dates about 1014 to 1011 B.C., and is fixed by the date of Necho, King of Egypt.

If we accept the Bible account, the Exodus, according to the Hebrew version, must have occurred either 1480 B.C. or 1520 B.C., approximately, according as we understand the 40 years in the wilderness to be included in the 480 years. Consequently the conquest of Palestine coincided with the latter years of the reign of Amenophis III, and the reign of his weak successor Amenophis IV, who, as we see from these letters, were not able to resist the rebellion in South Palestine, while in North Syria their Governors were being attacked successfully by the Hittites.

The Baal whose name was *Marru*, recalls the word *Mara* or *Marna*, "Lord" or "our Lord," applied by the people of Gaza to their chief god. The Melech, son of Marratim, might perhaps be the "King ruler (*mar*) of Marrati, which recalls the town of Maarah, now Beit Ummâr, in Judah.

Milki Aril might mean "King of Ariel," which appears to have been a name for Jerusalem (Isaiah xxxiii, 7). "The city where David encamped," as in the Bible Melech Arad is "the King of Arad."

Gaturri I should suppose to be *Gederothaim*, near Beit Jibrin and Gath, now *Khurbet Jedîreh.*

The country east of Gaza is described as that of Gath and Carmel, two of the most important towns of that region.

Karti I should suppose to be either Kirjath Jearim, or Kirjath of Benjamin (Kuriet el 'Anab).

As far as I am aware, this suggestion as to the *'Abiri* being Hebrews is new, and I am not aware of any objection that can be raised against it, except that of date, which is not really tenable. It seems to me that we have to do with the time immediately following the death of Joshua, and before the bondage under Sisera, who lived in the days of Rameses II, and whose name appears to me to be Egyptian, viz., *Ses-ra*, "the servant of Ra," who oppressed Israel with iron chariots. Iron was known in Egypt in this age.

It is a very important fact that the Egyptian Governors of this period, whose names are Semitic—apparently Assyrian or Babylonian—use the cuneiform character in writing. It was apparently used by the educated class in Phœnicia, and among the Hittites also in one instance at least, as well as by this unfortunate Governor, whose name Suardaka is also Assyrio-Babylonian.

It seems to me that we may thence deduce that the alphabet was not invented in 1450 B.C., and when we reflect that the earliest alphabetic texts yet known are not older than about 900 B.C., this seems to be probable. About the time of David the power of both Assyria and Egypt had declined, and it is about this time that the alphabet begins to appear, as a native script of the Hebrews, Phœnicians, Moabites, and Arameans, who were then subject neither to Assyria nor to Egypt.

The three letters here quoted are thus the earliest monumental notices of the Hebrews, carrying back our history to the time of the conquest; while Hittite history is carried back even to 1600 B.C. in the annal of Thothmes III.

SOUTHAMPTON, C. R. CONDER.
16*th June*, 1890.

NOTES ON THE *QUARTERLY STATEMENT*, JULY, 1890.

Identifications.—Mr. Flinders Petrie says that in fixing ancient sites we have been obliged to "trust to names," but such a method is not safe by itself. I have often pointed out that ancient remains must also occur. We have trusted mainly to the *form of tomb*, which has now been established in consecutive periods. I regard this as perhaps safer than deductions from pottery, which are apt to mislead.

Pillar at Tell el Hesy.—It is important to have a drawing of this. Pillars such as Mr. Flinders Petrie seems to describe were used by the Romans in Palestine. Still the volute was used in Assyria (or in Elam) about 600 B.C., and in later times in Phœnicia.

Isaiah's Chapel.—This illustrates the mediæval notice of Isaiah's Tomb (traditionally so-called) by the Bordeaux Pilgrim, speaking of the Kedron Valley: "in unum positus est Isaias Propheta et in alium Ezechias rex Judæorum."

John of Wirzburg places the Quercus Rogel at Siloam, where Isaiah was said to have been slain. Isaiah's tomb is also mentioned in the "Citez de Jherusalem."

Drafted Masonry.—No monument is known in Phœnicia with such masonry before the Greek period. The old part of the Tyre aqueduct, which is pretty certainly Phœnician work, is not drafted. It is curious that so little is ever said in considering this question of the palace at Arak el Emir, which is described in the "Eastern Survey Memoir." Here we have masonry very like that of the Jerusalem Haram, dating from 176 B.C.

It is also curious that all writers assume the marks on the lower courses of the temple wall to be Phœnician letters. That Dr. Deutch thought they were so is well known, but when he wrote we knew very little of such matters. The chief group of these markings does not recall any Phœnician shapes, and another mark ⊦⊣ is certainly not an early Phœnician form. It is the form of the letter ⊓, as used about the Christian era, or it might be the Greek H. The only other distinct sign, ┼ is most like the Greek Γ (*Gamma*). There is not a single clearly Phœnician letter among the marks on the wall. Greek mason letters occur at Baalbek.

Lachish.—There is no reason for accepting Umm Lakis as Lachish on

account of name. It is spelt ام لقس, and the letter ق is the Hebrew ק. The place is the *Malagues* of the Crusaders, so that the M is not a modern addition. On the other hand, ח and כ are often interchanged, and consequently *Elhesy* is much closer to Lachish as a word than any other name in the region. Robinson's errors, unfortunately, survive as well as his great discoveries.

Sun-Birds.—The sun-birds of Jaffa are mentioned in "Tent-work in Palestine."

Sutekh.—Mr. St. Clair seems to forget that we have a statue of this god. He is represented with a head resembling that of an ass, and *Set* was ass-headed, according to the Patristic writers. *Set Ra* also has the *Set* head, apparently of an ass. For this reason I have supposed that the ass-headed god of the Hittite hieroglyphs was Sutekh or Set.

THE GUTTER (Tsinnor).

In Mrs. Finn's identification (*supra* 195) of the "Gutter" (ii. Sam., v. 8) with the great aqueduct under Robinson's arch, two points seem to call for notice.

1. The wall that cuts through the rock-hewn cistern connected with that aqueduct is *Herodian*, not Solomonic. In "Jerusalem Recovered," p. 319, Sir C. Warren writes, "A square of 300 feet at the south-west angle I suppose to have been built by King Herod." The cistern is only 150 feet north of that angle, so that only by a misapprehension can it be said to be demonstrated that the aqueduct existed before Solomon built the Temple.

2. Two passages are quoted from Josephus ("Wars" V, iv. 1, and "Ant." VII., iii. 1), and are said to establish the identity of Zion, the city of David, with the Upper City, or Market-place. But if here, in the "Wars," Josephus practically in one instance speaks of the Upper City as being the fortress which Joab entered, still in his later work, the "Antiquities," he *four times* distinctly describes the very same fortress as the Acra; and every reader of the "Wars" will know that the Upper City and the Acra were two distinct hills. It is most unreasonable to suppose that Josephus, who was well acquainted with Jerusalem, should repeatedly in the "Wars" give the existing title of Acra to one hill, and afterwards in the "Ant." give the very same title to the other. To do so would be utterly to bewilder, and not to instruct his readers. If, however, he found out the error of his solitary statement in the "Wars," that "the Upper City was called the Citadel (φρούριον) by David," he would, like an honest writer, correct his mistake in his later work.

Again, if here, in the "Wars," Josephus practically places the city of David (in whole or part) on the Upper hill, it must also not be overlooked that 1 Maccab. recognises Acra alone as the site of the city of David, and that in the Biblical passages, in four cases at least out of the five, the

part of Jerusalem described as the city of David must be that which was afterwards called the Acra.

As I stated in *Quarterly Statement*, 1888, 108, the City-of-David question is really as clear as a sunny noon, and as easy as A B C, until Josephus' guesses at truth are weakly taken to be truth. It is certainly remarkable that generations of writers should, in this one instance in the "Wars," accept Josephus as infallible, and shut eyes and ears alike to all the counter evidence in the "Antiquities," 1 Maccab., and the Bible. Surely it is time to cease doting over one casual observation, and to take in the new idea that Josephus could change his view as well as his side.

W. F. Birch.

GIHON.

Referring to the Rev. W. F. Birch's remarks on my paper respecting Gihon: (1) I cannot share his view that it is "most unsatisfactory to have to take 1 Kings i, 33, 45, as speaking proleptically." Such prolepsis in connection with names of places is repeatedly met with in the Old Testament. Thus, in Gen. xii, 8, we read that Abraham "pitched his tent, having Bethel on the west and Hai on the east;" although from Gen. xxviii, 19, we learn that the place got its name of Bethel from his grandson a century and a half later. Unless, indeed, there were two Bethels. In 1 Sam. iv, 1, we read that the Israelites "pitched beside Ebenezer;" whilst from 1 Sam. vii, 12, it appears that the place was not so named until many years later. Unless, indeed, there were two Ebenezers. (2) The date of the construction of the tunnel is a point upon which I did not venture to speculate, there being so few data from which to form an opinion. That such "a gigantic work," as Mr. Birch justly calls it, should have been constructed in haste I find it hard to believe, as for the greater part of its extent only two men could have worked at the same time, namely, one at each end. And if relays of labourers were employed so that the work might go on without intermission, a very long time must still have been consumed in completing the task. I am rather inclined to think that Hezekiah's work of stopping the upper outflow and bringing down the water to the west side of the City of David only involved the short side tunnel and Warren's shaft. Perhaps the same king may have excavated the whole canal in the peaceful days which preceded and followed Sennacherib's invasion. (Ecclesiasticus xlviii, 17.)

Thomas Chaplin, M.D.

NOTE ON FIGURES IN THE CAVE OF SARÎS.

With reference to the figure on the *east* wall (*Quarterly Statement*, April, 1890, p. 71), presumably that of our Blessed Lord on the Cross, I venture to suggest that the ornament on the face represents only incisions in the rock wherein to impress the features, probably worked out in plaster. The whole figure seems flat, and may originally have had the *bodily* form worked out in the same medium.

The eight lines above the head may represent the nimbus.

R. F. Hutchinson, M.D

"MA'LULA AND ITS DIALECT," BY F. J. B.

This interesting paper would have been more valuable if the sounds of the vowels had been accented, as a guide to pronunciation. Without marks we are in doubt.

Thus on page 88, hsôn (my horse) the circumflex does not tell us exactly whether the word is hsŏn or hsōn or hsŭn.

The close resemblance of many of the (?) Málulá words to their analogues in Hindūstání is curious. Thus on page 89—

M.	E.	H.
Raisha.	Head.	Rás Ráīs-lōgh (head people).
'Aina.	Eye.	Ainā (*lit.*, glass).
Furshta.	Bed.	Fārsh.
Sejratha.	Tree.	Shājār.
Hwoya.	Air.	Hāvá.
Ara.	Ground.	Ārází.
Shoptha.	Week.	Hāftāh.
Shimsha.	Sun.	Shāms.
Nura.	Fire.	Nūr (lustre).
(Page 91) Kutal.	He killed me.	Qātlkiya.

I might multiply examples, but these will suffice to illustrate my position.

R. F. Hutchinson, M.D.

20*th July*, 1890.