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PALESTINE EXPLORATION FUND.

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Quarterly Statement

FOR 1885.

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THE
PALESTINE EXPLORATION FUND

LAST YEAR AND THIS.

WHEN, in the autumn of the year 1883, the Committee resolved upon sending out a Geological Expedition, a list was opened for donations to be directed specially to this purpose. It was found, however, that very few donors and subscribers desired that their money should be set aside for a special purpose, and the general funds of the Society were, as had always been done in the Survey, employed for this work. The general instructions for the Expedition were drawn up for the Committee, after consultation with Professor Hull, by Sir Charles Wilson. Professor Hull, as has already been told in the *Quarterly Statement*, carried the Expedition to a successful termination. His scientific results are as yet only partly published; in his forthcoming book (ready January 1st, 1885), called "Mount Seir," he will give such of them as are capable of being presented in a popular form. They will be fully and completely set forth in the scientific memoirs which he is preparing for the Committee. The results of the Expedition are, it may be stated, extremely satisfactory from the geological point of view. Not less satisfactory are they from the geographical point of view. Major Kitchener, who accompanied the party, was able, with the assistance of Mr. George Armstrong, to execute for the first time a reconnaissance survey of the Wâdy Arabah, which has since been laid down upon sheets by Mr. Armstrong, and is now ready for publication. At the same time Mr. J. Chichester Hart, who accompanied the party as a volunteer, has been doing good work in the natural history of this little known region. We have been so fortunate as to secure the publication of Mr. Hart's observations and discoveries in the *Quarterly Statement*. The first instalment will appear in April.

Other important geographical work has been done for Palestine during the last year—(1) in the publication by Colonel Sir Charles Wilson of the late Mr. F. W. Holland's notes of his last journey; (2) of Sir Charles Wilson's paper on Recent Biblical Research in Asia Minor and Syria; (3) of Mr. Laurence Oliphant's paper on the Khurbets of Carmel; (4) of Mr. Oliphant's Notes on the Jaulân; and (5) of various papers by Captain Conder.

The topographical work of the year, which forms so large and important a feature of the *Quarterly Statement*, includes papers by Captain Conder, Mr. H. G. Tomkins, Mr. W. F. Birch, Mr. S. Flecker, Mr. Mearns, Herr Conrad Schick, Dr. Clay Trumbull, Mr. Kennion, and Mr. Baker Greene. The archaeological work of the year includes four very remarkable papers by M. C. Clermont-Ganneau.

We are thus able to look back upon the past year with considerable satisfaction. Though the Firman for continuing the Eastern Survey is still denied us, we have been able unexpectedly to secure the survey of a large and very important part of the Holy Land: we have cleared up many geological problems, and we have made a considerable addition to the archaeology and topography of the country.

We have also, at length, completed the great work of the Society in publishing the last two volumes which finish the "Survey of Western Palestine." The work has been in hand for four years; now that it is completed we can look upon it as the permanent record of the greatest geographical and descriptive enterprise ever undertaken for the elucidation of the Bible, and as a work which should form part of every great library.

Since Mr. Armstrong's return he has remained in the service of the Committee, and has been occupied, first, in laying down the geographical work of the Expedition, which is now ready for publication, and next, in preparing a Map of the whole of Palestine, which will contain all our own survey work hitherto done, with the French and other work, as far north as Beyrout, and will be joined on to the Society's already published reduced Map of Western Palestine. It will be in sheets, so that any one sheet can be withdrawn and a new one substituted on the arrival of new matter. He is now engaged upon laying down on this map the Old and New Testament names, boundaries, &c. It is intended, in short, to produce a map, which can be subsequently altered and improved, which shall cover both sides of the Jordan. This map will contain the modern names, with those of the Old and New Testaments. It will be published either as a Map of Modern Palestine East and West of the Jordan, or as a map showing the Old Testament names with the modern names, or as showing the New Testament names with the modern, or as a map showing all three. It has already been announced that subscribers to the already issued Old and New Testament maps will be enabled to exchange simply on payment of the difference in price and the carriage.

A great many photographs were taken in the Wâdy Arabah by Dr. Gordon Hull. Some of these have not, unfortunately, come out well. A selection, however, will be made of the best, and a descriptive catalogue written for them, and they will be issued as soon as possible.

As regards the work for the year 1885. There is little hope that the Firman for the Survey of Eastern Palestine will be granted in the present posture of things. If it were granted it would for the moment be useless, because all the Royal Engineer officers who have worked for the Fund are now on active service—Colonel Sir Charles Wilson, Major Kitchener, and Captain Mantell in Egypt; General Sir Charles Warren and Captain

Conder in South Africa—and there would be little chance of getting any other officer's services in this period of uncertainty. At the same time we have strong grounds for hoping to make from time to time very substantial additions to the geography of certain little known districts from other sources.

We shall also perhaps be able to undertake certain investigations in Jerusalem, and perhaps elsewhere, as occasion may offer.

It has been suggested that this time of inaction from field work may be utilised for a very important object included in our original prospectus, but as yet hardly touched, viz., the scientific collection of manners, customs, legends, traditions, superstitions, and religious and ritualistic survivals. The Committee are at present considering a scheme having this in view which has been submitted to them.

As regards publishing next year, we have made the following important arrangements:—

(1) "Mount Seir."

This volume has been written for the Committee by Professor Hull. It is now (Christmas, 1884) on the point of publication. It contains a popular account of the journey, and especially of that country, now known as the Wâdy Arabah, which was the special scene of his labours. A geological map and a geographical map accompany the work, with many other illustrations. The published price will be 10s. 6d.

(2) A new edition of Captain Conder's popular and delightful work, "Tent Work in Palestine," in crown 8vo., at 7s. 6d.

(3) A new and cheap edition of "Heth and Moab," uniform with the above, at 7s. 6d.

These two works will be ready by the end of January.

(4) "Our Work in Palestine." This little book, which ended with the commencement of the Survey, has been out of print for some time. It is proposed, as soon as time can be found, to bring out a new edition, carrying on the popular history of the Society's work to the present date.

(5) We propose to publish in the *Quarterly Statement* for 1885, the following important papers:—

(a) A Translation by Dr. Chaplin of a Hebrew Treatise by Maimonides upon the Temple.

(β) The Natural History Results of the Wâdy Arabah Expedition, by J. Chichester Hart.

(γ) A Supplement by Canon Tristram to his "Flora and Fauna."

(δ) A Paper by Sir Charles Warren on the Arabs of the Sinai Desert.

(ε) Topographical papers by Rev. W. F. Birch, Captain Conder, Mr. Boscawen, and other writers.

(ι) Certain geographical papers now in preparation, the results of observations made by a private traveller.

There remain in the hands of the Committee for publication :—

I. The Geological Memoirs by Professor Hull, F.G.S. We shall be able to report upon these when they are completed.

II. The Memoirs and Plans of the interrupted Survey of Eastern Palestine.

The Memoirs of the 500 square miles executed by Captain Conder are much fuller than those of the country west of the Jordan, because they deal with a district much less known, and fuller, if possible, of interest. Thus, though the area surveyed occupies little more than that covered by a single sheet, on the scale of one inch to the mile, the Memoirs are copious enough to fill a whole volume equal in size to one of those published on the "Survey of Western Palestine," while there are 400 drawings and plans and illustrations, besides a series of photographs.

The Committee have not yet decided on the form of publication of these Memoirs. They may possibly be published, as in the case of the "Survey of Western Palestine," by special subscription.

III. The drawings made for M. Clermont-Ganneau in the year 1874-5 by M. Lecomte.

Many causes have combined to prevent the publication of these most exquisite and valuable drawings. They were executed for the Committee by M. Lecomte, who accompanied M. Clermont-Ganneau to Palestine in the years 1874-5. They are between six and seven hundred in number, and are almost wholly of architectural and archaeological interest. Since they were placed in the hands of the Committee, nine years ago, M. Clermont-Ganneau has been engaged in Constantinople, in Palestine, and in Paris, for the French Foreign Office. He has also held the post of Professor of Semitic Archæology at the Sorbonne. He is now, however, able to promise the necessary explanatory letterpress as soon as it is wanted. The cost of publishing this work in a worthy form will be about £1,500. Perhaps proposals will be issued for a subscription work in the spring.

IV. The copies of the "Survey of Western Palestine" which remain have been placed in the hands of Mr. Alexander P. Watt, of 34, Paternoster Row, who has been appointed by the Society their agent for the sale. They will be issued by him to libraries, &c., in order of application. *Subscribers and those who already possess the work are requested to note that no reduction will be made, either now or at any other time, in the price of this great work.* On the other hand, the Committee reserve to themselves the right of raising the price of the last copies.

In conclusion, the friends of the Society are earnestly requested to consider that the work is always actively going on; that funds are always needed; that the real and invaluable work which has been already done must be taken as an earnest of what will be done, and that their continued assistance is asked in support of an enterprise which gives results, solid, enduring, and for all time.

NOTES.

The income of the Society, from September 26th to December 12th, 1884, inclusive, from all sources, was £656 9s. 3d. On December 16th the balance in the Banks was £205 9s. 6d.

It is suggested to subscribers that the safest and most convenient manner of paying subscriptions is through a Bank. Many subscribers have adopted this method, which removes the danger of loss or miscarriage, and renders unnecessary the acknowledgment by official receipt and letter.

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.

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) The Rev. Henry Geary, Vicar of St. Thomas's, Portman Square. His lectures are on the following subjects :—
 - The Survey of Western Palestine, as illustrating Bible History!
 - Palestine East of the Jordan.
 - The Jerusalem Excavations.
 - A Restoration of Ancient Jerusalem. Illustrated by original photographs shown as "dissolving views."
 - (2) 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.
 - (3) The Rev. James Niel, formerly Incumbent of Christ Church, Jerusalem.
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ADDENDA TO THE FLORA OF PALESTINE.

I HAVE just received, through the kindness of M. William Barbey, of Valleyres, Vaud, Switzerland, a copy of his splendid illustrated work, "Herborisations au Levant," 4to., Lausanne, 1882, containing the results of a botanical expedition to the East, made by himself and his brother in 1880. I much regret that I had not the good fortune to see the volume before the "Fauna and Flora of Palestine" went to press. MM. Barbey only give the results of their own and Dr. Lortet's expeditions, but even so their catalogue comprises 38 species of phanerogamic plants, 13 of them grasses, which escaped my observation, and which must be added to the 3,012 species in my volume. In order that our catalogue may be as complete as possible, I trust you will afford space in the *Quarterly Statement* for these addenda. They are as follows:—

- Papaveraceæ*. 1. *Glaucium grandiflorum*. Boiss. Diagn., Ser. II, v, p. 15.—Valley of the Kedron. Not hitherto observed in Palestine or Syria.
- Crucifere*. 2. *Sinapis pubescens*. L. Mant. 95.—Beersheba.
- Resedaceæ*. *Reseda decursiva*. Forsk., ag. p. 67. Included by me as *R. propinqua*, var. *eremophila*. F. and F., p. 234.
3. *Caylusea canescens*. L. Syst. 368, var. *foliosa*, Müll.—Marsaba; between Jerusalem and Jericho.
- Violariæ*. 4. *Viola occulta*. Lehm., Ind. S. Hamb., 1829.—Near Samaria.
- Sileneæ*. 5. *Silene apetala*. Willd., Sp. II, 307.—In cultivated ground, Valley of Achor.
6. *Silene canopica*. Del., Ill. Fl. Eg., No. 442.—Beersheba.
7. *Silene oxydonta*. Barbey, spec. nov., Herbor. au Levant, p. 121, Pl. XI.—Plain of Esdraclon.
- Alsineæ*. 8. *Spergularia diandra*. Guss., Prodr. Sic., I, p. 515.—Kedron Valley; between Jerusalem and Jericho; by Dead Sea; Esdraclon.
- Malvaceæ*. 9. *Malva ægyptia*. L. Sp. 981.—Southern Desert. Accidentally omitted in F. and F.
- Leguminosæ*. 10. *Trigonella oleppica*. Boiss., Flor. Or., II, 79.—Valley of the Kedron; Jenin.
11. *Trifolium bullatum*. Boiss., Flor. Or., II, 138.—Fields near Beyrout.
12. *Glycyrrhiza glabra*. L. Sp. 1048, vars. *typica* and *violacea*.—Jordan Valley; Wâdy Semakh.
13. *Astragalus trimestris*. L. 1073.—Philistia; Beersheba.

14. *Astragalus camelorum*. Barbey, spec. nov., Herbor. au Levant, p. 131, Pl. III.—Southern Desert.
15. *Lathyrus setifolius*. L. Sp. 1031.—Southern Philistia.
- Composite. 16. *Cynara sibthorpiana*. Boiss. Diagn., Ser. I, x, p. 94.—Jericho.
- Convolvulaceæ. 17. *Calystegia soldanella*. L. Sp. 266.—Sea-shore at Sidon.
- Scrophulariaceæ. 18. *Celsia glandulosa* Bouché., Linn., V, Lit. 12.—Valley of the Dog River.
- Labiatae. 19. *Sideritis taurica*. M. B., Taur. Cauc., II, 43.—On rocks in the Dog River Valley.
- Salsolaceæ. 20. *Salsola canescens*. D. C., Prodr., p. 208.—Accidentally omitted in F. and F. Found by us on Lebanon. By MM. Barbey at Marsaba.
- Euphorbiaceæ. 21. *Euphorbia parvula*. Del., Eg., p. 290.—In the Southern Desert.
- Salicinæ. 22. *Salix triandra*. L. Sp. 1442.—Achzib. Not before noticed in Syria.
- Iridaceæ. *Iris lorteti*. Barbey, spec. nov., Herbor. au Levant, p. 178, Pl. VII.—This superb Iris, one of the two species mentioned by me (F. and F., p. 423) as found in the woods of Galilee, has been described and beautifully figured in a full-sized coloured plate by MM. Barbey. It was found by Dr. Lortet in the same place where I collected it, near Kulat Hunin, above the waters of Merom.
- Liliaceæ. 23. *Bellevalia sessiliflora*. Viv. Fl., Lib. 21, t. vii, f. 5.—Southern Desert.
24. *Muscari holzmanni*. Held., Att. Con. Fir., 228.—Achzib and Beyrout.
- MM. Barbey also mention two undescribed species of *Leopoldia* or *Muscari*—one from the southern desert, the other from the northern coast.
- Orchideæ. 25. *Scrapias lingua*. L. Sp. 1344.—Near the Dog River.
- Gramineæ. 26. *Andropogon rubescens*. Vis., Reg. Bot. Zeit., 1829, p. 3.—Near Ras en Nakurah.
27. *Alopecurus pratensis*. L. Sp. 88.—On the coast.
28. *Cynosurus callitrichus*. Barbey, spec. nov., Herbor. au Levant, p. 165, Pl. X.—Near Hebron and Jerusalem.
29. *Echinaria capitata*. L. Sp. 1488.—General.
30. *Lepturus incurvatus*. L. Sp. 1490.—Near Beyrout.
31. *Bromus rubens*. L. Sp. 114.—Dry places, throughout Southern Palestine.
32. *Lolium rigidum*. Gand. Helv., I, p. 355.—Various places on the coast.
33. *Sphenopus gouani*. Trin., Fund. Agr., p. 135 = *S. divaricatus* Rehb.—The Ghôr.
34. *Festuca interrupta*. Desf. Atl. I, p. 89.—Waste places, Esdraelon.

35. *Catapodium loliaceum* (Huds. Angl., 43).—On the coast.
 36. *Avena barbata*. Brot., Flora Lus., I, 108.—In the desert and in waste places. This is the unidentified *Avena* of F. and F., p. 444, No. 56, from Moab.
 37. *Trisetum parviflorum*. Pers. Syn., I, 97.—Waste places in Judæa.
 38. *Deschampsia media*. Ræm. et Schultz., S. II, 687.—On the coast near Achzib.

I may also here observe that I have identified the *Phleum*, No. 13, Fauna and Flora, as *P. græcum*. Boiss. Flor. Or., V, p. 481.

Also *Pennisetum*, No. 19, p. 442, F. and F. as *P. ciliare* (L. Mant. 302).
Aristida, No. 35, p. 443, F. and F., as *A. pumila*. Decaisne, Ann. Sc. Nat., Ser. II, 85.

Gastridium, No. 23, p. 442, F. and F., as *G. scabrum*. Presl., Cyp. Sic., p. 21.

Polypogon, Nos. 50 and 51, p. 444, F. and F., as *P. maritimum*, Willd. Nov. Act., III, p. 443; and *P. littorale*, Smith, Comp. Brit., 13.

Avena, No. 56, p. 444, F. and F., should be *Gaudinia fragilis* (L. Sp. 119).

Bromus, No. 110, p. 445, is *B. fasciculatus*. Presl., Cyp. Sic., 39.

Dactylis, No. 93, p. 447, F. and F., is *D. hispanica*. Roth.; cf. Flor. Or., V, p. 596.

I wish also to correct the following identifications of grasses in the "Fauna and Flora:"—

Phalaris canariensis, p. 441, No. 5, should be *P. brachystachya*, Link in Schrad. Journ. 1, 3, as pointed out by Boissier, Flor. Or., V, p. 471.

For *Milium syriacum*, Boiss. No. 119, p. 448, read *M. vernale*, M. B. Taur. Cauc., I, 53, var. *montianum*, Cosson.

For *Melica boissieri*, Reut, No. 83, p. 446, read *M. ciliata* (L. Sp. 97), and erase Nos. 75 and 80, *Briza bipennata* and *Melica minuta*. The former species is identical with No. 87, F. and F., *Eragrostis cynosuroides*.

The long-expected completion of M. Boissier's most exhaustive and accurate work, "Flora Orientalis," of which the concluding part has only just reached me, enables me to revise my catalogue of grasses by the decision of the first living authority on the subject. And I am sure that all practical botanists will deal leniently with omissions and oversights, as well as with the necessity for the corrections enumerated above; well knowing the difficulties of deciding on the often unsatisfactory or mutilated specimens before us, of this most perplexing of all botanical families.

M. Boissier's work enables me to add one species to the *Conifere* of Palestine, viz., *Abies cilicica*, Ant. and Ky., Æst. Woch., 18, 53, p. 409. It is the only *Abies* found in the country, and which I now well remember to have seen near Ehden on Lebanon, one of the localities given by Boissier.

Ephedra fragilis, F. and F., p. 452, ought to stand as *E. campylopoda*, C. A. Mey. Eph., 73. The two species have been generally confounded. The distinctions are pointed out by Boissier, *op. cit.*, pp. 714, 715.

I have but one fern to add to my catalogue, the common Adders' tongue, *Ophioglossum vulgatum* (L. Sp. 1518), found near Zebdany. But the number of grasses added to our list by M. Boissier amounts to no fewer than 47, bringing up the whole number of Palestinian *Gramineæ* to 216. I subjoin the names, with the localities given:—

1. *Panicum sanguinale*. L. Sp. 14.—General.
2. *Panicum crus-galli*. L. Sp. 83.—General in fields.
3. *Panicum colonum*. L. Sp. 84.—Coast near Sidon.
4. *Panicum cruciforme*. Sibth. Prodr., I, p. 40.—Ehden on Lebanon.
5. *Panicum numidianum*. Lam. Enc., IV, 749.—Near Beyrout.
6. *Setaria verticillata*. L. Sp. 82.—Near the coast.
7. *Andropogon ischamum*. L. Sp. 1483.—Lebanon.
8. *Henarthria fusciculata*. Desf. Atl., I, p. 110, t. 36.—Near Sidon and Beyrout.
9. *Phalaris nodosa*. L. Syst., 38.—Coast and Lebanon.
10. *Heleochloa acutiglumis*. Spec. nov., Boiss., Flor. Or., V, p. 476.—Hadith, Lebanon.
11. *Phleum alpinum*. L. Sp. 88, var. *commutatum*, Gaud.—Snow-line of Lebanon.
12. *Phleum bæhmeri*. Wib., Fl. Wett., p. 125.—Hadith, Lebanon.
13. *Alopecurus gerardi*. Vill. Dauph., II., 66.—Subalpine Lebanon.
14. *Aristida sieberiana*. Trin. in Spring., N. Ent., II, 71.—Near Jerusalem.
15. *Aristida forskahlei*. Tausch., p. 506.—Sands near Beyrout.
16. *Aristella bromoides*. L. Mant., I, 30.—Lebanon above Sidon; Antilebanon above Rascheya.
17. *Agrostis verticillata*. Vill. Dauph., II, 74.—In wet places, general.
18. *Agrostis alba*. L. Sp. 93, var. *scabriglumis*.—Brumman on Lebanon.
19. *Gastridium lendigerum*. L. Sp. 91.—Sidon.
20. *Corynephorus articulatus*. Desf., Fl. Atl., I, 70, Pl. XIII.—Sands, Gaza, Beyrout.
21. *Holcus lanatus*. L. Sp. 1485.—Lebanon.
22. *Holcus annuus*. Salz., Fl. Ting. exs.—Pine forests, Lebanon.
23. *Ventenata blanchei*. Boiss., spec. nov. Flor. Or., V, p. 539.—Cedar grove, Lebanon.
24. *Dactyloctenium ægyptiacum*. L. Sp. 106.—Coast near Sidon.
25. *Cynosurus elegans*. Desf., Atl. I, 82, Pl. XVII.—Hasrun, Lebanon.
26. *Eragrostis poaeoides*. P. de B. Agr., 71.—Fields, general.
27. *Eragrostis megastachya*. Link., Hort. Ber., I, 187.—Coast.
28. *Briza spicata*. Sibth., Fl. Græc., I, 61.—Lebanon and Antilebanon.
29. *Poa diversifolia*. Boiss., Bull. S. Fr., 1857, p. 306.—Dimas, Lebanon.
30. *Poa trivialis*. L. Sp. 99.—The coast.
31. *Poa persica*. Trin. in C. A. Mey, Enum., p. 18, var. *alpina*.—Top of Lebanon.
32. *Molinia cærulea*. L. Sp. 95.—Upper Lebanon.
33. *Glyceria plicata*. Fries, Nov. Mant., III, 176.—In standing water.

34. *Festuca ovina*, var. *pinifolia*. Hackel in litt., Flor. Or., V, 617.—Higher Lebanon.
35. *Scelopoa maritima*. L. Sp. 128.—Coast near Sidon.
36. *Bromus flabellatus*. Hack., Boiss., Flor. Or., V, 648.—Near Jerusalem.
37. *Bromus alopecurus*. Poir. Voy., II, 100.—Galilee and the coast.
38. *Bromus squarrosus*.—L. Sp. 112.—Lebanon.
39. *Bromus brachystachys*. Hornung. Fl., XVI, 2, p. 418.—By the Jordan.
40. *Brachypodium pinnatum*. L. Sp. 115.—Lower Lebanon.
41. *Agropyrum panormitanum*. Parl. Pl., var. Sic. II, p. 20.—Hermon.
42. *Agropyrum repens*. L. Sp. 128.—Lebanon.
43. *Agropyrum elongatum*. Hort., Gr. Austr., II, 15.—Near Beyrout.
44. *Egilops bicornis*. Forsk., Descr., 26.—Sandy places, coast.
45. *Psilurus nardoides*. Trin. Fund., I, 73.—Coast and interior.
46. *Hordeum secalinum*. Schreb. Spic., 148.—The Lejah.
47. *Elymus delileanus*. Schultz. Mant., 2, 424.—Central Palestine.

H. B. TRISTRAM.

Durham, 26th November, 1884.

A DOLMEN IN THE TALMUD.

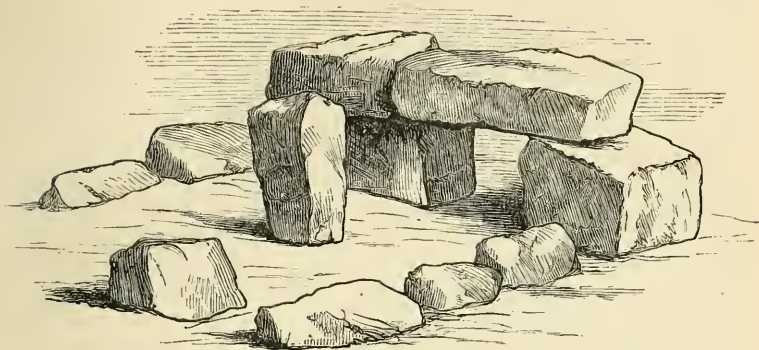
“RABBI ISHMAEL said, ‘Three stones beside each other at the side of the image of Markulim are forbidden, but two are allowed. But the wise say when they are within his view they are forbidden, but when they are not within his view they are allowed.’” (Mishnah Aboda Zarah, iv, 1.)

This passage from the tract treating of “Strange Worship” refers to the idolatry of the second and third centuries A.D., before the establishment of Christianity by Constantine. R. Ishmael was a contemporary of Akiba (circa 135 A.D.). From the Babylonian Talmud (Baba Metzia 25 *b*) we learn that these three stones near the “Menhir of Mercury” (for Markulim was Mercury or Hermes, the god of the pillar) were arranged two side by side and the third laid flat across. From another passage (T. B. Beracoth 57 *b*) we gather that such symbols, viz., an “image” (צורה) or Hermes with a trilithon in front of it, were commonly to be found.

From the Midrash on Proverbs xxvi, 8, we also gather that the cultus of Markulim (or Mercury) consisted in throwing a stone at his image, and it is well known that this practice was connected in Greece with the cultus of Hermes or Mercury.

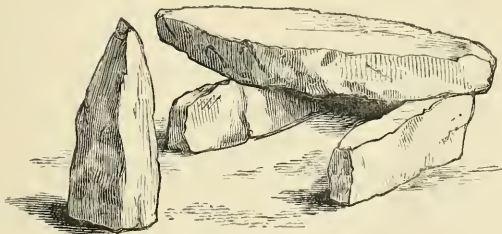
This trilithon was evidently a dolmen similar to the dolmen tables still erected by the Arabs in Moab, and its connection with a menhir recalls the “Sentinel Stones” which are found in Brittany, Scandinavia, and England, standing in front of a dolmen or trilithon.

MARKULIM ON MOUNT GILBOA.



Monument on Mount Gilboa discovered by Captain Conder in 1872. ("Memoirs," Vol. II, p. 115.)

MARKULIM IN SWEDEN.



The Dolmen and Sentinel Stone of Oronst. (Fergusson's "Rude Stone Monuments," p. 306.)

I feel little doubt that the curious monument which we discovered on Mount Gilboa near the village of Deir Ghazâleh in 1872, is one of the Markulim of the Talmud. It was, I believe, the first rude stone monument discovered west of Jordan (not including Phœnicia). The standing stone is 6 inches thick, 2 feet wide, $3\frac{1}{2}$ feet high. I found it very firmly fixed. It was impossible to move it, and it is probably sunk to some considerable distance in the ground. The trilithon or dolmen has a table-stone 6 feet 9 inches long. The other stones form an enclosure such as often encircles dolmens in every land. The enclosure with a central stone is also a kind of monument found in Moab, as I have shown in my reports and memoirs. All these facts tell strongly in favour of the contention, which is supported by Lubbock, Forbes, Leslie, and other competent authorities, that rude stone monuments in all lands are intimately connected with the religious ideas of early tribes. This subject I have endeavoured to treat in "Heth and Moab," but a great many confirmatory facts have come to my knowledge since I completed that volume.

Idolatry was of course the general practice in Syria when the Mishnah was written, and in the tract above quoted we find mention of the sun, moon, planets, mountains, Zodiacal signs, trees, and stones, as objects of idolatry; also the sacred baths or springs of Venus, and the serpent or dragon. One other passage is of interest in connection with rude stone monuments.

"In Zidon, at the tree where they worshipped, they found beneath it a heap) or cairn, (גלל), said R. Simon to them, examine the heap.' And they examined it, and found in it an image (צורה). He said to them, as the object of worship is the image, we shall allow the tree to you." (Mishna Aboda Zara, iii, 2.)

In this case the menhir had been covered up in a cairn made of the stones thrown at it as an act of worship. The meaning of this custom has been made plain by archaeologists, and each stone thrown is witness of a visit paid to the spot. The larger therefore the cairn the greater the veneration shown.

From another passage it appears (iv, 2) that offerings used to be placed on the head of Markulim or on the top of the menhir. In Brittany, and in Scotland and in India alike, menhirs may still be seen which form the nucleus of the cairn which surrounds them. This practice is probably also noticed in the Bible (Genesis xxxi, 45-48), but I have not met with any explanation of the cultus in the dictionaries and commentaries.

The arrangement of the trilithon and menhir, especially when the latter is surrounded by an enclosure as is the case in the Gilboa example, may be considered to represent the prehistoric prototype of such temples as were afterwards erected in Phœnicia or Greece, with a rude stone instead of a statue, and a pair of pillars standing in front of the fane, and supporting only a single block of stone. The relative position of the pillar and the trilithon appears sometimes to have had a relation to the sunrise or sunset, but this though observed by the modern Arabs is not an invariable rule.

In connection with this subject, a few words may be added as to hollows in dolmens and menhirs. The cup hollows have been described (see "Heth and Moab") in Moabite monuments. In Finland such hollows are made in stones, and connected with a charm against diseases, which are conjured into them. In Scotland the same hollows were used for libations of milk. Milk was poured through a hole in a menhir in the western isles off the Scottish coast. Another menhir in Aberdeenshire had a hollow in the top in which rain water accumulates, which the ignorant suppose to spring from the stone, and a cross-shaped stone, called Water Cross, was said to bring down rain when placed upright.

Visiting recently the well known Kits Coty House dolmen, near Maidstone, to see if there were any cup hollows in its table stone (which is slanted just like the table of a Moabite dolmen), I found the side stones pitted with deep hollows, some of which it is impossible to suppose to have been natural erosions. About a quarter of a mile south of Kits Coty House there is a ruined circle of fallen stones (sandstone from the neighbourhood, as is Kits Coty House also). The farm people believe that these stones cannot be counted, a legend which is I believe not peculiar to this circle alone. I found in some of the stones of this circle (which are 7 to 8 feet long) holes like those in the Cotty House, but still more plainly cut with the object of holding something. Perhaps, as in so many other cases, libations of blood or milk, honey, or water, were once poured on these holy stones, or small offerings placed in the stone itself, by those who regarded these monuments as sacred. The offering was placed on the top of the stone in the case of Markulim as above noted. One of the best examples of such holes in side stones is noticed by Fergusson, in the famous covered dolmen at Gavr Innis in Brittany.

There is another circle at Addington Park, near Maidstone, which I have not yet been able to visit, which has a curious outlying cairn on the east or north-east. We may compare the circle and gigantic cairn of Wâdy Jideid in Moab.

C. R. C.

THE ARAMAIC ALPHABET.

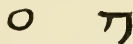
In my paper on Hebrew inscriptions, published in the *Quarterly Statement*, October, 1883, I have mentioned the inscription at 'Arâk el Emîr. This we both copied and photographed, and my original copy made on the spot differs in the first letter from that of previous writers. According to Levy, it has the form of a rude *Teth* open at the top.

According to my copy it is round like an O, and could only read as an *Min*.

I did not when copying the text reflect on the importance of this difference, but the photograph, though taken rather at an angle, appears to support the copy, and de Vogüé reads this letter as agreeing also with my view.

The importance of this difference lies in the fact that the inscription appears as a whole to be Aramaic rather than Phœnician; but that the first letter if it be an *Ain* cannot be Aramaic, but must belong to some alphabet allied to the Moabite Stone, according to the received views. The Aramaic alphabets, whence square Hebrew developed, are peculiarly marked by the open loops of the letters, especially of the *Ain*. In order to satisfy the learned world, a squeeze (which would require a ladder), or a new photograph of very large size, may become necessary; but it seems strange that such a difference of copy should occur in so very distinct and well preserved a text, and I incline to believe that my copy, made without any reference to the reading of the text, is correct.

Now the inscriptions from Medeba seem to present us with exactly the same problem, and their genuineness is rendered the more probable, as some of their most suspicious forms have (as Dr. Taylor kindly points out to me) been found also in unquestionably genuine texts from Arabia. In No. 2 of the Medeba texts we find two letters almost identical with two in the 'Arâk el Emîr text, namely,



The first of these is small, like the *Ain* of the South Semitic Alphabets, the second appears to be an Aramaic letter.

Now almost the only great problem concerning the alphabet which remains to be solved, is that of the connection of the South and North Semitic Alphabets. The link may perhaps exist, not in Arabia, but in Moab, and the Medeba texts may serve to point it out. It seems that, contrary to expectation, forms of the Aramaic may occur with Phœnician or South Semitic forms in the same inscription. The 'Arak el Emîr text in all probability dates as early as 176 B.C., and presents the same confusion of two alphabets, generally believed to be distinct. We have, it is true, not very much to guide us in drawing conclusions, but the Moabite texts here noticed may perhaps induce palæographical authorities to extend their researches in a new direction in treating the relations of the various branches of the earliest alphabet, that of the Phœnicians. I should note in conclusion that Mr. Doughty has brought home squeezes of some Sinaitic and Aramaic inscriptions from the neighbourhood of Mecca which may perhaps cast light on this question.

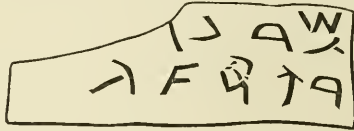
C. R. C.

INSCRIPTIONS.

It may be convenient to give a *résumé* of the epigraphic results of the Survey of Palestine, which have been more numerous and important than might perhaps be supposed, without collecting those scattered through the pages of the Memoirs.

HEBREW.

1. The inscription on a tomb in the Jordan Valley, which appears to be perhaps as old as the Siloam text, was discovered by me in 1874. (Memoirs, vol. ii, p. 396.) It is here given for comparison.

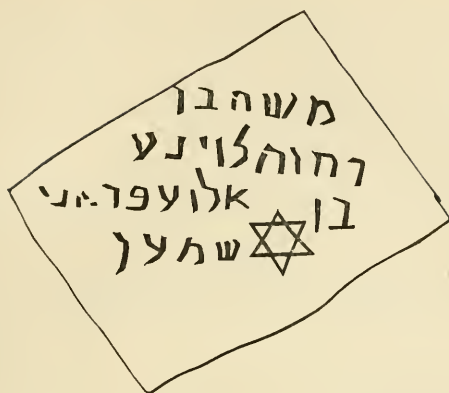


2. The curious text from Umm ez Zeinât, which reads, perhaps, Eleazar Bar Azariah, was copied by me after being discovered by Sergeant Armstrong in 1873. (Memoirs, vol. ii, p. 71.) As regards this it might perhaps be suggested that we have here the tomb of Rabbi Eleazar ben Azariah, who died 83 A.D. He was one of the Tanaim (Mishnah Beracoth, iii, 7), a disciple of R. Jonathan ben Zaccai, who died 73 A.D. Both were priests. R. Eleazar appears to have succeeded Gamahil the younger at Jammia. (*Cf. Pirke*, Aboth iii, 17.) The discovery of these ancient Hebrew texts during the Survey may be considered an important addition, especially as the zeal of M. Clermont-Ganneau has only added the Gezer text and the yet unpublished Phœnician text from Silwân.

3. The square Hebrew inscription from a tomb at 'Ain Sinia was copied by C. F. T. Drake in 1872. (Memoirs, vol. ii, p. 302.) It appears to read, Moses bar Eleazar bar Zechariah the priest. This may be ascribed to the Herodian period with confidence.

The well-known inscription at Kefr Birim is also noticed in the Memoirs, vol. i, p. 233, and that at Nebratim, vol. i, p. 244, and at el Jish, vol. i, p. 225.

4. Some Jewish graffiti at Neby Samwîl are of interest. They cannot be older than 1157 A.D., but they are not recent, because they have been plastered over, and the plaster is old and has fallen off. The most important is here given from the voussoir of a pointed arch with mediæval mason's marks (the shield of David) and diagonal tooling. It appears to read, Moses Ben Nahum Levi . . . Ben Aloazer . . . Shemon. This may be of value for comparison with the graffiti on the osteophagi from the Mount of Olives described by M. Clermont-Ganneau. The form of the *Shin* is much later than that on some of these osteophagi. The same may be said of the *Ain*, *Min*, and *Lamed*, but the *Zain* seems to have a peculiar early form, if rightly read, and the *Aleph* is also peculiar.



Among the Jerusalem inscriptions which I have collected together for the Jerusalem Volume of the Memoirs will be found mentioned the six well-known Hebrew texts, namely, the Beni Hezir Tomb, and the tomb found by De Vogüé; the sarcophagus of Queen Sara, and the stele found by De Sauley with the letters copied at the Torph Gate by Sir Charles Wilson, and the Phœnician letters on the Temple wall; as also the Siloam text, the fragment of a text from Kefr Silwân, and the two supposed letters on the so-called "Egyptian Tomb" in the Kedron Valley. These, with the three Phœnician texts of Urm el 'Amin (Memoirs, vol. i, p. 183), and the coffin of Eshmunazar, the Gezer Stones, and the Pillar of Amwâs, make a total of nineteen Hebrew and Phœnician texts known in Palestine. The Moabite Stone and the 'Arâk el Emîr text East of Jordan must be added to these. The graffiti are not counted, nor the numerous Jewish tombstones at Taffa. (Memoirs, vol. ii, p. 277.)

GREEK.

These are extremely numerous in Palestine, the majority being Christian, and subsequent to the fourth century. The most valuable is the stele of Herod's Temple found by M. Clermont-Ganneau. The following are the new ones found by the surveyors within the Survey.

5. The inscription of the Cathedral of Tyre, mentioned, but not given, Memoirs, vol. i, p. 73. I copied it in 1881.

ΡΟΝΤΗΝ
ΟΠΟΜΗ
Ο . . ΟΙ . . Ν
ΚΡΗΤΗΣ

See Appendix, vol. iii, p. 428.

6. Greek text at Deir Dugheiyâ, which was found first by Renan, in honour of John the Baptist and St. George. (Memoirs, vol. i, p. 115.) It appears to have been rediscovered in 1877.

7. Greek Christian text of Siddikîm. (Memoirs, vol. i, p. 138.) It contains the name of St. Procopius and the Deacon Eusebius. From the contraction of the word Deacon it might be thought—as also from the Jerusalem crosses above the text—to be of Crusading origin.

8. Marble slab from Masûb. A funerary text, probably not earlier than the 12th century. (Memoirs, vol. i, p. 168.)

9. Greek Christian text from Marûn. (Memoirs, vol. i, p. 251.) On p. 260 is given another, which had been already copied by Renau.

10. Inscription on an early Christian tomb at Shefa 'Amr. (Memoirs, vol. i, p. 341.)

11. Inscription at 'Abûd, also found by Sir C. W. Wilson in 1866. (Memoirs, vol. ii, p. 303.) “Memorial of the Holy——.”

12. Mediæval text, “Memorial of George,” at el Hats. (Memoirs, vol. ii, p. 321.)

13. Inscription on font at Khûrbet Kilkh. It was found by Sergeant Black, but had, I believe, been already copied by M. Clermont-Ganneau. (Memoirs, vol. ii, p. 336.)

14. Inscription almost illegible, copied by C. F. T. Drake at 'Akrabeh. (Memoirs, vol. ii, p. 388.)

15. A few letters from another stone at the same place.

16. Inscription at Mejdal Yaba, “The Church of St. Cerycus” (an early convent), or perhaps of the “Holy Herald”—that is, probably, of John the Baptist. (Memoirs, vol. ii, p. 361.)

17. El Mnjhâr, a Greek Christian text. It was copied by M. Clermont-Ganneau in 1874, of which fact we were not aware. (Memoirs, vol. ii, p. 427.)

18. Dedication by Martin the Deacon. This also was copied by M. Clermont-Ganneau. (Memoirs, vol. ii, p. 134.)

19. Deir el Kelt. Greek and Arabic text over the door, and a number of mediæval Greek texts on the pictures. (Memoirs, vol. iii, pp. 193–197.) The texts at Koruntil and Kasr Hajlah were already known. (See Memoirs, vol. iii, pp. 203, 204, 215, 216.) The latter have since been entirely destroyed.

20. A few letters at Ascalon.

21. Deir el Belak, Greek Christian. (See Memoirs, vol. iii, p. 248.)

22. Another from the same place. (Memoirs, vol. iii.)

23. Meidân ez Zeid. (Memoirs, vol. iii, p. 250.) A Greek funerary text.

24. A second found in 1877 on the same race course near Gaza. It is not given in the Memoirs. It is Christian, beginning, “The earth is the Lord's and the fulness thereof,” and records the facing of some building with stone by the Deacon Alexander. It is probably not older than the fifth century. (See *Quarterly Statement*, 1878, p. 199.)

25. Sheikh Rashed. (Memoirs, vol. iii, p. 253.) A mediæval Greek Christian text in two lines.

26. Greek text in the Hebron Haram (Memoirs, vol. iii, p. 340); this is additional to one already known.

27. Khoreisa. Greek Christian text. “This is the gate of the Lord,

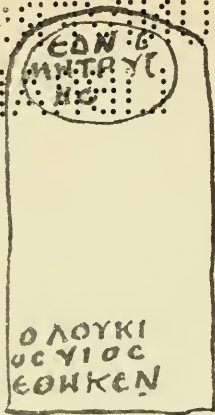


FIG. 1.

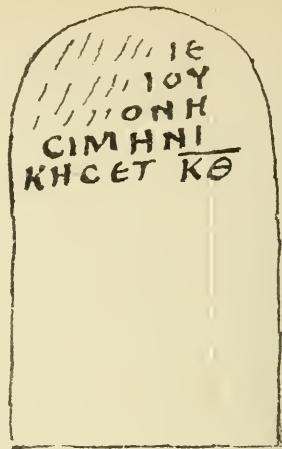


FIG. 3.

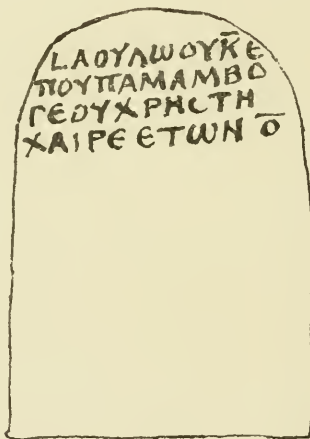


FIG. 2.

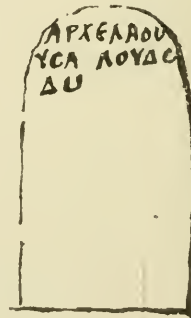
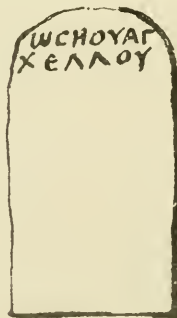
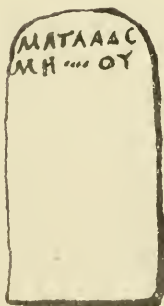
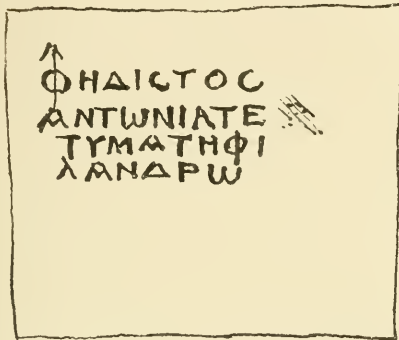


FIG. 4.



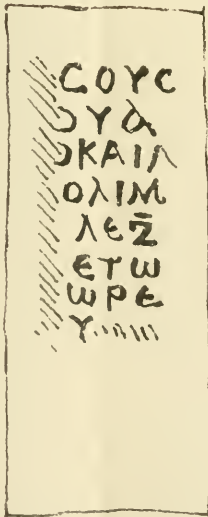
ΜΑΣΛΙΚΙΣ ΜΟΝΩΣ ΘΕ
ΜΟΝΕΙΟΥ ΥΛΙΕΤΟΥΣ

FIG. 5.



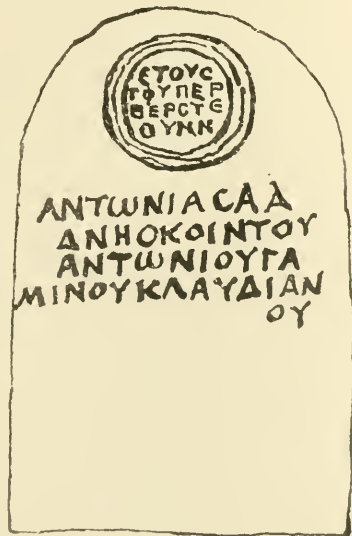
↑
ΘΗΑΙΣΤΟΣ
ΑΝΤΩΝΙΑΤΕ
ΤΥΜΑΤΗΦΙ
ΛΑΝΑΡΩ

FIG. 6.



ΣΟΥΣ
ΣΥΔ
ΣΚΑΙΛ
ΟΛΙΜ
ΛΕΣ
ΕΤΩ
ΩΡΕ
Υ...

FIG. 7.



ΕΤΟΥΣ
ΤΟΥ ΠΕΡ
ΒΕΡΣΤΕ
ΟΥΚΗ

ΑΝΤΩΝΙΑΣΑ
ΔΗΗΟΚΟΙΝΤΟΥ
ΑΝΤΩΝΙΟΥΓΑ
ΜΙΝΟΥΚΛΑΥΔΙΑΝ
ΟΥ

FIG. 8.

the righteous shall enter in thereat." It is probably of the Byzantine period. (Memoirs, vol. iii, p. 357.)

28. Masada ; a painted text in a cave, the word Kuriokos, "of the Lord." (Memoirs, vol. iii, p. 421.)

29. Umm el Buruk, East of Jordan ; a tablet with the name of Antonius Rufus in Greek. This has yet to be published.

30. 'Ammân. Greek text in the wall of the Cathedral, with the name of Gordiana. To be published in the Memoirs.

31. Jerusalem. A Greek Christian text from the north wall, which has not been previously published, so far as I have been able to ascertain.

32. A text from those of Jerâsh appears to be new (see the account of the Royal visit, *Quarterly Statement*, 1882, p. 219) ; but see also April, 1883, p. 108, and September, 1870, p. 389, where Canon Girdleston gives a yet longer text in hexameter.

ROMAN AND LATIN.

33. Milestone north of Jerusalem. (Memoirs, vol. iii, p. 55.)

34. Milestone at Fukeikîs near Hebron. (Memoirs, vol. iii, p. 328.)

35. Milestone near 'Ammân. To be published in the new Memoir.

36. A fine Gothic tombstone found near the Zion scarp by H. Maudslay. Noticed in the Jerusalem Volume of the Memoirs.

NABATHEAN.

36-37-38-39. Four texts from Medeba, found by Latin missionaries, and copied by me in "Jerusalem." As regards these texts, I find that Colonel Sir C. Warren has published another from Umm er Rasâs in the *Quarterly Statement*, 1870, p. 327, which is very valuable for comparison.

C. R. C.

GREEK INSCRIPTIONS.

THOSE represented in the accompanying plate (figs. 1-8) were copied in 1873 by Rev. W. Wright and myself, in the village and at the tomb of Sûk Wâdy Brarda (the ancient Abila), on the Abana River. Though mentioned in the Memoirs (Special Papers, p. 113), they have not been published. They are in the collection made by Waddington.

There is a fourth tablet uninscribed to the right. These are over a sunk tomb north of the river.

Abila existed as a town in 60 B.C. The Roman inscriptions here date about 250 A.D. The forms of Greek letters are uncial ; but these forms are found at Jerâsh probably as early as the second century A.D. They became common in the fourth and fifth centuries ; all the inscriptions here are funerary.

C. R. C.

SIN AND SAD.

ACCORDING to the students of literary Arabic the distinction of these two letters is most carefully preserved in speaking, and they are never confused. Nevertheless, even in the dictionaries, a few words may be found which are occasionally written with either.

In our recent survey we found the native scribe, who was intelligent and well-instructed, sometimes unable to distinguish the two letters in the pronunciation by the Bedawin of local names : such as Wâdy Sîr and the ruin of Sûr, and it is commonly said in Syria that the nomadic tribes make no distinction between *Sîn* and *Sad*. Even among the teachers of Nahu or correct speech there is a difficulty, for when hard pressed they are obliged to admit that a deeper vowel sound accompanies the *Sad* than that belonging to the *Sîn*. Thus even to the present day we have a survival of the syllabary from which the distinction of some Semitic letters originates; and this is but one example of the importance of studying the local peasant dialect of Syria, which is very different in many respects from the polite Arabic of literature, preserving as it does archaisms which are of the highest value for archaeological purposes.

C. R. C.

DISTRICTS IN PALESTINE.

THE hills north of Jerusalem are divided into various government districts, bearing ethnic names, viz. :—

<i>Beni 'Amir</i>	....	....	....	Sons of Omar.
<i>Beni Hârith</i>	....	....	....	Sons of Aretas.
<i>Beni Murreh</i>	....	....	....	Sons of bitterness.
<i>Beni Salim</i>	....	....	....	Sons of peace.
<i>Beni Zeid</i> ....	....	....	....	Sons of increase.
<i>Beni Hamâr</i>	....	....	....	Sons of the ass.
<i>Beni S'ûb</i> ....	....	....	....	Sons of stubbornness.
<i>Beni Hasan</i>	....	....	....	Sons of beauty.
<i>Beni Mâlik</i>	....	....	....	Sons of royalty.

These are not pastoral or nomadic, but agricultural districts, with a settled population of Fellahin. There are no Arabs in these districts, and historically the nomadic tribes seem never to have held them. I have never seen any explanation of these names, nor does their origin seem to be known in Palestine. M. Clermont-Ganneau has indicated the interest of the names, but has not explained their origin. Professor Palmer in revising my nomenclature has added the word Arabs to the title, apparently thinking that they applied to existing tribes in Palestine, but the districts are entirely free from nomadic tribes, nor are any existing Arab clans west of Jordan called by these names.

If, however, we turn to the map of Arabia in the days of Muhammed and of Omar, we find the following tribes represented :—

Beni 'Amir, a tribe of the Nejed near Yemana, or again south-east of Medina.

Beni Hârith, a tribe of Yemen north-east of Sana.

Beni Murreh, both east of Medina, and south of the Jauf Oasis.

Beni Suleim, east of Medina.

Beni Mâtik, a division of the Beni Temîm, who lived near Yemâna.

It was with the aid of these and other tribes that the famous Khaled defeated the Romans on the Hieromax in 634 A.D. ; and under Omar they swept over Palestine soon after.

It seems therefore probable that in these local names we have a trace of Omar's Conquest of Syria, and that the hills of Judea and Samaria were regularly portioned out among his followers. The noble families of Jerusalem still claim to have "come over with the conqueror" at this time. We have thus only another instance of the survival in Syria of early Moslem divisions, and the division of the Keis and Yemeni factions, which dates back to the early days of Islam, is still hardly extinct, and is well remembered in Southern Palestine.

This identification of the tribes presents a curious and interesting historic parallel to the division of Canaan by Joshua among the triumphant tribes who (as in Omar's time) entered Palestine from beyond Jordan.

C. R. C.

THE SAMARITAN TEMPLE.

Is there any satisfactory proof that the Samaritans ever erected a temple? Josephus speaks of Sanballat's Temple (2 "Antiq.," viii, 2-7), but gives no account of it, and his Sanballat cannot be the Sanballat of the Bible if he lived in the days of Alexander the Great. In the New Testament only the mountain is noticed (John iv, 20); and Epiphanius in the fifth century speaks of the Samaritans as worshipping in a circle open to the air—such an enclosure as they still use. The Samaritan literature is all very late, and makes Joshua erect a temple which Sanballat only restored. The twelve (or ten) stones which the Samaritans point out as part of their temple are probably terraced walls of Justinian's fortress. On the whole it seems to me probable that they never had anything more than at present, viz., a sacred rock with a well-marked cup hollow in its surface—probably their altar, and enclosures with dry stone walls, where they congregated on the holy mountain.

C. R. C.

LOT'S WIFE.

IRENEUS believed Lot's wife to be still visible in his own days near the Dead Sea, "still showing her feminine nature" and apparently not quite a stone. Antoninus Martyr in describing his visit to the locality is careful to controvert the idea that the statue had been diminished by being licked by animals. It must have been to some stone or rock (apparently west of the Dead Sea) that these writers refer. Sir John Maundeville still saw the statue "at the right side" of the Dead Sea. It seems possibly to the peculiar crag now called Kurnet Sahsul Hameid, "the peak whence Hameid (an Arab boy) slipped down," that they all refer. It is a crag somewhat like a human figure, jutting out of the cliffs near Kumrân, not far from the Hajr el Asbah.

C. R. C.

EN ROGEL.

It is pretty generally allowed, I believe, that the real site of En Rogel is the present Virgin's Fountain opposite Zohelath, and not, as the Crusaders thought, the Bir Eyûb, which is too far south, and not a spring at all.

The usual translation of En Rogel is "Fuller's Spring," but "Spring of the Foot" has recently been suggested. I would suggest that both are equally unsatisfactory. In Arabic Rijlah means a water channel (*locus ubi aqua fluit*, Freytag), perhaps derived from *rijl* "foot," because such channels are made with the foot by the peasantry. There is an 'Ain Rujeileh or modern En Rogel near the west margin of Sheet XVIII of the Survey.

If En Rogel mean "Spring of the Channel," and if it be—as can be shown on quite independent considerations—the present Virgin's Fountain, the name is evidently derived from the famous rock-cut channel leading from the back of the cave in which the spring rises.

C. R. C.

AIN TABGHAH.

It seems to have escaped notice that this place is mentioned in the Talmud, which is important, as showing the name to be ancient, and thus perhaps presenting a strong argument against the idea that this spring is the one which Josephus intends in speaking of the Fountain of Capharnaum.

The site, as is well known, is between Tell Hûm and Minieh, and fine springs are here dammed up in a reservoir, while several curious round

water-towers (including 'Ain Eyûb) exist immediately to the east. The name means the "Dyer's Spring." (See the notice in the "Princes' Tour in the Holy Land.")

In the Talmud (Tal. Jer. Ekha, ii, 2, v Midrash) a certain Migdol Tzeboya is mentioned, and according to Neubauer was on the Sea of Galilee (Geog. Tal., p. 218), this name meaning "tower of the dyers." (מגדל צבעיָא) is identical with the Arabic Tâbjhah. Twenty-four weavers' shops stood at this place. Perhaps this may explain the curious water-towers found both at 'Ain Tâbjhah and near Mejdél. They may have been used as wells in which to steep the stuffs while being dyed, and this explains the name "Tower of Dyers." They clearly were not connected with aqueducts, though a short mill lade led from the great reservoir on the spot, which is probably only about a century old, and built by the Zeidân family.

C. R. C.

KADESH BARNEA.

A SCHOLARLY work by Dr. H. Clay Trumbull has just been published in America respecting the site of this city. I hope I shall not be considered contentious if I take exception to the conclusions of the author, though supported with much care and candour, and shared by many explorers and scholars who have preceded him. There is much that is most valuable in the book, but when we find that Seir and Mount Hor are moved to the west of the Arabah, and that 'Ain Kadîs is shown much further east than on preceding plans, it seems that permanent harm might result from leaving it to be supposed that the question of Kadesh was finally settled.

Taking the questions which I would wish to raise as they occur in the book, I would first note :—

Page 93, *Seir* = Es Seer. This looks well in its English garb, but we must ask first what is the spelling of the Arabic. The Hebrew is שַׁעִיר, of which the proper Arabic equivalent is Shar, a word in use with same meaning as the Hebrew, viz., "shaggy." In spite of the authorities quoted it seems that Seer, or Sir, or Sirr is the common Arabic geographical term found all over Palestine meaning a "route" or "highway," unless it be spelt with *Sad*, in which case it means a sheepfold, or if it be really Sirr it means "gravelly." Until it be shown to contain the guttural of the Hebrew, it cannot be considered to represent Seir, especially as it should begin with *Shin*, not with *Sin* or *Sad*. The distinction made between a Country of Seir and Mount Seir (p. 85) does not seem to be well founded, though necessary to the theory which would find a Seir at Seer independent of Mount Seir, the rugged chain east of the Arabah. Kasr es Sir (p. 94) would mean probably "the sheepfold tower;" and as is so often the case among the Bedawîn, the region round

may probably have been named from this ruin. (Compare Sheet XV of Survey of Palestine.)

Page 101, *Edom*. It is no doubt the case that Idumæa was a name applied to the country even as far north as Hebron about the Christian era, but the name Edom or "red" must surely have applied to the red sandstone country, and not to the white chalk plateau of the Tih.

Page 124, *Rekem*. I fail to find anything to support the view that there were two Rekems, one at Petra, one at 'Ain Kadis. All the authorities agree that Petra was called Rekem, and the Jews appear most clearly to have believed that Kadesh Barnea was at or near Petra. The second Rekem seems only necessary to the theory of 'Ain Kadis being Kadesh Barnea.

Page 127, *Hor ha Har*. No reference is given in note, and it seems to me very clear that the references in Numbers xxxiv, 7, 8, are to a Mount Hor in the Lebanon, not to the mountain in Edom. I have tried to show elsewhere that we should probably read Hor ha Khar, "Mountain of the Phœnicians," the change of ה and ח being very slight.

Page 130, *Hor*. Dr. Trumbull says that Josephus does not suggest a particle of evidence in favour of his assertion that Mount Hor was near Petra. I would venture to suggest that he does not agree as to where Jerusalem was, or even as to Sinai. The Mount Hor now shown is that which Josephus believed in, and probably it was as well known as Sinai or any other famous mountain (Carmel, Tabor, Hermon, etc.) which are undoubted, though we have little but tradition in some cases to rely on. Dr. Trumbull accepts the usual Sinai, but the site of that mountain does not rest on any more secure basis than does the traditional site of Mount Hor—both are too famous ever to have been lost. In the case of Mount Hor we have in fact that "consent of tradition" (Jewish, Christian, and Moslem) which, as I tried to show in "Tent Work," is generally indicative of continuous preservation of an ancient site. The position in the border of Edom is quite in accordance with the usual understanding of the desert geography, and the new proposed situation at Jebel Madurah seems far too arbitrary to upset the consensus of tradition and opinion in the matter.

Dr. Trumbull supposes Madurah to be a form of Moseroth (מוסרת), remarking that D and S are convertible in Eastern speech. I do not think this is the case. The soft T and the soft S (*Te* and *Sin*) are convertible, and so are the soft D or Dh and Z (*Dhal*, *Dal*, *Zain*), but I do not recall any instance where D and S are convertible. Dr. Trumbull is surprised (p. 228) that I should suggest Madurah to be the same as Adar, which he appears to consider (p. 280) to be spelt with the guttural *Ain*. In Joshua (xv, 3), however, it is spelt אדר, which is distinct from the Eder (עדר) of another passage (xv, 21). The *Mim* being a servile letter, Madurah if spelt מדרה, which one is led to suppose is the case from Robinson's transliteration, might well be the same as Adar. The site of Eder may perhaps be at the ruin 'Adar, near Gaza.

"Kadessa" (p. 136). It would be worth while to examine this vicinity

carefully, in order to find whether the name Kadessa, reported by Berton, really exists, or was only manufactured for his benefit. No effort seems lately to have been made to discover this.

Page 170, *et seq.* Judging from the Arabic, the word Rekem would seem to mean "variegated," perhaps from the bright colours of the Petra sandstones. (See Freytag, *Lex.*) The word Kerm (p. 174), spelt with the *Kofh*, generally means a tree stump.

Page 211, "Zephath." The radical meaning of this name in Hebrew and Arabic is the same, "to be clear," "bright," "conspicuous," "shining." The identity of Zephath and Sufâh can hardly be doubted by any who consider the roots whence the two words originate. The suggestion of Sebeita or Sebâta for Zephath has always seemed to me to argue a want of scholarship on the part of Rowlands. The Arabic name seems to be from the root Sebt, "rest," which has not a single letter in common with the root whence Zephath originates. Philologically at least (and I think geographically as well) Robinson's suggestion is preferable to that of Rowlands, because it is radically sound, and the other radically unsound. There was a Zephathah near Mareshab (2 Chron., xiv, 10), which as I have before pointed out survives at the ruin Safieh, a word from the same root as Safah.

Page 212, "Hagar's Well" at Moilâhhi, depends on a tradition of the Beit Hajar. We ought to be informed how this latter name is spelt, whether with *He* or with the guttural. In the latter case it would simply mean "House of Stone," while Moilâhhi is probably a vulgar Bedâwi pronunciation like other words with a supernumerary *Wau*, and means "salt." If a tradition of Hagar does here exist, it is not free from suspicion of monkish origin, and the same may be said of 'Ain Kadis, for not only have Christian remains been found in this desert, with Arab traditions of Christian settlements, but we also know from Jerome and from Antoninus Martyr of hermitages and monasteries in various parts of the Tih.

"Hezron," page 228. Dr. Trumbull has omitted to notice what appears to me to be a strong argument, which, as far as I know, I was the first to suggest in the identification of Hezron. He does not himself find this name anywhere in the desert, yet all good maps show the Hadireh hill west of Wâdy el Yemen. The proper Arabic equivalent of Hazor הצר, is Hadireh (حَضِيرَة), which has the same meaning, "enclosure;" and the Arabic *Dâd* is one of the two proper equivalents of the Hebrew *Tzadi*. It is strange that Dr. Trumbull should have been quite silent as to this suggestion, which if it be correct settles the Kadesh Barnea question for ever. As to the meaning of Hazor and Hazerim, we found in 1881 that the word Mahder (radically the same) is applied by the Arabs beyond Jordan to the ancient stone circles in at least one case; perhaps such circles exist at Jebel Hadireh. The thorn enclosures would be called Sir (see p. 281), and the Hazors seem probably to have been old cromlechs or circles, funereal or of religious use.

Page 276. *Hawy*, usually rendered "winds," will be found to be

derived from a word meaning a gorge or precipice, which fits well in the case of Kaukab el Hawa, and in other instances.

Page 278. The opinion of Levy and other epigraphic authorities is generally supposed to have settled the date of the Sinaitic inscriptions as not earlier than the 4th century.

Page 283. 'Ain el Qadayrât appears to be spelt with a *Dad* by mistake. There is no such root in common Arabic, and the root meaning "omnipotence," is spelt with a *Dal*.

Page 289. The suggestion of 'Ain Qasaymeh for Kaisam (קיסם) is free from philological objection, but Dr. Trumbull should consider Neubauer's curious explanation of the Targum, reading Kaisam for Azmon. The suggestion Qadayrat for Adar is objectionable, because Adar is spelt with *Aleph* and *Dal*, while according to Dr. Trumbull Qadayrat is spelt with a *Dad*; in which case the Hebrew would be not אדר, but קצר. All these suggestions seem to be far too vague to carry conviction; and Qasaymeh probably means "division," or "halving," as the Arabs say. There seems no real reason for rejecting the Arab legend of a Christian boundary at this point (see p. 291), as the district once had a Christian population. The word Azmon is most likely to survive in Arabic in the form 'Atmeh.

As regards the Exodus route, there is little in Dr. Trumbull's careful paper which will be new to readers of Brugsch, Tomkins, &c. The question of the wall *Shur*, and of the *Yam Suph*, is treated with great clearness and force, and leads to conclusions which will intine be generally accepted.

It is to be regretted, however, that sufficient notice has not been taken of the facts (both geological and engineering), which leave it indisputable that the level of the Red Sea has been changing, and that the Isthmus of Suez has been growing broader within historic times. The existence of a Nile branch down Wâdy Tameilûb, which is important in this connection, is also not noticed. As to Brugsch's idea (p. 327 *et seq.*), that Khetam חטם and Etham איתם are the same, I can only say I agree with Professor Robertson Smith in regarding this as very doubtful. It seems far more probable that the Atuma of the story of Saneha is Ethan, and not as generally supposed Edom. The Egyptian sign \ominus may be read as *D*, but is most often *T*.

Page 331. "The fortress of Kanaan has not been identified." This seems to be written before Dr. Trumbull had seen my paper on the subject, as my suggestion of Kana'an, a large ruin near Hebron, met with hearty acceptance from Mr. Tomkins.

Special attention should be called to the deduction from Exod. x, 19, which Mr. Trumbull brings forward as showing the direction of the *Yam Suph*. The rationalistic explanation of the pillar of cloud and of fire which seems suggested on p. 397 is also very interesting.

The map requires a word of notice, for it is not clear why 'Ain Kadis is there shown much further east in longitude than is the case on Palmer's map or Holland's map. The result of moving Mount Seir and Mount Hor westwards, and Kadis east, is to bring them much nearer together, but

the site of 'Ain Kadis is still too far west to suit the requirements of the case. Generally speaking, one feels that the evidence has been rather twisted in favour of 'Ain Kadis, though Dr. Trumbull has striven to be impartial and candid.

The omission of any notice of Hadireh, and several minor errors above pointed out, seems to spoil the completeness of the work.

Robinson's site at 'Ain Weibeh is conjectural. Perhaps Kadesh may yet be found in the vicinity of Jebel Madurah, where Berton claims to have found the name. The name Wâdy Fikreh, or the "cloven valley," at this place might have some connection with the rock cloven at Kadesh. It has been established that an 'Ain Kadis does really exist further west, but it is not established that this is the site of En Mishpat. It may be either a monkish site, for the monks were not careful as to the biblical requirement of their sites; or it may indicate that the name Kadesh applied to a large tract, but the Scripture narrative seems clearly to point to a site for Kadesh Barnea close to the Arabah.

The excursus on Set, though interesting, is not novel, and it seems hardly worth while to have revived the suggestion that Set was connected with the Assyrian word Sed, and the Hebrew Shedim, meaning "powerful." Set is more probably connected with Thoth, as meaning a "pillar" or "stone," for both Set and Thoth were pillar gods, and gods of darkness, night, and the moon, and the determinative accompanying the name Set in hieroglyphics is a stone.

The route of the Exodus as laid down by Dr. Trumbull seems to be a mean between three views—those of Brugsch and the traditional, together with that resulting from the latest observations and discoveries. Surely however the wanderings are as meaningless as they well could be, extending from Ism'ailieh to Tell Hîr, and back again west of the Bitter Lakes, to cross the sea at Suez. The view which seems destined to survive is that which discards the old traditional Baal Zephon at Jebel Attakah, and makes the crossing to have occurred near Ism'ailieh. Bir Mejdal, East of El Jesr, is a relic of the name Migdol, and the name of Baal Zephon may perhaps survive in Birket Balah. The old sites near Suez rest on no sound basis, and the fact that the head of the Gulf of Suez was once much further north is now fairly well established.

C. R. C.

ROUND MOUNT CARMEL.

Haifa, 29th November.

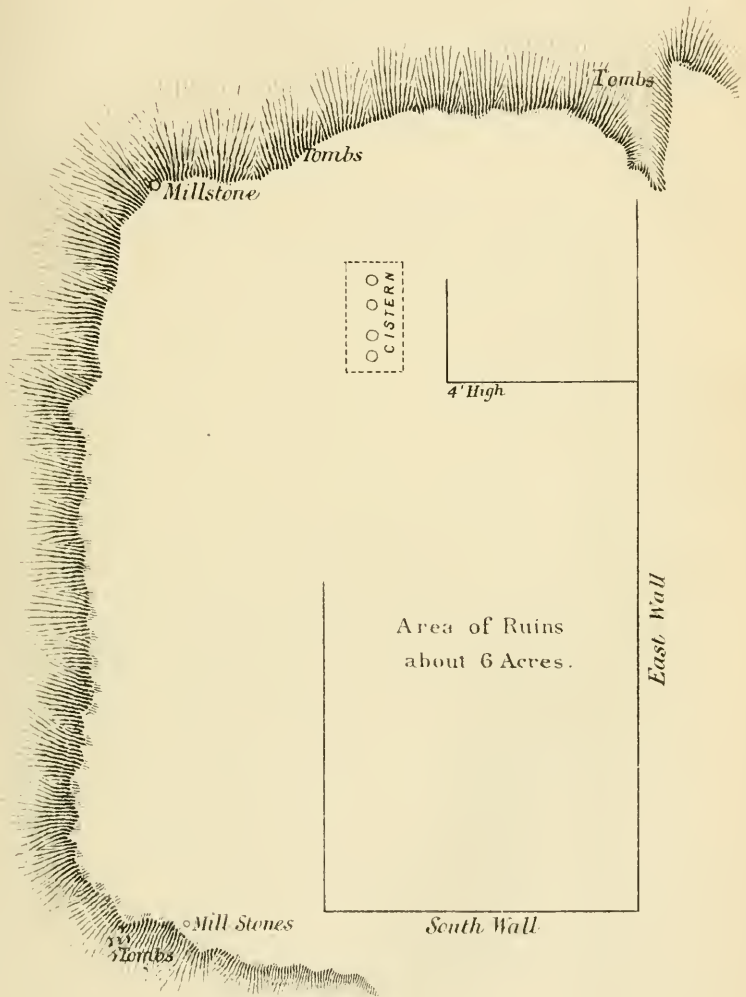
THE confusion which the Crusading nomenclature has introduced into the identification of sites, is nowhere, as Captain Conder has shown, more curiously illustrated than in Haifa and its neighbourhood.

The tradition, first suggested by William of Tyre, that Porphyriion was identical with Haifa, is still firmly clung to by the monks of Carmel, and both Reland and Sepp identify the ruins in the neighbourhood of that town with Porphyriion, basing their arguments, however, upon other than Crusading tradition: the latter admitting that while one Porphyriion

may be eight miles north of Sidon at Khan Yum's, there must have been another near the point of Carmel on the authority of the Onomasticon, which places here a town called Chilzon, which he maintains is the Hebrew name for Murex, the shell which produces the purple dye, and which is found here in considerable quantities. Hence the name Porphyriion. But on analogous grounds the town might rather have occupied the site of the ruins of Haifa el Atikah, where the coast is strewn with such a profusion of fragments of porphyry carvings as are not to be found elsewhere—an hypothesis scarcely sufficient in itself to warrant the identification of a site. The fact that there was a Bishop of Porphyriion who was under the Metropolitan of Cæsarea, only adds to the difficulty, which is not elucidated by any of the itineraries of the pilgrims or ancient travellers, as none of these give the distances between Acre, Cæsarea, and the intervening towns with sufficient accuracy to enable us to identify the places they mention. Thus it happens that there are the ruins of five towns within a short distance of one another on this coast, none of which have been identified with absolute certainty. These are, first, the ruins of Haifa el Atikah, distant a mile and a half from modern Haifa, which may itself be the site of an ancient city; second, those at Tel el Semak, distant two miles from Haifa el Atikah; third, those of Kefr es Sâmir, distant two miles and a half from Tel el Semak; fourth, those of Khurbet el Keniseh, distant two miles and a half from Kefr es Sâmir; and fifth, those of Athlit, the *Castra Peregrinorum* of the Crusaders, distant three miles and a half from Khurbet el Keniseh. That one of these is Sycaminum, and another Calamon, is pretty certain, and the conclusion generally arrived at is, that the ruin at Tel el Semak is the former, and that at Kefr es Sâmir the latter. It was in the hope that I might find something at Tel el Semak that might throw light on the subject, that I examined the neighbourhood somewhat minutely, and in the course of my explorations stumbled upon a ruin which turned out to be Khurbet Temmaneh,¹ which Guerion vaguely mentions as being somewhere in this vicinity. Attracted by a flight of rock-cut steps near which are some tombs to the left of the road, I scrambled up the steep hill-side through the bushes for about 300 yards, where, at an elevation of 200 feet above the level of the sea, I came upon a comparatively level plateau, about 6 acres in extent, covered with the traces of an ancient town. Fragments of columns and capitals and pieces of carved marble were strewn about in profusion; the rocks in the neighbourhood were honeycombed with tombs: two of the best of these contained six loculi, each in a perfect state of preservation, the entrances to several others were closed; there were traces of rock-cut chambers, two large millstones, and the foundations of walls which may possibly have been those of a fort. This Khurbet lies due east of the mound of Tel el Semak, from which it is distant about 400 yards, and may have formed an upper town to the lower city of Sycaminum. The ruin is bounded on the east side by a wall running nearly due north and south, 112 yards in length, from which at right angles runs a wall 40 yards long, terminating in an angle where it stands to a height of 4 feet from the ground.

¹ On the map Timány.

KH. TEMMANEH OR TINĀNY.



Scale
0 10 20 30 40 50 60 70 80 90 100 yards.

Here it turns north for 12 yards. It is composed of rubble from which the ashlar has been removed, and is from 3 to 4 feet in thickness ; the wall bounding the ruin on the south is 65 yards long, commencing from the south corner of the east wall, and the south wall is 70 yards long, terminating apparently near a large cistern with four circular apertures. I had myself let down into this, and found it to be hewn out of the rock, 70 feet in length, 20 feet in breadth, and 12 feet in height ; but the floor was covered with an unknown depth of *débris*. The sides had been cemented, the cement still remaining in parts in a very perfect state of preservation, and the roof was supported by three columns hewn from the living rock, 4 feet square. The annexed plan will give some idea of the ruin. I could find no traces of a wall on the north side, but I think it probable that a little excavation would lay them bare. Near the east wall I picked up a fragment of marble on which had been carved the word "Allah," and two or three other letters indicated that it was the commencement of an old Arabic inscription, though the characters were not Cufic.

I take this opportunity of adding a few notes of objects of interest which have come under my observation in the course of my rides in this neighbourhood. At Kefr Lam (Sheet 7, I *i*) the fellahin have, since the visit of the officers of the Palestine Survey, opened an ancient well, which furnishes them with a good supply of water. It is 35 feet deep, and approached by a flight of steps, partly hewn out of the solid rock and partly artificial ; the sides of the well, the mouth of which is about 30 feet square, are also partly of masonry and partly of hewn rock. In the neighbourhood are two rock-hewn chambers, or they may possibly have been cisterns ; the largest was 15 feet square, and spanned in the centre by a single stone 15 feet long and 2 feet broad by 2 deep. Cut in the rock at intervals of about 8 inches were two rows of holes, which may have been used for supporting rafters. The fellahin also pointed out to me two stone vaults, 40 feet long by 12 feet broad and 7 feet high. The roofs consisted of massive blocks of stone, which were supported in the case of each vault by five arches, each arch hewn from a single block of stone 4 feet in breadth, thus leaving a comparatively narrow interval between each arch, and forming a chamber of a very peculiar construction. At Zimmârin (Sheet 8, K *j*) the Jews, who are settled there in a colony, have in the course of their operations also brought to light a curious chamber, 10 feet by 8 feet and 10 feet deep ; on three sides it is hewn out of the living rock ; on the longest side have been cut four rows of eighteen holes, each hole being 6 inches square and about 6 inches deep at the base, but standing upwards ; on the shorter sides there are four rows of ten holes, each row being about 3 inches above the one below it. Whether these entered into the construction of the roof of the chamber or served some religious purpose for which the room may have been originally designed, I am unable to conjecture.¹ At El Makura, a

¹ The survey party came across a number of those rock-hewn chambers along the ridge running parallel to and near the coast line, having square pigeon-holes in rows of about the same dimensions ; some chambers had steps leading down, others not.—G.A.

Khurbet near Ijzim (Sheet 8, J j) I found the largest rock-hewn cistern¹ which I have yet observed in this part of the country. It measured 98 feet long by 40 feet in width. The bottom was so full of undergrowth that it is impossible to conjecture the real depth, but it was doubtless capable of containing an abundant supply of water. Should the country ever be repopulated, many of these ancient cisterns could be utilised. I was myself fortunate enough to discover a bell-shaped cistern at Dâlieh, which only required cleaning out and re-cementing, in a position which has since enabled me to turn it to good account; in excavating near it I came upon the foundations of an old house, apparently of Byzantine times, which have since served me for the foundations of a new one, and unearthed twelve large iron rings, 3 inches in diameter, with iron staples 4 inches long attached—probably used for fastening horses, some coins of the time of Constantine, some carved cornices and drafted stones, and a great quantity of fragments of glass, stems of vases, and rims of drinking goblets, and heaps of broken pottery, while the neighbouring field is abundantly strewn with tesserae, giving evidence that the former occupier must have been a man of means, and that more excavation may bring further evidences of it to light. In the course of my rides over Carmel I have observed erections² which I do not see mentioned in the Survey. The most perfect of these lies about half-way between Dâlieh and the Mahrakah, a little off the road to the left, concealed in the thick brushwood. It is a pile of stones 14 feet square by 12 feet high, the stones averaging 3 feet in length by 2 feet in breadth and 1 foot in thickness. They have been carefully cut, and laid so as to form a perfect square, but without cement. I have since come upon five or six similar erections, generally in very remote and unfrequented spots, and the natives can give me no tradition in regard to them.³

At Khurbet Keramis, near Umm es Zeinat (Sheet 8, K j), I found two underground vaults, each 20 feet long by 10 feet broad and 5 feet high; but they were much filled with rubbish, also foundations, and drafted stones. Standing in close proximity to each other were what at first appeared to be the base of four gigantic columns, as they stood 4 feet high from the ground and were about 6 feet in diameter; from the square hole in the centre of each they appear to have been the lower halves of mills.

A mile and a half, a little to the east of south, of Dâlieh er Ruhah (Sheet 8, K k) I found a Khurbet Umm Edd Fooḥ ^{أص المڤوف} where there were tombs, cisterns, millstones, and the usual foundations and heaps of stone.

At Rushmia, which is situated on Mount Carmel, at an elevation of about 700 feet above the sea, distant an hour's ride from Haifa, and described in the Memoirs, I am engaged with a friend in making

¹ Marked on the map Bkt = Birket.

² Probably old watch towers (vineyard?), which are found on many of the spurs of Carmel; also in the wooded county to the south of Umm el Fahur. They vary in dimensions, but generally measure 12 to 15 feet square of dry stone masonry. Those in a fair state of preservation are usually found in the thickets of copse wood.—G.A. See Mr. Drake's Reports, *Quarterly Statement*, 1873, p. 31.

³ Usually called El Muntâr (watch tower).

an excavation at the well of Elias, with a view of seeing whether the spring affords a sufficient amount of water to furnish a supply for the town of Haifa, in view of the change contemplated by the Government of moving the seat of the Mutessariflik from Acre to this place. The water enters the well through an apparently natural tunnel, but has no outlet from the well itself, which thus becomes a sort of backwater, the native tradition being that the spring is much further up, and is in fact the source of a small rivulet, which, after an underground course, reappears in the gardens below Haifa, and forms there a small lagoon. We first endeavoured to strike this stream about 20 yards below the well, down the wâdy, but, beyond finding some cut stones at a considerable depth, made no discovery. We then dug in the immediate neighbourhood of the well, and came upon the roof of an artificial tunnel; on opening this we found it completely filled with the soil, which had silted into it, and at a depth of 7 feet from the surface came upon the stone floor in which a channel had been cut for the water. As the water in the well was, however, now 4 inches lower than this channel, we have had to take it up. We followed this tunnel for 10 yards; the roof was arched and the sides built of stone, both hewn and unhewn, but without cement. Altogether, we cleared a channel 30 yards long and 8 feet deep, into which we let the water; but the operation of following up the channel, by which it reaches the well, and in which it somewhere loses a good deal of its volume, is not yet sufficiently completed to enable us to decide whether it will be worth conveying to Haifa, a distance of over three miles.

LAURENCE OLIPHANT.

BETH HABBECHEREH, OR THE CHOSEN HOUSE.

CHAPTER I.

1. It was an affirmative command¹ to make a house for the Lord suitable for offering in it the offerings, and celebrating the feasts thereat, three times in a year, as is said, "and let them make me a Sanctuary" (Exod. xxv, 8). The Tabernacle made by Moses our master has already been described in *the Book of the Law*. It was temporary as is said "for ye are not as yet come," &c. (Deut. xii, 9).

2. After the *children of Israel* entered the *promised land*,² they placed the tabernacle at Gilgal for fourteen years, whilst they subdued and divided *the land*. And thence they came to Shiloh and built there a house of stones, and spread the curtains of the Tabernacle over it, and it was not roofed there. The Tabernacle of Shiloh stood 369 years, and after the death of Eli it was destroyed, and they came to Nob, and there built a Sanctuary. After the death of Samuel *this* was destroyed, and they came

¹ מצות עשה. The Rabbis enumerate 613 commandments, of which 248 are מצות עשה, *præcepta affirmantia*, and 365 מצות לא תעשה, *præcepta prohibentia*.

² "Three commands were given to Israel on their entrance into the land: to set up a king over them; to cut off the seed of Amalek; and to build the chosen house."—Sanhedrim 20 *b*.

to Gideon and built there a Sanctuary, and from Gibeon they came to the eternal house, and the days of Nob and Gibeon were 57 years.

3. After the Sanctuary was built at Jerusalem, all the other places were unlawful for building in them a house for the Lord and offering in them offerings (Deut. xii, 11, 14). And no other was called a house for all generations, except that at Jerusalem only and on Mount Moriah,³ of which it is said, "then David said, this is the house of the Lord God, and this is the altar of the burnt offering of Israel" (1 Chron. xxii, 1), and he said "this is my rest for ever." (Psalm cxxxii, 14.)

4. The building which Solomon built has been already described in the *book of Kings*, and the building to be built in the future, although it is written in Ezekiel, is not fully described and explained. The men of the second house (which they built in the days of Ezra) built it like the building of Solomon, and after the appearance of the things⁴ explained in Ezekiel.

5. And these are the things which were fundamental in the building of the house.⁵ They made in it a holy *place*, and a holy of holies, and there was in front of the holy *place* a certain place which was called the porch, and these three were called הֵיכָל, *hekhal*, the Temple.⁶ And they made

³ Zevachim xiv, 4. "Before the Tabernacle was erected the high places were permitted, and the priestly functions were performed by the first-born of families. After the erection of the Tabernacle the high places were forbidden, and the priestly functions were performed by the priests; the most holy offerings were eaten within the hangings, the less holy in all the camp of Israel. 5. When they came to Gilgal and made the high places lawful; the most holy offerings were eaten within the hangings, the less holy in any place. 6. When they came to Shiloh high places were forbidden. There was no roof to the Tabernacle there, but a house of stones below and curtains above. And this was the 'rest.' (Deut. xii, 9.) The most holy offerings were eaten within the hangings, and the less holy and the second tithes in any place from which Shiloh could be seen. 7. When they came to Nob and Gibeon, they permitted the high places; the most holy offerings were eaten within the hangings, and the less holy in all the cities of Israel. 8. And when they came to Jerusalem, high places were forbidden, and were never afterwards permitted, and this was the 'inheritance.' (Deut. xii, 9.) The most holy offerings were eaten within the hangings (*i.e.*, the wall of the court), and the less holy and the second tithes within the wall" (of Jerusalem—*Rashi*). The Gamara adds (Zev. 118 *b.*): "The Rabbis teach that the days of the Tabernacle of the congregation in the wilderness were forty years, less one; the days of the Tabernacle of the congregation at Gilgal fourteen; seven whilst they were subduing, and seven whilst they were dividing, *the land*, the days of the Tabernacle of the congregation at Nob and Gibeon fifty-seven. It remained at Shiloh three hundred and seventy years less one."

⁴ Or "in some things like."

⁵ Cf. Middoth ii, 5; iii, 1; iv, 2.

⁶ הֵיכָל, *Hekhal* = *naos* in its wider sense, as in Josephus, B. J. V, v, 3. It were to be wished that the precision of nomenclature here aimed at by our author had always been observed. But this is far from being the case. The

another outer boundary surrounding the temple distant from it like the hangings of the court of the *Tabernacle* which was in the wilderness, and all that was surrounded by this boundary,⁷ which corresponded⁸ to the court of the *Tabernacle* of the congregation was what was called the court, and the whole was called the Sanctuary.⁹

6. And they made vessels¹⁰ for the Sanctuary, an altar for burnt sacrifices and other offerings, and a sloping ascent by which they went up to the altar, and its place was in front of the porch, a little¹¹ to the south; also a laver with its base, to sanctify¹² from it the hands and feet of the priests for the service, and its place was between the porch and the altar, a little to the south, so that it was on the left of a person entering the Sanctuary; also they made an altar for incense, and a candlestick and a table, which three were inside the holy place, in front of the holy of holies.

7. The candlestick stood on the south, to the left of a person entering, and the table on which was the shewbread to the right, and both of them on the outer side of the Holy of Holies, and the altar of incense stood between them both a little to the outside.¹³ And they made within¹⁴ the court boundaries marking the limits of Israel and of the Priests¹⁵ and they built there houses for the other requirements of the Sanctuary, and each of these houses was called a chamber.¹⁶

8. When they built the Temple and the court, they built of large stones, and if they did not find stones, they built of bricks.¹⁷ And they

Talmud repeatedly speaks of the porch and the temple אֵלוֹם וְהִיכָל (Yoma 12 a, Megillah 26 a), and Maimonides himself has elsewhere distinguished between the הִיכָל and the Holy of Holies (*infra*, vii, 22).

⁷ Exodus xxxviii, 9.

⁸ כַּעֲיֵן "like the appearance of."

⁹ Cf. Middoth ii, 3; iv, v, for the contents of this paragraph. The concluding sentence "and the whole was called the Sanctuary," מִקְדָּשׁ, *mikdash*, is an inference from such passages as Middoth i, 1.

¹⁰ Pots, pans, shovels, tongs, instruments of music, &c. The word *Kelim*, כְּלִים has a very wide signification. Cf. Exodus xxvii, 19.

¹¹ Literally "drawn to the South."

¹² To wash.

¹³ Literally "the altar of incense drawn from between them both towards the outside." In Yoma, 33 b, it is said "we are taught that the table was on the north two cubits and a half from the wall, and the candlestick on the south two cubits and a half from the wall. The altar was between and stood in the middle drawn towards the outside," *i.e.*, towards the porch.

¹⁴ Literally "in the midst or inside."

¹⁵ Middoth ii, 6.

¹⁶ לִשְׂכָה *liskah*. Middoth i, 1, 5, 6; v, 4, and in very many other places in the Talmud.

¹⁷ The opinion that bricks were employed in the construction of the Temple appears to be derived from a passage in *Mechilta* (מִזְבַּח אֲדָמָה, page 74, Friedmann's edition, Vienna 1870), where, commenting on Exodus xx, 25, it is argued "thou wilt make me an altar of stone" is a permission, not a duty; and what but this does it teach? that if it is desired to make an altar of stone, let it

did not cut the stones of the building in the mountain of the house, but they cut and fitted them outside, and afterwards brought them in for the building, as it is said "great stones, costly stones, *and* hewed stones, to lay the foundation of the house" (1 Kings v, 17) and, "neither hammer nor axe, nor any tool of iron was heard in the house while it was in building"¹⁸ (1 Kings, vi, 7).

be made of stone; if of bricks, let it be made of bricks. And if this power of election was permitted in the case of the altar (which was peculiarly sacred), *à fortiori* it might be permitted in reference to everything else (כל הכלים, *every vessel*) in the Sanctuary. Yet it is to be observed that the opinion here expressed in reference to the passage "thou wilt make me an altar of stone" was not regarded as authoritative. (*Vide infra*, i, 13.)

¹⁸ Mechilta, p. 74. The rabbinical writers appear always to assume that in the building of the second temple, as in the building of the first, the stones were not cut and dressed on the spot. The great pillar lying within the Russian compound at Jerusalem, which not improbably was intended for Herod's cloisters, has its upper surface partially dressed, and the discovery of a flaw appears to have caused it to be abandoned before completion. Another pillar of about the same size, smoothed on as much of the surface as could be reached before the stone was separated from the rock, was discovered a few years ago about 200 yards south-west from the same spot, and it hence appears probable that the great stones of the later temple were dressed in the quarry. The pillar of smaller size which may be seen still joined to the rock on the north of the old road to Lifta, although cut into shape, has not been smoothed.

In Sotah, 48 *b*, is the following passage bearing upon this subject: "After the Holy House was destroyed the worm Shamir ceased," &c. (Mishna ix, 12). The Rabbis teach that it was by means of the Shamir that Solomon built the Holy House, as is said, "and the house when it was in building was built of perfect stone from the quarry" (*unbehauene Steine des Steinbruchs*—Gesenius) (1 Kings vi, 7). The words are to be interpreted literally. The words of Rabbi Judah Rabbi Nehemiah said to him. Is it possible to say so, when it has been said, all these stones were "costly stones, &c., sawed with a saw?" (1 Kings vii, 9), and if so, how are we taught to say that there "was not heard in the house the *sound of hammer*, &c., while it was in building?" (1 Kings vi, 7). Because they prepared the stones outside, and brought them in. (*Cf.* Mechilta, ch. מְזֻבָּח אֲדָמָה.)

Rab said, "the words of R. Judah appear to refer to the stones of the Sanctuary, and the words of R. Nehemiah to the stones of his (Solomon's) house. And *in reference to the opinion expressed by R. Nehemiah*, for what purpose did the Shamir come? It was required for this, as we are taught, that those stones (*the stones of the breast-plate*), were not written with ink, because it is said "*like the engravings of a signet*" (Exodus xxxix, 14). And they did not engrave them with a chisel, because it is said "*in their fulness*" (inclosings A. V.) (Exodus xxxix, 13), but they wrote upon them with ink and showed the worm to them from the outside, and they became opened by themselves just as a fig becomes opened in the hot days, and there was no loss of *substance*; like a plain which becomes channeled in the days of the great rains without loss. The Rabbis teach that the Shamir was a creature like a barley corn, and was created in the six days of the Creation, and there was no hard thing that could stand before it. How did they preserve it? They wrapped it in a mass (literally

9. And they did not build in it any projection of wood, but either of stones, or of bricks and lime; and in all the court they made no porches (*exhedræ*) of wood, but either of stones or of bricks.¹⁹

10. And they paved the whole court with costly stones, and if a stone was dislodged, notwithstanding that it remained in its place, it was profane so long as it moved, and it was unlawful for the officiating priest to stand upon it at the time of the service until it was fixed in the earth.²⁰

11. And it was a command to strengthen in the best manner possible

sponge) of wool, and put it into a leaden casket filled with barley bran." This worm is said by R. David to have been brought by an eagle from Paradise (Buxtorf. Lex. Talm. רִמְמִי).

¹⁹ This is founded upon Deut. xvi, 21, which by the Talmudists is held prohibit the placing any wooden erection near the altar (Tamid 28 *b*). Two difficulties arise out of this passage, namely, 1, that there was in the south side of the court a chamber of wood (Midd. v, 4), and 2, that there was, according to Middoth, our author, and other writers, a wooden balcony surrounding the inside of the court of the women. The first is met by supposing that the chamber in the court was not constructed of wood, but was for the storing of (picked) wood (Midd. ii, 5) for the altar; and in reference to the second, it is suggested, 1, that the expression "near unto the altar of the Lord" was applicable only to that portion of the temple which was inside of the gate Nicanor, and 2, that the balconies for the women were only temporary, being put up for the rejoicings at the Feast of Tabernacles which took place in the *beth hashshaavah* which was in the court of the women. (Suceah v, 1; Piske Toseph. ad Midd.) The beams of cedar wood which passed between the front of the temple and the porch, and the cedar roofs of the little pillars by the slaughtering place, were not considered to be projections. For the *exhedræ* in the court, see Tamid i, 3, where it is related that the priests and their overseer, when they passed out of Moked into the court early in the morning, divided into two companies, the one going by the *exhedra* towards the east, and the others going by the *exhedra* towards the west." The Gamara explains that these *exhedræ* were of masonry. Once in seven years, on the first day of the Feast of Tabernacles, a pulpit of wood was erected in the court of the women, from which the king read portions of the law (Sotah vii, 8).

²⁰ Zevachim ii, 1, 24 *a*. A priest (whilst receiving the blood) might not sit nor stand upon any vessel, or upon a beast, or upon the foot of a fellow-priest. If he chose to stand upon one leg whilst performing his service he was at liberty to do so, but not when he had no service to perform. In connection with the stones of the pavement the student of the Mishnas will remember the story in Shekalim vi, 2: "It happened that as a priest was engaged in his duties he noticed that *one part of* the pavement was changed in appearance from the rest. He came and told his companions, but before he could finish the account he died, and they knew that there the ark was certainly hidden." This priest had a blemish, and was employed in picking wood for the altar (Midd. ii, 5), and it was in consequence of this tradition that the families of Gamaliel and Hananiah were accustomed to make obeisance towards the chamber of wood in the court of the women.

the building, and to raise it as high as the means of the congregation permitted, as is said (Ezra, ix, 9) "to set up the house of our God." And they adorned and beautified it according to their power, and if they were able to overlay it with gold²¹ and to magnify the work of it, lo, that was a good deed!²²

12. They did not build the Sanctuary by night, as is said (Numb. ix, 15), "on the day that the tabernacle was reared up," by day they reared it up, not by night.²³ And they were employed in building from the rising of the morning until the stars came out.²⁴ And all were obliged to assist in the building, both by their own individual exertions and by their means, men and women, as in the Sanctuary in the wilderness.²⁵ They did not intermit the instruction of children in the schools for the building;²⁶ nor did the building of the Sanctuary annul a feast day.

13. They made the altar of stone²⁷ masonry only, and that which is said in the Law, "an altar of earth thou shalt make unto me" (Exod. xx, 24), *means* that it should be joined to the earth, that they should not build it either upon arches, or over cavities,²⁸ and that which is said, "if thou wilt make me an altar of stone" (Exod. xx, 25), tradition teaches that this is not a permission but an obligation.²⁹

²¹ Solomon overlaid the whole house, the altar, the doors, the cherubim, and the floor of the house with gold. (1 Kings vi, 22, 28, 30, 32.)

²² מצוה. Literally "a commandment," a good deed prescribed by the law.

²³ Sheruoth 15 *b*.

²⁴ Nehemiah iv, 21.

²⁵ Exodus xxxv, 22, 25; xxxvi, 8.

²⁶ Shabbath 119 *b*. "They did not intermit the instruction of children in the schools, even for the building of the Sanctuary."

Sheruoth 15 *b*. The work of building the Sanctuary being of less importance than keeping a feast-day was intermitted until the feast-day was over.

²⁷ Some copies wrongly read here חֲבֵטִים גְּזִיתִים, *hewn stones*.

²⁸ Meehilta 73 *a*. Rabbi Ishmael said, "an altar of earth thou shalt make unto me—an altar joined to the earth thou shalt make unto me, thou shalt not build it upon arches or upon pillars." The compilers of the Gamara adopted this opinion (Zevachim 58 *a*, and 61 *b*), and Maimonides has followed the Gamara.

²⁹ Meehilta 73 *b*. "Rabbi Ishmael said every 'if' in the Law is a permission, not an obligation, except three:—

1. Leviticus ii, 14. "And if thou offer an offering of thy first-fruits," this is an obligation. "If thou sayest is it obligation or only a permission?" we are taught to say "thou shalt offer for the meat-offering of thy first-fruits" (Exod. ii, 14 *b*), which is an obligation, not a permission.

2. Exodus xxii, 25. "If thou lend money to any of my people," &c., this is an obligation, and if thou sayest "is it an obligation or only a permission?" we are taught to say "thou shalt surely lend him" (Deut. xv, 8), which is an obligation, not a permission.

3. Exodus xx, 25. "If thou wilt make me an altar of stone;" this is an obligation, and if thou sayest "is it an obligation or only a permission?" we are taught to say "thou shalt build of whole stones" (Deut. xxvii, 6), which is an obligation, not a permission. (*Cf.* note 1, page 29.)

14. Every stone which had a flaw in it sufficient to arrest the finger nail, like the knife for slaughtering,³⁰ lo, that was unlawful for the sloping ascent and for the altar,³¹ as is said "thou shalt build the altar of the Lord thy God of whole stones" (Deut. xxvii, 6). And whence did they bring the stones of the altar? From virgin earth,³² they dug until they came to a place in which it was evident there had been no work or building, and they brought out the stones from it, or from the great sea,³³ and built with them. And the stones of the temple, and of the courts were also perfect stones.³⁴

³⁰ Few Jewish observances have been held to be of greater importance than the use of a very sharp knife for slaughtering. Whoever slaughtered without first causing his knife to be examined before a rabbi was liable to excommunication (Cholin 18 *a*). One of several methods of examining the knife is by drawing its edge over the finger nail (*ibid.* 17 *b*, where the subject is discussed at length). "And what constituted a flaw in the altar?" As much *unevenness of surface* as arrested the finger-nail. They repeat, what constituted a flaw in the altar? R. Simeon ben Jochai said as much as a handbreadth. R. Eleazer ben Jacob said as much as an olive. There is here no contradiction. This (the opinions of R. Simeon and R. Jacob) refers to the lime, and that (the opinion first expressed) to the stones (Cholin 18 *a*).

³¹ That the same rule applied to the sloping ascent as to the altar appears from Middoth iii, 4.

³² "The virginity of the earth," מן בתולת הקרקע, Middoth iii, 4.

³³ In the Tosefoth to Cholin (18 *a*) it is enquired how they built the altar of smooth stones since they were not permitted to use an iron instrument for smoothing them, and the *shamir* could not make them so smooth that the finger-nail would not be arrested in passing over them, and says that the meaning of the passage in Zevachim (54 *a*) is that they built of small stones in which was no flaw, like the stones of a torrent, נחל. The notion that stones were brought from "the great sea" appears to depend upon the interpretation of the word מפולמות (Zevachim 54 *a*), which is from a root signifying *fresh, moist*. "Bohu, בהו (A.V., *void*, Genesis i, 2), means those recent stones which were sunk in the abyss, and from which the waters flowed" (Chagigah 12 *a*); and the gloss says, מפולמות (the word in question), has the meaning of moist or recent, ליחלות.

³⁴ Maimonides does not mean here by the expression אבנים שלימות "perfect stones," that the stones of the temple and courts were not hewn, but that they were highly finished. (*Cf.* Tamid 26 *b*, and the gloss; also Sotah 48 *b*, quoted above, and Mechlita 74.)

"He that did not see the Sanctuary, with its buildings, never saw beautiful building. Which building was it? Abai said, and some say that R. Khasdai said that was the building of Herod. Of what did he build it? Rabba said באבני שישה ומרמרא, of different kinds of marble. Some say באבני שישה ומרמרא כוהלי of coloured marble, and white marble. One lip projected and one lip receded in order that it might receive the lime (p'aster). He thought to overlay it with gold, but the Rabbis said to him let it be, it is very beautiful so, for its appearance is like the waves of the sea" (Snecah 51 *b*; Baba Bathra 4 *a*). The gloss of Rashi adds "שישה, *shisha*, coloured marble, neither white nor

15. Stones of the temple and courts which became broken or cut were unlawful, and they could not be redeemed, but were laid by and preserved.³⁵ Every stone which iron had touched, even though it was not cut, became unlawful for the building of the altar, and the building of the sloping ascent,³⁶ as is said "for if thou lift up thy tool upon it thou hast polluted it" (Exod. xx, 25), and whoever should build a stone which iron had touched into the altar was beaten, as is said "thou shalt not build it of hewn stone" (Exod. xx, 25); and whoever built in a stone with a flaw transgressed an affirmative command.³⁷

16. A stone which became broken or touched by iron after being built into the altar or the sloping ascent was unlawful, and the rest were lawful. They whitened the altar twice a year at Passover, and at the Feast of Tabernacles. And when they whitened it, they whitened it with a cloth, and not with an iron trowel, lest it should touch a stone and defile.³⁸

17. They did not make stairs to the altar, as is said "neither shalt thou go up by steps unto mine altar" (Exod. xx, 26), but they built a kind of mound on the south of the altar diminishing and descending from the top of the altar to the ground, and this is what was called *Kevesh*,³⁹ and whoever ascended by steps to the altar was beaten. And whoever should pull down a stone from the altar or from any part of the temple, or from between the porch and the altar with the view of injuring it was beaten, as is said "Ye shall overthrow their altars," &c., and "ye shall not do so unto the Lord your God"⁴⁰ (Deut. xii, 3, 4).

black, but a kind of yellow, ירוק, called in the barbarian tongue *bis*. מרמרא, *marmora*, white marble. כוהלא, *Kochala*, marble coloured, as if stained. "One lip projected," one row of stones went in and one went out. "Like the waves of the sea," because the stones differed in appearance one from another, and the eye in contemplating them moved to and fro, and they appeared like those waves of the sea which are moved and agitated."

³⁵ That is, they could not be sold or used for any other purpose (Tosefta Megillah, ch. 2).

³⁶ Middoth iii, 4.

³⁷ Deuteronomy xxvii, 6. "Thou shalt build the altar of the Lord thy God of whole stones."

³⁸ Middoth iii, 4. It happened once at the Feast of Tabernacles that the officiating priest poured the water upon his leg, and the people pelted him with their lemons ("and with stones," gloss) and caused a flaw in the horn of the altar, which they stopped up with a mass of salt (Succah 48 *b*; Zevach. 62 *a*).

³⁹ Middoth iii, 4; Zevachim 62 *b*. "The Kevesh was on the south of the altar."

⁴⁰ Sifre, page 87, Friedmann's edition, Vienna, 1864. Whence *do we learn* that to take away a stone from the Temple, or from the altar, or from the courts is a transgression of a negative commandment? The doctrine is to say "ye shall overthrow their altars," and "ye shall not do so unto the Lord your God" (Deut. xii, 3, 4). Why Maimonides has here mentioned the space between the porch and the altar instead of the courts, does not appear. In the corresponding passage in his treatise, יסודי התורה, 6, 7, he has "from the altar, or from the Temple, or from the rest of the court."

18. The candlestick and its vessels, the table of *showbread* and its vessels, and the altar of incense and all the vessels of service, they made of metal only. And if they were made of wood, or bone, or stone, or of glass, they were unlawful.⁴¹

19. If the congregation קהל was poor, they made them even of tin, and if they became rich, they made them of gold, even the basins, and the flesh hooks, and the shovels of the altar of burnt-offering. And if the community had the power, they made the measures of gold. Even the gates of the court they covered with gold if they were able.⁴²

20. All the vessels of the *Sanctuary* were made expressly for sacred use, and such as were made for ordinary purposes could not be used for sacred purposes. Sacred vessels which had not yet been used for sacred purposes might be used for ordinary purposes, but after they had been used for sacred purposes, it was unlawful to use them for ordinary purposes. Stones and beams cut for a synagogue could not be employed for a building in the mountain of the house.⁴³

CHAPTER II.

1. THE position of the altar was determined with great care,¹ nor did they ever change it from its place, as is said, "this is the altar of the burnt offering for Israel" (1 Chron. xxii, 1). And in the sanctuary Isaak our father was bound, as is said, "and get thee into the land of Moriah" (Gen. xxii, 2), and it is said in the Chronicles (2 iii, 1), "then Solomon began to build the house of the Lord at Jerusalem in Mount Moriah, where the Lord appeared unto David his father, in the place that David had prepared in the threshing floor of Ornan the Jebusite."

2. And it is a constant tradition² that the place in which David and Solomon built the altar in the threshing-floor of Araunah is the place in which Abraham built the altar and bound upon it Isaac. And it is the place in which Noah built when he went out of the ark, and

⁴¹ The question of what material it was lawful to make the candlestick is discussed in Menachoth 28 *b*. The prevailing opinion of the Rabbis was that if made of wood, or of bone, or of glass, it was unlawful.

⁴² "Because they saw the flesh-hooks were of iron they covered them with tin; when they became rich they made them of silver; and when they again became rich they made them of gold" (Menachoth 28 *b*; Avodah Zarah 43 *a*; Rosh Hashshanah 24 *b*). "Monbaz (Monobasus) the king made all the handles of the vessels of the Day of Atonement of gold, and Helena, his mother, made the candlestick of gold which was at the door of the temple" (Yoma iii, 10). That the gates of the court were covered with gold is related in Middoth ii, 3.

⁴³ The authority for this paragraph is Tosefta Megillah c, 2. But in the Tosefta there is no mention of stones, &c., prepared for a synagogue; the passage runs, "stones and beams cut for an ordinary *building*," &c.

¹ "Three prophets came up with them from the captivity . . . one testified to them respecting the place of the altar" (Zevachim 62 *a*).

² מסורת ביר הכל. A tradition by the hand of all.

it is the altar upon which Cain and Abel offered, and there [כֶּרֶם] the first Adam offered an offering³ after he was created, and from there he was created. The wise men have said that Adam was created from the place of his redemption.⁴

3. The measures of the altar were carefully studied and its form was known traditionally. And the altar which the sons of the captivity built they made like the appearance of the altar which is to be built in the future, and nothing is to be added to its measure nor diminished from it!⁵

4. And three prophets came up with them from the captivity; one testified to them respecting the place of the altar, one testified to them respecting its measures, and one testified to them that they should offer upon that altar all the offerings, even though there was no house there.⁶

5. The altar which Moses made, and *that* which Solomon made, and *that* which the children of the captivity made, and *that* which is to be made in the future all are ten cubits high, each one of them, and that which is written in the Law, "and the height thereof *shall be* three

³ Pirke R. Eliezer, ch. 31; Yalkut Simeon, וִירָא אֱלֹוִי, 101. The latter does not mention Adam but only Cain, Abel, and Noah.

⁴ "And the Lord God formed man of the dust of the ground" (Genesis ii, 7). "Rabbi Judah ben Pazy said the Holy One, blessed be He, took one spoonful, מִלֵּא תְרוּוֹר אַחַד, from the place of the altar and created from it the first Adam" (Jerus. Nazir 56 a, 2 (19 a)). תְרוּוֹר has been used as synonymous with לֵוִוִן, the famous incorruptible bone from which the body is to be rehabilitated at the Resurrection (Buxtorf Lex. Talm. 2646).

"The learned Rabbins of the Jews
Write there's a bone, which they call *leuz*,
I' th' rump of man, of such a virtue,
No force in nature can do hurt to;
And therefore at the last great day,
All th' other members shall, they say,
Spring out of this, as from a seed
All sorts of vegetals proceed;
From whence the learned sons of art
Os sacrum justly stile that part."—*Hudibras*, iii, 2.

⁵ Cf. Menachoth 97 and 98.

⁶ Zevachim 62 a. "Three prophets came up with them from the captivity; one who testified to them respecting the altar, and one who testified to them respecting the place of the altar, and one who testified to them that they should offer *offerings* even though there was no house . . . Rabbi Eliezer ben Jacob said three prophets came up with them from the captivity, one who testified to them respecting the altar and the place of the altar, and one who testified to them that they should offer *offerings*, even though there was no house, and one who testified to them respecting the law, that it should be written in the Assyrian character [*i.e.* square Hebrew]." These prophets were Haggai, Zechariah, and Malachi (Rashi).

cubits" (Exod. xxvii, 1), *refers to* the place of the pile [fire] only.⁷ And the altar which the children of the captivity made, and also that which is to be built in the future, the measure of its length and of its breadth is two and thirty cubits by two and thirty cubits.⁸

6. Of the ten cubits in the height of the altar some were of five handbreadths and some of six handbreadths, and all the rest of the cubits of the building were of six handbreadths, and the height of the whole altar was fifty-eight handbreadths.⁹

7. And thus was its measure and its form. It rose five handbreadths and receded five; this was the foundation. The breadth was now thirty

7 Zevachim 59 b. The doctrine is that the words "and three cubits the height thereof" [Exod. xxxviii, 1], are to be taken literally. The words of Rabbi Judah. Rabbi Jose said "it is said here 'foursquare,' and it is said there 'foursquare' [Exod. xxxvii, 25, in reference to the altar of incense], as there its height was twice its length, so here twice its length." Rabbi Judah said to him, "and is it not said 'and the court an hundred cubits' [Exod. xxvii, 18; xxxviii, 9], and 'the height five cubits,' &c. [Exod. xxxviii, 18]. Possibly the priest standing upon the top of the altar performing his service all the people could see him from without." Rabbi Jose said to him, "and is it not said 'and the hangings of the court, and the curtain of the door of the court, which is by the tabernacle and by the altar' [Numb. iii, 26], as the tabernacle *was* ten cubits [Exod. xxvi, 16], so also the altar was ten cubits, and it is said 'the hangings of one side fifteen cubits' (Exod. xxvii, 14), and what is the meaning of what we are taught to say 'five cubits?' from the border of the altar upward; and what is the meaning of what we are taught to say 'and three cubits its height?' from the border of the circuit סוּבֵב upward." Rashi adds this comment, "from the border of the altar upward: upward from the altar its height was five cubits. From the border of the circuit upward: to the place of the horns [three cubits] and downward from it six cubits, and the height of the horn a cubit," which make up the ten. For the height of Solomon's "altar of brass" see 2 Chronicles iv, 1; for that of the altar to be built in the future, Ezekiel xliii, 14, 15.

⁸ Middoth iii, 1. In Ezekiel xliii, 16, it is said "and the altar *shall be* twelve cubits long, twelve broad, square in the four squares thereof," and the Talmudists in reference to this passage say "it might be that it was only twelve by twelve, but when he said 'in the four squares thereof' it is understood that from the middle he measured twelve cubits to each side." (Menachoth 97 b; Zevachim 59 b; cf. Lightfoot 1131). This measurement refers to the upper part of the altar [אַרְיֵל, Ariel], and if correct, the lower part, or foundation, would of course be of the dimensions given in the text, namely thirty-two cubits by thirty-two.

⁹ Menachoth 97 a. "It is taught there (Kelim xvii, 9), that Rabbi Meyer said all the cubits of the Sanctuary were medium cubits, except those of the golden altar, and the horn, and the circuit, and the foundation. Rabbi Judah said the cubit of the building was six handbreadths, and that of the vessels five." Rashi explains that the horn, circuit, and foundation are those of the altar of burnt-offering, and that the medium cubit was of six handbreadths. The question of the number of handbreadths in the various parts of the altar is then discussed at length. "The altar, how many *handbreadths* had it? Fifty-eight" (*ibid.* 98 a). The handbreadth was four fingerbreadths.

cubits and two handbreadths by thirty cubits and two handbreadths. It rose thirty handbreadths and receded five handbreadths, this was the circuit. It rose eighteen handbreadths, this was the place of the pile. Its breadth was now twenty-eight cubits and four handbreadths by twenty-eight cubits and four handbreadths.¹⁰ It rose eighteen handbreadths, and there receded at the corner of the eighteen¹¹ *handbreadths* a square hollow structure at each of the four corners,¹² and the place of the horns was a cubit on this *side* and a cubit on that side all round, and also the place of the feet of the priests a cubit all round, so that the breadth of the place of the pile *was* twenty-four cubits and four handbreadths by twenty-four cubits and four handbreadths.

8. The height of each horn was five handbreadths, and the square of each horn a cubit by a cubit, and the four horns were hollow within,¹³ and the height of the place of the pile was eighteen handbreadths, so that half the height of the altar from the end סוף of the circuit downward¹⁴ was twenty-nine handbreadths.¹⁵

9. A red line encircled the middle of the altar (six handbreadths below the end of the circuit) to divide between the upper and the lower bloods,¹⁶ and its height from the earth to the place of the pile was nine cubits less a handbreadth.¹⁷

¹⁰ Menachoth 97 *b*; *cf.* Midd. iii, 1. The difference between the measurements given in the Gemara of Menachoth and those given in Middoth arises from the difference in the length of the cubits. The compilers of the Gemara appear to have held that the measurements of Middoth were not intended to be minutely accurate.

¹¹ From the circuit upwards to the place of the pile being three cubits, and all the cubits of the height except those of the foundation and horn being cubits of six handbreadths, it follows that from the circuit to the place of the pile was eighteen handbreadths.

¹² Zevachim 54 *b*.

¹³ Zevachim 54 *b*.

¹⁴ The circuit seems to have been reckoned as being one cubit of five handbreadths broad and one cubit of six handbreadths high, and hence the expression "from the end of the circuit downward."

¹⁵ Menachoth 98 *a*. "The middle of the altar, how many *handbreadths* was it *high*? Twenty-nine. From the horns to the circuit, how many *handbreadths*? Twenty-three. How many less than to the middle of the altar? Six. Hence in Zevachim 65 *a*, and Menachoth 97 *b* and 98 *a* it is said that if the priest standing upon the circuit sprinkled the (lower) blood one cubit below his feet it was lawful.

¹⁶ Middoth iii, 1; Menachoth 97 *b*. "The blood of a sin offering of a bird was sprinkled below, and that of a sin offering of a beast above. The blood of a burnt offering of a bird was sprinkled above, and that of a burnt offering of a beast below." (Kinim i, 1; *cf.* Zevach. ii, 1; vi, 2; and vii, 2.) In Zevachim 10 *b* and 53 *a*, it is said "the upper blood was put above the red line, the lower blood below the red line." Rabbi Eleazer, son of Rabbi Simcon, held that the blood of a sin offering of a beast might be put only on the body of the horn or corner, על נופה של קרן.

¹⁷ The height of the altar from the ground to the pile was eight cubits of six

10. The foundation of the altar did not surround its four sides like the circuit, but the foundation extended along the whole of the north and west sides, and took up on the south one cubit, and on the east one cubit, and the south-eastern corner had no foundation.¹⁸

handbreadths each, and one cubit (the lower) of five handbreadths, so that it fell one handbreadth short of nine medium cubits. The tenth cubit was the horn.

¹⁸ "And the foundation extended all along on the north and all along on the west sides of the altar, and took up on the south one cubit and on the east one cubit" (Midd. iii, 1). "And there was no foundation to the south-eastern corner. What was the reason? Rabbi Eleazer said because it was not in the portion of the ravener [*i.e.*, Benjamin: "Benjamin shall ravin as a wolf," Gen. xlix, 27], as said Rab Samuel son of Rab Isaak, the altar took up of the portion of Judah a cubit. Rabbi Levi son of Khama said, Rabbi Khama son of Rabbi Khaninah said, a strip [רצויע a strap] went out from the portion of Judah and entered the portion of Benjamin, and Benjamin the righteous was grieved thereat, every day desiring to take it, as is said "he fretted thereat every day" (Deut. xxxiii, 12; A.V. "the Lord shall cover him all the day long") wherefore Benjamin the righteous was judged worthy to become the dwelling-place of the Holy One, blessed be He, as is said "and he shall dwell between his shoulders" (Deut. xxxiii, 12). (Zevach. 53 *b*, 118 *b*; Yoma 12 *a*; Megillah 26 *a*.) "What was in the portion of Judah? The mountain of the house, the chambers, and the courts. What was in the portion of Benjamin? The porch, the Temple, and the Holy of Holies, and a strip went out," &c. (Yoma and Megillah, *loc. cit.*) Rashi explains (Zevach. 53 *b*) that the eastern part of the mountain of the house, including the entrance, is here meant, that the chambers were those in the *chel*, and that all the court of the women, and the twenty-two cubits of the place for the tread of the priests and of Israel were called the courts. "Thus," he continues, "the portion of Judah was on the east of the altar and by its side, and the altar took up of his portion a cubit on the east. With the exception of the cubit of the north-eastern corner, all *this side* was in the portion of Judah, which cubit was distant from the corner a cubit. And the strip went out at the south of the altar and entered the portion of Benjamin, for from the place of the tread of the priests and upward was the portion of Benjamin at the south of the altar, and the altar took up of it a cubit, and this was the cubit, שְׁהִיא כְּנִיסַת בַּהּ, theיסיד ראוי להיות בה, in which would have been the receding of the foundation had there been a foundation there, as Mar said (Midd. iii, 1), 'it ascended a cubit and receded a cubit, this was the foundation.'" Some confusion has arisen in reference to this curious point in consequence of the passage in Middoth iii, 1, ואוכל בדרם אמה, having been translated "but on the south it wanted one cubit, and on the east one cubit" (Lightfoot 1131), instead of "on the south it took up (or included) one cubit," &c. Rashi (Zevach. 54 *a*) says, "at the south-eastern corner it [*i.e.*, the foundation] extended along the eastern side a cubit and no more," and again, in allusion to the projection of the sloping ascent towards the foundation on the south, "towards the place where the receding of the foundation was adapted to be, but it was not there." Another note of Rashi's may be added here, "they made a kind of small projection opposite that (the south-eastern) corner to receive the blood of the burnt

11. At the south-western corner were two apertures, like two small nostrils, and these are what were called *sheteen*, שִׁתֵּינַי, canals, and by them the bloods descended and became mixed at that corner in the cesspool, and went out to the Valley of Kedron.¹⁹

offerings of birds, that it might not fall upon the ground, and this was called קִיר הַמִּזְבֵּחַ, the side of the altar (Levit. v, 9), but it was not called the foundation." This side of the altar is mentioned in Menachoth 98 *b* and Zevachim 65 *a* (see the note of Bartenora on Kinim i, 1). The space between horn and horn is called by the Talmudists כִּרְכוּב, *Kirkooob*. The Gemara, in Zevachim 62 *a*, enquires "what was the *Kirkooob* [A.V. "compass," Exod. xxvii, 5, xxxviii, 4]? Rabbi said it was the ornamented band, כִּיּוֹר. Rabbi Jose, son of Rabbi Judah, said it was the circuit, סוּבֵב. . . . What was the *Kirkooob*? Between horn and horn, the place of the path for the feet of the priests a cubit, because the priests were accustomed to go between horn and horn, therefore it is said the place of the path for the feet of the priests a cubit (Middoth iii, 1), and it is written "a brazen grate of network under the compass thereof beneath unto the midst of it" (Exod. xxxviii, 4). Rab Nachman bar Isaak said there were two, one for ornament, and one for the priests that they should not slip off." The gloss of Rashi explains that upon the top of the altar there was "a kind of deep channel, הַרוּצַ עֲמוּךְ, between the place of the pile and the edge of the altar all round and surrounding the place of the pile, and the breadth of the channel was two cubits, one cubit that part which was between the horns, and one cubit that which formed the path for the priests," and a few lines above this passage he says "and there was a slight eminence around it at the edge of the altar." In reference to the network of brass, the same commentator says "the grate of the network of brass which they put under the compass of the altar below as far as its middle surrounded the altar from its middle upward. It was clothed and as it were surrounded with a grating which was made with many holes, נִקְבִים נִקְבִים, like a sieve or fishing net, and it reached upward as far as to below the compass *Kirkooob*" There were two surroundings to the altar which Moses made, one for ornament, and one for the priests that they should not slip off. *The latter extended round the side, קִיר, from the point where it was six cubits high [i.e., the circuit] That for ornament was the "circuit," סוּבֵב, and the "ornamented band," כִּיּוֹר, about which Rabbi and R. Jose bar Jehudah disputed, and below that circuit they put the grating, and its breadth reached downward to the middle of the altar, and it was a sign to distinguish between the upper and the lower bloods, as is said in Zevachim 53 *a* "And one for the priests that they should not slip off;" "and above on the top of the altar the depression surrounded it like a kind of depressed channel, a slight thing the edge of which might form a little parapet so that the priests should not slip." In reference to the statement that the priests could go between horn and horn he remarks, "the true path for the feet of the priests was inside the space between horn and horn, between the horn and the pile."*

¹⁹ Middoth iii, 2; cf. Yoma v, 6, and Meilah iii, 3. These holes were distinct from the two basins or funnels of silver or lime each with a perforated nozzle for the drink offerings. These latter appear to have been on the south-western part of the altar, since the priest went up by the sloping ascent and

12. Below in the pavement at that corner was a place a cubit by a cubit, and a slab of marble with a ring fixed to it, by which they went down to the canal and cleansed it.²⁰

13. And a sloping ascent²¹ was built to the south of the altar, its length thirty-two cubits by a breadth of sixteen cubits, and it took up upon the ground thirty cubits by the side of the altar, and there was an extension from it a cubit over the foundation, and a cubit over the circuit,²² and a small space separated between the sloping ascent and the altar sufficient for the pieces of the sacrifices to be put upon the altar by throwing.²³ And the height of the sloping ascent was nine cubits less a sixth to opposite the pile.²⁴

14. And two small inclines proceeded from it by which they went to the foundation and the circuit, and they were separated from the altar

turned to the left to reach them. The western one was for the water, the eastern one for the wine, and the latter had a larger hole than the other because the wine being thicker than the water took longer to run through. It is uncertain whether they were of silver or of lime blackened to look like silver. The libamina poured into these vessels ran down upon "the roof of the altar, and thence through a hole in the altar to the canals of the altar which were hollow and very deep" (Suceah iv, 9, and 48 b; cf. Bartenora *in loc.*; and also Midd. iii, 2), where the hole in the altar is said to have been four cubits from its southern side, and the cavity beneath also to have extended thus far.

²⁰ Middoth iii, 3; cf. Meilah iii, 3. שִׁיתִין, *shitin*, seems to have been the upper and smaller canal, or receptacle, and אַמָּה, *amah*, a larger and lower cavity, whence issued the sewer, a cubit square, through which the water of the court and the blood ran down to the Kidron valley (cf. R. Shemaiah in Middoth iii, 2). It does not appear they went into the אַמָּה, or lower cavity, to cleanse it. This seems to have been always sufficiently flushed by the water of the court.

²¹ "Thou shalt not go up by steps unto mine altar" (Exod. xx, 20): hence they said let a sloping ascent be made to the altar (Mecilta, מַזְבֵּחַ אֲרָמָה). For the measurements of the sloping ascent see Midd. iii, 3; Zevach. 62 b.

²² Cf. Midd. v, 2, where it is said "the sloping ascent and the altar measured sixty-two" cubits (upon the ground). The altar was thirty-two cubits in length, and the sloping ascent therefore only thirty at its base. The remaining two cubits were those of the part which projected forward towards the altar over the foundation and the circuit, and, as Rashi expresses it, "were swallowed up in the thirty-two cubits of the altar" (Zevach. 54 a, 62 b).

²³ It was required that the pieces of the burnt offerings should be thrown upon the altar, "as the blood was put upon the altar by throwing, זָרִיקָה, so also the flesh by throwing." (Zevach. 62 b; cf. note on the signification of the word זָרַק in "The Speaker's Commentary," introduction to Leviticus.) Hence a partition space was necessary between the ascent and the altar itself (Zevach. 62 b), across which the priest standing upon the ascent might throw the pieces (cf. Tamid vii, 3).

²⁴ *Vide supra*, 9. The sixth of a medium cubit was a handbreadth, and it was wanting in the height of the pile because the foundation was only a cubit of five handbreadths high.

by the thickness of a thread.²⁵ And there was a cavity, a cubit by a cubit, on the west of the sloping ascent, and it was called רבובה, *rebubah*, and in it they placed birds found unfit for the sin offering,²⁶ until they became decomposed, and were taken out to the place of burning.²⁷

15. And there were two tables on the west of the sloping ascent, one of marble upon which they placed the pieces of the sacrifices, and one of silver, upon which they placed the vessels of service.²⁸

16. When they built the altar they built it entirely solid, like a kind of pillar, and they made no cavity whatever in it, but brought perfect stones, large and small, and brought lime and pitch and lead, and moistened it, and poured it into a large frame of the measure of the altar, and built and raised it. And at the south-eastern corner they put a frame [גרה, *body*] of wood or stone, of the measure of the foundation, into the midst of the building, and likewise they put a frame into the middle of each horn until they finished the building, and the frames which were in the midst of the building took away so much as to leave the south-eastern corner without foundation, and the horns remained hollow.²⁹

17. The four horns of the altar, and its foundation, and its square, were essential;³⁰ and every altar which had not horn, foundation, sloping ascent, and square, lo, that was unlawful, because these four were

²⁵ Zevach. 62 *b*. One of these inclines was on the east and led to the circuit, and the other on the west leading to the foundation. "A burnt offering of birds, how was it made? He went up by the sloping ascent, turned to the circuit and came to the south-eastern horn" (*ib.* vi, 5). Rashi upon this point says "that by which they went to the circuit proceeded from the eastern side of the sloping ascent to the right . . . and that which led to the foundation proceeded from the west of the sloping ascent" (*ib.* 62 *b*). The slope of these small inclines was one in three, that of the large sloping ascent to the altar "one cubit in three cubits and a half and a fingerbreadth and a third of a fingerbreadth" (*ib.* 63 *a*, and the gloss). The large ascent was made with a gentler slope in order that the priests carrying the heavy pieces of the sacrifices might go up more easily. It was the custom to strew it with salt in rainy weather in order to render it less slippery (Grubin x, 14, and 104 *a*).

²⁶ Middoth iii, 3.

²⁷ "Rabbi Ishmael son of Rabbi Johanan ben Baruka said there was a hollow place there to the west of the sloping ascent, and it was called רבוכה, *rabuchah*, and there they threw the defiled of the sin offerings of birds until they became decomposed and were carried out to the place of burning" (Tosefta Korbanoth 7). Some read נבובה, *hollow*, for רבובה. The *rabubah* was in the ascent itself. The dimensions given were those of the opening; the size of the cavity is not known, but it is believed to have been large (*cf.* Aruch and Bartenora, and Tosef. Yom Tov to Midd. iii, 3).

²⁸ Shekalim vi, 4. The vessels were those ninety-three of silver and gold which were brought out of the chamber of vessels at the commencement of the morning sacrifice (*cf.* Tamid iii, 4, and Bartenora on the passage in Shekalim).

²⁹ Zevachim, 54 *a*, *b*.

³⁰ מועכבין, *delaying*, because the altar could not be considered as complete until they were made.

essential, but the measure of its length, and the measure of its breadth, and the measure of its height were not essential, and that which was not less than a cubit by a cubit and three cubits high, *was* like the measure of the place of the pile of the altar in the wilderness.³¹

18. An altar which had a flaw in its masonry, if the flaw in its masonry was a handbreadth, it was unlawful, if less than a handbreadth, lawful, provided that in the remainder there was no stone with a flaw in it.³²

CHAPTER III.

1. THE form of the candlestick is explained in the Law. There were four bowls, and two knops, and two flowers in the shaft of the candlestick, as it is said (Exodus xxv, 34) "and in the candlestick four bowls, made like unto almonds *with* their knops and their flowers." And there was yet a third flower joined to the shaft of the candlestick, as it is said (Numbers viii, 4) "unto the shaft thereof, unto the flowers thereof."

2. And it had three feet, and there were three other knops to the shaft of the candlestick, and from them the six branches issued, three on this side, and three on that side, and upon each of these branches were three bowls, and a knop and a flower, and all were shaped like almonds in their structure.

3. Thus all the bowls were twenty-two, and the flowers nine, and the knops eleven. And all of these delayed the one the other,¹ and if even one of the forty-two was wanting it delayed the whole.²

4. To what do these words refer? To the case in which they made the candlestick of gold; but when it was of other kinds of metal they did not make for it bowls, knops, and flowers. And the candlestick which is to come will be all of gold one talent with its lamps; and it will be all of beaten work from the mass. And of other metals they did not prescribe the weight.³ And if it was hollow it was lawful.

5. And they never made it of old materials whether it was of gold or of other kinds of metal.⁴

6. The tongs and the snuff dishes and oil vessels were not included in the talent, for lo, it is said of the candlestick "pure gold" (Exod. xxv, 31), and again it says, and the tongs thereof, and the snuff dishes thereof "pure

³¹ "Rab Khama bar Goreah said the גזירין pieces of wood which Moses made for the pile were a cubit long and a cubit broad," and this was regarded as the measure of the כערכה pile, or fire (Zevach. 62 a, b).

³² Cholin 18 a. "How much constitutes a flaw in the altar? As much as will arrest the finger-nail. They repeat, how much constitutes a flaw in the altar? Rabbi Simcon ben Yochai said a handbreadth. R. Eleazer ben Yacob said as much as an olive. There is no contradiction, the one refers to the lime, the other to the stones."

¹ Menachoth 28 a, b.

² Tosefta Menachoth 6.

³ Menachoth 28 a, b.

⁴ Menachoth 28 a.

gold" (*ib.* 38); and it is not said its lamps pure gold, because the lamps were fixed to the candlestick and were included in the talent.⁵

7. The seven branches of the candlestick hindered the one the other, and its seven lamps hindered the one the other, whether⁶ they were of gold or of another kind of metal. And all the lamps were fixed to the branches.⁷

8. All the six lamps which were fixed to the six branches which issued from the candlestick had their faces towards the middle lamp, which *was* upon the shaft of the candlestick, and that middle lamp had its face towards **כנגד** the Holy of Holies, and it is that which was called the western lamp.⁸

9. The bowls resembled Alexandrian cups, of which the mouth is broad and the bottom narrow. And the knops *were* like apples of Kirjathaim,⁹ which are of little length, like an egg broad at its two ends;¹⁰ and the flowers, like the flowers of pillars, which are like a kind of saucer with the lips turned outwards.¹¹

10. The height of the candlestick was eighteen handbreadths. The legs and the flower three handbreadths, and two handbreadths plain, and a handbreadth in which were a bowl, a knop, and a flower, and two handbreadths plain, and a handbreadth a knop, and two branches issued from it one on each side and were extended upwards to opposite the summit of the candlestick, and a handbreadth plain, and a handbreadth a knop, and two branches issued from it one on each side and were extended upwards to opposite the summit of the candlestick, and a handbreadth plain, and a handbreadth a knop, and two branches issued from it one on each side and were extended upwards to opposite the summit of the candlestick, and two handbreadths plain. There remained three handbreadths, in which were three bowls, a knop, and a flower.¹²

11. And there was a stone in front of the candlestick and in it three steps, upon which the priest stood and trimmed the lamps, and he put upon it the vessel of oil and its tongs and the snuff dishes at the time of the trimming.¹³

⁵ Menachoth 88 *b.* R. Nehemiah was of opinion that the lamps were not included in the talent.

⁶ Menachoth iii, 7.

⁷ "At the top of each branch was a lamp like a cup and there they put the oil and the wicks" (Rashi in Menach. 28 *a.*).

⁸ Menaduth 98 *b.*, and the comment of Rashi.

⁹ Joshua xiii, 19, &c. Cariathaim is mentioned by Eusebius as a village near Medoba and Baris.

¹⁰ For the signification of the word **כרין**, *cf.* a passage in Avodah Sarah 40 *a.*, and the note of Rashi; also Aruch and Buxtorf, *s.v.*

¹¹ Menachoth 28 *b.*, and the comment of Rashi. The remark that the flowers were like little dishes or saucers seems to be Maimonides' own.

¹² Menachoth 28 *b.*

¹³ Tamid iii, 9. The Mishna says that he left the oil vessel, **כזו**, on this stone, but does not mention his putting the tongs and snuff-dishes upon it.

12. The table of *shewbread* was twelve handbreadths long and six handbreadths broad.¹⁴ It was placed with its length parallel to the length of the house, and its breadth to the breadth of the house, and so all the other "vessels" which were in the Sanctuary, their length was parallel to the length of the house, and their breadth to the breadth of the house, except the arc, the length of which was parallel to the breadth of the house.¹⁵ And also the lamps of the candlestick were opposite to the breadth of the house between the north and the south.¹⁶

13. There were for the table four golden rods cleft at their tops, against which rested the two piles of shewbread, two for each pile, and these are what are mentioned in the Law as "the covers thereof," קשותיו.

14. And it had twenty-eight golden reeds, each one of them like the half of a hollow reed, fourteen for the one pile and fourteen for the other pile, and these are what are called the "bowls thereof," בנקיותיו.

15. And the two censers in which they put the incense upon the table by the side of the piles are what were called "the spoons thereof," כפותיו. And the moulds in which they made the shewbread are what were called "the dishes thereof," קערותיו.¹⁷ The fourteen reeds were thus arranged: the first cake was placed upon the table itself, and between the first and the second were put three reeds, and also between each two cakes three reeds, but between the sixth and fifth, two reeds

¹⁴ Menach. xi, 5. "The table was ten handbreadths long and five broad. . . . Rabbi Meyer said the table was twelve *handbreadths* long and six broad." In the first statement the cubit is taken to be a small one of five handbreadths, in the second a medium cubit of six handbreadths. The decision appears to have been according to R. Meyer's opinion.

¹⁵ Menach. xi, 6 and 98 a.

¹⁶ The position of the candlestick is discussed at length in Menachoth, 98 b. Maimonides is of opinion that it stood across the house, three branches being towards the north and three towards the south, and this agrees with the statement that whilst the lamps which were upon the branches looked towards the central lamp, the latter looked towards the Holy of Holies, and hence was called the western lamp (*vide supra*). Rashi (in Menach. 98 b) says the candlestick "was always placed north and south, and therefore only one of its lamps looked towards the west, and that was the middle one, the mouth of whose wick was towards the west, and the rest had their wicks looking towards the middle lamp, the three on the northern side looking towards the south, and the three on the southern side looking towards the north." Yet a passage in Tamid iii, 9, which alludes to the "eastern lamps," gives support to the opinion held by some of the Rabbis that the candlestick stood east and west, and that the western lamp was the outer lamp on the western side, which position, moreover, is in accordance with the rule that the length of the "vessels" was parallel to the length of the house.

¹⁷ Menach. xi, 6, gives the number of the rods and reeds. The Gemara (97 a) adds "'the dishes thereof,' these were the moulds; 'the spoons thereof,' these were the censers; 'the covers thereof,' these were the rods; and 'the bowls thereof,' these were the reeds 'to cover withal,' because they covered the bread

only, because there was no other above the sixth. Thus there were fourteen reeds to each pile.¹⁸

16. And there were two tables within the porch at the door of the house. One of marble upon which they placed the shewbread when they took it in, and one of gold upon which they placed the bread when they carried it out, because they rose higher and higher with holy things, and went not lower and lower.¹⁹

17. The altar of incense was a cubit square,²⁰ and it stood in the holy place (הַקֹּדֶשׁ), equidistant from the north and the south *sides* and drawn from between the table and the candlestick towards the outside²¹ (*i.e.*, towards the door), and the three were placed in the third part of the holy place and inward, opposite to the veil which divided between the holy place and the most holy.²²

18. There were twelve spouts to the laver in order that all the priests occupied with the continual service might sanctify [*i.e.*, wash] themselves at the same time. And they made a machine for it in which there might constantly be water. And it was profane [not hallowed] in order that the water that was in it might not become unlawful by remaining all night, because the laver was one of the sacred vessels and sanctified *whatever was placed in it*, and everything that became sanctified in a sacred vessel if it remained all night became unlawful.²³

with them." The following are the names given to these several appurtenances of the table:—

Hebrew.	A.V.	Talmud.	Signification of Talmud word.	LXX.	Vulgate.
קערה	dish	דפוס	mould	τρομβλιον	acetabulum
כף	spoon	בוזך	censer acerra	θυσιακη	phiale
קשה	cover	סניף	furcula	σπορδιδιον	thuribulum
מנקית	bowl	קנה	reed	κυαθος	cyathus

¹⁸ Menachoth 98 *a*, where it is said that the lower cakes were placed, כעל שיהרו של שולחן, upon the middle of the table, or perhaps upon the clean surface of the table, the bare table (Lev. xxiv, 6).

¹⁹ Menachoth xi, 7.

²⁰ Exodus xxx, 2.

²¹ Joma 33 *b*. "The table was on the north, drawn two cubits and a half from the wall, and the candlestick on the south, drawn two cubits and a half from the wall. The altar was between and stood in the middle drawn towards the outside," which Rashi explains to mean towards the east, where was the door of the temple.

²² Cf. Tosefta Yoma, 2.

²³ Yoma iii, x, 37 *a*. "Ben Katin made twelve spouts to the laver, there

having been only two *before*. And also he made a machine for the laver in order that its water might not become unlawful by remaining all night." Ben Katin was a high priest. The Gemara explains the reasons why twelve spouts were required; also that the "machine" was a wheel by means of which the laver [?] was "immersed" in the cistern (*cf.* Rashi). The structure and use of this famous machine are not clearly understood. That by its means the laver itself could have been immersed in a מְקוּהָה gathering of waters or spring [Maim., Biath Hammikdash v, 14] and raised again by one unassisted priest [Tamid i, 4] will appear impossible, if we remember how large and heavy the laver must have been for twelve priests to wash it at one time. Maimonides in his comment on the Mishna hazards the suggestion that the machine was a vessel surrounding the laver, and that the water remained constantly in it, and was removed into the laver as required. Not improbably it was a bucket attached to a rope or chain running over a wheel by means of which the water was raised, and which was let down into the "cistern or spring" at night, its water being thus "joined with the water of the cistern" (Rashi, Bartenora, Tosefoth Yom Tov). That it was a clumsy instrument appears from the fact that the noise it made could be heard at Jericho! [Tamid iii, 8.] The chief interest which attaches to this curious question arises from the circumstance that all the Rabbinical commentators appear to assume that there was a cistern, pool, or fountain under the laver, a point not to be forgotten in any attempt to determine the site of the Sanctuary.

It may be mentioned here that the Talmud teaches that there was a canal which brought water to the Sanctuary from the fountain of Etam (Jerus. Yoma perek iii, fol. 41, *a* 1; Maim., Biath Hammikdash v, 15). This water went in the second temple to the bathroom of the high priest on the Day of Atonement, which was over the water-gate [Yoma 31 *a*]; in the first Temple it supplied the molten sea. עֵין עֵיטָם, the fountain of Etam, is said to have been twenty-three cubits higher than the floor of the court, and hence it is inferred that the water might easily be forced to the top of the gate which was only twenty cubits high, [Yoma, *loc. cit.*] Rashi thinks Etam may have been the same as Nephtoah [Joshua xvi, 9.] The Talmudic doctors held a curious theory respecting the water of Etam, which may be best given in the words of Rashi, "The slopes of Babylon returned the waters which were poured upon them to the fountain of Etam, which was a high place in the land of Israel, and this fountain brought water to the bathroom of the high priest on the Day of Atonement, which was situated on the wall of the court over the water-gate. As is said in the order for the Day of Atonement (Yoma 31 *a*), 'the fountain of Etam was twenty-three cubits higher than the floor of the court.' And how did they return? There are by the Euphrates canals and stairs, סִילוֹנוֹת וְסוּלְמוֹת, below the surface (of the sea), and by the way of these stairs [probably there is here an error, סוּלְמוֹת being put for סִילוֹנוֹת] the waters returned to the land of Israel. And they returned and welled up in the fountains. And the fishes returned by way of those stairs, which were easier for their ascent than the way of the Euphrates itself" (Shabbath 145 *b*). The curious may follow this subject in the Gemara, Tosefoth and gloss of Rashi in Bechoroth 44 *b* and 55 *a*. "R. Judah said that Rab said all the rivers in the world are lower than the three rivers (Hiddekel, Pison, and Gihon), and the three rivers are lower than the Euphrates."

CHAPTER IV.

1. THERE was in the Holy of Holies, on its western side, a stone upon which the ark was placed¹ and in it the pot of manna and Aaron's rod.

¹ Yoma v, 2. "After the ark was removed there was a stone there" (in the Holy of Holies) "from the days of the first prophets and it was called *Sheteyah*, 'foundation.' Its height from the earth was three fingerbreadths." The Gamara adds, "it is taught that from it the world was founded, which is as much as to say from Zion the world was created. According to the Bareitha, R. Eleazer said the world was created from its middle, as is said "When the dust groweth into hardness, and the clods cleave fast together" (Job xxxviii, 38). R. Joshua said the world was created from the sides, as is said, "for he saith to the snow, be thou on the earth; likewise to the small rain, and to the great rain of his strength" (Job xxxvii, 6). R. Isaak (Niphka) said the Holy One, blessed be He, threw a stone into the sea, and from it was the world created, as it is said "whereupon are the foundations thereof fastened, or who laid the corner stone thereof?" (Job xxxviii, 6), and the wise men said it was created from Zion, as it is said, "A psalm of Asaph. The Mighty God, even the Lord," and says "from Zion the perfection of beauty" (Psalm l, 1); from it was perfected the beauty of the world. The Bareitha teaches that R. Eleazer the great said "these are the generations of the heavens and of the earth when they were created, in the day that the Lord God made the earth and the heavens" (Gen. ii, 4). The generations of the heavens were created from the heavens; the generations of the earth were created from the earth. And the wise men said both the one and the other were created from Zion, as it is said "A psalm of Asaph. The mighty God, *even* the Lord hath spoken, and called the earth from the rising of the sun unto the going down thereof," and it says "out of Zion, the perfection of beauty, God hath shined," from it was perfected the beauty of the world (Yoma 54 b). Such were the Rabbinical opinions respecting this famous stone, which, according to Rabbi Schwarz (das heilige Laud 216-7), is identical with the Sakhras or sacred rock at present venerated by Mahommedans under the Dome of the Rock.

In the Toldoth Jesu the Aven Hashsheteyah, "stone of foundation," is affirmed to be the stone which the patriarch Jacob anointed with oil. Upon it was said to be written the letters of the *the nomen tetragrammaton*, the ineffable name of God, and lest anyone should learn the letters of this name and become possessed of the wondrous powers which that knowledge conferred, two dogs were placed near the Sanctuary, which, if anyone had succeeded in learning the letters, barked so fiercely at him as he was passing out as to cause him immediately to forget them. It is said that Jesus having entered, learned the letters, wrote them upon parchment, and placed the parchment in an incision which he made in his thigh, the skin closing over it on the name being pronounced, and having escaped the canine guardians of the place, thus became possessed of the supernatural powers which he afterwards manifested (Buxtorf Lex. Talmud, 2541). In Wagenseil's edition of the Toldoth Jesu the stone is said to have been found by King David when digging the foundation of the temple (*cf.* Maccoth 11 a) "over the mouth of the abyss," and that he brought it up and placed it

And when Solomon built the house, knowing that its end was to be destroyed, he built in it a place in which to hide the ark underneath in secret places, deep and tortuous. And Josiah the king commanded them to hide *the ark* in the place which Solomon built, as it is said "and he said unto the Levites that taught all Israel, which were holy unto the Lord, put the holy ark in the house which Solomon the son of David, king of Israel, did build; it shall not be a burden upon your shoulders; serve now the Lord your God," &c. (2 Chron. xxxv, 3). And there were hidden with it the rod of Aaron, and the pot of manna, and the anointing oil, and all these were not restored in the second house.² And also the Urim and Thummim, which were in the second house, did not respond by the Holy Spirit, nor did they enquire of them, as it is said, "till there stood up a priest with Urim and with Thummim" (Ezra ii, 63), and they only made them in order to complete the eight garments of the High Priest, in order that he might not be **בְּחֹסֶר בְּגָדִים**, wanting in the proper number of garments.³

in the Holy of Holies. The Targum of Jonathan represents *the Name* as being engraved on the stone of foundation with which "the Lord of the world covered the mouth of the great abyss" (Exod. xxxviii, 30). When Jonah was in the belly of the fish he was carried under the Temple of the Lord, and saw the stone of foundation fixed to the abysses, קבעק בתהומוות (Tanchuma 53, b 1).

There is a tradition that the prophet Jeremiah took this stone with him to Ireland, that it was subsequently conveyed to Scotland by an Irish prince, and eventually removed by King Edward III to Westminster Abbey, since which time all the kings and queens of England down to Victoria have been crowned upon it.

Nearly all modern Rabbis appear to hold the opinion of R. Schwarz respecting this stone of foundation. It seems strange that it should have been confounded with Zohemoth, yet in the Jewish manual arba' taanoth (tisha b'av) this identity is suggested.

By the first prophets, Samuel, David, and Solomon are here intended (Rashi, Sotah 58 b).

² In Yoma 52 b, Kerithoth 5 b, Horioth 12 a, it is said "with the ark there were hidden the pot of manna, the vessel of anointing oil, the rod of Aaron, its almonds and blossoms, and the coffer which the Philistines sent as a gift to the God of Israel" (1 Sam. vi, 8). For the place in which the ark was hidden, see 2 Chronicles xxxv, 3; Shekalim Yirushalmi, ch. vi, page 10, and Rashi on Kerithoth, 5 b. All the Rabbinical writers held that there were chambers or hollow spaces under the whole Sanctuary, and it is doubtless some of these to which Maimonides here refers. The exact position of the hiding-place of the ark was supposed to be near the chamber of wood in the court of the women (Skekalim vi, 2).

³ In Yoma, 21 b, it is said "in five things the second house differed from the first house, viz., there was in it neither ark, nor atonement, nor cherubim of fire, nor the Shekinah, nor Holy Spirit, nor Urim and Thummim." Rashi held that the ark, the atonement and the cherubim were one. The opinion that there were Urim and Thummim in the second house, in order that the number of the

2. In the first house there was a wall, a cubit thick, dividing between the holy *place* and the most holy,⁴ and when they built the second house they doubted whether the thickness of the wall was taken from the measure of the holy *place*, or from the measure of the most holy, and therefore they made the length, עביר, of the most holy *place*, exactly twenty cubits, and the holy *place*, exactly forty cubits, and they put an additional cubit between the holy *place*, and the most holy.⁵ And they did not build a wall in the second house, but made two vails, one on the side of the most holy *place*, and one on the side of the holy *place*, and between them *was* a cubit corresponding to the thickness of the wall which was there in the first *house*. But in the first Sanctuary there was one⁶ vail, as is said, “and the vail shall divide unto you,” &c. (Exodus xxvi, 33).

3. The temple⁷ which the children of the captivity built, was a hundred cubits by a height of a hundred. And thus was the measure of its height. They built to a height of six cubits closed and solid, like a kind of foundation to it,⁸ and the height of the wall of the house forty cubits, and the height of the ornamented beam, כיוור, *kioor* or *ceiling*, which was by the roof, a cubit, and above it a height of two cubits vacant, in which the

garments of the high priest might not be incomplete, but that they did not enquire of them, is derived from the *Tosefoth Yoma*, 21 *b*. Rabbi Abraham ben David questions whether Urim and Thummim could be numbered with the garments [note on Beth Habbeeh], nor does Maimonides himself in his enumeration [in *Kle Hammikdash* viii, 2] of the high priest's garments mention the Urim and Thummim.

⁴ *Yoma* 51 *b*, and the comment of Rashi; *cf.* *Baba Battira*, 3 *a*.

⁵ *Jerus. Kelaim*, ch. viii.

⁶ *Yoma* v, 1; *cf.* *Gamara* and *Tosefoth* 51 *b*.

⁷ הכיל. The whole of this section is from *Middoth* iv, 6.

⁸ Maimonides elsewhere [“*Commentary on the Mishnas*,” *Midd. in loc.*] says that this foundation was built בגוף הקרקע, in the body of the earth, and that the walls were placed upon it. The “*Tafaereth Israel*” (“*Mishmaoth Rabbi*, Lipsitz. Warsaw,” 1864) has this passage, “it was the foundation, and was six cubits high, because the mountain rose and fell, and the temple and the porch were built upon the top of the mountain upon the level ground, and the walls stood near the place where the mountain began to descend, and thus in order to give to the house a firm foundation, לבלתי ימוט, without tottering, they built a foundation of hewn stones around the above mentioned level ground six cubits high; and inasmuch as that foundation was joined [מטום, closed] on the inner side with the ground, so that the inside of the porch and temple was not seen at all, it was called מטום, *closed*,” and this in accordance with the remark of Rabbi Shemaiah, that “the threshold of the house was raised six cubits above the ground by closed masonry, solid wall, and it is necessary to say that there were steps at the porch by which they went up to the threshold, and for those going down from the temple to descend from the threshold.” [*Middoth, loc. cit.*] Had these six cubits been “in the body of the earth,” they could not have been reckoned to the height of the building.

dropping might be collected, and this is what was called **בית דילפא**, *domus stillicidii*, place of dropping. And the thickness of the rafters above the place of dropping a cubit, and the plaster a cubit.⁹ And an upper chamber was built above it, the wall of which *was* forty cubits high, and by its roof a cubit, the height of the ornamented beam, and two cubits the height of the place of dropping, and a cubit the rafters, and a cubit the plaster, and the height of the battlement three cubits; and a plate of iron like a sword, a cubit high, was above the battlement, all round in order that the birds should not rest upon it, and this is what was called the scarecrow. Thus the whole was a hundred cubits.

4. From the west to the east *was* a hundred cubits, and this was their arrangement: four walls, one in front of the other, and between them three vacant places; between the western wall, and the wall in front of it five cubits, and between the second and third wall six cubits, and between the third and fourth wall six cubits; and these were the measurements of the thickness of the wall with the vacant place, which was between two walls. And the length of the Holy of Holies twenty cubits, and between the two veils, which divided between it and the holy place, a cubit, and the length of the holy place, forty cubits, and the thickness of the eastern wall in which was the gate six cubits, and the porch eleven cubits, and

⁹ “*Kioor* is engraved work (2 Chron. ii, 13; Zach. iii, 9), and the engraved ornaments which architects make in lime or stone, and sometimes it is said *Kioor v'tzioor*, *i.e.*, engraved and painted. **דלף** *dropping*, is the dripping of water from the roof, and it was the custom to make for buildings two roofs, one above the other, and to leave a small place between the two, and to call this hollow space **בית הדילפא**, *domus stillicidii*, from the word **דלף**, *to drop*, so that if the upper roof should drip, the water would remain in that space” [Maim. Comment on Mishnas, Midd. iv, 6]. “*Kioor*, the lower rafter of the roof . . . and because it was covered with gold and painted with beautiful pictures it was called *kioor* . . . the upper rafters, which re-*ted* upon the lower rafter, was two cubits thick, and these were called **בית דלפא**, *domus stillicidii*” [Bartenora on Midd., *in loc.*] A modern gloss on this passage of the Beth Habbech says “it is a custom in Turkey in building princes’ houses to make a roof of planks painted with beautiful pictures. It is called *tavan*, and above it the principal roof which is exposed to the sky, and a space between the *tavan* and that principal roof, and if at any time the principal roof should leak, the dropping would descend in that space upon the top of the *tavan*, and on this account it was called *domus stillicidii*.”

The structure of the present roof of the outer corridor of the Dome of the Rock at Jerusalem may illustrate that of the ancient Temple.

“The **מעזיבה** (*or plaster*) was the lime and stones which were placed upon the roof” [Maim. on Midd., *in loc.*] Sometimes reeds and bushes were placed over the rafters, and the cement laid on above. [Baba Metyia (as quoted by Aruch) 117 *a*; *cf. ib.* 116 *b*, in Mishna, and note of Rashi; also Baba Bathri 20 *b* in Mishna.] It was the custom to roll this plaster with a cylindrical stone called *māgilah*, **מעגילה** [Macoth ii, 1]. Such roofs are common in Palestine at the present day.

the thickness of the wall of the porch five cubits, altogether a hundred cubits.¹⁰

5. From north to south a hundred cubits. The thickness of the wall of the porch five cubits, and from the wall of the porch to the wall of the holy place ten cubits, and the walls of the holy place six walls, one in front of the other, and between them five vacant places. Between the outer wall and the second five cubits, and between the second and third three cubits, and five between the third and fourth, and between the fourth and fifth, six, and between the fifth and the inner wall six, in all forty cubits on this side, and forty cubits on the side which was opposite to it, and the breadth of the house within, twenty cubits. Lo, there were a hundred cubits.¹¹

6. The *pishpaesh*, פִּישְׁפֶּשֶׁת, is a little door. There were two little doors to the temple by the sides of the great gate, which was in the middle, one on the north, and one on the south. By that on the south no man ever entered, and in reference to this it was explained by Ezekial (xliv, 2) "this gate shall be shut, it shall not be opened." But by that on the north they entered, and going between the two walls until he reached the place where was the opening into the holy place on his left, he went into the interior of the temple הַיְבֵל, and proceeded as far as the great gate and opened it.¹²

7. The breadth of the great gate was ten cubits, and its height twenty cubits. And it had four doors, two within and two without, the outer ones opened into the doorway to cover the thickness of the wall, and the inner ones opened into the house, to cover the space behind the doors.¹³

8. The doorway of the porch was forty cubits high, and twenty broad, and there were no gates to it.¹⁴ And there were five carved oaken beams over the doorway above. The lower one extended beyond the doorway, a cubit on each side, and each one of the five extended beyond that below it, a cubit on each side, so that the upper one *measured* thirty cubits, and there was a row of stones between every two *beams*.¹⁵

¹⁰ These measurements are essentially the same as those given in Middoth iv, 7, but by reckoning the thickness of the walls west of the Holy of Holies as spaces, and each face of a wall as a distinct wall, obscurity has been occasioned.

¹¹ Middoth iv, 7. See the last note. The account in Middoth gives only the breadth of the house behind the porch. According to Maimonides the room for the slaughtering instruments measured ten cubits by eleven, internal measurement.

¹² Middoth iv, 2; Tamid iii, 7. In the Mishna it is said that the priest, after opening the little door, entered the chamber and thence passed into the temple. Maimonides does not agree with Rabbi Judah's opinion that the priest went in the thickness of the wall until he found himself standing between the two gates.

¹³ Middoth iv, 1.

¹⁴ Tosefoth Avodah Zarah 53 a. "The porch was open along its whole eastern side."

¹⁵ Middoth iii, 7.

9. The temple **היכל**, was built broad in front and narrow behind, like a lion.¹⁶ And there were chambers surrounding the whole house round about, besides the wall of the gallery. The lower chamber *was* five cubits broad, and the roofing, **רובד**, above it six, and the middle chamber six, and the roofing above it seven, and the uppermost seven, as is said "the nethermost chamber" &c. (1 Kings vi, 6), and thus the three chambers surrounded the house on its three sides.¹⁷ And also around the walls of the porch from below upwards there were thus : a space, **חלק**, of one cubit, and a standing place, **ריבד**, three cubits, and a space of one cubit, and a standing place three cubits to the upper part. And the standing places, **רובים**, surrounded the walls, the breadth of each standing place was three cubits upwards, and between each two standing places a cubit, and the upper standing place was four cubits broad.¹⁸

¹⁶ Middoth iv, 7.

¹⁷ Middoth iv, 3, 4. **רובד** is a floor or pavement, and the word is used here because the roof of one chamber formed the flooring of the chamber above.

¹⁸ Middoth iii, 6. The following is Lightfoot's rendering of this passage :— "Round about the walls of the porch from below upward they were thus : one cubit plain, and then a half pace of three cubits, one cubit plain (or an ordinary rising of steps) and then another half pace of three cubits, and so up, so that the half paces did go about the walls of the porch."

Also by the Jewish commentators the passage in Middoth which Maimonides here paraphrases is taken to refer to the steps and standing places which led up to the porch. But Maimonides understood it to refer not to the steps, but to a kind of ornament of the wall itself consisting of a projection three cubits in perpendicular measurement repeated at intervals of a cubit, the uppermost projection measuring four cubits. In his comments upon the Mishnas (Midd. iii, 6) he says "the wall of the porch was built according to this arrangement, which was that one cubit in the height of the wall its *whole* length was plain and even like the rest of the walls, afterwards the building or masonry projected from the wall like a balcony, **כצוצרה**, three cubits high, afterwards, at a distance of one cubit, it projected again, and this is what was called *robud*, **רובד**, and thus the structure of the whole was a cubit, and a *robud* three cubits," &c.

If the steps of the porch are referred to there could not have been more than three cubits between the lowest step and the foundation of the altar. According to some opinions there was only one; and it seems hardly possible that a bullock could have stood and been slaughtered by the priest in so small a space [Yoma iii, 8] without inconvenience. In the same narrow space, also, the whole company of officiating priests must have stood whilst one of their number sounded the *magrefah*; an instrument so large and powerful that people in the city could not hear one another speak for the noise it made, and whose "voice" could be heard at Jericho!

The laver, moreover, was between the porch and the altar, and it must have been very small if the space between the altar and steps was only three cubits, unless, indeed, as has been suggested ["Tafaceth Israel Mishnas, Warsaw, 1864"], it was placed upon the steps themselves. Objections to this latter view are, 1, that no mention is made of the priests going up the steps to reach the laver, and, 2, that the account of the manner in which the priests performing the

10. All these vacant places, which were between the walls, are what were called **תַּחֲסֵי**, *chambers* (Ezekiel xl, 7, 10). The chambers surrounding the Sanctuary were five on the north, five on the south, and three on the west. And there were three stories, story above story, so that there were fifteen chambers on the south, five above five, and five above them, and also on the north fifteen. And on the west were eight chambers, three above three, and two above them, in one story. Altogether *there were* thirty-eight chambers.¹⁹

11. There were three openings to each chamber, one to the chamber on the right, and one to the chamber on the left, and one to the chamber above. And at the north-eastern corner in the chamber, which was in the middle story, were five openings, one to the chamber on the right, and one to the chamber which was above it, and one to the gallery, and one to the chamber in which was the little door, and one to the temple (**הַיְכָל**).²⁰

12. And a gallery (or winding staircase), **מִסִּיבָה**, ascended from the north-eastern corner to the north-western corner by which they went up to the roofs of the chambers. Going up by the gallery with his face to the west, he traversed the whole northern side until he reached the west; having reached the west he turned his face to the south, and passed along the whole western side until he reached the south; having reached the south, he turned his face to the east and went along on the south, till he reached the door of the upper chamber, for the door of the upper chamber opened on the south.²¹

13. And at the door of the upper chamber were two beams of cedar wood by which they went up to the roof of the upper chamber. And pointed pieces²² divided in the upper chamber between the roof the holy place, and the roof of the Holy of Holies. And there were in the upper chamber openings²³ into the Holy of Holies, by which they let down the workmen in boxes that they might not feast their eyes upon the Holy of Holies. And once a year, at every Passover, they whitened the temple (**הַהֵיכָל**).²⁴

(*To be continued.*)

daily service ascended the steps to the porch (Tamid vi, 1) seems to imply that they had not before ascended any of them, **הַחֵלִי עוֹלִים**, "they *began* to go up."

¹⁹ Middoth iv, 3.

²⁰ Middoth iv, 3. Maimonides and some more modern commentators regard the lower chamber as having been below the level of the floor of the holy place, and bounded on the outer side by the foundation.

²¹ Middoth iv, 5. It appears that the upper story did not extend farther west than the western wall of the Holy of Holies. The roofs of the western, as well as those of the northern chambers, were open to the sky.

²² Middoth iv, 5. **רְשֵׁי פֶשֶׁשֶׁם** were wooden projections from the northern and southern walls, of the upper story [*cf.* Bartenora on Midd. i, 6, and Tafaereth Israel to Midd. iv, 5], or as Maimonides thought from the floor [Comment. on Mishnas, Midd. iv, 5].

²³ לולין = אַרְבּוּבוֹת, *fenestra* [Bartenora, *cf.* Oholoth x, 1].

²⁴ Middoth iii, 4.

THE "CITY OF DAVID" ONLY A PART OF JERUSALEM.

SIR,—Captain Conder has in several places argued against the identification of the modern Ophel with the old "City of David" on account of the inadequacy of its area for "a capital like Jerusalem" (*Quarterly Statement*, 1884, p. 23), "the capital of Syria in David's time" (*Quarterly Statement*, 1884, p. 22), &c., thus making it appear that the terms "City of David" and "Jerusalem" refer to the same area, and are interchangeable.

He himself, however, supplies the answer to this assumption, when, on p. 28, *Quarterly Statement*, 1884, he tells us that Solomon's palace was on Ophel, and "outside the City of David." It is true he says also (p. 28) that Ophel was "only afterwards occupied," it being, according to p. 22, "in the time of Manasseh, when Ophel was included," &c., but this can scarcely be reconciled with the former statement, unless we are to understand that Solomon's palace was outside the *walls* of the "capital of Syria."

The following passages from the Bible, however (some of which I have not yet seen cited in this controversy), prove clearly, I think, that the Scriptural "City of David" was not the whole, but only *part*, of the "capital of Syria," even in Solomon's time.

From 2 Samuel vi, 12, we learn that David brought up the Ark of God from the house of Obed-Edom *into the City of David* with gladness. (See also 1 Chron. xv, 29.)

Then after the Temple was built, we find from the almost identical language of 1 Kings viii, 1, and 2 Chronicles v, 6, that "Solomon assembled the elders of Israel . . . to bring up the Ark of the Covenant of the Lord, *out of the City of David* which is Zion."

It is quite clear, therefore, that the *Temple* was not *in* the "City of David."

Again, we learn from 1 Kings iii, 1, that Solomon brought Pharaoh's daughter *into the City of David* temporarily. "until he had made an end of building his *own house* and the house of the Lord," &c. Upon the completion of these "she came up *out of the City of David* into her house that Solomon had built for her" (1 Kings ix, 24). This is corroborated by 2 Chronicles viii, 11, which gives us also the reason for her sojourn in the "house [city, Septuagint] of David, King of Israel," not being permanent. These latter show that the "house for Pharaoh's daughter" also was not *in* the "City of David."

Clearly then the "City of David" was not the *whole* of Jerusalem.

The above passages, I venture to think, give greater force to those cited by Rev. W. F. Birch, on page 80, line 3, 1884, *Quarterly Statement*, 2 Kings xiv, 20, and page 198, "No. (2)," 2 Chronicles xxviii, 27, in the latter of which he interprets "in the city of Jerusalem" as meaning "in the City (of David) at Jerusalem." This is further borne out by 2 Kings viii, 24, which tells us that Joram was buried "in the *City of David*," while 2 Chronicles xxi, 20, informs us that "they buried him in the City of David, but *not* in the *sepulchres of the kings*;" and the same is said of Joash, in 2 Chronicles xxiv,

25. Are we to understand that there were *three* royal cemeteries? This follows from the above passages, if the sepulchres in which David, Solomon, and Rehoboam were interred, were *not* on Ophel, where Captain Conder allows it to be probable that the Garden of Uzza was situated, in which were buried the later kings who are not said to have been laid to rest "in the City of David."

If there were only *two* royal sepulchres, then we have *three* passages certainly (and perhaps *four*, if we include the case of Asa, 2 Chron. xvi, 13, 14), in which it is distinctly stated of monarchs who were *not* buried in *the sepulchres of the kings*, that they *were* buried in *the City of David*.

How then can there be any room for doubt, that *if* the later kings were buried on Ophel, the former were so too?

Yours truly,

H. B. S. W.

P.S.—Regarding C. R. C.'s objection to the force of the extract from the Tosiphta ('84, p. 197), may I point out that its bearing on this subject is not weakened by the supposition that Rabbi Akiba was "constructing a theory merely?" Supposing this were the case, he would surely not have "invented" a passage, whose length would have made it clearly impossible of belief if the City of David he knew had been where C. R. C. wishes to place it!

His mention in this connection, of the Brook Kidron, shows sufficiently that the Royal Tomb of which he was speaking (and consequently the City of David, which enclosed it) was in *close proximity* to the Kidron, so that a passage from the tomb to the brook was neither incredible nor unlikely.

VERIFICATION OF REFERENCES.

City of David, Quarterly Statement, p. 173, 1884.—Where has Canon Birch written anything that will entitle us to say that he has been "supposing that the City of David stretched across a deep valley?"

Dolmen in Bashan, Quarterly Statement, p. 241, 1884.—Where is the passage to be found in which this is described as "*a large example?*"

I cannot find it so spoken of by Mr. Oliphant, and it is certainly desirable that the misleading passage should be pointed out, and the blame for its error rightly attributed.

H. B. S. W.

December 10th, 1884.

QUERIES.

The Emek of the dead bodies, &c., Quarterly Statement, 1883, p. 217.—The statement here made that “Jeremiah terms it” (*i.e.*, the valley of the Tyropœon) “the vale (Emek) of the dead bodies and of the ashes,” makes me desirous of asking whether the use there of the word “Emek” does not imply that the “*valley* of the dead bodies,” &c., was one of a different character, and, therefore, a different valley, from that of the Tyropœon, respecting which another term, “gai,” is used?

The Upper Gihon, Quarterly Statement, 1883, p. 216.—Does the word “upper” in the original necessarily apply to *Gihon*? May it not be used, as in the A.V., so as to read “the upper outlet of Gihon,” inasmuch as there is, I believe, no direct mention anywhere in the Bible of any *Lower Gihon*?

Valley of Giants, Quarterly Statement, 1883, p. 222.—May I venture to ask that your readers may be afforded some explanation of the reasons which have caused the expression of the view that this valley was *north* of Jerusalem; and is not the one which extends nearly to Bethlehem as Josephus says it was?

Uzziah's burial, Quarterly Statement, 1884, p. 242.—What are the difficulties “in reconciling the accounts in Kings and Chronicles?” Does not the principal one arise from maintaining that “the City of David was another name for *Jerusalem* generally?” whereas there is no difficulty at all if we regard them as analogous to Henry VIIIth's Chapel and Westminster Abbey.

The Siloam Tunnel, Quarterly Statement, 1884, p. 249.—May I ask whether the following is a correct translation of the Syriac version of 2 Chronicles xxxii, 30, and if so whether it may not be considered as strongly corroborating the view that the Siloam Tunnel was made by Hezekiah? I am informed that the *Syriac* in this verse reads:—

“And Hezekiah hid the spring (or outgoing) of the waters of the upper fountain and sent them into the *western tank* of the City of David.”

The Lower Gihon, Quarterly Statement, 1884, p. 249.—How can the Gihon mentioned in 2 Chronicles xxxiii, 14, be the Pool of Siloam, when the Gihon is distinctly said to be “Gihon in the Nachal?” I have always understood previously that this passage was the principal proof that the *Virgin's Fountain* was to be identified with *Gihon*, as there is no other *spring* in the Kidron than the *Virgin's Fountain*; and no other *Nachal* in the environs of Jerusalem than that of the Kidron.

En Rogel and Gihon.—May it be an allowable explanation for the reconciliation of the somewhat conflicting views respecting these two, to suppose that “Gihon” of Hezekiah is the *Virgin's Fountain*, while the “Gihon” of Solomon's anointing is equivalent to the “En Rogel” of Joshua, and is the same as the *Pool of Siloam*? Of course this necessarily supposes the correctness of the distinction made between an Upper and a Lower Gihon—a matter which I have made the subject of a previous query, for the sake of obtaining fuller information.

December 10th, 1884.

H. B. S. W.

THE WATERS OF SHILOAH.

In *Quarterly Statement*, 1884, p. 75, I put forward the theory that these waters flowed along an aqueduct on the east side of Ophel from the Virgin's Fountain to the mouth of the Tyropœon. I am anxious for my theory to be tested (and (?) proved) by excavation. Meanwhile, it will be well to dispose of the objections raised against my aqueduct in the last two numbers.

Captain Conder seems to object—

(1) That it has left no known traces of its existence. As the same might have been said of the Moabite Stone before 1868, and the Siloam Inscription in 1879, the objection has obviously no weight. Only let traces be looked for where they may be supposed to exist, and then no doubt they will be found.

(2) That it is so drawn on my plan that it apparently joins on to an existing channel, in which water runs the opposite way. This objection, I consider, was answered by anticipation in the three queries placed in my plan against this part of the aqueduct.

Whether the aqueduct within the Tyropœon ran on the line marked, or on another line, or on no line at all, does not really affect my theory that there used to be an aqueduct on the east side of Ophel between the Virgin's Fount and Siloam.

Professor Sayce offers a curious objection. He says, Sir Charles Warren failed to find any traces of it in his galleries (or shafts) on Ophel, but he does not add (as he rightly might have done) that all these shafts, except possibly two, were *north* of the point whence my supposed aqueduct ran southwards, and that the two exceptions were at least 40 feet higher in elevation than the level of the supposed aqueduct. Under these circumstances it was impossible for Sir C. Warren to discover the aqueduct; he wrote to me, however, in November, 1883, as follows:—"I think it quite possible that there was an aqueduct on the east side of Ophel, as you suggest."

To sum up—

Professor Sayce, in connecting the waters of Shiloah with the Siloam Tunnel, is driven to attribute the latter to Solomon, and not to Hezekiah whom Captain Conder and others (myself among the number) regard as its author.

Captain Conder, by rejecting both Professor Sayce's tunnel and my aqueduct, has the *waters* of Shiloah left on his hands *without any water* at all. For water flowing down the Tyropœon could not be said to go softly, and waters flowing in a natural channel down the Kedron could not be the waters of *Shiloah*, as the meaning of this word shows that they ran through an aqueduct.

Here my supposed aqueduct affords a happy way out of the dilemma. It is most probable that the mouth of the Tyropœon was turned into well-irrigated gardens by means of such an aqueduct, centuries before the gigantic undertaking of making the Siloam Tunnel was ever dreamt of.

October 27th, 1884.

W. F. BIRCH.

ZION, THE CITY OF DAVID.

ON urging a Society that sends its maps over the world not to be afraid, but boldly to put the City of David where Nehemiah places it, *i.e.*, south of the Temple, I was told in reply, "You have convinced nobody." This is an objection that has often, on other occasions, been urged against the truth.

I have not claimed to have convinced any one, but still some have been convinced. Professor Robertson Smith says that the Ophel site alone "does justice to the language of the Old Testament." Professor Sayce says, "Mr. Birch seems to me indubitably right in holding that the City of David stood on the so-called hill of Ophel" (*Quarterly Statement*, 1884, p. 80). Sir Charles Warren has for thirteen years candidly owned that the Book of Nehemiah places the City of David on Ophel. Captain Conder, after five years' unyielding opposition, at length admits that "when Ophel came to be inhabited, the name (City of David) may be supposed to have included Ophel" (*id.* 242).

My theory, then, ought not to be rejected off-hand on the plea that no one believes it. Yet what I undertook to do was not to convince my opponents, but to confute their arguments. Two widely divergent objections are urged against me in the July and October numbers. Captain Conder credits me (p. 242) with "confining ancient Jerusalem to the insignificant space south of the Temple," while Professor Sayce thinks I endanger my views by supposing that the City of David stretched across a deep valley;—in other words, the former thinks that I make Jerusalem small, and the latter that I make the City of David large. Strange to say, the *fact* is, I make Jerusalem larger and the City of David smaller than does either of these writers. Want of due circumspection has caused the one to strike on Scylla, and the other to fall into Charybdis. Neither can point to a single passage of mine in these pages in support of the theories they thus attribute to me.

Further, (1) in reply to Captain Conder I must remind him that I have *already* pointed out (1884, p. 81) that "the City of David was only part of Jerusalem," and that I place the former on Ophel, while I make my Jerusalem *larger* than his (*id.* 81). Thus, "confining Jerusalem to Ophel" is just what I have *not* done.

Again, why (2) does Professor Sayce speak of my "supposing the City of David stretched across a deep valley?" Where have I supposed it? So far from doing so, I have consistently for six years repudiated any theory that does not place Zion, the City of David, solely on Ophel (so-called).

My Jerusalem theory is as follows:—

1. The Tyropœon Valley was part of the valley of Hinnom which ran from near the Jaffa Gate through the present city to the Kedron.

2. Zion, the City of David, was entirely on the southern part of the eastern hill, *i.e.*, on Ophel (so-called).

3. The sepulchres of David were in this same part.

4. The "gutter" (2 Sam. v, 8) by which Joab gained access to Zion, was the secret passage (connected with the Virgin's Fount) discovered by Sir C. Warren.

5. Aramah betrayed Zion to David either by divulging the secret of the "gutter," or by assisting Joab in ascending it.

I have defied any one to upset No. 2, but I am willing to extend the challenge to the other points. Accordingly, when Professor Sayce comes boldly to the attack, I cannot run from my guns, but must ruthlessly mow down his objections to my (not Canon Birch's) theory by confuting them. I am glad, however, to say that Professor Sayce agrees with me, partially on No. 1, and all but entirely on Nos. 2 and 3, but he wholly rejects No. 4, and consequently No. 5, though, since he is "quite ready to believe whatever Josephus may say provided it is not contradicted by external or internal evidence" (p. 172), I anticipate in the end his hearty acceptance of my last point.

Professor Sayce's objections to No. 4 are practically three.

(1) He urges that 2 Samuel v, 6-8, has to do with the capture of *two* places, and that therefore it was not Zion, the City of David, to which Joab gained access.

(2) That Joab could not have got up the shaft found by Sir C. Warren, since in Professor Sayce's opinion it did not then exist, being of later date than the Siloam Tunnel.

(3) That the Hebrew word for "gutter" means a waterfall, and therefore could not be a rock-cut shaft or passage.

To make the matter in dispute more intelligible, I give in full the passages in question:—

2 Samuel v, 6. "And the king and his men went to Jerusalem unto the Jebusites, the inhabitants of the land, which spake unto David, saying, Except thou take away the blind and the lame, thou shalt not come in hither: thinking, David cannot come in hither.

7. "Nevertheless David took the stronghold of Zion: the same *is* the City of David.

8. "And David said on that day, Whosoever getteth up to the gutter, and smiteth the Jebusites, and the lame and the blind, *that are* hated of David's soul, *he shall be chief and captain.* Wherefore they said, The blind and the lame shall not come into the house."

1 Chronicles xi, 6, states: "And David said, Whosoever smiteth the Jebusites first shall be chief and captain. So Joab the son of Zeruiah went first up and was chief."

To prove his first point, Professor Sayce tries to make a short cut, by impressing into his service Hebrew grammar. He protests against my describing his interpretation of two places being taken as a "popular error" (perhaps my *popular* was ill-chosen), and asserts that "the Hebrew tenses admit of no other (interpretation); we have *war consecutivum* in each clause. The narrative sets before us a sequence of events. . . . David captured the outpost of Zion, and *after this*—but on the same day—he promised rewards to 'whosoever getteth up to the gutter,' &c."

My contention (p. 72) was that in verse 8 the sense would be made clearer by translating "And David said" by "For David said," &c., since this verse explains *how* David succeeded in taking Zion, the capture of which was mentioned in the previous verse.

The question is, *Must* the words translated "And David said" mean "And *after this* (the previously mentioned event) David said," or may they not mean "For David said," and, if so, does not this rendering agree better with the rest of the passage?

A disputed point of grammar must be dealt with by a competent Hebrew scholar. I extract the following from a full explanation of the question, kindly furnished to me by Professor Theodores:—

"The verbal form called 'future' (Hebrew עתיד by the older grammarians), is variously named in the modern grammars as imperfect, aorist, fiens, &c. . . . The letter ה prefixed to the 'future,' generally provided with the vowel Pathach (ֶ) and followed by a dot called 'strong Dagesh' in the initial letter of the verb, has the property of changing the verb from the future to the past, whence the Hebrew grammarians named it 'the vav conversive.' Modern grammarians have invented for it different names, *consecutive*, *voluntative*, *relative*, &c. The interpretation of the prefix ה varies between *and*, *now*, *for*, *but*, *still*, *nevertheless*, *then*, *inasmuch as*, *namely*, *consequently*, and probably still more particles, either temporal or logical.

"It is not true that ה before a verb in the future *must* be interpreted to mean 'afterwards' (Sayce, p. 174). Examples are numerous. . . . Thus in Genesis xxxvii, 5, we read (A.V.), 'And Joseph dreamed a dream, and he *told it* his brethren, and they hated him yet the more.'

Here follows verse 6: "And he said [future with ה] unto them, Hear, I pray you, this dream which I have dreamed." Would it not be absurd to render the beginning of verse 6, viz., וַיֹּמַר (wayyōmer), "Afterwards he said unto them?" Joseph did not tell his dream in consequence of his brothers' hatred; but his brethren hated Joseph in consequence of his communication about dreaming. In point of time, verse 6, commencing with "And he said," is anterior to the words "and they hated him yet the more" in verse 5. Again, in Exodus xl, 17, we are informed that on the first day of the first month in the second year the tabernacle was reared up.

The next verse, the 18th, reads, "And Moses reared up [future with ה] the tabernacle, &c." Can ה here mean "afterwards?" What! *after* the rearing up of the tabernacle, Moses reared up the tabernacle!

Professor Theodores adds this translation:—(6) "Then marched the king and his men towards Jerusalem against the Jebusite inhabiting the land, and he said to David thus, Thou wilt not enter here, except thou set aside the blind and the lame, meaning: David shall not enter here! (7) Nevertheless, David conquered the fortification of Zion,' which is 'the City of David. (8) For David proclaimed on that day, He that smites the

Jebusite, reaching so far as the aqueduct, along with the lame and along with the blind, those hated by the soul of David . . . [The Scripture is here elliptical, not stating what should be done to him, but the want is supplied in 1 Chronicles xi, 6], because the lame and the blind, even they say he shall not enter within. (9) Thus David settled in the fort and called it the City of David. And David built round about from Millo and inward." Professor Theodores further adds:—"In the Hebrew commentary, called *Biar*, on the translation called Mendelsohn's, the following opinions are stated:—Verse 7. 'And David conquered.' This 'And' is adversative and means *but, nevertheless*. Verse 8. 'And David said.' In the preceding verse (7) the text states in a *general* way that David overpowered the stronghold, but now in (8) the *particulars* are stated how the conquest was effected."

Thus it is amply shown that the grammar does not prove that two places were taken in 2 Samuel v; 1 Chronicles xi. If I may add a word of my own, I would say there would be an unaccountable *lacuna* in the sacred narrative if two places had been taken, since no mention whatever is made of the second capture. The passages give a complete story of one place being taken, stating the fact of its capture, that a reward had been offered for its capture, and the name of the successful hero.

The A.V. is right in the heading of 1 Chronicles xi: "He winneth the castle of Zion from the Jebusites by Joab's valour," and so far I was wrong in describing Professor Sayce's interpretation as a *popular* error. Thus I conclude that it *was* the fort (of) Zion to which Joab gained access.

But, secondly, Professor Sayce says (175): "The careful workmanship of these passages, the niches for lamps—a Græco-Roman invention—the iron ring, and the fact that the lower conduit (discovered by Sir C. Warren) led into the winding Siloam Tunnel, all go to show that this lower conduit was later in age than the Siloam one."

a. Niches for lamps.—In his account of the Siloam Tunnel (1881, p. 142) Professor Sayce mentions a niche opposite the inscription, and admits the reasonable suggestion that it was for the lamp of the workman that cut the letters. Was the inscription therefore (and the tunnel as well) a Græco-Roman invention? I will not, however, press the point. If Professor Sayce will refer to Colonel Warren's account of the passage, he will, I think, find no mention whatever of "niches for lamps," but only of piles of loose stones (Letters, p. 39; *Memoirs, Jerusalem*, p. 367), an invention dating as far back as *Jegar—sahadutha*.

b. "The iron ring."—My initials and H.B. are smoked beyond the broad arrow in a low passage in the cave of Adullam, but the antiquity of the cave is not consequently reduced. The ring *must* have been added after the passage was made, but how long after no one knows, and therefore the *iron* age proves nothing.

c. The lower conduit, &c.—It would, however, be quite as correct (more correct I believe) to say "the Siloam Tunnel led into the conduit." Colonel Warren's professional opinion (Letters, p. 40) on discovering the passage, was

as follows:—"The fact of the newly found aqueduct being nearly in a line with the first 50 feet of the old one, gives the idea that this may originally have been the means of providing Ophel with water, and that the remainder of the duct to the present Pool of Siloam may have been an afterthought."

He also holds to the same opinion in "Underground Jerusalem" (p. 333). Thus Professor Sayce's second objection fails.

His third objection I propose, if time permit, to answer fully when I have exposed in detail the fallacies of the arguments urged for placing the City of David in any other position than on Ophel (so-called). It will suffice now to say that the evidence proving that the gutter was an aqueduct, and that Araunah betrayed Zion, is given in *Quarterly Statement*, 1878, p. 184; 1879, p. 104.

W. F. BIRCH.

THE ROUTE OF THE EXODUS.

I.

PERMIT me to reply to the views of Mr. Baker Greene, as given in the October number of the *Quarterly Statement* of the Palestine Exploration Fund, and which have been made the subject of a leading article in the *Morning Post* of the 22nd October, regarding the identity of Mount Hor with Mount Sinai. I regret not having seen Mr. Greene's book, but as his views are very fully set forth in the *Quarterly Statement* I will deal with a few points on which he lays stress in that publication; and I hope to be able to show, by the aid of a few crucial tests, that his views are altogether untenable.

I may be allowed to point out that this is pre-eminently a question which requires some personal knowledge of the countries referred to; and it does not appear from Mr. Baker Greene's statement that, like the venerable Dr. Beke, he has made a pilgrimage to the East in order to verify his views by personal observation. On the other hand, I may remind the reader that the identification of Mount Sinai (Jebel Mûsa) in the peninsula of Arabia Petræa with the "Mount of the Law" has been maintained by eminent men who have personally examined the district, such as Dr. Robinson, Burkhardt, the late Professor Palmer, and Col. Sir Charles W. Wilson, formerly of the Ordnance Survey of Sinai. After this consensus of opinion it might have been supposed that nothing more was to be said.

Mr. Baker Greene asserts that after the passage of the Red Sea the Israelites followed the old caravan road across the Tih tableland to Akabah, which he identifies with Elim, where there were "twelve wells and threescore and ten palm-trees" (Exod. xv, 27). As Elim merely means "a grove of palms," the name might doubtless have

been applied to Akabah, or to several other spots where groves of palms happened to grow; so that little value can be attached to this point of identification.

But taking the sacred narrative as it stands, let us see how it fits in with Mr. Greene's views. The Israelites are stated to have gone three days in the wilderness, and to have found no water (verse 22). Mr. Greene then draws the probable inference that on the fourth day they found water, and he identifies the spot where the water was found with Kala'at Nakhl, which is situated about half-way between Suez and Akabah on the caravan road, and is considered a fourth day's stage for caravans. Of this place Professor Palmer says:—"The country is nearly waterless, except a few springs, situated in the larger wâdies; but even here water can only be obtained by scraping small holes in the ground and baling it out with the hand. All that is obtained by the process is a yellowish solution, which baffles all attempts at filtering" ("Desert of the Exodus," p. 287). Such was the water with which, according to Mr. Baker Greene's views, the thousands of Israel, with their flocks and herds, were fain to slake their thirst after a march of three days under a broiling sun, and over one of the most desolate and forbidding tracts in that part of the world!

But, even supposing the water to have been at that period more plentiful, another question remains to be answered: Has Mr. Baker Greene ascertained the distance from Suez to Nakhl, which was reached, as he supposes, on the fourth day? If he will measure the distance on a good map he will find that it is about seventy English miles in a straight line, and in addition the march involves the ascent of the ridge of Jebel er Râlah of about 2,000 feet. To suppose that the Israelitish host, consisting of men, women, and children, together with their flocks and herds, could have marched seventy miles and crossed a ridge of 2,000 feet in three days is a demand on our credulity which he can scarcely hope to be granted. That it can be done on camels or horses is doubtless true; but to accomplish the journey on foot would tax the powers of a skilled pedestrian, and would be impossible for women and children.

Having disposed of this point, which lies at the threshold of Mr. Baker Greene's argument, I will take up another. It is stated that the Israelites on reaching Elim found twelve wells, and that they "encamped there by the waters," evidently referring to the waters of the wells; but surely, if Elim means Akabah, as Mr. Greene supposes, we might have expected to find some reference to the waters of the Red Sea (or Gulf of Akabah) as being in the vicinity of the camping ground.

But another objection to Mr. Greene's views meets us at the commencement of Exodus xvi, where it is stated that on leaving Elim the Israelites "took their journey and came unto the wilderness of Sin, which is between Elim and Sinai." In his statement Mr. Greene seems to make a confusion between the "wilderness of Sin" and the "wilderness of Zin," which latter lay along the Arabah, and probably included Elim and Akabah. The wilderness of Sin, according to the best

authorities, lay to the west of the Sinaitic peninsula. In any case the two names refer to two different districts. That spelt with *samech* being referred to in Exodus xvi and xvii; that spelt with *tsade* in Deuteronomy xxxii, 57; Numbers xiii, 21; xxvii, 14; and Joshua xv, 3, these being connected with Kadesh-Barnea.¹

In reference to the statement of St. Paul, it is not difficult to understand why he places Mount Sinai in "Arabia." The term was doubtless used by the Apostle in a general sense to include the vast region of desert-land lying to the south and east of Judæa. Mr. Greene himself sees the difficulty of accounting for the fact that Mount Hor should be associated with the lesser event of the death of Aaron rather than with those stupendous manifestations of Divine power which were connected with the giving of the Law.

Again, if Elim be Akabah, how can this be reconciled with the statement of Numbers xxxiii, 10, that the Israelites "removed from Elim and encamped by the Red Sea," inasmuch as Akabah is actually by the Red Sea? Other difficulties might be cited, but the above are probably sufficient to show that Mr. Baker Greene's identification cannot be admitted.

Nor can I admit that Kadesh-Barnea is Petra. From personal experience of the difficulties of the mountain pass leading from the Arabah Valley to Petra, I may safely affirm that it would have been impracticable for the Children of Israel when on their way to the Promised Land.

EDWARD HULL.

Dublin, November 18, 1884.

II.

PROFESSOR HULL having been good enough to place at my disposal a proof-sheet of his objections to my view of the Exodus, I gladly avail myself of the opportunity of replying to them forthwith. Negatively it is a source of satisfaction to me that, with this exception, no one of the many members of the Palestine Exploration Fund has challenged the soundness of my arguments.

I must confess, however, that I find considerable difficulty in knowing how to deal with Professor Hull's criticisms. I have no right to complain that he has not read my book before entering the lists, but not having done so, I think I may justly complain that he should have assumed that I did not take the trouble of studying with ordinary attention the subject of which I treated. He tells me how to ascertain the distance from Suez to Nakhel; quotes Professor Palmer as to the waterless character of the country around the last-named place;² he attributes to me "a

¹ The Rev. Dr. Stubbs, of Trinity College, Dublin, has kindly verified the originals for me.

² Kalaat el Nakhel, with its fort and wells, has been frequently mentioned and described by travellers for centuries past. See Thevenot's account, quoted

confusion" between the wildernesses of Sin and Zin; he gravely informs the readers of the *Quarterly Statement* that the initial letters of these words are different, and with equal gravity adds in a footnote that my respected friend Dr. Stubbs has verified the fact by reference to those passages in the Hebrew version where the names occur. He somewhat authoritatively asserts that personal observation of the country is pre-eminently required for the settlement of the points in issue, and, with what most persons will be inclined to think singular infelicity, refers to the late Dr. Beke's pilgrimage in search of the true Mount Sinai. Finally, he refers to the authority of a number of persons as to the identity of Jebel Mûsa with Mount Sinai,¹ and airily adds that after this consensus of opinion it might have been supposed that nothing more remained to be said. To measure small things by great, I may remind the Professor that there was a still greater consensus of opinion against Galileo when he maintained that the earth moved, and against the first geologists who ventured to deny that the creation of the world was effected in six solar days.

And now to deal with Professor Hull's objections in detail:—

He says that little value can be attached to the identification of Elim with Akabah because of the presence of palm-trees at the last-named place. I would go farther, and say no value whatever could be attached to such a ground of identification taken *per se*. But if he will turn to my contribution to the last *Quarterly Statement* he will find that I wrote, "I cannot give here in detail the many reasons, Scriptural, philological, historical, and geographical, for my identification of the Elim of Exodus xv, 27, with the Elath of Deut. ii, 8, and 1 Kings ix, 26," and the modern

by Ritter, *Erdkunde*, 14. He crossed the desert from Suez to Akabah in 1658, the journey occupying six days, of which sixty-seven hours were spent in travelling, which closely corresponds with the estimated time in the "Tabula Peutingeriana" (sixty-eight hours). See also Dr. Shaw, "Travels in Barbary and the Levant," 1721, p. 477; Dr. Pococke, Bishop of Meath, "Description of the East," 1743, i, 265. Nakhel is the half-way house on what Captain Burton describes as the oldest route in the world, and it has never been surveyed.

¹ It is not of much consequence, but as a matter of fact Burckhardt identified Jebel Serbal, a mountain thirty miles to the westward of Jebel Mûsa, with Sinai, an opinion shared by Lepsius and others. Captain Burton thus pithily sums up the respective claims of the various mountains in the peninsula to be "the true Sinai:—" "It is evident that Jebel Serbal dates only from the early days of Coptic Christianity; that Jebel Mûsa, its Greek rival, rose after the visions of Helena in the fourth century; whilst the building of the convent by Justinian belongs to A.D. 527. Ras Sufaveh, its rival to the north, is an affair of yesterday, and may be called the invention of Robinson; and Jebel Katerina, to the south, is the property of Rûppel." ("Midian Revisited," i, 237.) I have the best reason for knowing that Professor Palmer had accepted my views of the Route of the Exodus before he left England in 1882, and that he would probably have taken the first opportunity of avowing his change of opinion had he returned.

Akabah. I cannot be expected to summarise the contents of an octavo volume of nearly five hundred pages.

Professor Hull urges the impossibility of the thousands of Israel, with their flocks and herds, finding a supply of water at Nakhil, and the improbability of their making the journey from Suez to that place in three or four days. Unfortunately for his inference he proves too much. There is no place in the desert of the Tih, where they are said to have wandered for forty years, where water could have been obtained for such a multitude. It is generally supposed that the released captives, including old men, women, and children, numbered between two and three millions. If such was the case, and they had formed a column ten abreast, allowing only a yard depth for each rank, the caravan, exclusive of flocks and herds, would have reached from Suez to Akabah. I believe that the released captives were not in such excessive numbers as to preclude the possibility of their doing what is annually done by the Egyptian Haj, namely, crossing the desert to Akabah in about a week's time. Professor Hull says that from his personal experience of the difficulties of the mountain pass leading from the Arabah to Petra, he can safely affirm it would have been impracticable for the Children of Israel on their way to the Promised Land. This objection, like the preceding one, rests, I presume, on their supposed numbers. But let us glance at certain admitted historical facts. At some period of their journeyings the Israelites were beyond all question in the middle portion of the Wâdy Arabah. They desired to pass through Edom, which throughout is a very mountainous region, in order to reach Moab and the Trans-Jordanic country to the north. The Edomites refused permission, and "came out against Israel with much people and a strong hand" (Numb. xx, 20, 21), "wherefore Israel turned away from him." But where did Israel turn? It is conceded on all hands that on quitting Mount Hor, the Israelites descended the Arabah "by the way of the Red Sea," by which is here meant beyond all dispute the Gulf of Akabah (Deut. ii), and, passing Ezion Gaber and Elath, "compassed Mount Seir," that is, Edom, and following the east "coast" of that country pursued a northerly direction to Moab. About this portion of the route followed by the Israelites there never has been any question. But the reason they took this circuitous course was because they were not enabled to pass through Edom, and this inability depended not upon the physical characteristics of the country, but on the hostile attitude of the Edomites. But the difficulties of this particular pass by which Professor Hull proceeded from the Arabah to Petra would have been equalled if not exceeded by those of the other "wâdies" debouching from the Idumean range into the Arabah. So that we must either reject as unhistorical the statement that the Israelites would have crossed Edom from the Arabah if they had been permitted to do so, or admit that those physical difficulties on which Professor Hull lays such stress would not have been insuperable.

Professor Hull says it is not difficult to explain St. Paul's placing

Mount Sinai in Arabia. "The term was doubtless used by the Apostle in a general sense to include the vast region of desert land lying to the south and east of Judæa." But this is begging the whole question. There is not a tittle of evidence that St. Paul ever thought or heard of the so-called Sinaitic peninsula. I affirm without fear of contradiction that no human being ever dreamt of extending Arabia west of the Arabah until Ptolemy, at the close of the second century, introduced what he called Arabia Petræa, an innovation which was never sanctioned or recognised by the Arabian geographers. It is not unreasonable to conclude that St. Paul, being a highly educated man, knew what he was writing about, and when he referred to Arabia meant the country which was so designated by his contemporaries. For the explanation of the curious fact that the association of Mount Hor with Aaron's death should have apparently survived those arising from the tradition of the law I must refer to the "Hebrew Migration." It should not be forgotten that, wherever situated, Mount Sinai fell into oblivion among the Jews. No pilgrimages were made to it, and its exact site was certainly unknown to Josephus, or he would have fixed its locality by its proximity to some well-known place.

The "confusion" which Professor Hull attributes to me respecting the wilderness of Sin and Zin supplies an opportunity, of which I may be permitted to avail myself, not only of satisfying the Professor that he has done me an injustice, but of bringing under the notice of the readers of the *Quarterly Statement* some interesting facts respecting Sin and Zin which will, I believe, lead them to share my opinion that they were identical.

The wilderness of Sin was between Elim and Sinai (Exod. xvi, 1), and in Exodus xvii we have mention made of two very remarkable incidents which must have happened in, or in the immediate neighbourhood of, that wilderness, namely, the smiting of the rock with the production of water, and the battle with the Amalekites. Let us briefly consider all that is told us respecting these two incidents.

According to the account in Exodus xvii, the Israelites murmured through want of water, and obtained the miraculous supply from the rock in Horeb, the place bearing the name "Massah and Meribah, because of the chiding of the children of Israel, and because they tempted the Lord." We have, however, another account of this miracle in Numbers xx. It is there stated that "then came the children of Israel, even the whole congregation, into the desert of Zin in the first month, and the people abode in Kadesh, and Miriam died there." Whilst in this place "there was no water for the congregation." The people rebelled, and Moses, by command of the Lord, smote the rock, and the water came forth abundantly. "This is the water of Meribah, because the children of Israel strove with the Lord, and He was sanctified in them."

Now no one will seriously contend that there were two distinct miracles, performed under precisely similar circumstances, at an interval of nearly forty years, in places widely apart, and that the water produced bore in both cases the name "Meribah." But all doubt on the matter is removed

by referring to the language which was addressed by the discontented Israelites to their leaders. They demanded why they had been brought into the wilderness with their cattle to die, and asked "wherefore have ye made us to come out of Egypt to bring us into this evil place? it is no place of seed, or of figs, or of vines, or of pomegranates, neither is there any water to drink." This language was appropriate if used by people who had only recently quitted Egypt, and who "in the first month" (Numb. xx, 1) after their departure had arrived in a region where they were forced to submit to great privations; but it is hopelessly unintelligible as coming from people who had been thirty-nine years straying about in the wilderness, the generation which had quitted Egypt having by that time almost entirely died out.

The second incident recorded in Exodus xvii is the battle with the Amalekites, and if the accepted view that the wilderness of Sin was in the south-west region of the Sinaitic peninsula, this must have been fought close to the Gulf of Suez. The negative and the positive evidence against such an assumption are, however, overwhelming. The inscriptions on the steles at Sarbut el Khadem, which is close to the route which must have been followed by the Israelites if they entered the peninsula, prove that the mines in that neighbourhood were worked by the Egyptians for centuries before the Exodus took place, and for long afterwards.¹ If, however, this particular region was occupied by Egyptians when Moses led the captives away, it is in the highest degree improbable that he would have entered a place occupied by his enemies, and still more so that the circumstance of having done so should have been unnoticed in the Biblical records. But by what possible train of reasoning can the presence there of the Amalekites be accounted for? Who were the Amalekites? Amalek was the grandson of Esau, and one of the Dukes of Edom (Gen. xxxvi, 12). The Edomites and the Amalekites were frequently treated as identical. It was the Amalekites who barred the progress of the Israelites when on their way to the Land of Promise (Numb. xiii, 29), within a few months after this supposed battle in sight of the Gulf of Suez. But we have a specific account of a battle between the Israelites and the Amalekites, in which, however, the latter were victorious, and the scene of the engagement was in the wilderness of Zin near Kadesh (Numb. xiv), the same incident being referred to in Deuteronomy i, and it was this reverse which led to the return of the Israelites down the Arabah to Elath, and their subsequent journey by the east of Edom to Moab.

It is therefore simply inconceivable that the Amalekites, who beyond all question were Edomites, should have been found at the time of the Exodus in Egyptian territory, and then actually occupied by the Egyptians, and that they should, without any imaginable reason, have given battle there to the Israelites. In the battle recorded in Exodus xvii the Israelites were victorious, while in that mentioned in Numbers xiv and Deut. i they were vanquished. There can be no reason to doubt that these

¹ "Heb. Mig," p. 174.

engagements were consequent on the efforts made by the Israelites to pass through Edom, and were fought in the same region

It is worth while to ascertain what opinion a Jew living at the commencement of the Christian era entertained respecting the locality where the first battle with the Amalekites was fought. Josephus, in his paraphrase of this portion of the Biblical narrative, states that a coalition was formed against the Hebrews, and that "those who induced the rest to do so were such as inhabited Gobolitis and Petra: they were called Amalekites" ("Ant.," iii, 2). It is perfectly clear, therefore, that, in the opinion of the great Jewish historian, this battle was fought in Edom, and that the Sinaitic peninsula was wholly absent from his mind. He certainly had no opportunity of consulting those great modern authorities which place Mount Sinai between the Gulfs of Suez and Akabah.

Whilst the Israelites were still between Elim and Sinai they met with the Kenites and concluded a league with them (Exod. xviii). But the same insuperable objection to the transportation of the Amalekites to the Sinaitic peninsula, applies to placing the Kenites in the same region. This latter people, though distinct from the Amalekites, occupied with them the country on the east of the Arabah. They are positively referred to by Balaam (Numb. xxiv, 7); they aided Judah in the invasion of Southern Palestine (Judg. i, 16); and on the occasion of Saul's campaign against the Amalekites (1 Sam. xv), which beyond all question was fought in the region to the south of the Dead Sea, the Kenites at the request of the king separated themselves from the Amalekites. What imaginable reason could Jethro, who was the Sheikh of the tribe, have had for taking his people for a flying visit to the so-called Sinaitic mountains?

It will doubtless be urged that my identification of the wilderness of Sin with that of Zin is irreconcilable with the "Itinerary" (Numb. xxxiii), in which they are apparently distinguished from each other, and placed very far apart. My reply is, that the result of a critical collation of the Itinerary with the narrative of the principal events which marked the journeying of the Israelites from Egypt to the Promised Land shows that the former is a production of a more recent date, and was probably compiled either during or immediately subsequent to the Babylonian captivity. It is observable that the Itinerary tells us no new facts, though it furnishes names of places of which there is no mention elsewhere. It would be impossible for me to give here an exhaustive analysis in support of the inference of the comparatively late date of this composition, but one or two points may be noticed pertinent to the present matter. In the Itinerary the Israelites are said to have proceeded from Kibroth-hattaavah (which we know was in the wilderness of Sin, Exod. xvi) to Hazereth, and thence to a number of places of which we have no mention elsewhere. But we learn from another source that on removing from Hazereth the Israelites "pitched in the wilderness of Paran" (Numb. xii, 16), which is identified with that of Zin, from which the spies were sent forth. It is clear, therefore, that if according to the Itinerary the Israelites proceeded from Kibroth-hattaavah, in the wilderness of Sin, to Hazereth which was

the next station to the wilderness of Paran, or of Zin, the deserts of Sin and Zin must have been contiguous, or were identical if the journey from Hazeroth to Zin marks the return to Elath at the head of the Gulf of Akabah. As, however, the spies "searched the land from the wilderness of Zin unto Rehol," the wilderness of Sin, which was close by, if not identical with, that of Zin, and which lay between Elim and Sinai, could not have been in the Sinaitic peninsula. I may add that one of the curious results of taking the statements in the Itinerary in their received sense is that, as the Israelites did not reach the wilderness of Zin until immediately before the death of Aaron, the spies who set out from thence could not have undertaken their mission until nearly forty years after the departure from Egypt. But the forty years' delay in the wilderness was declared to have been the punishment for the disobedience of the Israelites on the return of the spies (Numb. xiv).

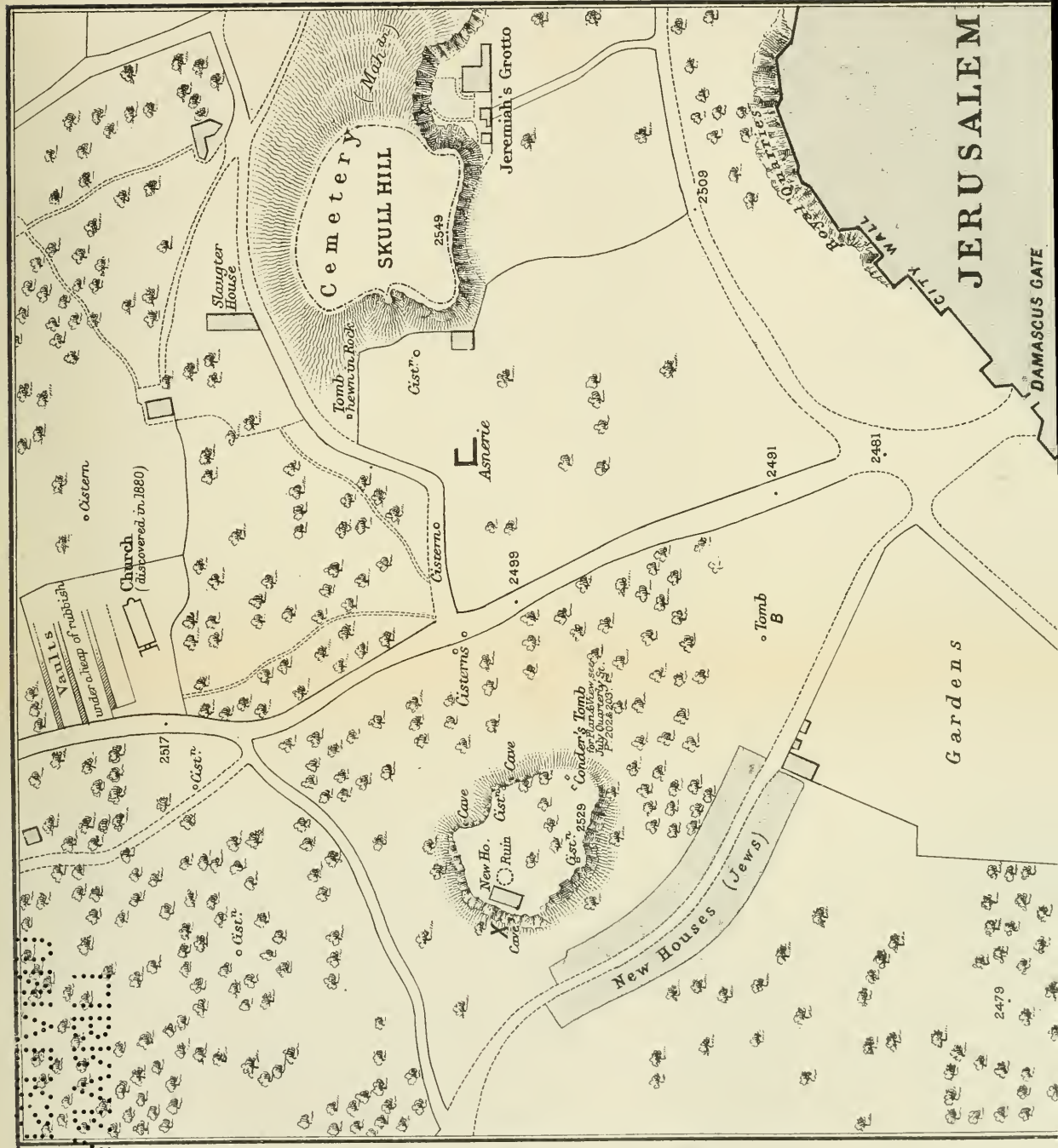
There are many who regard the Pentateuch as a continuous narrative from the beginning of Genesis to the end of Deuteronomy, and who make it an article of faith to ascribe the authorship to Moses. I cannot understand why they do so, or why they consider it as incompatible with inspiration to admit that it may be the work of many hands. The Gospels do not speak with diminished authority because they are the productions of four different evangelists. On the contrary, the confirmation they respectively afford of the facts they record furnishes more conclusive proof of the sacred narrative than if the story had been told by only a single witness. And so it is with the various distinct records which have been welded together in the Pentateuch. By their substantial agreement in the main, no less than by their differences in details, in forms of expression, and in dialect, they give us, by what are termed "undesigned coincidences," the most absolute proof of the historical accuracy of this great movement of liberated Hebrews from Egypt to Palestine which was destined to exercise so great an influence on the human race. Carefully preserved by the different nations of which Trans-Jordanic and Cis-Jordanic Israel and Judah were composed, they were subsequently collected and presented in the form in which we now see them. The Mount of God was to some known as Horeb, to others as Sinai, and probably to all as the *Har-ka-har*, the Mount of Mounts. The Elim of the records of one section is the Elath of another, as the Hazarim of the one is the Hazeroth of the other, and in like manner the wilderness which by some was kept in their memories as that of Sin, was referred to by others as that of Zin.¹ These are, however, differences which, if viewed in a proper light, only serve the more conclusively to convince us of the authenticity and the antiquity of these precious records.

J. BAKER GREENE.

¹ We have an illustration of the difference in the use of sibilants by the Cis-Jordanic and Trans-Jordanic sections of Israel in Judges xii, 6. The Sibboleth of the former was the Shibboleth of the latter.



PLAN SHEWING POSITION OF THE TWO MOUNDS N. OF DAMASCUS GATE.



JERUSALEM

DAMASCUS GATE

Gardens

New Houses (Jews)

Cemetery
SKULL HILL

Church
(discovered in 1880)

Asnerie

Jeremiah's Grotto

Tomb B

New Ho.
Ruin

Cave

Condor's Tomb
1864
by Quarry, St.
P. 202 & 203

Cisterns

Slaughter House

Tomb of a Jew in a Rock

Cistern

Cistern

Cistern

Valley
under a heap of rubbish

Cistern

Cistern

2479

2509

2491

2481

2517

2549

THE PALESTINE EXPLORATION FUND

NOTES AND NEWS.

It has been found necessary to postpone the first instalment of Mr. J. Chichester Hart's papers on the "Natural History in the Desert" until July. The work will be completed in about four instalments. Each number will be illustrated by a large coloured plate.

The two communications from the late General Gordon published in this number are merely, as will be seen, notes sent to the Secretary, and placed aside until they could be revised by the writer. Of late years he took a deep interest in the proceedings of the Society, though his own conclusions, as may be gathered from the papers here published, were based on other than purely scientific grounds. The theory put forward in the note on Golgotha has been further developed in Gordon's "Reflections in Palestine."

The Committee have to thank Mr. Laurence Oliphant for two important communications which will be found on pages 82 and 94. The other papers promised to the Society by a recent traveller have not yet reached us, but we shall almost certainly be able to produce them in July.

The following is the Balance Sheet for the year 1884:—

BALANCE SHEET.

	£	s.	d.	<i>December 31st, 1884.</i>	£	s.	d.
Subscriptions, Donations, and Lecture returns. . .	3,709	4	6	Exploration	1,851	13	7
Loan	850	0	0	Maps and Memoirs	2,592	13	7
Maps and Memoirs	862	1	0	Salaries	373	15	6
Books	224	3	5	Rent	121	0	0
Photographs	9	5	3	Printers	504	3	1
Balance (<i>January 1st,</i> <i>1884</i>)	172	5	8	Office expenses	48	12	5
				Photographs, cost of	11	12	8
				Postage and Parcels	74	5	10
				Balance	249	3	2
	<u>£5,826</u>	<u>19</u>	<u>10</u>		<u>£5,826</u>	<u>19</u>	<u>10</u>

Examined and found correct.

(Signed) WALTER MORRISON.

It will be seen that the expenditure includes the sum of £1,851 13s. 7d. due to exploration. This makes the total cost of the Geological Expedition about £2,300, part of which was included in the balance sheet of the preceding year. The sum of £2,592 13s. 7d. was expended on "Maps and Memoirs." Against this is the sum of £862 1s. received on that account, and the valuable property of the Great Map and the reduced modern map in the possession of the Society, besides the copies which remain of the "Survey of Western Palestine." Printing takes the large sum of £500, which includes the postage of the *Quarterly Statements* to subscribers. Management is an item which varies little from year to year. Including parcels and postage it amounted last year to £629 6s. 5d. The proportional table of expenditure is as follows:—

Exploration, nearly	..	..	33·21	per cent.
Maps and Memoirs	..	..	46·49	„
Printing .. .. .	..	..	9·04	„
Management .. .. .	..	..	11·26	„
			<hr/>	
			100·00	

A considerable sum, about £750, still remains (March 25th) to be paid on account of the Maps and Memoirs, and the Society is further indebted in the amount of a loan of £850, the whole of which it is hoped to pay off before the end of the year.

The Palestine Pilgrims' Text Society have issued their report for the last year, in which it appears that they have now seventy-one members, and have issued two pilgrims' texts, viz., those of Antoninus Martyr and Sancta Paula. That of the Bordeaux Pilgrim is already translated and printed, and only awaits Sir Charles Wilson's notes. The Society has received permission of Count Riant to use the publications of the *Société de l'Orient Latin*. Four more publications may be expected in the course of the year.

The long-promised list of Old and New Testament names, with identifications, references, and notes, is nearly completed. It has been compiled by Mr. George Armstrong from the Bible Dictionary, the lists in Clarke's Bible Atlas, and Captain Conder's lists, and is especially prepared with a view to being a guide to the forthcoming maps covering the east as well as the west of the Jordan.

Professor Hull's book, called "Mount Seir," was issued on January 14th. Subscribers are allowed a reduction on the price, and can obtain it in the usual way, by application to the office, for 7s. 6d. post free. It contains, besides a popular account of the Expedition, which occupies twenty chapters out of twenty-two, a summary of Scientific Results, and a discussion on some of the more important of the sites visited. There is also appended a Geological Map, and an Appendix containing Major Kitchener's Report, and a paper by Mr. George Armstrong on the Wady Arabah. There are twenty-three illustrations from drawings and photographs made by the travellers during their work.

Those who are interested in the welfare of the modern inhabitants of Palestine, will be pleased to hear that the English Langue of the venerable Order of St. John has now established an Ophthalmic Hospital just outside

Jerusalem, where a duly qualified English surgeon, specially skilled in the treatment of the eye, is now resident. The local management is vested in a committee of British residents, Associates of the Order of St. John, under the presidency of the Consul, Mr. Noel Temple Moore, C.M.E. The English offices are at the Chancery, St. John's Gate, Clerkenwell.

The income of the Society, from September 26th to December 12th, 1884, inclusive, was—from subscriptions and donations £556 5s. 4d., from all sources £703 16s. 4d. The expenditure during the same period was £728 6s. 1d. On March 12th the balance in the Banks was £205 9s. 6d.

It is suggested to subscribers that the safest and most convenient manner of paying subscriptions is through a Bank. Many subscribers have adopted this method, which removes the danger of loss or miscarriage, and renders unnecessary the acknowledgment by official receipt and letter.

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.

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) The Rev. Henry Geary, Vicar of St. Thomas's, Portman Square. His lectures are on the following subjects :—
The Survey of Western Palestine, as illustrating Bible History.
Palestine East of the Jordan.
The Jerusalem Excavations.
A Restoration of Ancient Jerusalem. Illustrated by original photographs shown as "dissolving views."
- (2) 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.
- (3) The Rev. James Neil, formerly Incumbent of Christ Church, Jerusalem.

EDEN AND GOLGOTHA.

By GENERAL CHARLES GORDON, R.E.

I.

POSITION OF EDEN.

I HAVE formed a theory with respect to the position of Eden. I believe the Greek of the text respecting the parting of the main river of Eden into four other rivers can be read that four rivers united to form one great river.

In Genesis we have one river Euphrates given us : on it was Babylon. We have the Hiddekel, on which was Nineveh (*vide* Daniel), and which is the Tigris ; these two unite and come down the Persian Gulf. We need to identify the Pison and Gihon. The Pison is the Nile, its meaning is "overflowing," and it flowed into the Red Sea before the Flood ; it is connected with Egypt, which, like Nineveh and Babylon, oppressed Israel. The Blue Nile encompasses Havilah, where there is gold. Havilah was a grandson of Shem, his brothers were Ophir and Sheba, also connected with gold, and with Abyssinia ; they went forth by Mesha (? Mecca), they crossed the sea, for Solomon got his gold from Ophir by sea. Where is the Gihon ? There is the Brook Gihon south of Jerusalem, the Valley of Hinnom, where idolatrous practices went on ; it therefore is also a spot whence Israel was oppressed. On this brook is Jerusalem ; its flow, when it has any, is to the Dead Sea, its ravine is very deep, and could have been the bed of a river before the Flood. There is the difficulty of finding a ravine from the Dead Sea descending to the Gulf of Akabah through Wady Arabah, the Valley of Salt. By report, the watershed or flow of the Valley of Salt is towards the Dead Sea, and not towards the Gulf of Akabah. Is there any other ravine from the Dead Sea to the Red Sea by which the Gihon could meet the Nile in that Red Sea ?

Allowing for the moment that the Pison is the Nile, and Gihon is the Brook Gihon, that they flowed into the Red Sea, and through the Gate of the World, Bab el Mandeb, we find by taking off the soundings of the Indian Ocean, that there are two clefts of 1,000 fathoms deep, joining near Socotra, and then going south, gradually deepening till they reach 2,600 fathoms, some 100 or 200 miles west of Seychelles.

Seychelles is granitic, all other isles are volcanic.

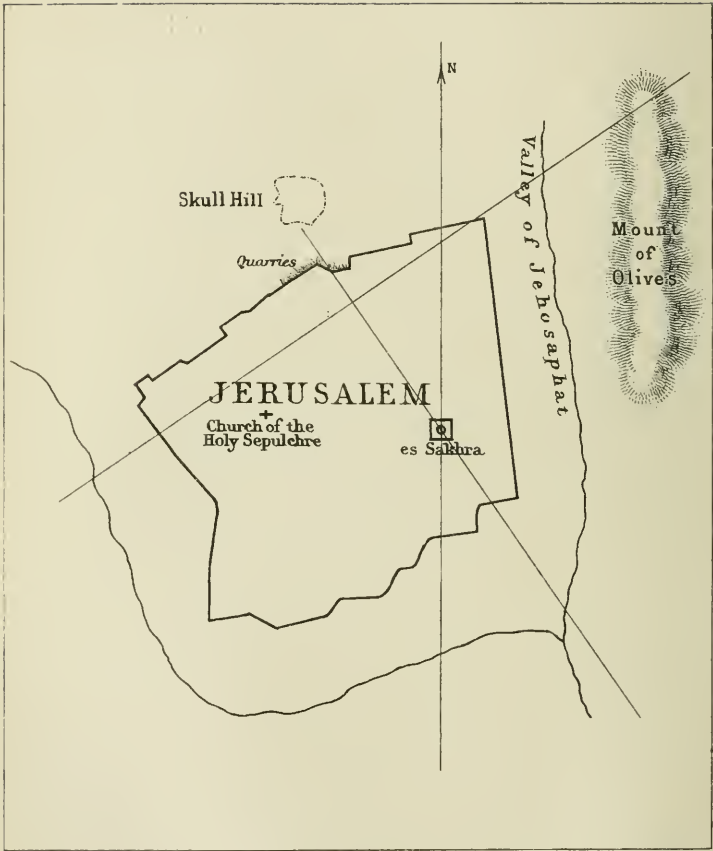
Aden, query Eden.

Mussulman tradition places Eden at Ceylon.

I do not go into the question whether or not the Tree of Knowledge is not the *Lodoicea seychellarium*, and the Tree of Life the *Artocarpus incisa*, though for myself I do not doubt it.

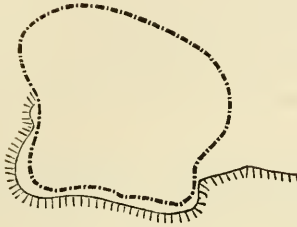
I was two years in the neighbourhood of the sources of the Euphrates, Arax, Phasis, &c. ; no flood could connect these rivers ;—floods do not alter the features of a country with respect to high ranges.





II.

GOLGOTHA.



1. I last wrote to you giving the four rivers of Eden, one of which was the Gihon on which Jerusalem was. I do not know if I then mentioned it was the Tyropœon Valley, which conclusion I came to ere I came to Palestine.

2. *Golgotha.* The morning after my arrival at Jerusalem I went to the Skull Hill, and felt convinced that it must be north of the Altar. Leviticus i, 11, says that the victims are to be slain on the side of the Altar northwards (literally to be slain slantwise or askew on the north of the Altar); if a particular direction was given by God about where the types were to be slain, it is a sure deduction that the prototype would be slain in some position as to the Altar: this the Skull Hill fulfils. With reference to the word "askew" or "aslant," we have the verse "all the day long have I stretched out my arms to a rebellious people" (Isa. lxxv, 2). Draw a line from the centre of the Sakhra to the centre of the Skull; draw a perpendicular to this line, at centre of skull; a cross on that line will embrace all the city and Mount of Olives, and be askew to the Altar.

The Latin Holy Sepulchre is west of the Altar, and therefore, unless the types are wrong, it should never have been taken as the site.

I pass by the fact of the tradition of Beth hat Selzileh, of the precipice, of the tradition of its being the place Jeremiah wrote the Lamentations (which describes the scenes enacted there nearly 600 years afterwards, "Is it nothing to thee, all ye that pass by" (Lam. i, 12), &c., or the particularly suitable entourage of the place, for these things may be fanciful. I also will not hold to the fact that in the twelfth century St. Stephen's Church was at the Damascus Gate, outside, and St. Stephen was stoned nine months after our Lord's Crucifixion, and that it is unlikely that the Jews would have had two places of execution in nine months.

2. And I will come to the more fanciful view, that the mention of the place of Skull in each four gospels is a call to attention. Wherever a mention of any particular is made frequently, we may rely there is something in it; if the skull is mentioned four times, one naturally looks

for the body, and if you take Warren's or others' contours with the earth or rubbish removed showing the natural state of the land, you cannot help seeing that there is a body, that Schick's conduit is the œsophagus, that the quarries are the chest, and if you are venturesome you will carry out the analogy further. You find also the verse (Ps. xlviii), "Zion, on the sides of the north;" the word "pleura," same as they pierced His *pleura*, and there came blood and water, God took a *pleuron* from the side of Adam, and made woman. Now the Church of Christ is made up of, or came from, His *pleura*, the stones of the Temple came from the quarries, from chest of figure, and so on; so that fixed the figure of body to the skull.

3. Then by Josephus's account, as I read it, the Tower Psephinus was on the rocky point opposite the skull. Titus had his headquarters at the slaughter-house, 2 furlongs from the wall, viz., 300 to 400 yards, near the corner (note that corner, for it is alluded to in the 400 cubits broken down by Jehoshaphat, king of Israel), and my placing of the walls and reading of Josephus would make his point of attack just where Schick's conduit enters the city east of Damascus Gate, or at the cisterns to east, where I think Agrippa's wall began. Mystically, the Roman Eagle should have gone at the Lamb of Zion by the throat, viz., Schick's conduit. However, I will not continue this, for if you please you can get the papers and plans from my brother. I would do them for you if you wish; I did them for Chaplin long ago. The camp of the Assyrians is the place where Nebuchadnezzar camped a month *after the fall of the city*, when he came to burn the Temple; it is this day which the Jews keep as the fast, not the day of taking the city.

3. Naturally, after discerning *the figure*, the question arose of Mount Zion, and of the boundaries; by studying the latter with the Septuagint there seemed no reason *by Scripture* to consider Ain Haud the *Enshemesh*. Septuagint has Beth Samos, and near Jebel el Tell is Kh. el Sama. Again, Gihon (being the Tyropœon) is to gush forth, and as the skull is the Altar, it is thence the two rivers, one to the Dead Sea, the other to the Mediterranean, are to come. At last Moses's blessing to Benjamin came in, "he shall rest between His arms," not his shoulders; so thus I brought the boundary up Gihon to Kh. el Sama.

4. Other reasons came to back this view,—

Nehemiah mentions town of Furnaces.

He also mentions throne of Governor.

Josephus mentions women's towers.

The word "furnace" is derived from *fornex*, thence the connection. The tent Cozbi and Zimri went into was a *furnace*. Josiah broke down the high places built by Manasseh near the Gate of Governor, which were, no doubt, these same *furnaces*. Herodias lived at Jaffa Gate, and even to this day there are *furnaces* there I should think, for the troops are there.

This led to looking up the history of the Levites, &c., in Judges, of Gibeon, of mouldy bread, Nob, Gibeah of Saul, &c., and the result is as

SKETCH MAP
OF
PART OF THE JAULAN DISTRICT
E. OF SEA OF GALILEE.



I have just noted, according to my ideas ; but it is a matter of perfect indifference to us all, for these sites are in each of us.

During these studies, the potters' field comes up, and also the pool where Abner and Joab met, the field of the treacherous ones, and my idea is that round about the Serpent's Pool is the Tophet, Aceldama, Potters' field ; that down the Valley of Hinnom is the Perez of David.

I will not bore you much longer than to say that, by my ideas,

Kuryet el Eneb is	{	Kirjath-jearim
		Ramathaim-Zophim
		Armathaim
		Ramah, one of them
		Place of Saul's anointing
		Emmaus

and that Samuel was sacrificing to the Ark when Saul came to him.

Schick has been writing on these subjects for years, and he plaintively says, "but how *am I* possibly to advance other views now?" In reality, in writing on these sites, no man ought to draw any cheques on his imagination ; he ought to keep to the simple fact, and not prophesy or fill up gaps. If one wrote under cognomen α , and altered under cognomen β it would be all right ; as it is now, a man under his own name cannot go right about face all at once. The Ark was built at Abu Shusheh by Noah, and floated up to Baris ; only in A.D. 776 was it placed on Ararat, which is "*holy land*." God said, "Go to a mountain I will shew thee," a mountain already consecrated by the resting place of the Ark. Noah offered on the rock his sacrifice. Look at Genesis and you will see (Gen. xi, 1), after the Flood they journeyed *eastward* to Shinar ; you might go eastward from either Ararat or El Judi near Jesereb ebn Omar for ever before you reached Shinar. I will not bore you any longer, except to say that I think there are not many places far apart of interest in the Scripture way, and that these few are—

1. Nazareth and region of Tiberias.
2. Plain of Esdraelon.
3. Shechem.
4. Bethel.
5. Jerusalem.
6. Bethlehem
7. Hebron.
8. Kuryet el Eneb, Philistia.
9. Jericho, Gilgal, Ammon and Moab, Dead Sea, Valley of Arabah.

C. G.

EXPLORATIONS NORTH-EAST OF LAKE TIBERIAS,
AND IN JAULAN.

BY LAURENCE OLIPHANT.

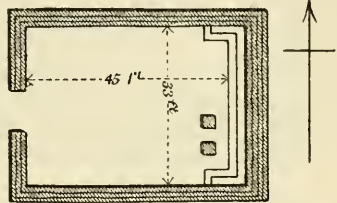
HAIFA, 30th January.

THE examination of the country to the east of the Jordan is, under existing conditions, attended with so much difficulty that I was glad to seize an opportunity which offered a few weeks ago to pay a visit to the northern and eastern shores of the Lake of Tiberias, and penetrate a short distance into Jaulan, with the view of visiting certain localities, where I had reason to believe that some ruins existed which had hitherto escaped observation. I was unfortunately prevented by circumstances from devoting to them the time and labour which they deserved, and was compelled, in more than one instance, to hurry past places where it would have been interesting to linger, with the mental reservation that I would endeavour to return, at some future time, for a more detailed examination.

I commenced my investigations immediately on crossing the Jordan, at the point of its debouchure into the lake. Here, at a distance of half a mile east from its mouth, are situated the ruins of El Araj, which consists of foundations of old walls, and blocks of basaltic stone, cut and uncut, which have been used for building purposes. The ruins cover a limited area. A little over a mile north of El Araj there rises from the fertile plain of El Batihah a mound strewn with blocks of stone, and remains which cover a considerable area. This is Et Tell, a spot which it has been sought by more than one traveller to identify with Bethsaida Julias. I will not here enter into the much vexed question of whether there were two Bethsaidas, as insisted upon by Reland and many others, or only one; or whether "the desert place apart," upon which was performed the miracle of the five loaves and the two fishes, was on a desolate spur of the range immediately to the north of this Tell, which would necessitate two Bethsaidas, or whether it was not, as Dr. Thomson supposes, at the north-east corner of the Lake on the shoulder overhanging Mesadiyeh, upon which assumption he constructs a theory which would involve only one; or whether, as suggested by Captain Conder, the Sinaitic Manuscript is right in omitting the definition (Luke ix, 10) of the desert where the 5,000 were fed, as "belonging to the city called Bethsaida," in which case the necessity for a second city of that name ceases to exist, and the miracle may have been performed in the plain at the south-east of the Lake. It is possible that excavations at Et Tell might enable us to decide positively whether it is the site of Bethsaida Julias, which we know was in this vicinity. A small native village has been built among the ruins, which do not at present afford to the passing traveller any indications of former magnificence; but I was unable at the time to examine them, as I was desirous of pushing on without delay to a spot where I was informed by a Bedouin sheikh who accompanied me from Araj that the fellahin, in the course of getting out stone for constructing a small village last summer, had laid

bare some stones on which were carvings and pictorial representations. After following the course of the Jordan, on its east bank, for another mile, we reached a spot on the barren slope of a hill a few hundred yards from the river, where some native huts had been recently built, and where large cut stones, carved cornices, capitals, and fragments of columns were strewn in profusion, while from the midst of them rose the walls of what appears to have been a synagogue; owing, however, to a later superstructure having evidently been reared upon the original foundation, I feel somewhat diffident in pronouncing upon this point decidedly. I will, however, state my reasons for coming to this conclusion, while the accompany-

ing sketches of the ornamentation I found here may enable others more competent to form an opinion than myself to judge of their origin. The dimensions and ground plan of the building with the columns still *in situ* closely resembled those of the small synagogue at Kefr B'irim. The length was 45 feet, the breadth 33



feet. The building had an east and west orientation, and the door was in the centre of the wall on the western side. This does not, so far as I know, occur in the case of any synagogue hitherto found, but it was doubtless due to the necessities of the case, as the site for the building was excavated from the hill-side, the floor at the east end being about 9 feet below the surface of the earth at the back of the wall, while the slope of the hill would have made it inconvenient to place the door, as usual, on the south side. A more serious objection to this being a synagogue lies in the fact that the stones were set in mortar, which does not occur in the case of other synagogues; but there were indications to show that these walls had been erected upon older foundations. They were now standing to a height of 8 feet. There were no door-posts or lintel to the entrance. The floor, which was thickly strewn with building stones, fragments of columns, and of carved cornices and capitals, was below the level of the ground, and was reached by a descent of two steps, while opposite, running along the whole length of the eastern side, were two benches or steps, the face of the upper one decorated with a thin scroll of ornamental tracery; these may have served for seats. The depressed floor and

stone benches are both features which occur in the synagogue at Irbid. Upon the upper bench stood the fragments of two columns about 4 feet in

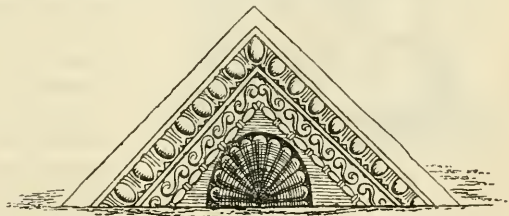


FIG. 4.

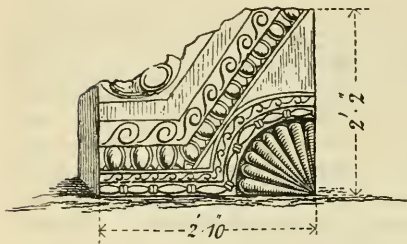


FIG. 5.

the floor. These blocks averaged 2 feet 6 inches by 18 inches. The capitals of the columns were in Corinthian style, 2 feet 3 inches in height, and consisted of a double row of leaves, which differed somewhat from the usual acanthus, apparently of a later or more composite order. The ornamentation and character of the niches (see figs. 4 and 5) so closely resembled those found at the synagogue at Kerazeh and elsewhere, being of the same florid and somewhat debased type, that they seemed to me to set at rest the question of the original character of this building, though it may subsequently have been diverted to other uses. Time did not allow me to do more than make rough drawings of the architecture, but I trust they are

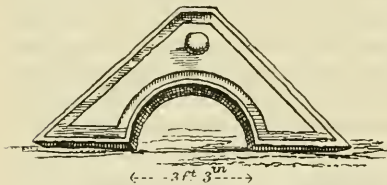


FIG. 1.

two small semi-attached fluted columns with Doric capitals, almost exactly similar to the one found at Irbid. Also one cut into a round arch, which

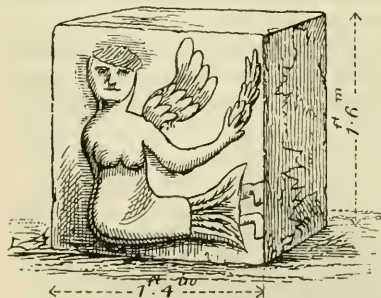


FIG. 2.

height, and 1 foot 2 inches in diameter. They were evidently not *in situ*, being without pedestals, and I can only account for their being in their present position by the supposition that they had been placed there recently. The other two appeared to be *in situ*, but their bases were much hidden by the blocks of stone heaped on

the floor. These blocks averaged 2 feet 6 inches by 18 inches. The capitals of the columns were in Corinthian style, 2 feet 3 inches in height, and consisted of a double row of leaves, which differed somewhat from the usual acanthus, apparently of a later or more composite order. The ornamentation and character of the niches (see figs. 4 and 5) so closely resembled those found at the synagogue at Kerazeh and elsewhere, being of the same florid and somewhat debased type, that they seemed to me to set at rest the question of the original character of this building, though it may subsequently have been diverted to other uses. Time did not allow me to do more than make rough drawings of the architecture, but I trust they are

sufficient to enable a comparison to be made between them and the engravings in the "Memoirs." If I am right in my conjecture, this synagogue would probably date from about the second century of the Christian era. I also found a stone which consisted of the upper portion of

(fig. 3). Other specimens of the ornamentation are seen in fig. 7. I have

not been able to form any conjecture which should identify this most interesting spot with any Biblical or historical locality. Its modern name is Ed-Dikkih, meaning platform, a name not inappropriate to its position. It is possible that during the next dry season the natives may continue their excavations, as stones are needed. I have urgently impressed upon them not to deface or destroy any remains that may be unearthed; but they unfortunately watched my proceedings with an uneasiness and suspicion which I am afraid a gratuity failed altogether to dispel.

Wenow pursued an almost easterly direction along the lower flank of the range which rose abruptly on our left, and in a mile and a half reached a spring and the remains of a small ruin called Umm el Araj. There seemed, however, to have been only two or three houses here, and finding nothing of interest we pushed on, and reached in half a mile more the ruins of Elahseniyeh. Here again I was fortunate in coming upon remains which have been exposed to view for the first time by the natives this year.

The portion excavated was not so extensive, nor did it reveal so much that was interesting, as Ed-Dikkih, but the area covered with old ruin was greater, and it was in ancient times probably the centre of a larger population. The character of the remains now exposed to view is very difficult to determine, owing to the confusion which has been created by their representing two periods, the building of the later having apparently been placed diagonally on the one that preceded it. They were situated upon a terrace of solid masonry about 5 feet high, now strewn with building stones. The upper or more recent chamber measured 20 feet across one way, but there was nothing to determine its length, no walls having been left standing; the dimension in one direction, however, could be gathered from the cement floor which still remained, a considerable portion of which was visible at a depth of 18 inches below the surface

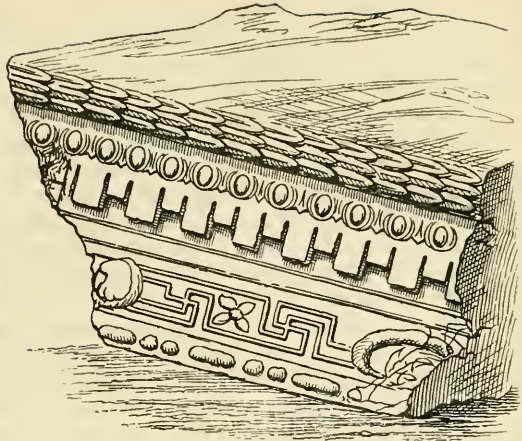


FIG. 3.

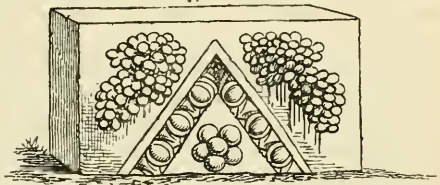


FIG. 7.

of the earth. There appeared, 18 inches below it, a floor of solid stone, and this was evidently a portion of a building of some size, to judge from the blocks of stone which apparently were the foundations for the pedestals of columns. These consisted of five cubes of stone, each 2 feet every way, and 6 feet apart. As the stone floor on which they stood was 3 feet below the surface of the ground, the upper surface was 1 foot below it, and there may therefore have been more in continuation of the line in which they were, which the excavations of the villagers had not revealed. They ran north and south, and diagonally to the upper flooring of cement. There were some fragments of columns, pedestals, and carved cornices and capitals lying among the ruins of the vicinity, but they were much broken, and not sufficiently noteworthy to stop to sketch.

I had, unfortunately, no time to carry out my original intention of following up the Wâdy Ed Dâlieh, two miles higher to Elyahudiyeh, where ruins are reported to exist, but I was assured by the sheikh that they contained no remains such as I had seen at Ed-Dikkil and Elahseniyeh, so I crossed the plain back to the coast where the ruins of Mesadiyeh still remain to suggest that the similarity of their name to that of Bethsaida may furnish a clue to the identification with them of that town. They contain nothing of interest however, without excavation; but enough remains to show that the head of the Lake must in old times have been a great centre of population, since the towns near it are all from one to two miles apart, and I have heard of more ruins in the neighbourhood, which I hope at some future time to have an opportunity of examining.

As some confusion exists in all the maps to which I have had any access in the nomenclature of the five wâdies which intersect the country between the Jordan and the Wâdy es Samak, I have been very particular in obtaining the names as accurately as I could from the best native sources. Of these the Wâdy Jeramâya is the most wild and inaccessible, and except for the sportsman—it affords excellent cover for the large game which are said to abound in it—would probably not repay examination; the same cannot be said of the other wâdies, in which, especially near their heads, I have reason to believe some ruins are to be found.

Following the Lake shore, we passed at the mouth of the Wâdy Ejgayif the ruins of Akib; these consist of nothing but heaps of basaltic stones. There is near here a spot marked "ruins" in some maps, and called Dukah; they are also mentioned by more than one traveller. I found on inquiry, however, that a projecting cliff near 'Akib was called the Dukah Kefr 'Akib, or the precipice of 'Akib, and this has doubtless given rise to the confusion. A mile and a half beyond 'Akib we turned up the great wâdy of Es Samak. It is up this fertile valley, watered by a perennial stream, and which is in places two miles wide, and about seven miles in its greatest length, that it is proposed to carry the projected railway from Haifa to Damascus, as it affords an easy gradient from the depressed shores of Lake Tiberias to the elevated plateau of Jaulan; the rise in that distance being a little over 2,000 feet. As we ascend, I observe that only quite the lower strata are of limestone; all the rest is basaltic, and this formation is of vast

thickness. The whole of Jaulan is indeed an immense volcanic field, consisting of irregular heaps of amorphous lava and disintegrating scoriae, with mounds of globular basalt.

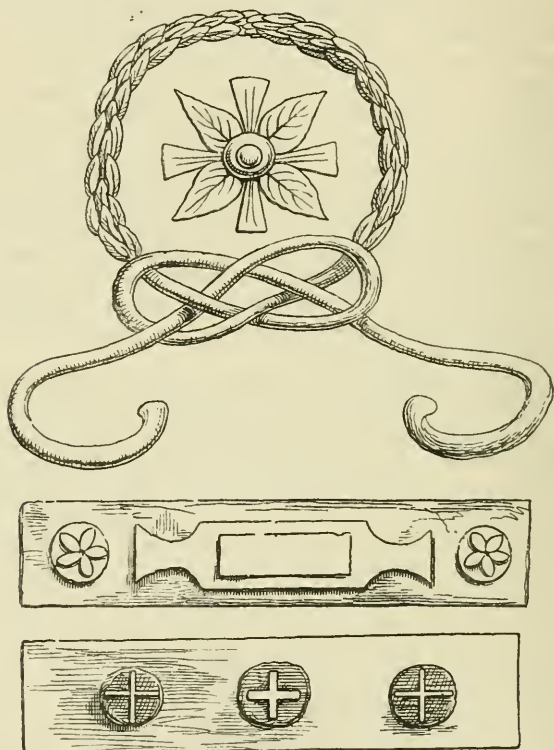
After ascending the wâdy for three miles we reached, a little below the margin of the plateau on the right side, the ruins of El 'Adeseh, but it happened to be so dark at the time that I could not distinguish more than heaps of stones, and I had no opportunity of returning to it.

The country is very sparsely peopled in the district of Jaulan in which we now were, one of the largest villages being that of El 'Al, built on the site of an ancient ruin; but the place has been so much built over that little can be seen, though in the walls and yards of the houses are many vestiges of antiquity. In the stable of the house in which I lodged was a column *in situ* standing to a height of 6 feet, and in the yard a draped female statue, life size, in three pieces. The feet, which as far as I could judge were on a pedestal *in situ*, were partially covered with earth; the rest of the figure, which had been separated from them at the ankles, was lying on the ground; the head had also been separated from the body; but each of the pieces was in good preservation. The left arm clasped what appeared to be a quiver, from which I gathered that the statue was one to Diana. An inscription would probably be found on the pedestal settling this question, but circumstances prevented my excavating sufficiently to find out whether this was the case.

My objective point was now Khisfin, a village lying five miles distant in a north-easterly direction, which has played so important a part in the history of the country that I was extremely anxious to investigate the ruins which exist there, and which have never been the subject of examination. After riding for an hour we came to the ruins of Nab, situated on a small mound. They consist of blocks of basalt building stone, some traces of foundations, some fragments of columns and capitals, and a tank, dry at the time of my visit, but which evidently holds water for some portion of the year; it had apparently been much deeper at a former period, only the two upper courses of masonry being now visible. It was oval in shape, and measured about 60 yards by 30. A little off the road to the right stands a large tree on a mound which is a conspicuous object on the vast plain, and is called Ez Zeitîmi, or the hill of the olive-tree. In half-an-hour more we reached Khisfin, which is a large village for this part of the country, the houses constructed entirely of the hewn stones which here cover a greater area than any ruins which I have hitherto visited in this neighbourhood.

The earliest notice which I have been able to obtain of Khisfin is that of Yakubi, about 900 A.D. He mentions it as one of the chief towns of "the Province of the Jordan," Syria being divided in his day into three provinces, viz.: the Province of Damascus, the Province of the Jordan, and the Province of Palestine. Yâkub in the thirteenth century mentions it as a town of the Hauran district below Nawa, on the Damascus road, between Nawa and the Jordan. Khisfin was doubtless at one time a fortress of the Saracens, as it is further mentioned as the place to which Al Melek

al 'Adil (Saladin's son and successor) fled after having been routed at the battle of Baisân by the Crusaders, who advanced upon him from Acre. As it is mentioned as being one of the chief towns of the province so long ago as 900 A.D., it is probable that its importance dates from a much older period, as indeed was indicated by some of the ornamentation which I found there. That it must also have been an important crusading stronghold is evident from the leading characteristics of the remains, as they now appear, and of the ornamentation, of which I give specimen sketches.



The walls of the principal fort now standing measure 68 yards one way, by 54 the other. They are 9 feet in thickness, and are eight courses of stone in height, the stones from 1 foot to 1 foot 6 inches square, but some are much larger. Within the fort are the traces of a second or inner wall forming a sort of keep in the centre, but the whole area is so encumbered with ruin that it would require more time than I was able to give to it to make accurate measurements, or a plan of the building. The village had almost the appearance of a quarry, so thickly piled were the blocks of hewn stone which enclosed the courtyards and formed the walls of the houses, while they were strewn thickly or stacked in heaps over all the neigh-

ouring fields. The lintels of the doors consisted frequently of large stones, some of which possibly had served the same purpose in old times, on which were tablets, rosettes, crosses, bosses, and other crusading devices.

I now proceeded in a westerly direction, and in two miles reached the ruins of Esfera, a mound covered with the usual hewn basaltic stones, and with traces of foundations. Two miles further on was the conspicuous hill of Tell el Muntar, which is also strewn with ruins of the same character; but at neither place were the remains of any marked interest;—they all indicated, however, the presence in ancient times of a large population in this section of country. Just to the south of Tell el Muntar we came upon a dolmen field—I counted twenty grouped in a comparatively limited area, averaging perhaps a hundred yards apart. Some were composed of three side stones with a covering slab, and in most cases were “free standing.” In others the superincumbent slab rested upon four uprights, and in others upon heaps of large blocks of stone. In no case did I observe the covering slabs to be so large as I have seen them elsewhere, probably owing to the weight of the basalt of which they were composed; but circumstances prevented my giving these interesting monuments upon this occasion the attention they deserved, and I was compelled to be satisfied with having discovered their locality. In support of Captain Conder’s theory it may be interesting to note that they were situated near water, as I shall presently show, and upon the verge of the precipitous ledge of rock which here forms the eastern cliff of one of the branches of the Wâdy es Samak, from which a magnificent view is obtained. The plateau here forms a promontory which splits the wâdy, and at its southern extremity is situated the old stronghold of the Crusaders, called the Kasr Berdauif, or Baldwin’s Castle. I saw the ruin from a distance, but was unable to visit it on this occasion. This I the less regretted as it has already been examined, and the small crumbling ruin which remains offers nothing of interest. On the other hand, I was impatient to reach a ruin hitherto unknown, and which was situated directly beneath the upper ledge of rocky cliff down which we were now leading our horses at no little peril to life and limb. After descending abruptly about 500 feet we came to a broad shelf, or small cultivated plateau, beyond the edge of which there was another steep descent to the bottom of the wâdy. It was upon this shelf that the ruins of Umm el Kanatar, or the “Place of Arches,” is situated. It may have derived its name from the first object which met our view, as, turning sharp to the right under the impending cliff down which we had just descended, we came upon a most singular and most picturesque spot. Here were two large arches, one partially ruined, but the traces of which were still plainly visible projecting from the rock against which it had been built, the other in a perfect state of preservation. This one measured 23 feet in breadth, 6 feet 6 inches in depth, and 16 feet in height. The ruined one was probably of the same dimensions, but as it was partially broken away there was no means of accurately judging of it. They had been built over a crystal spring, the waters of which still filled the small tank 23 feet long and 6 feet wide, with a depth of 2 feet of water, under the perfect arch, and

contained many small fish. It apparently escaped by an underground channel. Over the centre of the arch was a large slab of stone, upon

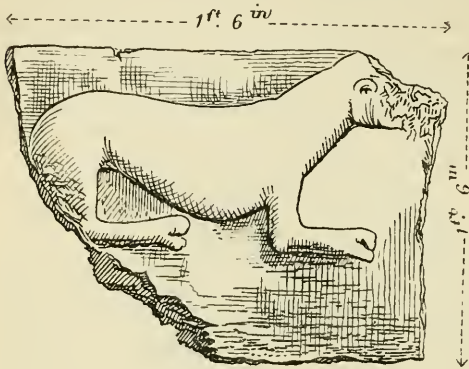


FIG. 1.

which had been an inscription now too effaced to be legible, and as it was 16 feet over head I had no means of examining it closely. At a slab at the side of the spring was a stone on which was the carved figure of a lion (fig. 1), and in front the wide-spreading arms of a magnificent old tree offered a grateful shade. At the time of year at which

I visited these springs,

however, I was not in a position to appreciate its charms; a bitterly cold wind, accompanied by sleet, was blowing, and I had just before arriving at the dolmen field undergone an experience which made the task of a minute examination of ruins or dolmens in an easterly gale of wind unpleasant in

the highest degree. When allowing my horse to drink at what seemed a puddle on the plateau, he had made a step forward and plunged head foremost down what turned out to be an overflowed well, with me on his back. We had some difficulty in extricating ourselves, but the severity of the cold wind was so much intensified by my drenched condition, that, not being in my good health otherwise at the time, I was compelled to hurry over these ruins. They are situated about fifty yards from the spring to the north, and consist of ruined walls enclosing an area apparently as nearly as possible of the same dimensions as the synagogue at Ed-Dikkih, but the traces of the western wall were concealed by such piles of large blocks of building stones that it was impossible to determine them. The southern wall was standing to a height of about 7 feet, and consisted of three courses of stone averaging a little over 2 feet each in

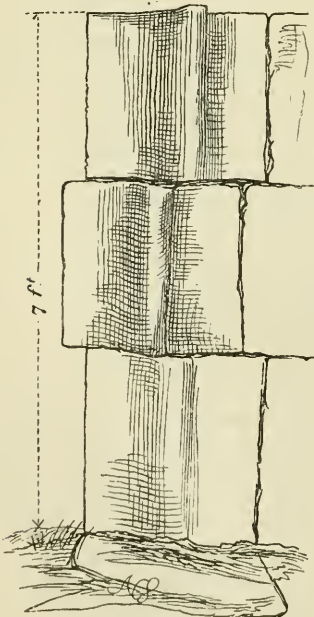


FIG. 2.

height, by about 2 feet 6 inches in breadth. The door was situated 15 feet from the south-east angle of the wall, and was 4 feet 9 inches in width; the stones forming the door-post were slightly carved into a plain moulding (fig. 2). On entering, the area presented a mass of stone *débris*, and columns, and pieces of carving, tossed about in the wildest confusion; six columns from 10 to 12 feet in height rose above the piles of stone at every angle, as though they had been partially overturned by an earthquake; the shaken condition of one of the stones which formed the door-post, and which projected from the others, as well as the general aspect of such of the ruin as was still standing, confirmed my impression that the building had been destroyed by a convulsion of nature. It was difficult under the circumstances to determine the true position of the columns, or the exact plan of the building; but the character of the fragments of ornamentation which still remained, the fact that the columns were all within the enclosure of the building, that the walls were without cement, the position of the door, and the moulding of the door-posts, all rather lead me to the same conclusion with respect to this building which I have arrived at in the case of Ed-Dikkil, and to regard it as having been formerly a synagogue.

There was one stone on which was carved the representation of an eagle (fig. 3), a fragment of egg and dart cornice, closely resembling the one at Ed-Dikkil, a large triangular slab cut in the shape of an arch and highly ornamented, measuring 3 feet 6 inches along the base line, and 5 feet 8 inches between the two extremities, and which I assume to have been placed on the lintel of the main entrance (fig. 4); and there were fragments of Corinthian capitals.

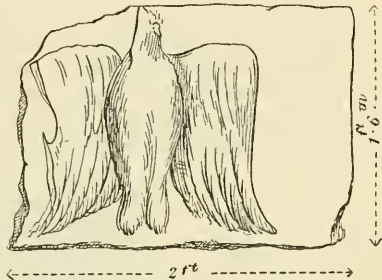


FIG. 3.

It is highly probable that a careful investigation of these stones would reveal inscriptions which would throw more light on this interesting ruin than, during my hurried inspection

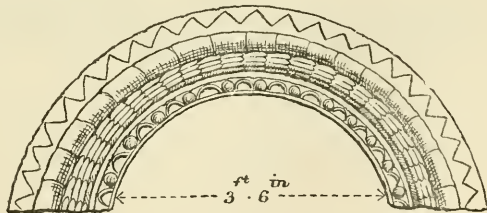


FIG. 4.

of them, I was in a position to obtain. I send these notes simply as a description of what I was able to observe, under circumstances by no means favourable to minute investigation; but it is not impossible that I may be able to revisit this part of the country and supplement this paper with more details of the ruins which are noticed in it, as well as

to look for others of the position of which I have received some information.

On my return to Tiberias, a Jew came to tell me that he knew a house which contained a stone upon which there was an inscription. I found it in the floor of a tumble-down dwelling inhabited by an old Jewish woman. As it was too begrimed with dirt to make anything of, I tempted the old woman with a bribe to let me take it up and carry it off, promising to return it. The inscription turned out to be in Greek characters, and as it may have escaped the attention of former travellers, a squeeze of it is forwarded herewith. I also annex the best copy I have been able to make, in case the squeeze does not arrive in good condition.

ΥΠΕΡΕΥΧΑΡΙΣΤΙΑΣΔ
 ΟΥΗΜΩΝΣΙΡΙΚΙΟΝ
 ΝΑΠΑΙΣΑΜΣΝΟΙΗΜΙ
 ΟΙΘΡΕΒΟΙΣΟΥΑΝΗΓΙΡΑΜΘ

I was also taken by a Jew to look at a stone built into the back wall of the synagogue, on which was an inscription. He told me that he had seen some gentlemen take a squeeze of this, and I therefore only took a hasty copy, thinking it probable that it would be found in the "Memoirs." As however, this is not the case, I presume it must have attracted the notice of some more recent explorers. The following is my copy :—

ΟΥΑΓ
 ΤΑ'ΕΤΗ 'ΟΕ
 ΩΜΗΝΑΔΕΝ
 ΙΝΖΗCΑCΑΝ
 ΚΒΝΥΜΦΗΝ

I am indebted to my companion, Mr. Guy Le Strange, for the list of the Arab names, which I append, of the places taken down from the natives on this trip, with their significations.

LIST OF NAMES OF PLACES.

1. El-'Adesi, for El-'Adeseh, العدسة, "the lentil."

In Palestine, concrete of small pebbles used for floors, from its resembling lentils, is known as "El-'Adesi."

2. El-Ahsâniyeh, the vulgar form of El-hassâniyyeh, الحسانية, "Belonging to Hassân," p.n.

3. 'Ain Esfera, probably for 'Ain Eṣo-Sfairah, عين الصفيرة, "the whistling spring."

4. El-'Akib, العقيب, "the term."

5. El 'Âl الاعال, "the high."

6. El-'Araj, الاعرج, "the lame."

7. El Batîhah, البطيحة, "the swamp."

8. Ed-Dikkîh, الدكة, "the platform."

9. Kasr Berdawîl, قصر برداويل, "Baldwin's Castle."

10. Kersa, كرسى (?), "the seat."

11. Khisfin, خسفين, p.n.

12. Mes'adiyyeh, مصعدية, "the place of ascending."

13. Nâb, ناب, "the eye-tooth."

14. Et-Tell, التل, "the hill."

15. Tell el Montar, تل المنظر, "the hill of the watch-tower."

16. Tell ez-Zeitûnih, تل الزيتون, "the hill of the olive-tree."

17. Umm el 'Ajâj, ام العجاج, "the place of whirl-winds" or "battles."

18. Umm el Kenâtir, ام القناطر, "the place of arches."

19. Wâdi ed Dâlieh, وادى الدالية, "the gorge of the vine tendril."

20. Wâdi Ejgayif, for Wâdi esh-Shakayyif, وادى الشقيف, "the gorge of the little boulder." Shakayyif, or Shagayyif, for the Bedouins change the dotted K into G, is the diminutive of "Shakif," meaning a "fragment" or "boulder" in the colloquial dialect.

21. Wâdi Jermâyya, وادى جرماية, p.n.

22. Wâdi es Saffah, وادى الصفاح, "the gorge of the slayer."

23. Wâdi es Samak, وادى السمك, "the fish's valley."

24. Wâdi Shebib, وادى شبيب, p.n.

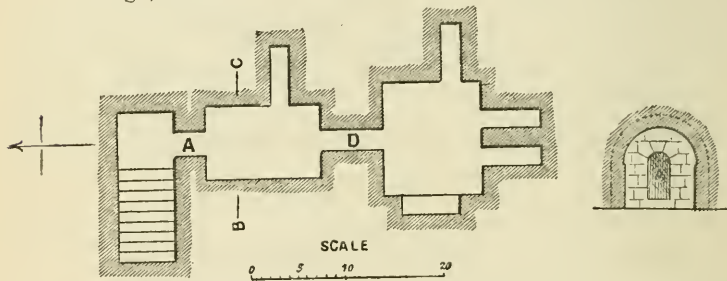
25. El-Yahûdiyyeh, واليهودية, "the place belonging to the Jews."

NOTES ON A TOMB OPENED AT JEBATA, AND ON MONUMENTS FOUND AT NABLOUS.

BY LAURENCE OLIPHANT.

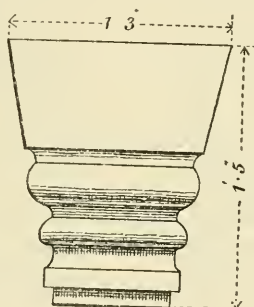
HAIFA, 21st January, 1885.

HAVING received intelligence from a native that the villagers of Jebata (Sheet 5, M. *i*) while excavating for stone for their building operations, had unearthed what he termed a subterranean abode, but which I conjectured to be a tomb, I proceeded to that place in order to examine it. The sheikh and most of the villagers accompanied me to the spot; here they had laid bare a flight of nine stone steps leading down to an open court about 6 feet square—the niches formed of cemented masonry, the stones averaging 2 feet by 18 inches, but in some instances exceeding those dimensions. The height from the *débris* which had accumulated on the floor to the top of the masonry was about 11 feet, above which were 2 feet of soil. From this open court a passage 3 feet long, 2 feet 6 inches wide, and 5 feet high, marked A in the plan (Section BC), led to a chamber 14 feet



long, 8 feet broad, and 8 feet 6 inches high, the walls consisting of plain chiselled stones set with mortar in courses of from 2 feet to 2 feet 6 inches in height. This chamber differs from the very few hitherto discovered in Palestine, and which seem confined to Galilee, in that the stones are set in mortar. On the left of the chamber was a single koka, which had been a good deal destroyed by the recent excavations of the villagers, but the chamber itself was in perfect order, and in fact in such good condition that it was difficult to realise that it was an ancient construction. The roof was vaulted, and of solid masonry. In the centre of the east wall was an entrance, D, exactly corresponding to the one marked A, excepting that the passage was 7 feet 6 inches in length. It led into a chamber hewn out of the solid rock, 12 feet by 10 feet 6 inches and 6 feet 6 inches in height; this contained three kokim and a loculus under an arcosolium, but the side of the loculus, as well as those of the kokim, had been much injured. The villagers told us that they had found bones in the loculus, and some fragments of pottery in this chamber. Not far from these tombs was another similar excavation, the entrance to which presented the appearance of that to an ordinary cave; but on entering it we found ourselves in

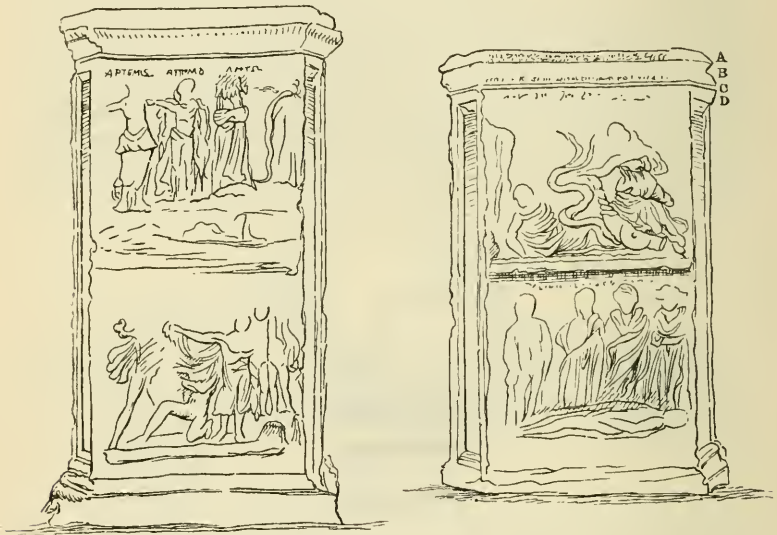
a small circular rock-hewn chamber, the floor so covered with rubble that it was not possible to stand upright. In the centre of the roof was an aperture 18 inches square, carefully hewn, and from it led a passage of masonry, the stones, also set in mortar, 2 feet 6 inches broad, and about 5 feet to the point where it was completely choked with earth; had we been able to spare the time to excavate we should have found probably that it led into a tomb. The entrance to this passage was almost completely blocked by the handsome capital of an Ionic column, the column itself 18 inches in diameter. On further examining the stones strewn in the vicinity, and some of which we were told by the natives they had unearthed, we found one on which was carved a seven-branched candlestick, one which may have served as a keystone, a sarcophagus, several fragments of columns, and a monolith standing 10 feet from the *débris* at its base, with grooves and lots similar to others which I have seen at Dubil on Carmel, but taller. I can only imagine it to have formed part of some olive-pressing machinery. In the neighbouring rocks were vats and winepresses. It is not unlikely



that next summer the natives will undertake further quarrying operations, when new discoveries may be brought to light, the more especially as all the existing indications go to show that Jebata, the ancient Gabatha, must formerly have been a place of some importance.

I have been fortunate in obtaining a glimpse of some monuments recently discovered during some municipal improvements now in progress at Nablous, which are destined for the Museum at Constantinople, and of which I send you such hurried and imperfect sketches as I was able to take, with copies of inscriptions. They were in such positions that it was extremely difficult to take squeezes, nor were the conditions propitious for my doing so. The one which I forward was of an inscription much defaced, on which I can only make out the words **ΤΟΝ ΤΡΙΠΟΔ**, but perhaps others may be more successful. Many of the letters in the other inscriptions were so much effaced as to be rendered doubtful, and I have left them imperfect; but it will not be difficult, with more time than I have been able to give to them, to make the necessary corrections. The monuments which I have seen consist of two statues, one of a draped male

figure, life size ; the head, right arm, and feet were missing. The other was a smaller draped male figure, the head and feet of which were also missing. The most interesting object was a triangular pedestal, 40 inches high, with slightly curved sides 22 inches long, and squared angles 8 inches across. The three sides contained six tableaux *in basso relievo*, one of them a good deal mutilated, representing, amongst others, incidents in the life and labours of Hercules, in whose honour possibly the statue which once stood upon the pedestal was erected. The first tableau represents a figure in a



chariot struggling apparently with a hydra. Above this, on the upper moulding of the cornice, was the inscription (marked A)—

ΝΙΟΣΘΗΚΕΝΑΤΘΙΔΟΣΕΚ ΣΑΣ
 ΝΕΚΕΝΕΝΤΘΥΠΟΛΕΣΣΙΝΑΡΙΣ ΣΚΕΝΑΠΑΣΙΝ

Below this (marked B) was the following :—

ΚΑΛΛΕΙΚΛΙΜΕΙΦΘΙ- -ΚΑΙΧΑΡΙΣΙΝΠΕΟΦΕΡΟΝ

and below this (C)—

ΤΟΥΙΩΓ·ΚΑΙ·ΛΓΟΝΙΦΟΙ- -ΛΙΑΜΕΤΑΙ·ΚΑΙ·ΙΗΘΕΝ

The lower section represented three draped figures standing : on their right a nude male figure standing ; at their feet a prostrate nude male figure ; above them was the inscription (D)—

ΤΟΝΑΧΕΛΩΝ

The upper section of the next side represented Leto Apollo and Artemis, with their names above them in the following order:—

ΑΡΤΕΜΙΣ

Nude to the waist.

ΑΠΟΛΛΩΝ

Nude right arm over Artemis's shoulder, with a cloak hanging down his back and over his arm.

ΛΗΤΩ

Completely draped, with a snake apparently on the left.

The lower section of this side represented five figures, behind a group of four figures, of whom two were naked men wrestling, the other two were naked, one standing with outstretched arm, and one on a sort of stool; above them the inscription, partly illegible,—

ΤΑ  ΠΙΤΟΝΜΕ

and over some of the figures were the letters, **ΝΩΤ ΙΥΡΟ**

On the third side, which I had no opportunity of sketching, on the upper section, under the words **ΤΡΟΦΟΙ ΗΡΑΚΛΗΣ**, was a nude infant struggling with a serpent between two draped female figures—evidently Hercules strangling the serpents sent against him by Hera. On the lower section of this side, and under the words **ΘΗΣΕΥΣ ΓΝΩΡΙΣΜΑΤΑ**, was a much defaced nude figure on the left, supporting what seemed to be a full sack, and on the right three draped figures.

I understand that they are continuing to find objects of interest at Nablous, which I trust shortly to have an opportunity of going to examine.

THE PASSAGE OF THE ISRAELITES ACROSS THE
RED SEA.

BY SIR JOHN COODE.

THE *Quarterly Statement* for April of last year contained an interesting article by Professor Hull, of Dublin, on "The Relations of Land and Sea in the Isthmus of Suez at the time of the Exodus," wherein he deals with the question of the actual position of the passage of the Red Sea by the Children of Israel.

Professor Hull justly remarks that, according to the present position of land and water, there is a direct landway across into the "wilderness of Etham," and he asks whether, if at the time of the Exodus the physical conditions of the district north of Suez had been the same as they are now (of course he disregards for the moment the existence of the Suez Canal), there would have been cause for the cry of despair from the Israelites, or

the necessity for a stupendous miracle of deliverance such as the Bible narrative relates !

He then proceeds to show that the beds of sand and gravel containing shells, corals, and other marine forms now existing in the waters of the Gulf of Suez (which beds are found on either side of that gulf up to at least 200 feet above the present sea-level) form complete evidence of the elevation of the whole land area of that particular region, but that this elevation must have taken place at a time long antecedent to that of the Exodus. He points out, what is true, that if at the time of the Exodus an elevation of not more than from 25 feet to 30 feet had remained to be effected, the land now forming the southern part of the Isthmus of Suez would have been submerged by the waters of the Red Sea, and he regards it as in the highest degree probable that as far back as the time "when the Exodus took place the waters of the Red Sea extended northwards up the valley at least as far as the Bitter Lakes, producing a channel 20 to 30 feet in depth, and perhaps a mile in breadth ; a terrible barrier to the Israelites, and sufficient to induce a cry of despair from the whole multitude."

Having quite recently traversed the whole Isthmus, making a special examination of the portion between Ismailiya and Suez, the following incident, which then occurred, appears to me to be worthy of notice, inasmuch as it is eminently corroborative of Dr. Hull's view.

Whilst engaged with other members of the International Commission upon the investigation of various matters connected with the question of improving the Suez Canal, some of our party landed from time to time, and on one occasion at a point between what is now the north end of the Gulf of Suez and the south of the Bitter Lakes, not, in fact, very far to the north of the bridge of boats by which the pilgrims to and from Mecca cross the Canal.

Desiring to test for myself the character and hardness of the unbroken ground at this point, and at a height of about 12 or 15 feet above sea-level, the first stroke of a pick turned up, from 3 inches below the surface, a thick cake of a dull white substance which at the moment appeared to be gypsum, and whilst stooping to take it up, I remarked accordingly ; but simultaneously, a colleague who was standing at my side exclaimed "Salt." On asking him how it came to pass that he so instantly arrived at this conclusion, he replied that the whole district thereabouts was full of such salt.

When it is explained that this gentleman had the engineering charge of a considerable length of this part of the Suez Canal at the time the work was in course of construction, and consequently had thus acquired an intimate knowledge of this district, and also that on testing the ground at other points thereabouts, I found salt existing below a thin covering of sand at heights considerably above the sea-level, there is ample warrant for saying, as I have done, that the extensive existence of salt in this form and at such a height cannot be regarded otherwise than as a proof that the waters of the Red Sea did at one time extend as far north as the Bitter Lakes ; a specimen nearly an inch thick is before me as I write.

Further evidence that, at some time antecedent to the formation of the Suez Canal, the sea extended as far up the Isthmus as the Bitter Lakes, is found in a remarkable sample of salt which was cut from the bottom of the Bitter Lakes by the engineers of the Suez Canal Company before the sea was let in to effect the completion of the water communication between the northern and southern sections of the work. This block of salt, to which my attention was directed by M. de Lesseps, is preserved in the courtyard attached to the offices of the Canal Company at Ismaïliya; it is fully 7 feet in height, and, according to M. Voisin Bey, who at the time it was taken out acted as the Company's Chief Engineer in Egypt, salt certainly existed to a still greater depth, but to what precise extent is not known.

I may here mention that whilst passing over the 1,500 (English statute) miles from the Strait of Bab-el-Mandeb to Suez, the water of the Red Sea is so far changed by evaporation that samples taken from the surface at Suez have been proved to be nearly 2 parts in 1000 salter than those at Bab-el-Mandeb. It should be borne in mind, moreover, that an exceptionally great amount of evaporation would necessarily take place within such a comparatively shallow inland basin as that of the Bitter Lakes, having its surface swept by the hot dry air of the Arabian Desert, and shut in from the Mediterranean by the high land at Serapeum immediately to the north, or at any rate by the still higher ridge of country at El Guisr. These conditions would obviously contribute to the formation of such a remarkable deposit of salt as is found in the specimen above described.

A peculiar feature in this specimen is the presence of an occasional thin layer of sand, most probably caused during the prevalence of violent southerly winds which from time to time raise the sea-level at Suez nearly 3 feet above that of an ordinary spring tide in calm weather. The strong current to the northward on such occasions would be certain to carry a considerable quantity of sand into the Bitter Lakes, sufficient, it may be assumed, to account for the layers of sand in question.

The facts to which I have here called attention appear to me unquestionably to confirm the view entertained by Professor Hull. Feeling, with him, that according to this view the physical conditions at the time of the Exodus will be brought into harmony with the Bible narrative, and that the difficulty which has hitherto surrounded the subject of the passage of the Israelites through the Red Sea will thus have been to a great extent removed, I have ventured to send you the result of my own recent personal observations in the locality in question.

THE CITY OF DAVID.

BY THE REV. W. F. BIRCH.

“Nil tam difficile est, quin quærendo investigari possiet.”—*Ter. H. T.*

So long as knowledge grows from more to more, will thoughtful writers on Jerusalem from time to time change, or at least qualify, their opinions. Mr. Fergusson in 1847 placed Acra west of the Temple, but in 1860 north of it. Surely, until he reverts to his earlier opinion, no one can fairly quote the weight of his name as in favour of the western site, which he has deliberately abandoned for more than twenty years. But if a writer is always to be tied down to what he has once written, and afterwards distinctly repudiated, then I must ask Captain Conder to submit to his own ruling, and to allow me to quote the weight of his own name, in favour of the Ophel site for the City of David, and against his later statements, since in *Quarterly Statement*, 1877, p. 179, he said, “Thus the City of David, in this case, is Ophel.”

Another error into which Captain Conder has fallen may also be corrected, as it bears on the position of Zion, and most readers are weary of arguments *pro* and *con*, and so in accepting theories are guided solely by the names of their respective advocates. In the *Memoirs* (“Jerusalem,” p. 93) he says that “Sion has been supposed by Lewin to be identical with the Upper City of Jerusalem.” Many will learn with surprise that Lewin was a most determined opponent of the common opinion, that the Upper City was the site of Zion, and actually accentuated his aversion to such an identification by dubbing the Upper City *pseudo-Zion*, *i.e.*, the false or spurious Zion. “Afterwards, in ‘Siege of Jerusalem, 1863,’ Lewin holds that the names ‘Zion’ and the ‘City of David’ were originally applied to the *whole* city of Jerusalem; that the latter was subsequently appropriated by popular belief to that portion of Ophel where he supposes ‘David’s palace to have stood.’ Accordingly, throughout his book, he speaks of the south-west quarter of the city as ‘now called Zion,’ thereby intimating that it had no ancient right to this special designation; and yet, inconsistently enough, the name of Sion is given to it in his plan.”

I am obliged to take this extract from “The Psalms of David” (by E. F.), as I cannot myself refer to “The Siege,” since the Fund’s copy has been indefinitely borrowed. Some reader of these pages perhaps will kindly correct me if I misrepresent Lewin’s opinion, who, as it seems to me, never maintained that Zion was identical with the Upper City.

Whoever assails my theory must inevitably catch a Tartar, for the simple reason that the site I advocate is the very one appropriated (as many admit) to Zion in the Book of Nehemiah; and Nehemiah (be it remembered) himself was chief surveyor at Jerusalem and rebuilt its walls, and therefore must have known the position of Zion, the City of David, a thousand times better than either Josephus or any other writer on Jerusalem from his day to this.

As no one seems disposed to accept my challenge and grapple boldly

with my theory, I suppose it is time for me to make a sally and expose the utter hollowness of the arguments alleged in favour of the rival sites for Zion, positions well described (to use Lewin's word) as pseudo-Zions.

Now the key to the whole question of the true site of Zion consists of two simple facts, viz. :

(A) That the Hebrew version always describes the Valley of Hinnom as *ge*-Hinnom, and the Brook Kidron (on the east side of Jerusalem) as *nachal*-Kidron, never once interchanging the two words *ge* and *nachal*.

(B) That in the historical books of the Bible, the City of David is six times called Zion, but never in a single instance Mount Zion, while in the Psalms and Prophets this term is often applied to the Temple. Consistently with this distinction, I Maccabees, omitting all mention of *Zion* simply, speaks of the City of David as one place and *Mount Zion* as another, identifying it with the Temple or sanctuary.

Through disregarding these reasonable distinctions, and taking *ge* to be equivalent to *nachal*, and Zion (the City of David) to be the same as Mount Zion, writers have unconsciously produced such a confusion in Jerusalem topography, that with scores of books bearing on the subject, very few persons are aware of the true site of the City of David.

This remarkable distinction between *ge* and *nachal*, I must add, is no invention of mine devised to prop up my theory. Gesenius long since observed it, Lewin approved of it, Williams "had misgivings" in disregarding it, Thrupp and Captain Conder and others have recognised it; I merely insist on its *rigid* application, confident that it is the key to Jerusalem.

Further, that the City of David is never historically called Mount Zion in the Bible is a point that any Bible reader may verify for himself. Having got possession of this invaluable key, let me now use it without fear against all the pseudo-Zions, and show how untenable and indefensible it makes every one of the various positions held by the opponents of my theory.

First I will take the site west of the Temple originally proposed (though it resembles Lightfoot's) by Sir Charles Warren, since with his opinion on many kindred points I am in the closest agreement.

I. ZION, SOUTH AND NOT WEST OF THE TEMPLE.

In 1871 Sir C. Warren stated in the "Recovery of Jerusalem," that "in the Book of Nehemiah, the City of David, the House of David, and the Sepulchre of David, all appear to be on the south-eastern side of the hill of Ophel, near the Virgin's Fount, and yet such a position for Zion appears at first sight to be out of the question."

Seven years passed over before I perceived that the apparently contrary evidence, which seemed to Sir C. Warren to make the Ophel position for Zion "out of the question," really was in strict agreement with the evidence of Nehemiah. Seven years more have rolled on since that time, yet I regret to have to add that the whole Biblical evidence, which I have from time to time shown to be *consistent*, and to point to but

one conclusion, still appears to him contradictory, and leads him still to place Zion, the City of David, on the western side of the Temple, and not on Ophel on its southern side. When I place Zion on Ophel, he admits "it is the *natural* position to assign to it on reading the Book of Nehemiah, only it does not seem to me to accord with the other accounts."

I am very desirous that Sir C. Warren from an opponent should become an ally of my theory, by being convinced that this *natural position* is also the true position. One important result, I believe, would be that a diligent and (I anticipate) a successful search would soon be made for the sepulchres of David, and of the Kings of Judah, and the discovery of these most interesting and magnificent relics of pre-exilic Jerusalem would, once and for ever, lay the restless ghost of controversy about the position of the City of David, and save me the trouble of demolishing the other pseudo-Zions.

With this object I would point out two things—

- (1) That the weight of Nehemiah's evidence is simply overwhelming.
- (2) That his evidence is really in the strictest accord with all the other accounts except one or two palpably incorrect statements of Josephus.

The Book of Nehemiah (as admitted by Sir C. Warren) places (1) the Sepulchres of David (iii, 16), (2) the House of David (xii, 37), and (3) and (4) the stairs of the City of David (iii, 15 ; xii, 37), between the Pool of Siloah and the Temple, *i.e.*, on Ophel (so-called). It is also to be noted that in harmony with these indications "the House of the Mighty" (or *Gibborim*, the technical name of *David's* body-guard) is further (iii, 16) spoken of as being in this part, *i.e.*, on Ophel.

Here I must ask two questions. In the case of what sacred site does the identification rest upon fuller or better evidence than the Book of Nehemiah gives in the case of the City of David? If these four or five consistent statements in Nehemiah can reasonably be discredited, what identifications can reasonably be believed? Is it not far more probable that Nehemiah's statements are the truth, the whole truth, and nothing but the truth, and that the other sacred writers have been misunderstood by Sir C. Warren, than that the Biblical statements about the City of David are inconsistent and contradictory?

Sir C. Warren ("Temple or Tomb," p. 41) thinks it "probable that from the first the site of the Holy Sepulchre was known among the Christians, and that *it has never been forgotten.*" But is it not much more probable that the Jews, with far less difficulties to contend with, never forgot the site of the Sepulchre of David, and of the City of David? When Sir C. Warren rejects the Ophel site for Zion, it seems to me that he has to suppose that the Jews, in the time of Nehemiah, had actually become misled about the true position of the Tomb and the House and the City of David, although there had been no break whatever in the continuity of their knowledge about these revered localities, for "many of the priests and Levites and chief of the fathers, who were ancient men, that had seen the first house," were present when "the foundation of this (second

Temple *i.e.*) house was laid before their eyes" (Ezra iii, 12). Is it possible that all these had either forgotten the position of the chief sites in "the city of their fathers' sepulchres," or else agreed to transfer them to wrong positions? Any such ignorance or conspiracy is utterly inconceivable. If it is once admitted that the Book of Nehemiah places the *Tomb* and the *House* and the *City* of David all on Ophel, then, whatever be the consequences, I see no way of escape from a frank admission that these localities were actually on Ophel.

The position, however, held by Sir C. Warren I understand to be this, viz., that strong as is the evidence in Nehemiah in favour of Zion, the City of David, having been on Ophel, nevertheless the evidence requiring Zion to have been elsewhere seems to him still stronger and only to be satisfied by his site. As in the *Athenæum*, 1881, he writes of "The Temple or the Tomb" thus, "I must state emphatically that this book is a very serious attempt to settle the topography of Jerusalem, and one that I have no doubt will be successful," I take that work as setting forth his reasons for placing Zion west of the Temple.

Let me first, however, state certain points on which I agree with this most candid of opponents. He states in his book—

(a) p. 21 : "They (the first book of Maccabees) call the sanctuary . . . Mount Zion."

(b) 9 : "Zion, . . . the royal sepulchres were also there."

(c) 9, 10 : "Zion formed part and was the fortress of Jerusalem. Zion was not synonymous or co-extensive with Jerusalem. We have not a single instance in the historical books of the term Zion, or the City of David, being used for the whole city.

(d) 24, 25 : "His (*i.e.*, Josephus') vagueness in speaking of the topography of the past . . . greatly in contrast with the precision throughout the historical books (of the Bible) and 1 Maccabees. . . . It does not appear in any case that he gives any help in the topography" (*i.e.*, of the Jerusalem of the Old Testament).

(e) 13 : "There can be little doubt that Zion the stronghold was in Benjamin."

Having thus successfully threaded his way through what have proved great stumbling blocks to many, Sir C. Warren seems to me to have been completely beguiled into a wrong conclusion by three misconceptions : first as to (A) and (B) above, in reference to the distinction between *ge* and *nachal*, and between Zion and Mount Zion ; and next, (C), that the Acra of Josephus was west and not south of the Temple.

Unconscious of his first misconception, Sir C. Warren writes ("Temple or Tomb," p. 35) in support of his western site thus : "This position I have assigned to Zion is the only one which allows of accord in the several accounts, and is the only site yet proposed that will render intelligible the passage, 'Now after this, he (Manasseh) built a wall without the City of David, on the west side of Gihon in the valley' (2 Chron. xxxiii, 14)." One has only to point out that the word here rendered *valley* is in the Hebrew version *nachal*, and at once it will be apparent that this passage,

instead of supporting Sir C. Warren's theory, is directly opposed to it, and confirms the evidence of Nehemiah. For a wall in the *nachal* or Kidron Valley, which is on the east side of Jerusalem, could not possibly be on the *west* side of Jerusalem. While, further, as Gihon literally means a *spring*, and not a pool, and as the only spring in the Kidron Valley is the Virgin's Fount, a lower wall on the east side of Ophel just west of that Fount (as required by this passage) would exactly suit the indications of Nehemiah which place the City of David on Ophel.

Even if some sophist could succeed in persuading one that *nachal* does not always in regard to Jerusalem mean the Kidron, still it might fairly be urged that it was needless to make the Bible contradictory, by applying to the valley running westwards from the Temple a term which undoubtedly often refers to the Kidron, especially when the usual application would leave Nehemiah and 2 Chronicles in perfect accord. So again, in like manner, 2 Chron. xxxii, 30, may be as well explained by the Ophel site for the City of David as by one west of the Temple, while it is probable that if Gihon means (as it must) the Virgin's Fount in xxxiii, 14, it also means the same spring in xxxii, 30.

One mistake often leads to and confirms another. Unaware that the *nachal* (Kidron) could not be the *ge* (Hinnom), Sir C. Warren drew the boundary between Judah and Benjamin which "went up by the valley of the son of Hinnom" (Josh. xv, 8) from "the Virgin's Fount, up the (Valley of Hinnom) Kedron, until nearly opposite the south-east angle of the Noble Sanctuary, where it crossed over the hill of Moriah at the southern side of the Temple, and thence up the Tyropœon Valley to the Jaffa Gate" ("Jerusalem Rec.," p. 307). As this line quite excluded the Ophel site from Benjamin (see (*e*) above), Sir C. Warren appears to think it unnecessary to discuss the Ophel site in "The Temple or the Tomb," and accordingly he does not make any allusion to the evidence of Nehemiah, even while he takes the trouble of saying (p. 24), "Akra (*i.e.*, Zion) could not have been south of the upper city as here fixed, and if further to the north than Et-Takiyeh, it would have been on the other side of the valley," &c.

Had he only gone on to deal with the Ophel site, I believe Sir Charles Warren and not I would now be its most resolute defender.

Further, unaware of his second misconception, Sir C. Warren writes ("Temple or Tomb," p. 11): "It would hardly be necessary to point out that Mounts Zion and Moriah were distinct hills, were it not that of late years they have been pronounced by some writers to be identical. In the first place, for many years after King David captured Jerusalem, Zion was a royal city, while Moriah must have been beyond Jerusalem, and was the private property of a sheikh or chieftain of the Jebusites. Then, again, David had to go up to Mount Moriah, which he could not have done had the two been identical; then we have the grand ceremony of bringing up the ark of God *out of the City of David, which is Zion*, up to Mount Moriah."

Here misconception as to (B), or involuntary confusion between *Zion*

and Mount Zion, makes a mountain of difficulty where everything is really smooth and plain. Only let it be borne in mind that Zion was the City of David, and that Mount Zion (the higher part of the ridge north of Zion) was the site of the Temple—*i.e.*, Mount Moriah—and these three points turn out to be genuine supporters of my theory.

David lived in Zion, the City of David, while Mount Moriah was outside it. Therefore he could go up and the ark could be brought up “out of the City of David which is Zion” to Mount Moriah (*alias* Mount Zion).

I have thus shown that the Biblical passages claimed by Sir C. Warren as requiring another site for Zion than that marked out in Nehemiah, are really in the strictest harmony with the evidence of that book. Instead of there being any “difficulty or discrepancy” about the Biblical statements, there is nothing but perfect concord among them, as to the position of the City of David.

After this it would only be so much the worse for the credit of Josephus if the third misconception (C) that I have attributed to Sir C. Warren could be shown to be no misconception on his part. For what value, in opposition to the Bible, would belong to the opinion of a “vague” writer like Josephus, who “does not appear in any case to give any help” in the topography of pre-exilic Jerusalem, but has rather made of it a Gordian knot by a few rash conjectures and inaccurate statements of his own devising? Bare justice, however, to the Jewish historian demands that I should point out that he nevertheless places his Acra *south* of the Temple, so that he also is thereby a witness in favour of the Ophel site for Zion, inasmuch as he makes his Acra correspond with the fortress or Acra of the Maccabees, and this (1 Macc. i, 33) was identical with the City of David. (See Acra south of the Temple.)

One or two other points still remain to be noticed. It is said (“Temple or Tomb,” p. 12) that “in no single instance in the historical books is this (that it was a holy place) said of Zion after the building of the Temple.” This, however, from 2 Chron. viii, 11, seems hardly to be correct, and curiously enough this verse is quoted on p. 6. Yet after the ark had been taken out of Zion, the City of David, one does not expect to read historically anything implying that it was still there.

Sir C. Warren admits (“Temple or Tomb,” p. 18) that no argument as to the position of Zion, the City of David, can be derived from the poetical books, yet afterwards he points out that Psalm xlviii may be an exception, and “if so we have direct proof that Zion, the City of David, stood on the north side of the city.”

Obviously he refers to the words, “Beautiful for situation, the joy of the whole earth, is Mount Zion on the sides of the north, the city of the great King.” But, unhappily for his theory, even here it is *Mount* Zion (or the Temple), and not Zion the City of David, that is said to be towards the north. In *Quarterly Statement*, 1883, p. 154 (see also 1878, p. 183), I have pointed out that the Rabbis (though misunderstood by Lightfoot and Fergusson) in several passages place *Mount* Zion (*i.e.*, the Temple) on the

north side of the city (*i.e.*, of David), or Zion. Therefore Zion was south of the Temple.

Lastly, if Sir C. Warren should urge ("Temple or Tomb," p. 21) that the foreign soldiers *descended* from the Acra (*i.e.*, the City of David) to molest the Jews, and that they could not have *descended* from the Ophel site, then the answer is that it is either he himself or Josephus who makes them to *descend*, since 1 Maccabees, the reliable authority for these times (which Josephus was not), speaks rather of a going up from the Acra to the Temple (1 Macc. vii, 33).

As, therefore, (1) Sir C. Warren admits that Nehemiah in four particulars places the City of David on Ophel, and (2) as it has been shown that 2 Chron. xxxiii, 14, instead of requiring his western site, makes it impossible, and that there was no difficulty in going from Zion, the City of David, to Mount Zion, the site of the Temple, and that according to Psalm xlviii and the Rabbis, Mount Zion, or the Temple, was on the north side of (Zion) the City of David; for it is admitted that 1 Maccabees gives the name of Mount Zion to the Temple, and identifies the City of David with its Acra; and (3) as this Acra is identified by Josephus with his Acra, which he has been shown to place south of the Temple, I now invite Sir C. Warren either to find some fresh defence for his pseudo-Zion or to abandon it entirely and occupy what he has all along admitted is Nehemiah's site, *viz.*, that on Ophel so-called.

I await with keen pleasure Sir C. Warren's attention to these remarks, hoping that he will (if he can) overthrow my conceit or else become the latest and ablest advocate of the Ophel site for Zion. To his memorable excavations at Jerusalem I am deeply indebted for my interest in the Holy City. If his works have enabled me, as a dwarf on a giant's shoulders, on the one solitary point of the true site of Zion, to see at present somewhat further than he has done, I cheerfully own my obligation to such an instructor.

Most gladly, too, shall I turn chameleon and change from a hasty critic to a patient spectator, whenever an outburst of enthusiasm for discovering the hidden catacombs of David sends forth a treasure-laden band of explorers to resume his too long suspended work of discovery. In this case whom would the men of Silwân ("Jerusalem Rec.," p. 243) more eagerly hail in their native tongue as a guide through the labyrinthine sepulchres of Ophel, than the well-known *Monitor Niloticus* (*Quarterly Statement*, 1871, p. 86) of the Philistian plain?

Meanwhile, if any one (in the absence of our *gibborim* in Africa) thinks that I go in for assertion rather than for argument, let him not fail at once ruthlessly (and if he likes anonymously) to expose the fallacies of my fancied reasoning.

Perish my theory if it be false; but if it is true, then the very next thing is to search for the sepulchres of David, so that some fortunate explorer may telegraph to Mr. Besant almost in the very words of Cæsar, "Veni, vidi, vici."

P.S.—I see that at the Carlisle Church Congress, Canon Tristram practically accepted my challenge and attacked the Ophel site for Zion in the following words:—

“Still less does it seem to me possible to conceive that the City of David, the fortress, was on Ophel, dominated by the higher rock of Moriah behind, and with the commanding brow of the modern City of David to the west. To any one acquainted with the strategic sites of ancient fortresses, the hypothesis is simply impossible. What becomes of the wall of Ophel excavated by Sir C. Warren, and which is referred to in Kings and Chronicles as the work of Manasseh? And again, there is no question as to the Jerusalem of the period of the return. We read the minute details of Nehemiah, and no ingenuity can square his description of the circuit with the suggested position of the City of David.”

Now it is remarkable that not men of war, like Sir C. Warren and Captain Conder, but Canon Tristram, like myself, a man of peace, should be the first to urge that, from a military point of view, it is impossible that the City of David, a fortress, ever stood on Ophel.

In “Jerusalem Recovered,” Sir C. Warren observes that there is a rocky knoll on the Ophel ridge higher than the ground immediately north of it. This knoll he marks at 2,290 feet (p. 298). If the ancient fortress of the Jebnsites reached northward as far as this knoll, and was fortified here by a wall 50 feet high, then according to his plan of the rock levels it would not be dominated by any point on the Moriah ridge, or on the western hill (the modern Sion), within a distance of 400 feet. But at that distance, against *walls* built of *mezze*, what would even Arish’s bow have availed, though it was reputed to have carried between 400 and 500 miles?

If in the age of the twelve spies, the cities of Canaan were “walled up to heaven,” why might not the castle of Zion, 400 years after, be fortified in its weakest point by a wall 50 feet high? And how then, I would ask, does Canon Tristram propose with a sling and a stone, or even with a long bow, in the absence of catapults, to capture a fortress not dominated within a range of 400 feet? Secondly, as the Ophel wall discovered by Sir C. Warren is at least 200 feet north of the knoll (the assumed northern point of the City of David), the date of its construction has nothing to do with David’s Zion.

Thirdly, “the minute details of Nehemiah” place (and are admitted by Sir C. Warren to appear to place) the City of David solely on Ophel. I am glad to see every form of objection urged against Ophel (so called) being the site of the City of David, since, as the feebleness of each objection is exposed, it will gradually dawn on one and another opponent that Nehemiah’s site is both true and reasonable. One unique and invaluable advantage that this site possessed I may here name in passing, viz., that by means of a secret passage (Sir C. Warren’s shaft, or the “Gutter,” 2 Sam. v, 8) the defenders of Zion had at their service an inexhaustible supply of water from the Virgin’s Fount.

If now the opponents of the eastern hill once more fall back from

arguments on *names* they will be worse off than ever, since General Gordon ("Reflections in Palestine," p. 14) observed, "The Hebrew 'tzion' is always the eastern hill." It will take a few bushels of names to outweigh that of the noble hero of Khartoum.

NOTES BY THE REV. G. H. TOMKINS.

I.

SUGGESTED IDENTIFICATION OF BERTHAH OR BERTHAL.

THIS place, so important on the northern frontier of Palestine, has never yet been fixed. The name B-rôthah, בְּרוֹתָה, is only given by Ezekiel (xlvi, 16) in setting out the boundaries of the tribes. I do not doubt that it is the B-rôthai, or B-rôthi, בְּרוֹתַי, or בְּרֹתִי, of 2 Sam. viii, 8, a city of Hadadezer, King of Zobah, taken from him by David. I hope to show that this place may now be identified in a very interesting way, both by its name and by its probable position, and I will take the matter as it came to me, only premising that if I am wrong in separate points still my main position may hold good.

In the Karnak List of Northern Syrian towns made tributary by Thothmes III (Mariette, "Karnak," pl. 19, 20, 21) occurs Bur-su (141). In "Proc. Soc. Bib. Arch.," Jan. 9th, 1883, I made a guess at its being possibly the Bisuru of Assurnazirpal (now Tell Basher), but this did not satisfy me, and it occurred to my mind that the explanation might be found in the Semitic word for cypress, or perhaps pine-tree, viz., Assyr. *burâshu*; Heb. *b-rôsh*, בְּרוֹשׁ; Aram. *b-rôth*, בְּרוֹת; Arab. (says Kitto) *burasi* and *burati*; Syr. vers. *berutha*; Chald. *berath*.

Now the *Bursu* of Thothmes is very close to the Assyrian *burâshu*, allowing for the Syrian *s* instead of *sh*, which the Rutenmu, lords of the land in the time of Thothmes, would use. *Burasu* and the Egyptian transcript *Bur-su* are one word, and this led me to the country of coniferous trees, and to the name B-rothah in the Bible.

It has been supposed that the B-rôthah of Ezekiel is Beirût, but I think this quite inadmissible from the situation of Beirût, and also from the name, which seems much more likely to be Heb. בְּאֵרוֹת, wells; and here I think Egyptian records will help us. For we have a Beerôth in the Palestine List of Karnak, No. 19, *Bartu*, so recognised both by Mariette and by Maspero (*Zt.*, 1881, p. 123). And again, we have Beirût in the Mohar's travels, *Bartha* (Brugsch, "Geog. Inschr.," vol. ii, 42; Pierret, "Voc.," pp. 124, 126). And these names differ from *Bur-su* as Beerôth, בְּאֵרוֹת, from B-rôsh or Burâsu, Berutha in the Syriac, and B-rôthah in Ezekiel, and B-rôthi in 2 Sam. viii, 8, which might well be near Riblah, but could not be Beirût, a place of the Phœnicians who were friends and close allies of David.

But I am anticipating. In the very interesting letter of M. Clermont-Ganneau (*Times*, Dec. 29, 1883, *Quarterly Statement*, Jan. 1884), the name of Wâdy *Brissa* struck me in connection with the rock-inscriptions of Nebuchadnezzar found there by M. Pognon, who thinks "that these texts mark the site of a timber-yard where trees were cut to be sent to Babylon." Now this seems to me to cohere with all the evidence, as I will try to show.

The name of the wâdy, "one of the wildest valleys on the eastern slope of Lebanon, about two hours from Hermel," appears also as the name of a place, *Brisa*, in the beautiful *Carte du Liban* of the French Imperial Government, at the mouth of the wâdy, down which a stream is marked as flowing to the Orontes. *Brisa* seems to declare the root B-R-S, which in various modifications signifies *to cut* (including B-R-TH), and this is the key to the names given above as designating the cypress, or pine, which was regarded as *timber* for hewing.

Now in Syriac names habitually end in the vowel *a*, and (as we have said) take the sound of *s* rather than of *sh*. And I think *Brisa* may well be so called from the tree in question, which Mr. Carruthers, of the British Museum, takes to be the *Pinus Halepensis* ("Bible Educ.," iv, 359); and it may well be this tree which the conquered people of the Lebanon are represented as felling for Seti I, that he might build a great ship, and rear their stately stems as masts for the bright streamers in front of his temples.

We know that Thothmes III led his armies to the Lebanon, and thence drew the tribute that pleased him. The ships of Phœnicia were laden with sticks of timber and masts, together with long poles of wood for [the dwellings of] the king, who had founded in the country of Lebanon a fortress of unusual strength, named after himself, near the Phœnician cities of Aradus and Simyra at the foot of Lebanon (Brugsch, "Hist.," vol. i, pp. 334, 336).

The great valley of Cœle-Syria, the course of the Orontes, the new walls and towers of Kadesh, were well known to this hardy warrior-king. And I know not why the name Bursu should not have marked the place in his time, where Nebuchadnezzar gathered his stores of pine-timber so long afterwards, and which is now known by the name of *Brisa*.

Possibly another name, hard by *Brisa*, may illustrate this supposition. In the *Carte du Liban* I find on the other side of Hermel a place marked Erénieh.

Now *êrinu* is the Assyrian name for the cedar, as in Hebrew עֵרֵב occurs in Isaiah xlv, 14. May not Erénieh be named from êrin, as *Brisa* from B-rôsh?

I will now endeavour to prove that *Brisa* is a very likely site for Berôthah, taking that place also as the B-rôthi of Samuel.

It was one of the cities of Hadadezer, King of Zobah, whom David defeated towards Hamath, where an intrusive Hittite king, Toï, was at war with Hadadezer (see Sayce, "Fresh Light from the Monuments," p. 163.) It is not surprising that Hadadezer, who had subjugated the

minor "kings of Zobah" whom Saul had beaten, should hold lordship over the upper course of the Orontes.

And, as far as we know, Brisa will suit Ezekiel's boundary right well. Unfortunately "the way of Khethlon" is not known. May Heit, west of Riblah, be Khethlon? It is on the way from "the great sea" to Zedad, *i.e.*, Sudud (Ezek. xlvii, 16). I think this description may be partly cleared as follows: "from the great sea the way of Khethlon towards the entrance to Zedad-Hamath [or Zedad of Hamath]; Berothah, Sibirim (which is on the frontier of Damascus and Hamath); the middle Khatser (which is on the frontier of Khanran); and the frontier from the west Khatser-Ainûn the frontier of Damascus, and Zephôn [the Orontes, as Captain Conder suggests] northwards, and the frontier of Hamath." The Septuagint, which is very confused, seems to read Zedad-Hamath as one name transposed, *viz.*, Hemaseldam. If we take it as meaning Zedad of Hamath the difficulty of getting Hamath into the frontier-list disappears; and then all will go consistently. For we thus cut out the Phœnician territory, including the Lebanon, by a line following the opening of the Nahr el Kebîr to a little south of the Bahr el Kades, then striking the Orontes near Hermel, and perhaps making its south-east corner at Sabura, west of Damascus (Sibirim? סבירים), and then westwards to the north of Hermon until it finds the sea again. This will not take the frontier to Zedad, but to the entrance (לבוה), "as men go to Zedad" (A.V.), or, as the Vulgate puts it, "a mari magno via Hethalon, venientibus Sedada."

Then Khatser-ainûm, if it be at 'Ain el Asy, as Captain Conder suggests, would be quite in the line following the higher waters of the Orontes (Zephon), and he says that it is "close to the present north-west limit of the Damascus district."

But the situation of Berothah seems to be nearly settled by one Biblical coincidence. The place called Berothai in 2 Sam. viii is designated Kôn, כּוֹן, evidently the Conna of the Antonine Itinerary, in the parallel text of 1 Chron. xviii, 8.

This has been set by Porter and the *Carte du Liban* at Râs Ba'albek; but the thirty-two Roman miles given from Heliopolis will overreach Râs Ba'albek, and accordingly Captain Conder suggests Kamû'a el Hirmil. But this distance will very nearly bring us to Brisa, which may surely well be B-rôthah and Kôn.

If indeed the Brisa of the rock-inscriptions of Nebuchadnezzar were the Bursu of Thothmes, and the Biblical Berotha, it would be a wealthy place, and David might well have taken "exceeding much brass" thence. And this would bring David's northern limit very near to the land of the Hittites and to Kadesh, as the record of his census shows in 2 Sam. xxiv, 6.

P.S.—I think it a very interesting thing that in the Karnak List of Northern Syria, No. 246, is found the name *Lebu*, which must, I think, be *Lebweh* on the road half-way between Ba'albek and Brisa, which

“modern name is sometimes pronounced *Lebu*,” says Captain Burton. “It is the Lybo or Lybon of the Antonine Itinerary.” (“Unexpl. Syria,” vol. i, 64) [? Libo].

II.

THE QUÊ OF THE ASSYRIAN ANNALS IN THE BIBLE.

THE land of Quê, mentioned by Assyrian kings in their records of conquest, was the plain of Cilicia.

In the last work which, still incomplete, left the hand of the lamented Fr. Lenormant (“*Les Origines de l’Histoire*,” vol. iii, p. 9), he has pointed out the interesting fact that this land is mentioned in 1 Kings x, 28, and 2 Chron. i, 16, where the word translated in A.V. “linenyarn” has so perplexed the interpreters. Jerome has given the true sense: “And horses were brought to Solomon from Egypt and from *Coa*, for the king’s merchants bought them from *Coa*, and brought them at a settled price;” and similarly in the parallel passage. In the Hebrew it is קרר, קרר, and it is to be noticed that “all the kings of the Hittites” must include the King of Quê, as indeed we know.

In the Septuagint the name is given as Thëkouč, Θεκουέ, but I think this was caused by the Egyptian prefix *Ta*, meaning “the land,” which might be familiar to the Alexandrian Jewish scholars.

This is an excellent instance of the light to be gained from Assyria for the explanation of the Bible. The name Quê also occurs in Egyptian records in the composite personal name of Kaui-sar, a Hittite officer in Egypt.

III.

LUZ IN THE LAND OF THE HITTITES.

CAPTAIN CONDER thinks that the Lûz built by the man who betrayed Bethel (Lûz), as recorded in the Book of Judges (i, 22-26), may be the present Lûtweizeh, near Bâniâs.

But if a more remote and northerly part of the “land of the Hittites” is to be preferred, it may be worth notice that in Rey’s map a place called Qalb Louze is marked between Aleppo and Antioch, in the middle of the Hittite region.

IV.

THE NAME BETH-LEHEM.

THE ordinary meaning given to the name Beth-lekhem is "house of bread," the modern name being hardly different at bottom, viz., "house of flesh" in Arabic, since the root **לחם**, to eat, is only varied in application, as we now restrict the old general word "meat" to flesh-meat.

But I have long suspected that Beth-lekhem was originally a sacred place of the Lakhmu of whom we read in the Chaldean cosmogony (G. Smith, "Chaldean Genesis," by Sayce, 58, 60, &c). Lakhmu and his female counterpart Lakhamu seem to have been deities of fertility.

There is another Bethlehem (of Zebulun), equally called Beit Lahm, an old city of the Canaanites (Josh. xix, 15), "in the midst of an oak forest," says Dr. Porter (Murray, 370), a better place for a sanctuary of Lakhmu than for a "house of bread."

I think this Lakhmu will also account for the name of "Lakhmi, the brother of Goliath the Gittite, whose spear-staff was like a weaver's beam" (1 Chron. xx, 5), and vindicate the text of the passage in the Chronicles in preference to that in 2 Sam. xxi, 19, which is otherwise doubtful. This devotee of Lakhmu would well match the son of Anak devoted to Saphi (Saphi) "of the sons of Rapha" in the verse before. (See my paper on "Biblical Proper Names," Trans. Vict. Inst., 1882.)

Perhaps Lakhmam, or Lakhmas, may be similarly named. It is supposed to be the present El Lahm, very near Beit Jibrin. "The situation appears satisfactory. The site is ancient" (*Quarterly Statement*, 1881, p. 53). This brings us to the very haunt of the sons of the giant, "the house of the giants." "We still find the neighbourhood of this town [Beit Jibrin] producing an exceptionally tall and fine race of peasants, greater and more stalwart men than those to be found in any other part of the country." So wrote the late Professor E. H. Palmer ("Jewish Nation," p. 58). Captain Conder speaks of the "gigantic sheikh" of this place ("Tent Life," vol. ii, p. 153). Indeed this Lahm might well be the home of "Lakhmi the brother of Goliath the Gittite," and Gath is only twelve miles off. That the old heathen significance of Lakhmu should resolve itself into "bread," and the proper name Lakhmi become unintelligible to the Jews, would be only characteristic of the purification that so signally swept Western Palestine of the monuments of its pristine idolatry, of which, however, the quaint memorials linger in occult forms of names and old-world folk-lore of the fellahin, as M. Clermont-Ganneau and Captain Conder and others have disclosed.

V

ZOBATH, ARAM-ZOBATH, HAMATH-ZOBAB.

ZOBAB has, I think, never yet been identified, unless, indeed, by the lamented George Smith in his last explorations from Aleppo.

Dr. Friedrich Delitsch, in his work "Wo lag das Paradies?" p. 266, gives most interesting extracts from George Smith's last pencil notes, in which he wrote: "(April) 6 (1876): 2.30 P.M. to 6.30 P.M. on to Sfra. —7: 6.15 to 3.30. Kanassar, at corner of lake building of basalt, road through hills, large city by lake. Greek inscriptions and remains, remains of large camp near city—earth inclosure.—8: 3 hours past end of hills to Zobat or Zibat 4 miles round extensive ruins. Many Greek inscriptions, nothing earlier, tombs on hills.—9: 8 hours to Meskeneh, (Tipsisah.)"

Now the name Zobat would agree with the Assyrian form of the name Zubitū, or Zubutu: and the place, more than a quarter of the way from Aleppo to Palmyra, would surely suit well enough for Zobah. Professor Sayce considers Pethor, at the outlet of the Sajur into the Euphrates, to have been in Aram-Zobah, and says: "The territory Zobah, which extended into the desert towards Palmyra, adjoined Aram-Rehob, and Aram-Maachah (2 Sam. x, 6). Aram-Maachah again bordered on Geshur "in Aram" (2 Sam. xv, 8; iii, 3); and both formed parts of the territory allotted to Manasseh (Josh. xiii, 11, 13). However, Rehob and part of Zobah alone are included under the name of *Arumu* or Aram in the Assyrian inscriptions, which place them on the west of the Euphrates, southward of Pethor and the R. Sajur" (Queen's Pr. Bible Supp., p. 69).

Is it not possible that the Tōb of 2 Sam. x, 6, whence the Ammonites hired Aramaeans against David (with the warriors of Zobah, Beth-rehob, and Máakah) may be found at Taiyíbeh (marked Tyba in ancient maps), between Palmyra and Thapsacus, and that Rehob may be Ruheibeh, north-east of Damascus, on the old route to Palmyra by Geruda (Porter, "Syria, &c.," p. 505). It does not seem necessary that this Rehob should be the same as the northern limit of the reconnaissance of Joshua's spies. The name is frequent.

"Maachah," says Canon Tristram, "lay east of Argob (Deut. iii, 14), and east of Bashan (Josh. xii, 5)."


As to Khamath-Zobah, may not this be explained as the *warm baths* near Kanasír in the land of Zobah (חַמְתָּ, the same in Hebrew without points as Khammath, viz., the present Hammâm ("Unexpl. Syria," vol. ii. 180), just as at Tiberias the Khammath of Josh. xix, 35, now Hammâm Tabaríya?


P.S.—Is it possible that the name Ma'akah may in altered shape survive in the Tell Umm Ma'azah, visited by Burton and Drake, north-east of the Lejah! ("Unexpl. Syria," vol. i, p. 231.)




EXPLORATION IN THE DELTA OF EGYPT.

BY THE REV. H. G. TOMKINS.


IN the *Quarterly Statement* for January, 1884, some account was given of the important work of M. Naville for the Egypt Exploration Fund in the Wady Tumilât, *i.e.*, the valley of the Sweet-water Canal. Since the memorable discovery at Tell el Maskhutah much has been done at Sân by Mr. Flinders Petrie; and just now the subscribers to the Egypt Fund have received M. Naville's Memoir on "The Store-City of Pithom, and the Route of the Exodus." Of this I will first write something, and hope in a later number of the *Quarterly* to give a short account of the last year's work, and of that now in hand.


M. Naville's Memoir is handsomely got up, and contains thirteen plates and two maps. The plates are photographic, and represent the statue of the recorder and the sculptured hawk, both in the British Museum by the gift of H.H. the Khedive to the Committee, and of the Committee to the Museum. The plates give the inscriptions found by M. Naville. In these the name of the nome is given, that of the district, and that of the "store-city." The nome is , the 8th nome of Lower

Egypt. The district is , the last form being truly equivalent to the Hebrew סְבוֹת, letter for letter.

With regard to the equivalence of  and ס the instances given by Brugsch in the *Zeitschrift f. Aeg. Spr.* 1875, p. 8, are conclusive, and so says M. Naville, p. 6: "The letter  which was pronounced *th* is often transcribed in Greek and Coptic by σ, and in Hebrew by ס. The name of Σεβέννυτος, Sebennytyus, *Theb neter*  ⊗ is a striking proof of this assertion, which is corroborated by the spelling of many common names. I need not dwell on this philological demonstration, which seems to me quite conclusive."

Yet a writer in the *Athenæum* of February 14, 1885, has the hardihood to pronounce that "the philology that can identify the *Oukut* of the hieroglyphics with the סְבוֹת of Exodus xii, 37, is worthless."¹

The "store-city" is called by the name of its sanctuary, spelt both ideographically and phonetically, , Pi-Tum, Hebrew פֶּתֶם, and


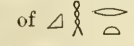
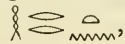
, Ha-neter Tum, which equally means the sanctuary of Tum; and the tutelary god of the place is identified by various and conclusive

¹ I am glad to find that M. Naville agrees with me in an interesting point: "Rev. H. G. Tomkins has pointed out that we have the Assyrian transcription of Succoth in the Iskhût of Essarhaddon. *Academy*, March 3, 1883." Mem. p. 6, note.

proofs besides. In the *Deutsche Revue*, March 1884, p. 358, Brugsch gives his adherence to M. Naville's conclusion in most undoubting language.

I have already pointed out in the *Quarterly Statement* for January, 1884, how singularly the structures disclosed at Tell el Maskhutah, even in minute details, tell their own tale and bear out the precise and unusual particulars of the story in the Book of Exodus with regard to bricks, and straw, and reed, and the short supply, and the "hard bondage in mortar." It will not be doubted, I believe, by those who weigh the manifold monumental evidence, that we have there the store-city Pitum, built by the enthralled children of Israel.

It is in the large and important tablet of Ptolemy Philadelphus that we get some most interesting clues to further geographical discoveries.

The most curious is the mention of a place, with a sanctuary of Osiris, called , Pi-keheret, which seems, as M. Naville supposes, to have been "the second sanctuary of Heroöpolis, at a short distance from Pi-Tum, but nearer the sea." He compares the name with the Pi-Ha-Khiroth (Exod. xiv, 2, 9; Numb. xxxiii, 7), פִּי הַחִירֹת, LXX (Numb.), *τοστόμα Εἰρώθ*; Vulg., Pihahiroth. In Numb. xxxiii, 8, we have merely Hakhiroth; LXX, *Εἰώθ*. The name itself seems to be, therefore, Egyptian, expressed in Hebrew חִירֹת. This would, I think, convey the sound of  well enough. Considering the determinative (a serpent), may we not compare , "serpent of the lower hemisphere" (Pierret. *Vocab.*, p. 372)?

The ascertained position of Pi-tum and the indication of "Pihakhiroth" of Exodus put us on the sure line of march of the Israelites. I would recommend students of these questions to read the new edition (just out) of the very able and important work of the Abbé Vigouroux, "*La Bible et les Découvertes Modernes*," 4^{me}. edⁿ. Paris. Berche et Tralin, Tome II.

In a future *Quarterly Statement* I hope to return to some detailed points of geography of the eastern part of the Delta. Meanwhile it is most satisfactory to know that M. Naville has undertaken excavations at an important point near Fakûs in the heart of the land of Goshen.

In the great ruined and deserted capital of the Delta, Zoan, Tanis, Sâh, Mr. Flinders Petrie has entered on a course of thorough examination in his methodical and perfect style. It must be remembered that he has done much valuable service, which scholars will appreciate, in pioneering; having sifted the first tentative suggestions in very many places, and ascertained at what spots work will be worth the cost. All this is of very high practical importance, besides the actual results, of which I hope to speak in the next *Quarterly Statement*, with regard both to biblical and to classic antiquity.

The Rev. W. C. Winslow, of Boston, the Hon. Treasurer for America, is doing most active and successful work; and with regard to support at home it is especially to be noted with much pleasure that the Hellenic Society has given an earnest of approval and practical interest by a

donation towards the cost of excavations at the spot where Mr. Flinders Petrie has, in all probability, hit upon the ancient Naucratis, the one Greek colony of later Pharaonic times. The Hellenists will revel in the spoils of this mine of early Greek art, while the Biblicists will await the certainly important tidings of further exploration in Goshen and the "Field of Zoan."

THE SITE OF EMMAUS.

BY THE REV. P. MEARNS.

THE interesting narrative of our Lord's journey to Emmaus, with two of His disciples, on the day of His resurrection, has caused much attention to be given to the question as to the site of the village; but, until recently, nothing satisfactory had been suggested in the way of identifying the site. Mrs. Finn's identification of Emmaus with Urtâs, in the valley of Etham, near Bethlehem, has been received with much approval, as it well deserves to be. But certain objections have been urged against this discovery by writers who have paid some attention to the subject, and such objections ought to be carefully weighed. One thing seems to me certain, however, that if Urtâs be rejected the site is still entirely unknown.

Two writers, who both held theories of their own, have stated objections, in the *Quarterly Statement* for October last, to Mrs. Finn's discovery. It has been remarked by a shrewd observer of men and manners, that when a man has made a speech in favour of an opinion he is not likely to change it, even after he finds strong objections stated against it; but, if he has written a book in its advocacy, there is no longer any hope of his abandoning it. Mrs. Finn's critics naturally wish credit for previously expressed views; but others will be careful to weigh the evidence on both sides. The two objectors to Mrs. Finn are not themselves agreed; and, whatever may be said of her discovery, I think we must throw their theories overboard; for they do not seem to me to meet the requirements of the case. It appeared to me at first, as it does still, that none of the sites recently discovered in Palestine have been supported by evidence more conclusive than that produced by Mrs. Finn in favour of Urtâs as the true Emmaus.

Mr. Henderson says—"At the risk of being classed among cavillers I venture to give reasons for entirely dissenting from the proposed identification." He refers to Lightfoot, "who proposed to identify Etham with Emmaus, not only anticipating Mrs. Finn's proposal, but giving another, and (as he thinks) more plausible support for it than she has done." This remark is curious, especially as following his strong dissent. It cannot mean, that because the learned Lightfoot went to the valley of Etham for the site of Emmaus, Mr. Henderson "entirely dissents from" the proposal of Mrs. Finn to go to the same valley for the same purpose.

Perhaps he merely meant to refuse the credit of the discovery to Mrs. Finn because Lightfoot made a remark somewhat in the same direction. He thinks that Lightfoot anticipated Mrs. Finn's proposal, and gave more plausible support for it; and we almost expect him to add, therefore I yield to Dr. Lightfoot rather than to Mrs. Finn. Any one who has read Lightfoot's remark will see that it is feeble compared with the conclusive evidence adduced by Mrs. Finn; but we accept the identification with equal readiness, whether it is made by Lightfoot or Finn.

Mr. Henderson begins his objections thus:—"There is no evidence to show that 'the bath' Mrs. Finn writes of is of the age she assumes—that is, was old enough, not to say important enough, to give its name to a place known to Luke and Josephus." The reader is apt to suppose from this remark, that Mrs. Finn had incidentally found a bath among the ruins at Urtâs, and at once inferred that it was old enough to have given the name of Emmaus to the place before the days of Luke and Josephus; but, on turning to her paper in the *Quarterly Statement* for January, 1883, he will find that she has not said anything like this. After a personal examination of all the places, within $7\frac{1}{2}$ miles of Jerusalem, that had been or might be proposed as the site of Emmaus, she fixed on Urtâs as the only one that met the requirements of the narratives of Luke and Josephus. Her conclusion was not hasty, but was reached after a prolonged investigation of ten years. The ruined buildings had been concealed by 20 inches of soil; but she said that diggings might bring the buildings and the baths to light. "Several years passed before funds for making excavations were forthcoming;" but at length excavations were made, and both the buildings and the baths were found. Mrs. Finn thinks that there is reason to believe that baths had been used here in ancient times from the days of Solomon. It is a caricature of her remarkable discovery, to say that she found *one bath*, and concluded that it was old enough to have given name to the place.

Mr. Henderson's second objection is, that "the existence of a bath, or baths, in a valley down which flows abundance of water is not, *primâ facie*, a thing so special as to explain the distinctive name of a village." He does not say that the excavations carried out under the direction of Mr. Cyril Graham and Mrs. Finn brought several baths to light; but he slips in the words "or baths" to cover the whole. The reader who fails to turn to Mrs. Finn's paper will form a very incorrect idea of her discovery from the representations of Mr. Henderson. The local name of Urtâs is Hammâm, which like Emmaus signifies baths; and a rock there has the name *Leeyet al Hammâm*, that is, "the promontory of the baths." Here was abundance of water, and baths, and the very name Emmaus in its local form. But Mr. Henderson thinks that "if every place is to be recognised as a possible Emmaus where the name 'Hammâm' is found, we shall have plenty to choose from." It is not a "possible Emmaus" that is wanted, but one $7\frac{1}{2}$ miles from Jerusalem, with the other necessary requirements, and, if we give up Urtâs, instead of many places to choose from, there is not one left.

Mr. Henderson's other objections are equally trifling. Jerome looked away from Urtâs, which was near Bethlehem, where he was living, to Nicopolis, which was far away, as the Emmaus of Luke. Mr. Henderson rejects Jerome's opinion, for this Christian Father favours Nicopolis; but he tries to get an argument against Mrs. Finn from his very silence. He appeals also to the silence of Meshullam, who is now dead; but how does he know what Meshullam had heard of Emmaus or Hammâm? As M. Meshullam and Mrs. Finn were joint-cultivators of the ground at Urtâs, it is likely that she had told him all she knew about the name, and probably he knew of it before her, as he had lived for years on the spot. Mr. Henderson thinks that Urtâs refers to the old gardens of Solomon; and that it was an older name than Emmaus; but he has not produced a particle of evidence for this opinion. Mrs. Finn's explanation is much preferable—that the Roman soldiers, who were settled there after the destruction of Jerusalem, changed the name from Emmaus to *Hortus*, the Latin name for garden; and that the natives corrupted this name into Urtâs.

Mr. Henderson is favourable to the claims of Kubeibeh, for which place not much can be said, except that it is about the proper distance from Jerusalem, which might be said of many other places equi-distant with it. The Crusaders fixed on it; but their opinion does not count for much. In publishing an account of my journey in Palestine in 1881, from Joppa to Jerusalem, I had occasion to remark—"It is a pity we can ask no more than probability for Kubeibeh" as the site of Emmaus. I could get no reliable information regarding the site. Since the publication of Mrs. Finn's discovery, in 1883, there is no longer a *probability* in favour of Kubeibeh. Mrs. Finn was aware of its claims; but, after a personal inspection, she concluded that neither there, nor anywhere else at the distance of $7\frac{1}{2}$ miles from Jerusalem, is there a sufficient supply of water for the baths of Emmaus. Professor Robinson says, that it was only in the beginning of the fourteenth century, when traces began to appear of the "idea which fixed an Emmaus at Kubeibeh; a transfer of which there is no earlier vestige, and for which there was no possible ground, except to find an Emmaus at about sixty stadia from the Holy City."

Mr. Henderson is not strongly in favour of Kubeibeh—he gives his readers a choice of it, or Khamasa on the other side of Jerusalem: he is only strongly against Urtâs, the true site. He was formerly an advocate of Khamasa, but the distance of ten miles from the city appears to have cooled him; although he retains the name, in the face of this formidable objection, so far as to offer his readers a choice between Khamasa and Kubeibeh. Lieutenant Conder's objection to Khamasa is unanswerable—"The distance of Khamasa is $8\frac{1}{2}$ English miles (some seventy stadia) in a straight line, and 10 by road" (*Quarterly Statement* for 1881, p. 274). Mr. Henderson reserves a right to offer a choice of Khamasa after it has been given up by everybody else who has given attention to the subject.

The second letter is very incorrectly printed. I therefore avoid

referring to what may be only typographical errors. But the letter is more distinguished by confidence than caution. Mr. Kennion begins by saying: "Mrs. Finn's case rests on a mistaken inference from the words of Josephus about the Galilee Emmaus." He ought to have been very sure of his ground before writing down so sweeping a condemnation of so esteemed a writer as Mrs. Finn. She is not likely to have rested her whole case "on a mistaken inference." On examination it will be found that Mr. Kennion is mistaken, and not Mrs. Finn. He says that Josephus interprets the name Emmaus "to mean *pro hæc vice* hot wells. But he certainly does not intend it to be understood that the name Emmaus always has that meaning." But Josephus, in fact, does not interpret the name Emmaus to mean, either for the occasion referred to or any other, "hot wells." The word he uses is *θερμα*, *warm baths*, referring to the gentle heat of baths. But if he had meant hot springs he would have used the feminine, *θερμαι*. Josephus says, that the meaning of a warm bath was particularly applicable to the Tiberian Emmaus; for in it was a spring of warm water, to supply the bath, and useful for healing. The historian distinctly says, that the name always points to a warm bath. The Hebrew Hammath also signifies "warm baths," rather than hot springs, as Dr. Tregelles remarks under the word in his edition of Gesenius. At Emmaus Nicopolis there was a healing fountain, and the baths supplied by it gave name to the place. Neither at Nicopolis nor Urtâs is there a hot spring now, whatever there may have been in the days of the Bible; but Mrs. Finn thinks that the name might be given to a place famous for its baths artificially heated. Mr. Kennion asserts that there is "no ground for the assumption with which Mrs. Finn sets out, that the interpretation given by Josephus to the Galilee Emmaus is to be extended, or has any application to any other Emmaus." But the truth is, that Josephus records the fact that the name was applied to three places—Tiberias, Nicopolis, and the village $7\frac{1}{2}$ miles from Jerusalem; and he intimates no limitation of the general meaning he assigns to the word.

Mr. Kennion gives a much better account of Mrs. Finn's discovery than Mr. Henderson does. He says:—"The copious fountain in the Urtâs valley attracted her attention, as being sufficient to supply baths. The recollection of once visible traces of baths still existed in the neighbourhood: search is made: remains of extensive and luxurious baths are brought to light, dating very probably from the days of Herod the Great: and Mrs. Finn concludes that she has found Emmaus." We almost expect him to add, as he might well have done, I agree with her, and accept this as a highly interesting and important discovery. It is therefore disappointing to find him adding, "I submit that, just as every Emmaus was not a Hamath, or hot spring, so every discovery of Hammâm, or baths, is not the discovery of an Emmaus. That there were Hammâm at Urtâs Mrs. Finn has discovered as a veritable and interesting fact. But that the village itself, or the district, was ever known by the name of Emmaus, or even of Hammâm;

Mrs. Finn has not advanced a fragment of evidence." I have already shown that Emmaus is never a hot spring, but a hot bath, and that the three places to which, according to Josephus, the name was applied had all a spring for the supply of baths, and that Mrs. Finn found the local name for Emmaus at Urtâs. We do not speak of "a fragment of evidence" merely, but we say that the chain of evidence in favour of Urtâs is complete, not one link being wanting.

Mrs. Finn remarked in her paper that Emmaus had been "chosen for a Roman settlement of military colonists, 800 strong;" and she added that "Cæsar ordered the lands of Judæa to be put up for sale, *all but one place*, which he reserved for 800 men, whom he had dismissed from his army—which he gave them for habitation." She thought it "not likely" that Kolonieh would have been chosen for the Emmaus settlement; "for it would have been altogether useless on the western side as a check on the eastern fortress of Masada, or on the mountain district in general, being too much off the upper plateau of Highlands." Mr. Kennion objects that "the colonisation referred to was in no sense what she calls it, *military*. It was a *grant of land* to 800 *disbanded* veterans, for their residence and possession." Unintentionally no doubt, but not the less really, does he here misrepresent Mrs. Finn. He does not quote her words, but he conveys the impression that, according to her, the 800 soldiers belonged still to the regular army, and that they were stationed at Emmaus solely for defensive purposes. But she called the company military only because it consisted of soldiers dismissed from the army; and they would require some fortification to defend themselves from the sudden attacks of neighbours in those times of war and confusion. Their very presence would be a protection against incursions from the east side of the Jordan. Mr. Kennion puts emphasis on the words *grant of land* and *disbanded*, as if to intimate that Mrs. Finn had said something contrary; but her words were confirmatory of both.

Mr. Kennion tries to get some help from Jerome, who blunderingly fixed on Nicopolis as the Emmaus of Luke, and overlooked the true site; but he admits the fact that the true site was not known in the days of Jerome, so that he can get no help from him.

He mentions what he calls an *improbability*—that Josephus and Luke should have stated the distance from Jerusalem if the place was so near Bethlehem. He is at a great loss for arguments when he resorts to such an improbability. Josephus was likely to state the distance from the great city where the Romans completed their conquest of the Jews, when he was speaking of the destination of a portion of the disbanded army. And as for Luke, he was describing a journey, not from Bethlehem, but from Jerusalem to Emmaus, and probably the disciples only passed near, and not through, the City of David. His mistaken improbabilities lead him again to speak of "the fragile nature" of Mrs. Finn's arguments;" but he is still dreaming; when will he awake? It is "as when a hungry man dreameth, and, behold, he eateth; but he awaketh, and his soul is empty."

Mr. Kennion concludes by propounding his own theory, which is, that the district of Emmaus in Josephus "lay along the valley that has Kolonieh at its southern extremity," and that the village in Luke "was near the head of that valley, and reaching on to Kubeibeh." It is his old opinion, which he finds it hard to give up in favour of Mrs. Finn, whom, however, he thanks "for her valuable contribution to the discussion."

I have already referred to the claims of Kubeibeh, which really have no weight in the presence of Mrs. Finn's discovery. As for the district beginning at Kolonieh, four miles from Jerusalem, it is impossible that Josephus, who knew the district well, could have said that it was $7\frac{1}{2}$ miles from the city. The proposal of this site must therefore be regarded as utterly untenable. But no discovery of baths is mentioned at Kubeibeh; and the reader now perceives why the writer was led into the error of asserting that Josephus explained Emmaus to mean hot springs, and that baths were not necessary to every Emmaus. He shuts his eyes against the flood of light which Mrs. Finn has thrown on the subject, and says: "One conclusion is indisputable, that no other location of St. Luke's Emmaus could by any possibility combine so many rays of light as converge upon the Wady Buwai." His conclusion is not only disputed, but we may pronounce it utterly impossible to accept the site he proposes. All was doubt and uncertainty about the site of Emmaus till the publication of Mrs. Finn's paper; but now all appears clear and certain.

Coldstream.

ZION AND OPHEL.

BY J. M. TENZ.

Mr. Birch and Dr. A. H. Sayce are confident that Mount Zion stood on the south side of the Temple mount which descends down to the lowest part of the valleys surrounding Jerusalem, and Dr. Sayce, in his "Topography of Præ-exilic Jerusalem," in the last *Quarterly Statement*, takes it for granted that it is no longer possible to deny it. Yet the valley which Dr. Sayce shows in his sketch map to divide Ophel from his little Mount Zion on the lowest hill of the city has no existence.

We may also justify the remarks made by Captain Conder in reply to Mr. Birch on the same subject in the last *Quarterly Statement*.

Josephus, the great historian of the Jews, who is so much blamed for his errors, and attributed errors, is yet the most reliable authority, as it has in many cases been proved by recent discoveries.

Having for many years taken great interest in the history of Jerusalem, the Temple, and the discoveries made from time to time by exploring

parties, and having also carefully constructed a model of that city when in the time just before its destruction by Titus, I may be permitted to give my opinion on the topography of ancient Jerusalem.

The "upper city" of Josephus answers to all requirements of Mount Zion, the City of David. "Walk about Zion, and go round about her, tell the towers thereof, mark ye well her bulwarks, and consider her palaces," means many towers, extensive walls, numbers and important palaces, which could not have all been placed on the lower slope of the Temple-hill, which by Josephus is called the suburb.

In a military point of view we may naturally suppose that the uppermost hill was "Mount Zion, the stronghold of the Jebusites." History and recent discoveries support it. When the Israelites took possession of their promised land, Jerusalem fell to the lot of Benjamin (5 "Ant.," i, 22), "but the Jebusites who inhabited it were not driven out until the time of David," "and the border went up by the valley of the son of Hinnom unto the south side of the Jebusite; the same is Jerusalem" (Josh. xv, 8). This passage sufficiently indicates that the border went up by the south valley, which is now called valley of Hinnom. The Tomb of David may also be looked for at or near the traditional site, which is over against, or near "the pool that was made" (Neh. iii, 16), which may well be the so-called lower Pool of Gihon, once one of the largest pools at Jerusalem.

The Dragon Well may be identified with the Virgin's Well.

On the arrival of Nehemiah at Jerusalem, the Temple was partly rebuilt by Zerubbabel; the king's high house (the site of which was in later years joined to the outer court of the Temple by Herod the Great) was probably restored, and the Nethinims had dwellings in Ophel; Nehemiah would have taken up his residence there, as the other parts of the city were still in ruins. On his night journey he would have proceeded from Ophel to the valley gate before the Dragon Well (Virgin's Well), then went on to the dung gate, probably the same as the gate between two walls near the Pool of Siloam, then to the fountain gate, a gate leading to the upper city. After he went up by the brook (Brook Gihon and Valley of Hinnom), then returned and entered by the valley gate (Neh. ii, 12-15).

Further explorations may result in the discovery of the site of the east, or Shushan gate, which according to the Talmud stood over against the east front of the Temple. Thus we would obtain the exact line from east to west through the centre of the Altar, which, I believe, stood on the rock in the Great Mosque. It has also been remarked, in one of the *Quarterly Statements*, that the sacred cubit, which is said to have been marked on the sides of the Shushan gate, may yet be found on the lower part, which must have been below the level of the court, with steps to descend to a much lower level of the ground outside the wall, but which is now to a great extent filled up. The discovery of that gate would therefore be of great importance.

It is still my impression that some remains of the second wall may yet be found on the east side of the Church of the Holy Sepulchre. It is quite possible that that church may cover the site of Calvary and the garden of

Joseph of Arimathea. Although, according to the Talmud, the place of stoning, and the discoveries of the ruins of St. Stephen's Church outside the Damascus gate, may favour Captain Conder's views of his supposed Calvary on a hill just outside that gate, yet the traditional site, which dates at least back to the time of the Empress Helena, ought not to be disputed until further discoveries can be made.

We sincerely hope that the Palestine Exploration Fund Society will be able to continue their work of exploration at Jerusalem, which is the only means to lead us to a satisfactory result.

December 10th, 1883.

CAPTAIN CONDER AND KADESH-BARNEA.

BY THE REV. H. CLAY TRUMBULL.

INASMUCH as Captain Conder has given special prominence, in the *Quarterly Statement*, to my volume on Kadesh-Barnea, as worthy of consideration in the settlement of a pivotal point in the lower boundary of Palestine, I venture to ask the privilege of calling attention to the main purpose of that volume—which he has not touched by his comments.

In "Kadesh-Barnea," I have subjected every Biblical mention of that ancient site to an examination, and have compared them all with each other, showing, as I believe, that many of them absolutely require its location at or near the site of 'Ayn Qadees, and that every one of them is consistent with that location; hence that there and there only its identification is properly to be looked for. If I am right as to this consensus of Biblical evidence, it follows that even if a Kadesh-Barnea be actually discovered elsewhere, it cannot, by any possibility, be the Kadesh-Barnea of the Bible-text.

This basal portion of my volume is, as I have said, left untouched by Captain Conder's criticisms; and if, indeed, he were found to be correct at every one of his more than twenty noted points of difference with my incidental suggestions of confirmatory evidence of the identification of 'Ayn Qadees, my claim that *there* is the site of Kadesh-Barnea would remain as strong as before, in spite of such errors in my confirmatory collatings.

But, lest Captain Conder's long list of apparent mistakes on my part should throw discredit on the really important portion of the volume, not dealt with by him, and so should deter from its examination those who know of it only from his criticisms, I desire to say, that after a careful re-examination of every point to which Captain Conder has taken exception, I am of the opinion that at no one of them has he shown an error in the work he criticises, while in a number of cases his own position is clearly untenable. Let me name a few illustrative instances.

1. I referred to the plain of "Es-Seer," or "Es-Sirr"—as noted by Rowlands and Wilson and Palmer—as a trace of the old name of "Seir," in the region south-eastward from Beersheba. Captain Conder says of this modern name: "Until it can be shown to contain the guttural of the Hebrew, it cannot be considered to represent Seir, especially as it should begin with *Shin*, nor with *Sin* or *Sad*." But Gesenius, Fürst, and other lexicographers, are positive that the Hebrew guttural (ע) is frequently interchanged with approximate sounds, and is sometimes dropped altogether. Captain Conder himself suggests this dropping, when he would find a trace of "Ba'al" in "Ballah." And Dr. John Wilson even cites this very word "Seir" (east of the Arabah) as an illustration of the exceptional dropping of the 'Ayn. "Yet we have," he says, "الشَّرَاد (Esh-Sherah), for שַׁעִיר (Seir)." And in this view Wilson is sustained by Burckhardt, by Koehler in his notes on Abulfeda, and by others.

Again, the lexicographers above-named give marked illustrations of the representing of the Hebrew *Sin* by the Arabic *Sin*, instead of *Shin*. This would seem to make it possible, certainly, for the name "Es-Seer" to be a trace of the ancient "Seir," especially as the district where it is found did, as I think I have shown from the Bible-text, formerly bear that name—whether it be found there now or not.

2. I have claimed that the early Old Testament sweep of Edom clearly included the region also known as "Seir," where Esau lived before he removed to "Mount Seir." Captain Conder thinks that "the name Edom, or 'red,' must surely have been applied to the red sandstone country, and not to the white chalk plateau of the Tih." But the Bible says that the name Edom likewise came from the "red" pottage—which Esau ate on "the white chalk plateau" of his early home; "therefore was his name called Edom," and therefore was his land likely to be known as the land of Edom. I still incline to the opinion that the Bible statement has some basis of truth in it.

3. In explaining the causes of the long-prevalent error that there were two Kadeshes, I referred to the Rabbinical evidence that there were two Reqams, one of which was Petra, and the other was Kadesh. Captain Conder says, "I fail to find anything to support the view that there were two Rekems, one at Petra, one at 'Ain Kadis;" and he courteously suggests that "the second Rekem seems only necessary to the theory of 'Ain Kadis being Kadesh-Barnea." But I cited the assertion of a well-known Talmudic scholar of more than two centuries ago, that, according to the Talmud, "there were two noteworthy places named Rekam on the limits of the land [the Holy Land]." Then I showed from the Talmud itself that one of these Reqams was in the region of Petra (probably identical with it) while the other (sometimes called "Reqam Giah") was on the westerly side of the desert, toward Askelon. The identity of 'Ain Qadees with this second Rebam I left open for other proof. Does Captain Conder really think that the Talmud was written in the special interest of those who would identify Kadesh at 'Ain Qadees?

4. Concerning the "Mount Hor in the edge of the land of Edom,"—which is not, however, an essential point in the locating of Kadesh-Barnea,—I claimed that the whole tenor of the references to it in the Bible-text forbid the possibility of its fixing at the traditional site, in a mountain stronghold of the Hebrew-tabooed Mount Seir; while every requirement of the sacred text is met in the suggested location at Jebel Madurah. The evidence of the Bible-text Captain Conder does not discuss; but he is sure as to "the consensus of tradition and opinion in the matter." I spoke of the possible vestige of the Hebrew name "Moseroth" (one of the names of the lower Mount Hor) in the Arabic "Madurah," "the consonants 'D' and 'S' having a constant tendency to interchange in Eastern speech." At this Captain Conder says: "I do not think this is the case. The soft T and the soft S (*Te* and *Sin*) are convertible, and so are the soft D or Dh and Z (*Dhal*, *Dal*, *Zain*), but I do not recall any instance where D and S are convertible." I did not say that D and S were "convertible," but that they had "a constant tendency to interchange;"—if Captain Conder is not aware of *that* fact, I am surprised; for the lexicons teem with illustrations of it, and Orientalists frequently refer to the fact. For example, from Freytag and Fürst: Hebrew, קָסָה (*Khasa*); Arabic, حدا (*Hadaa*); both meaning "to flee." Hebrew, נָסַח (*Nasakh*); Arabic, نَصَح (*Nodakha*) and نَصَح (*Nadaha*), all three meaning "to pour out." Also in Arabic itself, such parallel forms as يَصَص (*yassasa*), and يَدِدُد (*yadduda*), "to open the eyes" (said of a young animal).

5. Incidentally I referred to the *correspondence* of the names "Zephath" and "Sebayta," and to the lack of the formerly claimed identity between "Zephath" and "Sufâh." Captain Conder says: "The radical meaning of this name [Zephath] in Hebrew and Arabic is the same, 'to be clear,' 'bright,' 'conspicuous,' 'shining.' The identity of Zephath and Sufâh can hardly be doubted by any who consider the root whence the two words originate. The suggestion of Sebaita or Sebâta for Zephath has always seemed to me to argue a want of scholarship on the part of Rowlands. The Arabic name seems to be from the root *Sebt*, 'rest,' which has not a single letter in common with the root whence Zephath originates." But it is Professor Palmer who says ("Desc. of Exod," ii, 375 f): "The name Sebaita is etymologically identical with the Zephath of the Bible, Zephath signifies a watch-tower." As to the root of the two words, it would seem that Captain Conder has mistaken, as a root, the Hebrew צָבָה (*Tsabah*), "to shine," for צָפָה (*Tsaphah*), "to look about." The idea that Professor Palmer, having examined this word on the field and afterwards in his study, should have confounded the root of "Zephath" and "Sebayta" with so common a root as that of the "Sabbath,"—"which has not a single letter in common with the root" he was considering,—presupposes "a want of scholarship" on the part of that eminent Orientalist which English readers generally will not be ready to admit without some show of proof.

6. One of the many Hazars, or Hezrons, or border-territory "enclosures," of Canaan, is mentioned in the sacred text as lying between Kadesh and Adar. I stated that I found traces of one or two enclosures between 'Ayn Qadees and 'Ayn Qadayrat, which would meet that description. Thereupon Captain Conder says: "Dr. Trumbull has omitted to notice what appears to me to be a strong argument, which, as far as I know, I was the first to suggest, in the identification of Hezron." The site of Hezron which Captain Conder suggests is "the Hadireh hill west of Wâdy el Yemen"—quite out of the Bible possibilities of the case; and he says: "It is strange that Dr. Trumbull should have been quite silent as to this suggestion, which if it be correct settles the Kadesh-Barnea question for ever;" and Captain Conder even thinks that "the omission of any notice of Hadireh (in 'Kadesh-Barnea'), and several minor errors above pointed out, seems to spoil the completeness of the work." Yet the term Hazar, Hazor or Hezron, or the plural form, in simple or in compound, is so common as a descriptive one in the Bible story (see, *e.g.*, Numb. xi, 35; xxxiv, 4, 9; Deut. ii, 23; Josh. xv, 23, 25, 27, 28; xix, 5, 36, 37; 1 Kings ix, 15; Ezek. xlvi, 16, 17), that if found by itself anywhere it would hardly be more determinative as a particular site than the term "camp." It is even shown by the Bible-text (Deut. ii, 23) that these Hazars or Hazarim were all along the southern boundary of Canaan, and four or five of them are noted, as near each other in that region, in the description of that border (Josh. xv, 23-28). The idea that the finding a trace of one of those "enclosures" "settles the Kadesh-Barnea question for ever," seems to me so utterly chimerical that I should not have felt justified in an attempt to refute it if it were not forced into fresh prominence by Captain Conder's renewed claim of its importance. I certainly accord to him all the credit of being, as far as I know, "the first to suggest" it.

7. I gave the Arabic name of "Qadâyât" precisely as it was written for me by my guide, who gave me also its English meaning as "the power of God." Captain Conder says that "it appears to be spelt with a *Dad* [instead of a *Dal*] by mistake." Yet the dialectic change of *Dad* for *Dal* is by no means uncommon in Arabic words, as the lexicons show. I simply gave the writing and the definition as given to me by a native Arab. Captain Conder has himself emphasized "the importance of studying the local peasant dialect of Syria," because of its throwing light on the interchanging of letters—like *Sin* and *Sad*—supposed by scholars to be "never confused." Possibly another example of this is to be found in *Dad* and *Dal*.

8. Quite outside of the question of the site of Kadesh-Barnea, but considered at some length in my book, is the route of the Hebrew exodus. Captain Conder says: "It is to be regretted, however, that sufficient notice has not been taken of the facts (both geological and engineering), which leave it indisputable that the level of the Red Sea has been changing, and that the Isthmus of Suez has been growing broader within historic times." In speaking of that which is "indisputable," Captain Conder probably

means that, in his opinion, the view he holds ought not to be disputed ; —although he is aware that it is. I have yet to see any claim by a geological authority that the Isthmus *must have been* materially narrower in the days of Moses. The mere opinion of a geologist that it *might have been* so at that date, because it had been so long earlier, can weigh but little against the evidence and indications from history, sacred and profane, to which I have pointed in my book, that then it *was not* so.

9. My footnote remark, in passing, an incidental item of Egyptian history, that “the fortress of Kana’an has not been identified,” prompts Captain Conder to say : “This seems to have been written before Dr. Trumbull had seen my paper on the subject, as my suggestion of Kana’an a large ruin near Hebron, met with hearty acceptance from Mr. Tomkins.” In the English edition of my book (published by Hodder & Stoughton), I have mentioned Captain Conder’s proposed identification ; but while I recognise the exceptional value of the Rev. Henry George Tomkins’s opinion in favour of one of Captain Conder’s suggested identifications, I still venture to repeat what I have already said in my revised volume, that, in my opinion, Khurbet Kana’an “does not correspond with the pictured [Egyptian] representation of a fortress on a detached hill, with a lake near it.”

10. Captain Conder’s mention of a “rationalistic explanation of the pillar of cloud and of fire, which seems suggested on p. 397” of my book, I do not quite understand ; but I desire to relieve the text and the tone of my work from the imputation which “seems suggested” in that mention. Referring to the fact that “it was common for Eastern armies to be guided by a column of smoke moving on in their van by day, and by a streaming banner of flame before them by night,” I said that when Jehovah’s host went out from Egypt, “the Lord went before them by day in a pillar of cloud to lead them the way ; and by night in a pillar of fire to give them light.” And to make it clear to every mind that I looked upon the Israelites’ guiding emblem as a supernatural and a miraculous display, I quoted approvingly the words of Kurtz, that the difference between the ordinary caravan-beacon and this one was, “that the one was a merely natural arrangement, which answered its purpose but imperfectly, and was exceedingly insignificant in its character, whilst the other was a supernatural phenomenon, beyond all comparison more splendid and magnificent in its form, which was also made to answer far greater and more glorious ends.” Possibly Captain Conder’s term “rationalistic explanation” was a slip of the pen, or a misprint, for “rational explanation.”

11. While admitting that I have shown the existence of an ’Ayn Qadees at the site described, Captain Conder suggests that it may be “a monkish site ;” since “the monks were not careful as to the Biblical requirements of their sites ;” and he also says that, “generally speaking, one feels that the evidence has been rather twisted in favour of ’Ain Kadis, though Dr. Trumbull has striven to be impartial and candid.” It is quite a fresh thought to me, that the monks were in the habit of fixing, in Arabic equivalents of ancient Hebrew, geographical sites of the Old Testament story,

in the Holy Land or the desert ; although I knew that they located the homes, or the tombs, of Moses, and Aaron, and Samuel, and Elijah, and Jonah, and other Old Testament personages, without much regard to the Biblical requirements"—as in the case of Jebel Neby Haroon (called Mount Hor), for example. Their interest was, I supposed, in Bible biography rather than in Bible geography. Indeed in a work written since my re-discovery of 'Ayn Qadees, Captain Conder has said implicitly on this point ("Heth and Moab," p. 18) : "There is, however, no better guide to identification than the discovery of an ancient name, and whatever may have been written concerning the migration of sites, we have not as yet any clearly proven case in which a Semitic indigenous title has wandered away from the original spot to which it was applied for geographical or religious reasons." Why Captain Conder would suggest an exception to his otherwise invariable rule, in this case of 'Ayn Qadees, is by no means obvious ; for I certainly would not suggest that, "generally speaking, one feels that the evidence, or the argument," "has been rather twisted" by him *against* 'Ayn Qadees ; for it must not be questioned that Captain Conder "has striven to be impartial and candid."

12. It would seem unnecessary for me to follow up in detail all the minor points touched by Captain Conder in his extended critical comments on my work ; not one of which has any more force than those to which I have already replied. But there is a single other suggestion of his which I ought to note in closing. He says : "The map requires a word of notice, for it is not clear why 'Ain Kadis is there shown much further east in longitude than is the case in Palmer's map, or Holland's map." It is even in connection with *this* point that Captain Conder suggests the appearance of my twisting the evidence I would proffer. On the face of my map I said distinctly : "This map makes no claim to accuracy in the unsurveyed region of the Negeb. Any comparison of maps based on the researches of Robinson, Rowlands, Wilson, Palmer, Holland, Bartlett, and other recent explorers, will show irreconcilable differences in the contour of that region as portrayed by them. All that this map attempts is to indicate the outline and salient points of that region in the light of present knowledge, and as explained by descriptions in the text of the volume which it accompanies." I will now add, that on my return from the East I saw Professor Palmer in London, and talked over my discovery with him. He told me that he did *not* visit 'Ayn Qadees ; hence he could not be sure of its location. We looked over his map together, and, in the light of all that I could tell him of my journeyings, he and I were agreed that 'Ayn Qadees must be farther east than he had supposed. Therefore it was that I entered it on my tentative sketch-map accordingly. As I understand it, Mr. Holland made no survey of the region, and the map which was prepared by General Sir Charles Wilson, to accompany Mr. Holland's posthumous notes of his journey, was also based on Palmer's (or Tyrwhitt Drake's) survey ; hence, again, the location of 'Ayn Qadees was there given as erroneously indicated by Professor Palmer. *The difference in the location thus indicated affects in no degree, however, the question of identification*—an identification which the

PLATE I
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1887

1888

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1890

1891

Bible record will admit of anywhere within the sweep of a dozen or fifteen miles or so in that region, and only within that sweep. There was, therefore, no inducement for me to change the location for the sake of my argument, even if I were as liable to such swaying as Captain Conder would suppose.

Of one thing I am very sure, that the precise location of 'Ain Qadees—which is Kadesh-Barnea—can be known only through a careful survey of its region; and I earnestly hope that that survey will soon be made under the eminently competent direction of Captain Claude Regnier Conder; for whatever differences of opinion there may be as to his thousand and one identifications, with his often fanciful and his sometimes grotesque suggestions of resemblance, there is no question that he has laid the entire Bible-studying and truth-loving world under obligation to him, for his tireless, his intelligent, and his most skilful services as an explorer and a surveyor in the lands of the Bible. And of that line of his work, I sincerely hope that the end is not yet.

H. CLAY TRUMBULL.

Philadelphia, U.S.A.

NOTES ON SOME PHœNICIAN GEMS.


By GREVILLE J. CHESTER, B.A.,

Member of the Royal Archaeological Institute.

IN the course of last winter, during visits of short duration to Smyrna and Beyrût, I obtained several antique gems and engraved stones of Phœnician and semi-Phœnician character, which seem to be of sufficient interest and importance to merit description in the *Quarterly Statement* of our Society. I should, however, mention at starting that, being altogether unlearned in ancient Oriental languages, I am indebted for the ensuing information concerning the different inscriptions to Professors A. H. Sayce of Oxford, and Robertson Smith of Cambridge, to whom my best thanks are due for the trouble they have taken, and the attention they have paid to the matter.

No. 1. Bought at Beyrût. (See plate.)—This gem is of pale blue chalcedony, approaching to the stone sometimes called "sapphirine," and is a fairly executed and beautiful specimen of semi-Phœnician work. The influence of both Egyptian and Assyrian art are here well displayed. The intaglio represents a winged sphinx treading upon a uræus. This sphinx, according to Professor Sayce, has the bearded human head of the Assyrian bull, surmounted by the plumes of the Egyptian god Bes. Each of the two wings ends in a horned head, of which one resembles that of a griffin, and the other that of some species of antelope. With regard to these heads, Professor Sayce remarks that they "suggest the origin of the

Greek legend of the Chimæra." Curiously enough, I this winter obtained in Lower Egypt a small bottle of brownish-green ware, being a grotesque human figure, in front of which is a seated lion, with the head and plumes of Bes. This variant was hitherto unknown to Professor R. V. Lanzone of Turin, the learned author of the "Mitologia Egizia," now in course of publication, and will be figured by him in the next forthcoming part of that work. On a Phœnico-Egyptian scarabæus of burnt sard in my possession, found in Egypt, is depicted a hawk-headed, seated sphinx, with the disk upon his head, and a uræus under his feet, and on a fragment of limestone sculptured on both sides, and of singularly fine work, now in the British Museum, but found in the Fayoum, and brought by me from Egypt in 1882, is a winged lion, passant, to the right, with the head and plumes of the same deity. Could this fragment have been identified as having been found in the Delta, it might have been supposed to have belonged to the period of the Shepherd Kings, and the combination ascribed to semi-Semitic influence, but I am not aware that the sway of the Hyksos extended to the isolated province of the Fayoum. Anyhow, it is interesting to compare the subject of the earthenware bottle, the gem, and the sculptured fragment, with that of the present stone. This gem has had a small hole drilled through it, close to the tail of the sphinx, by some possessor, who wished by that means to fit it for suspension.

No. 2. From Nazareth. (See plate.)—This gem, cut in intaglio in dark sard, is set in a modern gold ring of Oriental workmanship, and is of even finer work than the stone last described, and a most beautiful example of Egypto-Phœnician art. On it is a winged sphinx, seated, whose human head wears the Egyptian head-dress. Below this is a scarabæus, whose expanded wings stretch completely across the stone. Below this again, supported by uræi, is an ornamental cartouche, of which Professor Sayce remarks, "the hieroglyphics consist of the Egyptian *Neb*, 'Lord,' turned upside down, followed by the Hittite  'country,' twice repeated, and turned upside down." It may have been the signet of a Phœnician prince.

No. 3. Found at Amrît (*Marathus*). (See plate.)—This scarabæoid of hard yellowish-brown limestone is pronounced by Professor Sayce to be a very interesting example of Egypto-Phœnician work. It was formerly in the possession of the late well-known M. Perétié of Beyrût, whose large collection of Egypto-Phœnician amulets, scarabs, and scarabæoids fell into my hands after the death of their proprietor. Most of these objects are formed from steatite, but some, like the present specimen, are of harder stone. Their large number, upwards of three hundred, testify to a school of craftsmen for ornaments of this description having existed in early times, at least as early as Thothmes III, of the eighteenth Egyptian dynasty (*circa* 1600 B.C.), at Umrit.

The centre of this stone is occupied by the figure of a king, between two palm-branches, a characteristic and favourite emblem upon the Phœnician coast. The monarch, whose name seems to have been *Ah-nub*,

or, according to another possible reading, *Ah-men*, wears the *Pschent*, or combined crown of Upper and Lower Egypt, copied from Egyptian monuments, and is in the act of adoring the lunar disk "*Ah*." On either side the king is a cartouche, "each of which," says Professor Sayce, "contains the lunar disk *Ah*, and the character *Men*, each twice repeated and turned upside down. The work of this stone is distinctly Phœnician, and though the dress and attributes are Egyptian, the figure evidently represents a king of Phœnicia.

No. 4. Found at Beyrût. (See plate.)—This lentoid gem of white crystal is the most remarkable stone in the collection, and has been found very difficult to interpret. It has for its device three stars, of which the upper one is winged. Below these, and divided from them by two lines, is an early Phœnician inscription, written from right to left 𐤀𐤐𐤍𐤁 (ישעא),

i.e., *Yesha-ā*, from the root *Yēsha*, to save. Professor Sayce considers the characters to be of the seventh or eighth century, B.C., and certainly not later; in which case this gem is one of the earliest known, and he adds that "the two lines which divide the name from the stars and winged solar disk [for so he deciphers the winged star] explain the origin of the similar names which divide in half the inscriptions on early Hebrew seals." With regard to the translation of the inscription, I have permission to insert in this place two communications with which I have been favoured by Professor Robertson Smith.

"The seal reads 𐤀𐤐𐤍𐤁 , ישעא. The root ישע, is not Aramaic, and so the 𐤀 cannot be the Aramaic article. The explanation must be sought within the Hebrew-Phœnician language.

"This being so, the analogies which naturally present themselves are those of such Phœnician proper names as עבדא פתחא כלבא, in which the termination 𐤀 appears to mark that the name has been shortened at the end. Thus *Kalbā* is the same name as *Kalbēlim* (*Corp. Inscr. Sem.* Fasc. i, No. 52), *Hanno* (with *ō* for *ā* as a later pronunciation) is the shortened form of *Hannibal* or some such longer name, *Pathha* corresponds to a heathen counterpart of *Pethahia*, and so on.

"The Hebrews themselves have similar contractions of proper names, and had them at an early date, as appears from the form עֶזְיָהּ = *Uzziah* or *Azariah* in 2 Samuel vi, 3. Thus if the seal were Hebrew, the name on it would be the short form answering to ישעיהו, *Isaiah*. The winged star seems, however, rather to point to a heathen owner, and in this case the last member lopped off will not be the name *Jahveh*, but some other divine name, as in the Phœnician instances already quoted, and the name means 'the victory or salvation of' *Baal*, or whoever the god is.

"Quite similar is the Philistine name *Sidkā*, King of *Ascalon*, on the inscriptions of *Sennacherib*. ישע without the 𐤀 , appears as a proper name on a gem figured by *Levy*, *Phönizische Studien*, ii, No. 8a of the plate."

No. 5. Found at Konia, in Asia Minor. (See plate.)—This large scarabæoid gem, perforated lengthways for suspension, is formed of beautifully iridescent rock crystal. Upon it is represented the four-winged Assyro-Babylonian god Merodach, who, although the stone is slightly damaged, Professor Sayce considers is strangling in either hand the bird-demons. "This device," the Professor adds, "passed through Phœnicia to early Greece. Below Merodach, from which it is divided by double horizontal lines, is a bird, perhaps an eagle, on either side, divided by two vertical lines, the Egyptian symbol *Ankh*, the sign of life.

No. 7. Found at Beyrût.—A pierced scarabæoid. On it is a winged sphinx, with antelope's head, standing. Behind, a winged deity. This specimen is in poor preservation, but is remarkable on account of its material, which is malachite, a substance very rarely used by the ancients. Phœnician work.

No. 8. Found near Beyrût.—Scarabæoid of opaque white chalcedony. On it a bull, in front an amulet, perhaps intended to represent the solar disk. Good Græco-Phœnician work.

No. 9. From Beyrût.—Small scarabæoid of pale blue opaque chalcedony. On it a lotus flower; on either side, and facing it, a vulture with expanded wings. Beneath these a striated band. Below this a star, upon either side of which is a winged uræus, and again below, a scarab with expanded wings. Phœnician work.

No. 10. Coast of Syria. From the collection of M. Perétié. (See plate.)—This is a bead of white opaque gypsum. It bears an inscription of eight letters, the meaning of which has hitherto defied elucidation. Professors Wright, Robertson Smith, and Sayce are alike unable to interpret it, but the latter thinks it may be of Gnostic origin.

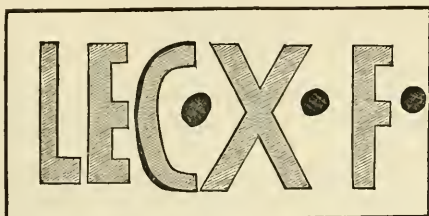
NOTES BY SELAH MERRILL, D.D., LL.D.

I.

A RELIC OF THE TENTH LEGION, CALLED "FRETENSIS."

I NOTICE in the list of antiquities in the possession of the Palestine Fund, that they have two imperfect specimens of tiles bearing the stamp of the Tenth Legion, and it may be of sufficient interest to state that I possess a perfect specimen, which I bought of some fellahin who had just dug it from its hiding place. The following are the dimensions of the tile; $7\frac{1}{2} \times 7\frac{3}{4}$ inches, and $1\frac{1}{4}$ inches thick. The oblong place for the letters is sunk into the tile, leaving the letters in relief, the surface of the letters

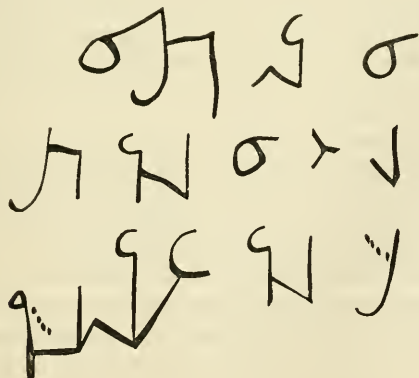
being of the same level as the surface of the tile. The oblong place itself is 4 inches long and $1\frac{3}{4}$ inches wide. The length of the letters is $1\frac{1}{4}$ inches.



II.

THE INSCRIPTION AT ARAK EL EMIR.

EVERY copyist, if he labours conscientiously, has reason to respect his own work until he is convinced that he is in error. I visited the place in question several times, and copied the inscription with care. My copy is quite unlike that which Captain Conder ascribes to Levy (*Quarterly Statement*, January, 1885, p. 12), and unlike that which Captain Conder gives as his own (*ibid.*), inasmuch as mine has a decided bar extending from the top towards the right as in the initial letter of the following inscription from Bozrah :—



In the first and second lines a letter occurs three times which is identical with the first letter in the Arak el Emir inscription. This letter I would read *Aleph*, and would transliterate the above inscription—

אמתא
לגאברת
--בר-מ-

This is one of a number of Nabathean inscriptions which I copied while at work in the Hauran, but I have never had time to classify them or to give them much study.

I have for years felt that there were a larger number of Nabathean inscriptions to be gathered in the desert east of the Jordan than scholars imagined, and that when these have been collected, materials will exist for a better understanding and a fuller knowledge of that once powerful and interesting people.

I make no attempt to translate the Arak el Emir inscription, but when I visit the place again I will take pains to re-copy it, or to take an impression of the letters.

III.

THE STATIONS OF DAVID'S CENSUS OFFICERS.

THE account of the numbering of the Israelites by David contains some interesting geographical notices, two of which, at least, have always been puzzles to scholars. It will be a help to remember that only Israel and Judah were to be numbered (see 2 Sam. xxiv, 1). The command was, "Go now through all the tribes of Israel, from Dan even to Beersheba," and leads us to suppose that aliens and subject peoples, whether within or without the limits of the kingdom, were not to be reckoned in the census of the Jewish people themselves. This is confirmed by verse 9, where the sum of the men of Israel and Judah only is given.

King David's officers crossed the Jordan and pitched first in Aroer near Jazer. They went thence to Gilead. Their third camping place was "the land of Tahtim Hodshi," their fourth camping place was Dan Jaan, and their fifth was Sidon. They went thence to the "stronghold of Tyre," and thus southward to Beersheba, keeping within the limits of the territory as defined in verse 2. The Hebrew of verse 6 is as follows:—"And they came to Gilead, ואל-ארץ תחתים חדשי, and they came רנה יצן." The Septuagint renders verse 6—"And they came to Galaad, and into the land of Thabason which is Adasi, and they came to Dan Idan and Udan, and compassed Sidon." The Targum on Samuel has after Gilead, דרומא חדשי

וּלְאֶרְצָא, that is, "and to the district south of Hodshi." Eusebius has, Ἀμειδδα ἡ Ἀδασαί, and Jerome, "Æthion Adasai pro quo Symmachus posuit inferiorem viam."

Numerous suggestions have been made in explanation of the words Tahtim Hodshi. The Septuagint regarded them as two names belonging to one place. Zunz, whose high rank among Jewish scholars all admit, regards them as two distinct places. Boettcher resolves the word Tahtim, תַּחְתִּים, into תַּחַת ים, below the sea. Fuerst is inclined, I judge, to favour this change, which is true of some other scholars. In that case ים would refer to the Sea of Galilee (compare Numb. xxxiv, 2; Josh. xii, 3; viii, 27), and Hodshi would have some connection with Chinnereth. Besides these hints there should be mentioned an important Hebrew tradition, found in the Midrash on Samuel, chapters xxx and xxxii, which connects Tahtim Hodshi with Beth Yereh.

There were two places, Tarichea and Sennabris, which Josephus locate at the southern end of the Lake of Tiberias, and both are extremely distant from the City of Tiberias, namely, thirty furlongs ("Life," xxxii; "Wars," III, ix, 7). Josephus states that the great plain of the Jordan commenced at Ginnabrin [Sennabris] ("Wars," IV, viii, 2); while the Talmud states that the Jordan did not receive that name until after it left Beth Yereh (בֵּית יֶרֶח, Talmud Bab. Bechorot, 55a). It would seem that the point where the plain of the Jordan commenced (according to Josephus), and the point where the river Jordan began to receive that specific name (according to the Talmud) were practically identical. But, further, the Jerusalem Talmud mentions Beth Yereh and Sennabris together as the names of two towers, שְׁנֵי אֲבִטְלוֹת, or fortified places on the Lake of Gennesareth (Megillah, i, 1, Gemara). This passage might be rendered, "The . . . was divided into two parts like Beth Yereh and Sennabri." The Aruch explains the words שְׁנֵי אֲבִטְלוֹת (אֲבִטְלוֹת for אֲבִטְלוֹת) as meaning "two castles in a place where there is a bridge for water, but there is no water between them." There can be little doubt, I think, that the Beth Yereh of the Talmud is the Tarichea of Josephus, of which the modern representative is *Kerak*. This place has long since been identified as Tarichea, and a knowledge of the nature of the ground compared with Josephus's detailed description of it makes such a conclusion almost if not absolutely certain.

It is difficult to decide whether Tarichea, Beth Yereh, or Yereh was the original form of the name, or whether the place bore two names, as was not unfrequently the case. The Hebrew name might have been written בֵּית יֶרֶח or בֵּית תִּירָח, and this would easily come to be written בֵּית תִּירָח. The name Tarichea is also a good Greek word meaning salting-station, from *ταριχεω*, which has reference to preserving bodies by artificial means, whether salting fish or embalming mummies. The name is thus supposed to be derived from the business of preserving fish which was carried on at this place (compare Strabo, xvi, 2, 45).

The long bluff at the extreme south-west corner of the Lake of Tiberias, which is called at present *Kerak*, was originally connected with

the mainland by a dry bridge or causeway. On the mainland at or near the end of this bridge we suppose that the place called Sennabris should be located. These suggestions, if valid, would illustrate and confirm both Josephus and the Jewish writings. The statement of the Aruch, for instance, made probable without any knowledge on the part of the writer of the ground at the south end of the Lake, could not have been more accurate than it is, and Josephus also would be correct in stating the distance of Tarichea and Sennabris from Tiberias to be the same and in the same direction.

I have several times had occasion to speak of the Jordan Valley on the east of the river, from the Lake of Tiberias as far south as the Zerka or Jabbok, as being exceedingly fertile because of the numerous mountain streams which water it. The first stream below the Lake is the Yarmuk, or Hieromax, called at present the *Menadireh*. It is an interesting fact that the region along this river, after it leaves the hills, is called *Ard el 'Adasiyeh*, عَدْسِيَّة. The *Menadireh* is, in that portion of it, called *Wady 'Adasiyeh*. At the point where the road approaches the river in order to enter the mountains there is a ruin of considerable size, which bears the common name of *Ed Deir*, and the portion of the valley of plain immediately north of it is called the Plain of *Dueir*. Still farther to the north, and but a short distance from the mountains, are the "hills of the foxes." On the shore of the Lake are the ruins of *Semakh*, and to the north-east is the place known as *Khurbet es Sumrah*. Down the valley to the south, a short distance from *Ed Deir*, and near the *Menadireh*, is a fountain and a ruin called *Yagana* (*Yagana*, *Yag'na*, or *Yak'na*, ياقانا, or يَتْنَه). Since the letter *Heth* readily interchanges with *Ayin*, may it not be possible that *'Adasiyeh* represents the ancient *Hodshi*?

In my judgment there was a very natural reason why the census-takers should visit the broad and fertile valley which stretches to the south from the lower end of the Sea of Galilee. They had completed their work in Gilead, and were on their way northward towards Sidon and its vicinity. As only Israel and Judah were to be numbered the region of Damascus would not be visited, but that just below the Sea of Galilee would be on their direct route as they went north. This was the meeting place of two great thoroughfares between the country on the east and that on the west of the Jordan, even as it is to-day. The road from Beisan to Damascus, which crosses the Jordan by the *Jisr Mejamia*, and the road from Tiberias to the Hauran and Gilead (formerly a fine bridge supported on ten arches, led over the Jordan just below the Lake), intersect on this plain now called *Ard el 'Adasiyeh*. If any point on their route, as the officers were going from Gilead northward, was suitable for a place of public assembly, none more suitable than this could have been chosen. Their object was not to get into a large city, but to pitch their camp in the place that was most central and most easily accessible for the largest number of the inhabitants.

One of the truest remarks ever made in the long discussion as to the site of the Holy Sepulchre was that of Lieutenant Conder, namely, that "Fortifications" (referring to the line of the walls) "follow the hills and not the valleys." Again, with regard to the site of Capernaum I have often urged, in opposition to those who advocate the claims of Tell Hum, the unreasonableness of supposing that a custom house would be located at a distance of $2\frac{1}{2}$ miles from the main route of travel, which it was designed to accommodate. In like manner in endeavouring to trace the route of David's census-takers is it unfair to claim that the most natural suppositions should receive the first consideration? It is on this principle that attention is now called to the district or Plain of 'Adasiyeh below the Sea of Galilee. Similarly the region about Aroer near Jazer (I locate Jazer at *Khurbet Sar*) has been the battle ground and the meeting place of the tribes living in that section of the country for generations, and why may it not always have been so?

If the census-takers chose for their work the most central and convenient points, we should expect one near Lake Merom. Dan, if it were chosen, would accommodate all the people residing north of the Sea of Galilee, and south of Mount Hermon. The great road from Damascus to the sea coast divided at Dan into two branches, one following the present route by Shukif to Sidon, and the other, that farther south, past Hunin to Tyre.

If Dan stood alone in the text there would never have been a doubt that one of the census stations was near this ancient and well-known site. But having the word Jaan with Dan has seemed to make the matter of identification a difficult one. We must remember that we are dealing with a Hebrew record of a very early date, when Phœnician influence was especially strong in the north of Palestine. Banias, the modern name found in this region, is commonly thought to be a corruption of Pania or Paneas, which commemorated the worship of the god Pan in this once famous grotto. But Banias is probably a corruption of a much older name, Balinas, composed of two Phœnician words, Bal and Jaan, or Yaan.

I notice in the "Transactions of the Society of Biblical Archæology," Vol. VII, Part 3, page 394, an attempt to identify Thatim Hodshi with Kadesh on the Orontes, which seems to me to be wholly without foundation. Why should the census-takers go more than 100 miles north of Palestine when they were directed to confine themselves to numbering the tribes of Israel within their several tribal territories?

A NOTE ON GOLGOTHA.

I have noticed latterly a good deal of discussion as to the site of Calvary, and that modern writers incline to place it north-west of Jerusalem. I have never been in Palestine, so can be no judge from the country of the fitness of their ideas. But I should like to make some suggestions arising from study of the Gospel narratives.

We read that Joseph of Arimathæa went in boldly to Pilate and begged the body of Jesus. Evidently then it was not customary for the bodies of crucified criminals to be given up to their friends; or Mary and His apostles would have taken His body as a matter of course. Joseph was an influential and rich man—he got it; but even he had to go to headquarters, and make special request for it. How about the bodies of the two thieves? What would be done with them?

Two others were crucified with Him—on either side one, and Jesus in the midst. Plainly then it was an ordinary execution, and would take place at the ordinary spot. In the valley of the son of Hinnom was Tophet, where fires were kept always burning to consume the filth and refuse of the city; dead animals and the “bodies of criminals” were thrown therein. This valley debouches into the Cedron valley, wherein Jews so desire to be buried.

We read that many of the women who had followed Jesus and had ministered to Him, stood afar off beholding. They must have had some eminence on which to stand or they would not “from afar off” have been able to behold; the crowd would have hidden Him. This coign of vantage the Mount of Offence, or the Hill of Evil Council, would supply. As Antonia (and the Hall of Judgment) was at the north-west corner of the Temple hill, they would only have to bring Him down by the Temple precincts—always guarded—and a very short distance would bring them “without” the gates; for we are very sure the accursed valley of the son of Hinnom would never be enclosed within the Holy City by any wall. Neither does it seem at all likely that the spot for the infliction of the accursed death of crucifixion should be chosen near the place where were the tombs of kings and prophets. Does it not then seem that the most likely spot to fulfil all the Scripture requirements for the crucifixion is near the junction of the valley of Hinnom with that of the Cedron? There would be Tophet on the one hand, and the place of honourable burial close by on the other.

It is plain that Jesus was laid in an open space; for as the women came hurrying up, one is bidden by one angel to look in and see the place where the Lord lay; does so, and sees a second angel seated on the right side; whilst another woman standing on the outside stoops down to look in, and sees two angels within, sitting one at the head the other at the foot of the place where the body of Jesus had lain. There was space enough for Peter and John to walk in, and see where the grave-clothes lay, and the napkin which had bound the head lying apart.

Then as for the "mound bearing some resemblance to a skull." When we consider the earthquakes, the battles, the sieges, which so changed and destroyed the ancient features of the land, we need not lay much stress upon this: such resemblances are common in rocky countries. Within half a mile of the spot where I write is a sharp cliff which from three different points bears a faithful likeness of three men known to me, and extremely unlike each other. Any very wet early winter, followed quickly by severe frost, might bring down a portion of this cliff and utterly destroy all these faces.

The last argument for the north-west site, viz., the shorter length of streets to be passed through, is entirely set aside by supposing our Lord to be led along the Temple precincts to the south side, and so to the valley of the son of Hinnom.

GIRDLER WORRALL.

THE SAMARITAN TEMPLE.

CAPTAIN CONDER seems to think that no dependence is to be placed upon the precise statement of Josephus that there was a Temple on Mount Gerizim, unless a corroboration of his assertion can be furnished from another source.

I do not gather that he is prepared with any evidence actually contradicting Josephus, and until such is forthcoming may we not justifiably believe him, especially as he refers to the said Temple, not merely in the long passage to which reference is given by C. R. C. ("Ant.," XI, viii, 2-7), but also in "Ant.," XII, v, § 5, where he quotes a letter from the Samaritans to Antiochus asking permission for their Temple, which before had no name, to be called "the Temple of Jupiter Hellenius," and again in "Ant.," XIII, iii, § 4, in which he gives an account of the disputation before Ptolemy respecting the two Temples, viz., at Gerizim and at Jerusalem?

If there was no Temple at Gerizim, he must have fabricated a good deal more of his history than the assertion about its being built by Sanballat, of whom he records that "*he was then in years*" ("Ant.," XI, viii, § 2).

H. B. S. W.

March 23rd, 1885.

BETH HABBECHEREH, OR THE CHOSEN HOUSE—
continued.

CHAPTER V.

1. THE mountain of the house, which was Mount Moriah, was five hundred cubits by five hundred cubits, and it was surrounded by a wall.¹ And arches were built upon arches beneath it, because of the tent of defilement.² And it was all roofed over, cloister within cloister.³

2. And there were five gates to it; one on the west, and one on the east, and one on the north, and two on the south.⁴ The breadth of each gate was ten cubits and its height twenty. And there were doors to them.⁵

3. Inside of it, a reticulated wall [*called soreg*] went all round. Its height was ten handbreadths,⁶ and inside of the *soreg* the rampart⁷ ten

¹ Middoth ii, 1, and i, 1.

² Parah iii, 3. "The mountain of the house and the courts were hollow underneath because of קבר התהום, the grave of the abyss," *i.e.*, lest there should be a hidden grave beneath.

³ Pesachim i, 5. "Rabbi Judah said two cakes of a thank-offering which had become defiled were put upon the roof of the porch, עַל גַּב הַאֵיצְטָבָה," and Rashi remarks that this porch was a סַטְיִו = *στοα*, *cloister*, which was "in the mountain of the house where the people assembled and sat." The Gemara upon the same passage (Pesach. 13 *b*) says "Rabbi Judah said that the mountain of the house was a double cloister . . . which was called אֶסְטוּוֹנִית, a porch, a cloister within a cloister," and here Rashi adds that it was furnished with a roof to protect the people from the rain, and that the porch, אֵיצְטָבָה, went all round, סָבִיב סָבִיב מִקְפֵּת, and had another inside it. In Pesach. 52 *b*, and Berachoth 33 *b*, this remark of Rabbi Judah is again noted, and in the former place Rashi explains that "double porches, אֵיצְטָבָאוֹת, were all round the mountain of the house one within the other." In Succah iv, 4, it is stated that the elders arranged the palm-branches of the people at the Feast of Tabernacles "upon the top of the porch," and here again the gloss of Rashi adds that the breadth, רֵהֲבָה, of the mountain of the house was surrounded by covered cloisters." These cloisters and their roof are again mentioned in Succah 44 *b* and 45 *a*. According to the Talmud, therefore, a roofed double cloister extended all round the mountain of the house, but for the statement of Maimonides that the whole enclosure was roofed over (if that be the meaning of מקורה היה כולו) I find no authority in the Talmud.

⁴ Middoth i, 1, 3.

⁵ Middoth ii, 3.

⁶ This reticulated wall (סורג, *soreg*) is mentioned in Middoth ii, 3. The gloss of R. Shemaiah says "it was made of carved pieces of wood, מַקְלִיּוֹת עֲצִים, intertwined one upon the other obliquely as they weave bedsteads." Rashi in Yoma 16 *a* says the *soreg* was "a partition made with many holes in it like a bedstead woven with cords, and was constructed of long and short pieces of wood called a lattice placed one upon another obliquely" (*cf.* Bartenora). I do not know that it is anywhere stated in the text of the Talmud whether the *soreg* was of stone or of wood.

⁷ חֵל, *chel*. The word (גִּיבָהוּ, its height) is placed between brackets, and is perhaps an interpolation of the transcribers. That the *chel* was a space and not

cubits (in height). It is this which is spoken of in the Lamentations (ii, 8), "He made the rampart and the wall to lament;" that is the wall of the court.

4. Within the *chel* was the court, and the whole court was one hundred and eighty-seven cubits long by one hundred and thirty-five broad.⁸ And it had seven gates, three on the north, near to the west, and three on the south near to the west, and one on the east,⁹ set opposite the Holy of Holies in the middle.¹⁰

5. Each of these gates was ten cubits broad, and twenty cubits high, and they had doors covered with gold, except the eastern gate, which was a wall is proved by several passages in the Talmud. In Sanhedrim 88 *b*, it is said "on sabbaths and feast days they (the members of the court) sat in the *chel*." Rashi adds "because the people were many and the place in the chamber too narrow for them." Pesachim 64 *b*, notes that "the first company (bringing their lambs at the Passover) remained in the mountain of the house, and the second in the *chel*," and here Rashi has the important note that it was "within the soreg, between the soreg and the wall of the court of the women, where the mountain began to rise." Baal Aruch says the *chel* was a place surrounding the wall between the mountain of the house and the court of the women, and that there was a great divinity school, מדרש גדול, in it.

In Kelim 5 *b*, we read "the *chel* was more sacred than the mountain of the house, because idolaters and those defiled by the dead might not enter there." Not improbably there was a rampart, perhaps with an escarp at the inner side of the open space, and joined to the wall of the courts, and to this the door of the house Moked opened (Midd. i, 7). The remark of Baal Aruch "that the *chel* was a wall higher than the soreg" would in this case be intelligible, and it may have been such a wall which some have supposed to have been ten cubits in height.

R. Lipsitz thinks that four cubits of the *chel* were level, and the remaining six on the rising ground, and that those six cubits were occupied by the steps up to the court, which steps he holds to have extended all round the house for the people to sit upon, and he founds this opinion upon the passages in Pesachim (13 *b*, 52 *b*) above quoted, and the gloss of Rashi. This learned Rabbi also holds that these steps and all the mountain of the house outside of the inner wall (the wall of the courts) were roofed over, and that probably seats were placed on the level ground outside the soreg (Mishnaoth, vol. v, 311 *b*, Warsaw 1864). Rashi, in Yoma 16 *a*, remarks that the twelve steps leading from the *chel* to the court of the women were באותן 'אמות "in those ten cubits" which formed the breadth of the *chel*, because the mountain rose from the Soreg to the court of the women six cubits, and he farther adds, in reference to these steps, that "in breadth each step was half a cubit, and in length extended, מ'יטר, along the whole breadth of the mountain from north to south." Of the *chel* he says that it was "a vacant place of ten cubits."

⁸ Middoth v, 1, 2, 6.

⁹ Middoth i, 4: *cf. il.* ii, 6, and Shekalim vi, 3.

¹⁰ Berachoth ix, 5. "A man may not raise his head lightly (*i.e.*, indulge in levity) opposite the eastern gate, because that is set opposite the Holy of Holies."

covered with brass resembling gold, and that gate was what was called the upper gate, and it was the gate Nicanor.¹¹

6. The court was not set in the middle of the mountain of the house, but its distance from the south of the mountain of the house was greater than that from all *the other* sides, and its nearness to the west greater than that to all *the other* sides. And the space between it and the north was greater than that between it and the west, and *that* between it and the east greater than that which was between it and the north.¹²

7. And before the court on the east was the court of the women, which was one hundred and thirty-five cubits long by one hundred and thirty-five cubits broad. And at its four corners were four chambers of forty cubits by forty, and they were not roofed, and thus they will be in the future.

8. And what was their use? The south-eastern chamber *was* the chamber of the Nazarites, because there they cooked their peace-offerings and shaved off their hair (Num. vi, 18); the north-eastern was the chamber for storing wood, and there the priest who had blemishes removed the worms upon the wood, because every piece of wood in which there was a worm was unlawful *for the altar*.¹³ The north-western *was* the chamber of the lepers. In the south-western they put oil and wine, and it was called the chamber of the house of oil.¹⁵

9. The court of the women was surrounded by a balcony,¹⁶ in order

¹¹ Middoth ii, 3. In Succah v, 4, it is said "the two priests stood at the upper gate which led down from the court of Israel into the court of the women." That this was the gate Nicanor appears from Middoth i, 4, "the gate on the east *of the court* was the gate Nicanor" (*cf.* Yoma 19 a). Rashi in his note on Sotah i, 5, says "the gate of Nicanor was the upper gate, which was in the wall that was between the court of Israel and the court of the women." To this gate suspected women were brought to drink the bitter waters of jealousy (Num. v.), and lepers and women after childbirth were cleansed at it (Sotah i, 5; Negaim xiv, 8). R. Shemaiah also, on Kelim 5 b, says, "the gate Nicanor was the gate of the court of Israel." In Kle Hammikdash vii, 6, Maimonides remarks, "the upper gate was the gate Nicanor. And why was it called the upper gate? Because it was above the court of the women."

¹² Middoth ii, 1. The Tosefoth Yom Tob gives the following measurements of the several spaces:—

			Cubits.				Cubits.
Northern space	..	..	115	Eastern space	..	..	213
Southern „	..	..	250	Western „	..	..	100
Court..	..	..	135	Court	..	..	287
			<hr/> 500				<hr/> 600

¹³ Middoth ii, 5.

¹⁴ For the chamber of wood, see also Shekalim vi, 2.

¹⁵ Middoth ii, 5.

¹⁶ גזוזטרא, *tabulatum*; in Middoth ii, 5, it is called כַּעֲצֵרָה, *tabula*, *asser cui aliquid imponitur* (Buxtorf). This balcony is said by R. Shemaiah and by Bartenora to have been for the accommodation of the women during the rejoicings

that the women might see from above and the men from below, and so not be mixed. And there was a large house on the northern side of the court outside, between the court and the rampart (*chel*); it was arched and surrounded by stone benches, and it was called *Beth Hammoked*, the House Moked. There were two gates to it, one opening to the court and one opening to the *chel*.¹⁷

10. And there were four chambers in it, two holy and two profane, and pointed pieces of wood¹⁸ distinguished between the holy and the profane. And for what did they serve? The south-western *was* the chamber of the lambs,¹⁹ the south-eastern the chamber for making the shewbread, in the north-eastern the family of the Asmoneans laid up the stones of the altar which the Greek kings defiled, and in the north-western they went down to the bathing-room.

11. A person descending to the bath-room²⁰ from this chamber went by the gallery which ran under the whole Sanctuary,²¹ and the lamps at the Feast of Tabernacles, and they take this opinion from the Gamara (Suceah 51 *b*), which explains that the erection of this balcony was part of the "great preparations" which were made on that occasion. "At first the women were within and the men without, and when they began to indulge in levity it was arranged that the women should be outside, and the men inside, and seeing that the occasion of levity still arose they arranged for the women to be above and the men below" (Gamara, *loc. cit.*). Rashi upon this passage remarks that in the court of the women there were originally no beams, גיזי, projecting from the walls, and that afterwards they placed beams jutting from the walls all round, and every year arranged these balconies of planks, upon which the women might stand and witness the rejoicings of the Beth Hashshavavah." Both Middoth and Maimonides speak of these balconies as if they were permanent.

¹⁷ Middoth i, 5, 7, 8.

¹⁸ התיכות עצים, *pieces of wood* (Rashi in Yoma 15 *b*). "Ends of beams projecting from the wall" Bartenora (*cf.* Middoth i, 6; ii, 6; iv, 5). They do not appear to have formed a partition, but only to have been a sign indicating the limits of the holy and profane parts of the house.

¹⁹ Middoth i, 6, where it is called the chamber of the lambs for the offering. In Tamid iii, 3, the chamber of the lambs is said to have been at the south-western corner, which evidently refers to its position in relation to the altar and court of the priests, and shows the position of the house Moked itself without contradicting the statement of Middoth and our author. There can hardly be a doubt that it was, as here it was, at the south-western corner of Moked, though the gloss on Tamid says it was on the north-west of that house (*cf.* Yoma 15 *b*, and Tosefoth Yom Tov on Tamid iii, 3).

²⁰ בית הטבילה, *donus lavaeri*, house of bathing or dipping. The bathing here practised differed from baptism in the usual modern signification of the term, inasmuch as it was not an initiatory rite, and might be repeated.

²¹ In Tamid i, 1, it is "under the Birah!" "What is Birah? Rabbah, son of Bar Chanah, said that R. Johanan said there was a place in the mountain of the house, the name of which was Birah, and Raioh Lakish said all the house was called Birah," as is said (1 Chron. xxix, 19) "and to build the palace, *birah*, for which I have made provision" (Zevach. 1C4 *b*). Maimonides here uses the

burned on either side until he came to the bathing-room. And there was a large fire²² there and an excellent²³ watercloset, and this was its excellence, that if he found it shut he knew there was some one inside.

12. The length of the court from east to west *was* a hundred and eighty-seven *cubits*, and these were the measurements, viz., from the western wall of the court to the wall of the temple (היכל) eleven cubits, the length of the whole temple a hundred cubits, between the porch and the altar two and twenty, the altar two and thirty, the place of the tread of the feet of the priests, which was called the court of the priests, eleven cubits, the place of the tread of the feet of Israel, which was called the court of Israel, eleven cubits.²⁴

13. The breadth of the court from north to south *was* a hundred and thirty-five *cubits*, and these were the measurements,²⁵ viz., from the north wall to the shambles eight cubits, the shambles twelve cubits and a half : and there on the side they hung up and skinned the holy sacrifices.

14. The place of the tables was eight cubits, and in it were marble tables, upon which they laid the pieces of the offerings and washed the flesh to prepare it for being boiled. These were eight tables. And by the side of the place of the tables was the place of the rings, twenty-four cubits, and there they slaughtered the holy sacrifices.

15. Between the place of the rings and the altar *was* eight cubits, and the altar two and thirty, and the sloping ascent to the altar (כבש, *Kelesh*) thirty, and between the sloping ascent and the south wall twelve cubits and a half. From the north wall of the court to the wall of the altar, which was the breadth, was sixty *cubits* and a half, and corresponding to it from the wall of the porch to the east wall of the court, which was the length seventy-six.²⁶

term מִקְדָּשׁ, *mikdash*, as synonymous with *birah*. Bartenora, in Pesachim vii, 8, and again in Tamid, remarks that "the whole of the Sanctuary was called *Birah*." The gallery here spoken of, מִסְבָּה, *ambitus*, *circuitus*, was subterranean, הַקֶּרֶקַע תחת (Beth Habbec. viii, 7). It opened into the profane part of the enclosure, and was consequently not holy.

²² A wood fire, מְדוּרָה. Cf. Isaiah xxx, 33; Ezekiel xxiv, 9, 10.

²³ *Lit.* honourable, שֵׁל כְּבוֹד. The whole of this section is from Tamid i, 1.

²⁴ Middoth v, 1.

²⁵ Middoth v, 1.

²⁶ In Middoth v, 2, where the measurements of the court from north to south are given, a remainder of twenty-five cubits is said to have been "between the sloping ascent and the wall and the place of the pillars," and Maimonides has allotted one-half of this measurement to the former space, and one-half to the latter, the result of which is to place the central line of the altar nine cubits south of the central line of the door of the Temple and of the court. His authority for this is the Gamara of Yoma 16 b, for although R. Judah maintained (*loc. cit.* and Zevach. 58 b) that the altar "was placed in the middle of the court, and measured thirty-two cubits, ten cubits opposite the door of the Temple הֵיכָל, eleven cubits to the north and eleven cubits to the south," the

16. All this quadrangle was called "north," and it was the place in which they slaughtered the most holy sacrifices.²⁷

17. There were eight²⁸ chambers in the court of Israel, three on the other rabbi disputed that opinion, bringing forward the passage in Middoth v, 2, to prove that "the greatest part of the altar lays to the south."

The following are the measurements given by the three chief authorities:—

	Middoth and Gamara of Yoma.	Maimo- nides.	Rashi.
From north wall to place of the pillars	8	8	8
Place of pillars	12½ (P)	12½	10½
From pillars to tables	4	..	4
Place of tables .. .. .	..	8	4
From tables to rings .. .. .	..	..	4
Place of rings	24	24	24
From rings to altar.. .. .	4	8	8
Altar	38	32	32
Sloping ascent	32	30	30
Between sloping ascent and south wall	10½ (P)	12½	10½
	135	135	135

According to Maimonides, therefore, twenty-five cubits, and according to Rashi, twenty-seven cubits of the altar were south of the central line of the court. Rashi, in his elaborate note on this subject in Yoma 16 *b*, explains that the northern side of the altar extended just as far as the northern doorpost of the central gates, and that the receding of the foundation and circuit of the altar (Midd. iii, 1) left two cubits on the northern side of the top of the lower gate (that east of the court of the women) not obstructed, and that it was through this small space the priest standing on the Mount of Olives could see into the door of the Temple (Midd. ii, 3). It will be remembered that the summit of the altar was exactly twenty cubits above the floor of the court of the women, and that consequently the aperture of the lower gate was obstructed by it to the top, except on its northern side, if Rashi's supposition as to its position is correct, and on the south of the northern horn where one cubit would be left above the altar, through which a person could see into the Temple if his eye were placed in a line with the lintel or not more than one cubit below it. As to the priest on the summit of the Mount of Olives looking through the gateway, this will appear hardly possible when it is remembered how much higher the Mount of Olives is than the Temple Hill. He must have looked *over* the eastern wall and *over* the lower gate.

²⁷ Zevachim 20 *a*.

²⁸ Middoth v, 3 and i, 4, and Yoma 19 *a*. In Yoma the chambers on the north and south are placed as Maimonides here places them, but in Middoth the chambers of salt, of Parvah, and of the washings are placed on the north, and the other three on the south.

north and three on the south. Those on the south were the chamber of salt, the chamber of Parvah,²⁹ and the chamber of washing. In the chamber of salt they put salt to the offering, in the chamber Parvah they salted the skins of the holy sacrifices, and on its roof was the bathing-room for the High Priest, on the Day of Atonement.³⁰ In the chamber of washings they washed the inwards of the holy sacrifices, and from it a winding staircase (מיסובה) ascended to the roof of the house of Parvah. And the three on the north were the chamber of hewn stone,³¹ the chamber of the draw-well, and the chamber of wood. In the chamber of hewn stone the great Sanhedrim sat, and half of it was holy and half was profane; and it had two doors, one to the holy and one to the profane part, and the Sanhedrim sat in the profane half. In the chamber of the draw-well³²

²⁹ R. Shemaiah on Middoth (37 *b*) says that the name Parvah was derived from פרים, *parim*, young bulls, because it was the skins of the oxen offered as sacrifices which were salted in it. Baal Aruch quotes from Yoma 35 *a*, "What is Parvah? R. Josef said Parvah was אמגוסא, *angusah*, a magician," and explains "Parvah was the name of a certain *magus*, and some of the wise men say that he dug a hollow place underground in the Sanctuary so that he might see the service of the High Priest on the Day of Atonement; that the wise men became aware of the pit which he had dug in that place, and found him, and that the chamber was called after his name." Maimonides in his comment on Middoth says "Parvah was the name of a magician who dug in the wall of the court in this chamber until he could see the service; and he was killed." Since the service of the Day of Atonement was chiefly performed on the northern side of the court, this story is a confirmation of the statement of Middoth that the chamber of Parvah was on the northern side. Bartenora, quoting Rashi (on Yoma iii, 6), remarks "a certain magician, מכשף, named Parvah, built this chamber, and it was called after his name;" and in his work on Middoth v, 3, the same writer intimates that the chamber was built by magic. Parvah was in the sacred part of the Temple enclosure (Yoma iii, 3, 6).

³¹ Yoma iii, 3, 6.

³² לישבת הגזית. The chamber Gazith. The Gamara of Yoma (25 *a*) says "it was like a large basilica; the lots were on the east, the elders sat on the west," so that its long diameter appears to have been east and west. That one half of it was holy and one half profane is stated on the same page. The reason why the Sanhedrim sat in the profane half is that only kings of the House of David might sit in the court (*loc. cit.*). The Tosefoth Yom Tov (Midd. v, 4) says the chamber of the draw-well was south, and the chamber of wood to the north of the chamber Gazith.

³² לישבת הגולה. Lightfoot calls it the room of the draw-well, because there was in it a wheel with which to draw water. Middoth (in some copies) speaks of the בור הגולה, the well of the captivity, being placed in it, and this well is said to have been dug by those who came up from the captivity, and to have given its name to the chamber (Bartenora and Tosefoth Yom Tov). This well is mentioned in Erubin x, 14. "They were permitted to draw water from the well of the captivity and from the great well on the Sabbath." R. Shemaiah, in Middoth, says it had sweet water for drinking and a pipe or reservoir, אמת, of water for washing (*cf.* Jer. Yoma 41 *a*, 1). The word גולה, or more accurately

was a well from which they drew by means of a bucket,³³ and thence supplied water to the whole court. The chamber of wood³⁴ was behind these two. It was the chamber of the High Priest, and is what was called the chamber Parhedrin.³⁵ And the roof of the three was even. And there were two other chambers in the court of Israel, one on the right of the eastern gate, which was the chamber of Phinehas the vestment keeper, and one on the left, which was the chamber of the pancake maker.

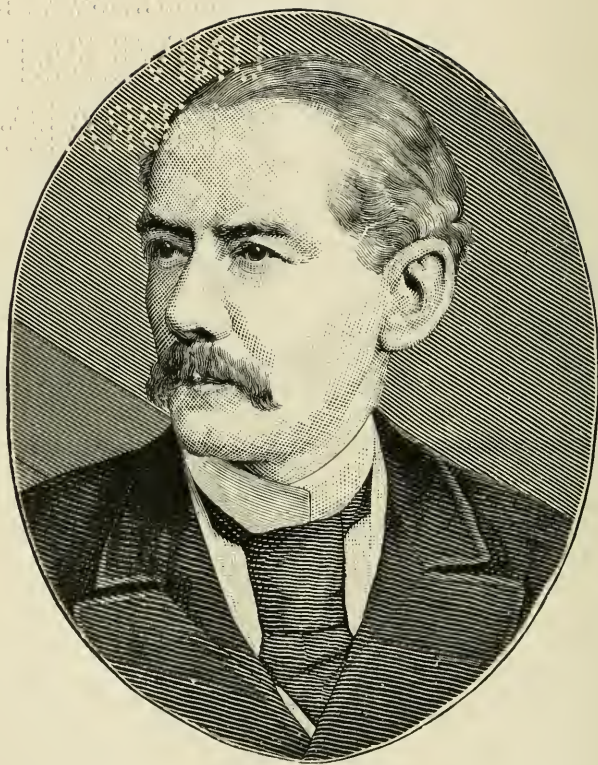
גִּלְיָהּ means also a fountain or source of water (*cf.* Jud. i, 15), and inasmuch as it is taught in both Talmuds (Jerus. Yoma 41 *a* ; Bab Yoma 31 *a* ; Bechor 44 *b* ; Shabb. 145 *b*, and the notes of Rashi, also Maim. Baith Hammikdash v, 15), that the water of the fountain Etham, עֵיטָם, was brought to the Temple, it is not certain that לִשְׁבֶּת הַגּוֹלָה should not be translated "the chamber of the fountain." Solomon's molten sea is said to have been supplied from Etham, and the laver to have been filled from it. In Yoma 31 *a* it is said "the fountain of Etham was twenty-three cubits above the level of the court."

³³ גִּנְיָהּ is also a jug or similar vessel, *lecythus*, or "a large round basin, עֲנֹוֹל, סִפְלֵי גִרוּג" (Tosefoth Yom Tov to Midd. v, 4). Some kind of bucket is here signified by Maimonides, but whether it was of wood, metal, or clay it is impossible to determine. The suggestion of a modern commentator (Mishnaoth Schmid, Vienna, 1835) may here be noted "probably the בּוֹר הַגּוֹלָה was a common well with two buckets worked by a wheel, one descending into the water as the other was drawn up."

³⁴ The chamber of wood is said to have been for storing the wood fit for the altar (Tosefoth Yom Tov to Midd. v, 4 ; *cf.* Midd. ii, 5).

³⁵ "Seven days before the Day of Atonement they separated the High Priest from his house into the chamber Parhedrin" (Yoma i, 1). "And why the chamber Parhedrin? Was it not the chamber of the councillors? At first it was called the chamber of the councillors לִשְׁבֶּת בְּלוּוֵי = *παιστοφειριον των βουλευτων*, but because they began to purchase the priesthood with money and to change it every twelve months, as these assessors were changed every twelve months, therefore they called it לִשְׁבֶּת פְּרֹהֲרֵי, the chamber of the assessors" (*ib.* 8 *b*, and the note of Rashi). "Rab Papa said there were two chambers for the High Priest; one, the chamber Parhedrin, and one the chamber of the house of Abtinias; one *being* on the north, and one on the south, *of the court* . . . I do not know whether the chamber Parhedrin was on the north and the chamber of the house of Abtinias on the south; or the chamber of the house of Abtinias on the north, and the chamber Parhedrin on the south, but we are of opinion that the chamber Parhedrin was on the south" (Yoma 19 *a*).

(To be continued).



COL. SIR CHARLES W. WILSON, K.C.M.G., C.B., LL.D., F.R.S., R.E.

THE
PALESTINE EXPLORATION FUND

NOTES AND NEWS.

WE have received, too late for the *Quarterly Statement*, a most important packet from Herr Schumacher, a note concerning which appeared in the January and April numbers. It contains a map covering about 200 square miles of a part of the Jaulan, that little known and extremely interesting country lying east of the Lake of Galilee, formerly Gaulanitis after the hitherto undiscovered city of Golan (Josh. xxx, 8, and xxi, 27), one of the three cities of refuge in the East. It has been traversed by Burekhardt, Porter, and Welzstein, Mr. Cyril Graham, Mr. Laurence Oliphant, and Dr. Selah Merrill. Herr Schumacher, however, is the first who has surveyed any part of the country, and planned and sketched its ruins. The results of the work are very briefly summed up in the report of the Executive Committee below. He has discovered, almost beyond possibility of doubt, the Biblical Golan. He suggests a new identification for Argob. He has found a vast field containing something like 500 dolmens; he has partially planned the most curious subterranean city of Dera, and he has planned and described all the monuments and buildings in the places which he visited, including the very interesting place round which are gathered the traditions of Job. He has also given a most valuable general description of the country, and has gathered a good collection of Arabic names. It is sufficient commendation of the work to state that its places may be placed side by side with those of Captains Conder and Kitchener in the "Memoirs of the Survey of Western Palestine."

The Committee have decided to produce this work separately and to present a copy of it, post free, to every subscriber of the Fund who may make application for it. A form of application is enclosed. The book will be set up uniform with the cheap editions of "Heth and Moab" and "Tent Work," and will form a volume about half the size of these books. It will be issued with the October *Quarterly Statement*.

We are enabled by the courtesy of the Proprietors of the *Pictorial World* to present with this number a portrait of Sir Charles Wilson, who has now returned from Egypt.

The interest attaching to Herr Schumacher's work will be increased by the paper presented to the Society, and published in this number, by Mr. Guy le

Strange. It is an account of a short journey east of the Jordan, and of a visit to Pella, the Kalat el Rukud, which is outside the part surveyed by Captain Conder; Jerash, the Wâdy Zerka, Yajuz, and Ammân. Mr. le Strange carries with him in his Eastern travels a rare acquaintance with the works of Arabian and Persian travellers. He has undertaken to translate and to annotate for the Pilgrims' Text Society, the Travels of Mokaddasi.

The notes by Mr. Laurence Oliphant and by Herr Hanauer are curious and interesting. The Rock Altar close to the site of Zorah strongly suggests the story of Judges xiii, 19, and the altar of Manoah. It seems to be, at any rate, of extreme antiquity.

On Sunday evening, June 21st, died suddenly, at his residence in Cheyne Walk, Mr. W. S. W. Vaux, F.R.S., formerly Keeper of Coins in the British Museum, and latterly Secretary of the Royal Asiatic Society. Mr. Vaux became a member of the Committee of this Society on its foundation, May 12, 1865, for the whole period of its existence he remained a member, and attended nearly every meeting of the Committee. His loss is one which will not be easily filled up.

And on Tuesday, the 23rd, died, at his residence at Penzance, another of the Society's oldest friends and supporters, A. Lloyd Fox, a member of the General Committee, and the Society's Hon. Secretary for Falmouth.

Professor Hull's work, "Mount Seir," is now ready. New editions have also been issued of "Tent Work" and "Heth and Moab" at six shillings each.

Light upon the ancient customs of Palestine has been thrown from a very unexpected quarter, namely, Russian Central Asia. Dr. Lansdell ("Russian Central Asia," Sampson Low & Co.) has discovered as far to the east of Palestine as London is to the west, and among an Iranian population, many Semitic customs described in the Sacred Books, especially those written after the Captivity. These customs may have had a common origin, or, as Dr. Lansdell suggests, they may have been taken eastwards by the Ten Tribes.

The income of the Society, from March 17th inclusive, was—from subscriptions and donations £260 9s. 6d., from all sources £481 18s. 5d. The expenditure during the same period was £382 1s. 6d. On June 24th the balance in the Banks was £351 12s. 1d.

It is suggested to subscribers that the safest and most convenient manner of paying subscriptions is through a Bank. Many subscribers have adopted this method, which removes the danger of loss or miscarriage, and renders unnecessary the acknowledgment by official receipt and letter.

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.

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) The Rev. Henry Geary, Vicar of St. Thomas's, Portman Square. His lectures are on the following subjects :—
 - The survey of Western Palestine, as illustrating Bible History.
 - Palestine East of the Jordan.
 - The Jerusalem Excavations.
 - A Restoration of Ancient Jerusalem. Illustrated by original photographs shown as "dissolving views."
 - (2) 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.
 - (3) The Rev. James Neil, formerly Incumbent of Christ Church, Jerusalem.
 - (4) The Rev. George St. Clair, formerly Lecturer to the Society, is about to organise, by arrangement with the Committee, a course of lectures this winter on the work of the Society.
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THE LATE MR. W. S. W. VAUX.

WE have to announce the sudden death, at the age of sixty-seven, of Mr. William Sandys Wright Vaux, M.A., F.R.S., the well-known numismatist and Oriental scholar. His long connection with the British Museum, the service of which he entered in 1841, the year after his graduation as B.A. at Baliol College, Oxford, and from which he retired in 1870, culminated in his keepership of the Department of Coins and Medals, which he occupied for two or three months short of ten years. As an expert in this sphere of learning, he acted for some time as a joint editor of the *Numismatic Chronicle*, arranged and described for the Society for the Publication of Oriental Text the series of fac-similes of the coins struck by the Atábeks of Syria and Persia, 1848, and, among other learned contributions, communicated to the Numismatic Society of London in 1863 a paper "On the Coins reasonably presumed to be those of Carthage." He was employed from 1871 to 1876 in the compilation of a catalogue of the coins in the Bodleian Library for the University of Oxford. As a scholar of more general and literary activity, Mr. Vaux prepared, in 1851, a descriptive "Handbook to the Antiquities of Greek, Assyrian, Egyptian, and Etruscan Art in the British Museum." He was the author of "Nineveh and Persepolis, an historical sketch of Ancient Assyria and Persia, with an account of the recent researches in those countries," 1850, which reached its fourth edition in 1855, and of which a German translation by Dr. J. T. Zenker was published at Leipsic in 1852. To the series of the Society for Promoting Christian Knowledge, generically entitled "Ancient History from the Monuments," Mr. Vaux contributed two several works—"Persia, from the Earliest Period to the Arab Conquest," 1875, and "Greek Cities and Islands of Asia Minor," 1877. These works, however, by no means exhaust the list of Mr. Vaux's productions, which embrace numerous contributions to the transactions of various learned societies, and especially to those of the Royal Society of Literature, of which Mr. Vaux was for some time secretary. On New Year's Day, 1876, he was appointed to the secretaryship of the Royal Asiatic Society, an office which he held until his death, at his residence in Cheyne Walk, Chelsea, on Sunday evening last. Mr. Vaux, who was the son of the late Prebendary Vaux, of Winchester, Vicar of Romsey, Hants, was born in 1818, and was educated at Westminster and Baliol College, Oxford, where, as already mentioned, he took his B.A. degree in 1840. In the world of learning he was a man of very wide knowledge and of the most varied accomplishments, and he was much esteemed by a large circle of private friends.—*From the Times.*

ANNUAL MEETING OF THE GENERAL COMMITTEE.

THE Annual Meeting of the General Committee was held at the Society's Offices, 1, Adam Street, Adelphi, on Wednesday, June 24th, 1885.

The Chair was taken by Mr. JAMES GLAISHER.

The minutes of the last meeting were read and confirmed. The Secretary then read the following Report of the Executive Committee :—

“MY LORDS AND GENTLEMEN,

“Your Committee, elected at the last meeting of June 19th, 1884, have, on resigning office, to render an account of their administration during the past year.

“I. The Committee have held nineteen meetings during the year.

“II. The ‘firman’ necessary for the prosecution of the Survey of Eastern Palestine is still withheld by the Turkish authorities.

“III. The work of exploration in the Holy Land has been carried on during the last twelve months by Mr. Laurence Oliphant, Herr Schumacher, and Mr. Guy le Strange. The best thanks of the Committee are due to these gentlemen for the valuable reports and papers given to the Society by them ; some of them, including *Notes on the Jaulan* and *Notes on Carmel* by Mr. Oliphant, have already been published in the *Quarterly Statement*. Other notes by the same gentleman will appear in July, together with an account of a journey east of Jordan by Mr. Guy le Strange. The Committee have also just received, and have great pleasure in laying on the table, a really magnificent contribution to the Survey of the East, in a packet of memoirs, plans, and map, from Herr Schumacher. This work, certainly the most important examination, so far as it goes, of the Jaulan district, as yet made by any traveller, is put forward by the Committee with great satisfaction as the principal work of the year. It is proposed to issue this in a separate form apart from the *Quarterly Statement*, and to present it to all subscribers who may desire to possess a copy. The map will be incorporated with the map of the Society, and laid down on the sheets now being prepared by Mr. Armstrong. It covers about 200 square miles ; the Memoirs contain a list of Arabic names, a general description of the country with its perennial streams, cascades, forests, villages, roads, and people, and an account with excellent plans and drawings of the villages and ruins in the district visited by Herr Schumacher.

“Among the principal ruins described may be mentioned that called Kh. Arkub er Rahwah, which Herr Schumacher would identify with the Argob of the Bible, commonly placed at the Lejjah. He is supported in this view by the authority of Burckhardt, who maintained that Argob would be found somewhere in southern Jaulan. Important ruins were found in the Ain Dakhar and Beit Akkar. North of the former place is a field of

dolmens, in number not short of 500, called by the natives Kubur Beni Israil—graves of the children of Israel. Ancient stone bridges were found crossing the streams at Nahr el Allan and Nahr Rukkad; a remarkable altar was found at Kefr el Ma, conjectured by Herr Schumacher to be the Maccabæan Alima. Here a remarkable statue of basalt was also found. In a village called Sahem el Jolan, Herr Schumacher thinks he has discovered the Biblical Golan, which has hitherto escaped identification. The situation, the name, the extensive ruins, and the traditions of the people, all seem to confirm Herr Schumacher's conjecture. The ruins of the remarkable underground city of Ed Dera were examined and planned for the first time, together with the towns and monuments of El Mezeirib Tuffas and Nawar, identified by Mr. Oliphant with the land of Uz; other subterranean buildings were found at Kh. Sumakh and at Sheik Saad. The rock tomb of Job was also photographed and planned. These Memoirs and Maps may be considered as following immediately on the notes furnished by Mr. Oliphant for the *Quarterly Statement* of April last. The recovery of two important Biblical places, the mass of light thrown upon ancient worships, the great number of ruins planned, and the care and intelligence bestowed upon the whole work, render it incumbent upon the Committee to ask the General Committee for a special vote of thanks to this young explorer, as well as to Mr. Oliphant and Mr. Guy le Strange. It must also be mentioned that Mr. Oliphant has discovered a dolmen in Judæa, where hitherto none had been found. It lies in a desert and hilly part of the country, on sheet 115 of the great map. Another interesting discovery is one made by Herr Hanauer, close to the site of the ancient Zorah, of a rock altar which suggests the passage in Judges xiii, 19 and 20.

“The publications of the year in the *Quarterly Statement* have also included Major Kitchener's important geographical report of the Arabah Valley. An archaeological paper by Clermont-Ganneau on Palestine Antiquities in London, and communications from Canon Tristram, Rev. H. Clay Trumbull, Rev. H. G. Tomkins, Dr. Selah Merrill, Dr. Chaplin, Rev. W. F. Birch, Professor Hull, Mr. Baker Greene, and others, to whom the best thanks of the Committee are due. The books published by the Committee since the last meeting of the General Committee are ‘Mount Seir’ by Professor Hull, and cheap editions of Captain Conder's ‘Tent Work’ and ‘Heth and Moab.’ The remaining copies of the ‘Survey of Western Palestine’ have been placed in the hands of Mr. A. P. Watt, of Paternoster Row, for disposal, subject to the condition that no reduction be made on the original price of the work.

“The Committee have now in their hands the whole of Professor Hull's Geological Memoirs. This important work has been sent to the printers and will be issued as soon as possible.

“An arrangement has been made with Mr. H. Chichester Hart, by means of which we shall be enabled to publish his Memoirs on the Natural History of the Arabah. Herr Schumacher will also, it is hoped, continue his researches as opportunity may offer.

“The Balance Sheet for the year 1884 was published in the April *Quarterly Statement*. The Society received during the year the sum of £5,654, including a loan of £850, and expended £1,851 in exploration, £2,592 on maps and memoirs, £504 in printing, and £618 in management. Since the beginning of the year the sum of £1,224 has been received; exploration has cost £116, maps and memoirs £408, printers £200, and management £346.

“As regards the maps showing both Eastern and Western Palestine with the Old and New Testament names on them, they are now ready for the engraver, but will not be handed to him until Herr Schumacher’s work can be laid down on them. Mr. Armstrong has also completed a list of Old and New Testament names with their identifications.

“The Committee have to express their best thanks to the Local Hon. Secretaries, and to all who have helped to spread a knowledge of their work, which, as will be seen from the preceding report, is actively going on, and will continue to do so, as long as any part of our original prospectus remains to be filled up.

“The Committee have lastly to deplore the sudden death on Sunday last, the 21st, of Mr. W. S. W. Vaux, F.R.S., formerly Chief of the Numismatic Department in the British Museum, and lately Secretary of the Royal Asiatic Society. Mr. Vaux has been a member of the Executive Committee since the formation of the Society on May 12th, 1865. There has hardly been a meeting from that date until the last meeting of June 2nd at which he was not present, and his interest in the Society and his watchfulness over the advance of its work have never ceased from the beginning.”

The adoption of the Report was proposed by Dr. CHAPLIN, of Jerusalem, who spoke of the way in which the work of the Society was steadily growing in recognition, and seconded by Mr. CYRIL GRAHAM, who bore testimony, from his own experience in the country, to the beauty and excellence of Herr Schumacher’s work.

The DEAN OF CHESTER proposed the re-election of the Executive Committee. This was seconded by the Rev. DR. LÖWY. Both gentlemen took occasion to speak of the great loss the Society had sustained in the lamented death of Mr. Vaux.

Mr. HENRY MAUDSLAY proposed, and Mr. CRACE seconded, a vote of thanks to the Chairman.

THE SITE OF EMMAUS.

(See *Quarterly Statement*, October 1884, April 1885.)

IN reply to Mr. Mearns, I only ask permission to prove my statement that Josephus (Bell. Jud. iv, 1) does interpret *Emmaus* to mean, in the particular place referred to, *Hotwells*. Mr. M. contends "The word he uses is *θερμα*, *warm baths*, referring to the gentle heat of baths. But if he had meant hot springs he would have used the feminine, *θερμαι*." Whatever the lexicon may say, Josephus leaves no doubt as to his own employment of *θερμα* in the passage before us. His words are: *μεθερμηγενομένη δὲ Ἀμμαῶς, θερμὰ λέγουσι ἂν, ἔστι γὰρ ἐν αὐτῇ πηγή θερμῶν ὑδάτων πρὸς ἄκεσιν ἐπιτήδειος*. Mr. Mearns paraphrases this passage in the following somewhat imaginative manner:—"Josephus says that the meaning of a warm bath was peculiarly applicable to the Tiberian Emmaus; for in it was a spring of hot water *to supply the bath*, and useful for healing. *The historian distinctly says that the name always points to a warm bath.*" (The italics are mine.) If Mr. Mearns reads his authors in this fashion, I think I may safely leave my argument to take care of itself on other points on which he animadverts.

A. KENNION.

ACCOUNT OF A SHORT JOURNEY EAST OF THE JORDAN.

BY GUY LE STRANGE.

THE impediments which, at the present time, the Turkish Government almost invariably throw in the way of any one who attempts a journey into the country across the Jordan, and having heard of the large sums usually demanded of travellers by the Sheikhs of the Belka under plea of escort dues—emboldens me to offer this present account of a hurried trip through 'Ajlûn and the Belkâ, successfully carried out during the month of November, 1884, without Government permission, tents, baggage-mules, or blackmail. We left Nazareth on the morning of Tuesday, the 11th of November, but, as is often the case on the first day of a journey, the start was delayed by reason of trifles forgotten till the last moment, and, in consequence, the sun was already two hours on its course before we lost sight of the white houses of Nazareth and threaded the ravines down into the plain of Esdraelon. Pella was to have been the end of the first stage, but the sky was clouding up and threatening a deluge; hence even before we had passed the villages of Nain and Endor it seemed hopeless to attempt getting across the Jordan that day. The rain, however, held off till after lunch, which was discussed on the green bank of Goliath's river, the Nahr Jâlûd, which runs into the Jordan after watering Beisân, and then we walked our horses through the ruin of the beautiful Saracenic Caravanserai overhanging the stream which is known as the Khân el Ahmar, or "the Red." But an hour later, while passing through the squalid village of Beisân, and casting a hurried glance at the imposing and widespread ruins of the ancient Scythopolis of the Decapolis, down came the rain in torrents; and the sky at the same time displayed such sure tokens of something more than a passing shower, that by 4 o'clock it was determined to seek shelter and a night's lodging in the hospitable tent of an Arab whom we found camped below in the valley of the Jordan.

For about ten hours the rain continued with but little abatement, soaking through the hair walls, and dripping from the roof of our host's abode, and further causing the sheep and goats to be disagreeably anxious to participate with us in the comparative shelter which the same afforded. However, by a couple of hours past midnight the sky was again clear, and I may add that during the remainder of the trip as far as Jerusalem, the state of the atmosphere was everything that could be desired. The late autumn in Palestine, as a season for journeying and exploration, has perhaps some advantages over the spring, if only the traveller be sufficiently fortunate to happen on the six weeks or two months which generally intervene between the early autumn showers and the steady rains of winter, which last do not, as a rule, begin much before Christmas.

In the autumn, the land, having been parched by the summer heats, is of course less green and beautiful than is the case in the early days of spring ; but, on the other hand, ruins are no longer concealed by any luxuriant vegetation, and since the coolness of the weather renders a shortened halt at noon a matter of no inconvenience, the traveller can devote to the business on hand all the hours of daylight, which even at this season can be counted upon as lasting from 7 A.M. to 5 P.M. Bedouins in general are of course early risers, and we, their guests, had in consequence no difficulty in getting early into the saddle, so that before the sun had made its appearance above the mountains of Ajlûn we were riding eastwards over the fertile lands of the Ghôr, the Arab name for the mighty "cleft" through which the waters of the Jordan pour. At the present day the country all round Beisân, though partially cultivated, and fetching a certain price in the market, is not to compare with the description that has been left to us of its fertility in the century preceding the arrival of the Crusaders. Mokaddasi,¹ writing about the year 1000 A.D., describes Beisân at his time as being rich in palm trees, and informs us that all the rice used in the provinces of the Jordan, and of Palestine, was grown here. At the present day no rice is cultivated anywhere in this neighbourhood, nor for the matter of that, as far as I know, in any other part of Palestine, and the palm has long been gone from here as from the shores of the Sea of Tiberias, where, according to the geographer above quoted, there might be seen in his days "all around the Lake villages and date palms, while on the same sail boats coming and going continually."²

That the bygone prosperity might easily return to this country, should circumstances (*i.e.*, the Government) again become propitious, was an idea that impressed itself on us, each moment the more, while riding over the rich soil, and fording at every hundred yards the streams which here intersect the Ghôr. An abrupt descent brought us in an hour to the Jordan, at a ford where the water scarcely reached the bellies of our horses, and we had the luck to be guided to the right place by three of our hosts of the previous evening, who, mounted on their wirey, bald-tailed mares, and armed with the long Arab lance, had turned out to accompany us during the first few hours of the way. Across the Jordan we suddenly came upon an encampment of black tents, tenanted by kinsmen of our last night's host, and as a consequence were condemned to waste a precious hour while coffee was prepared and ceremoniously drunk, followed by a light repast of bread and sour milk ; and hence it was past nine before we reached the ruins of Pella, although these lie but an hour distant from the spot at which we forded the Jordan. As Mr. Selah Merrill very justly observes in the work which, unless I am misinformed, is as yet the

¹ Edited in Arabic by de Goeje (Leyden, 1877), p. 162.

² *Op. cit.*, p. 161. A few stunted palms are, however, still to be seen at Kufr Argib and elsewhere on the shores of the Lake (see J. Macgregor, "Rob Roy on the Jordan," 1869, pp. 325, 329 ; also, "Recovery of Jerusalem," p. 367, in Capt. Wilson's article on the Sea of Galilee).

sole fruit of the American Palestine Exploration Society, "Tabakât Fahl is a beautiful location for a city, and the wonder is that it should have been forsaken." Even after the long summer drought, the springs gushing out among the broken columns and ruins of former splendour, are abundant enough to make fertile all the neighbouring land, which, situated as it is on the upper level of the Ghôr, and 250 feet below the sea, enjoys, perhaps, the finest climate, from an agricultural point of view, that can be found in Syria.

That the Arab name of Tabakât Fahl, the Fahl Terraces, represents the ancient Greek Pella, there can be little doubt. Dr. Robinson, who was the first to make this identification, is no mean authority in such matters, and further, Mr. Merrill, who discusses the various objections which may be urged against this present site, winds up the argument by bringing together a mass of evidence in favour of this being the ancient Pella of the Decapolis, giving citations from the works of Josephus, Stephanus of Byzantium, Eusebius, and others, who treat of the early topography of Palestine.¹ It may be of some interest to add that though the site has, to all appearance, for centuries been abandoned by the Moslems, it is renowned in their early chronicles as being the field which witnessed the great "Battle of Fahl," which, six centuries after Christ, sealed the fate of Byzantine rule in Syria.² According to the annalist Tabari, this celebrated victory was gained in the year 13 A.H.,³ and the geographer Yakut asserts that the Greeks left 80,000 dead on the field.

In the first decades of the Christian era, Pliny, describing Pella, notes its abundant water supply, and in the Talmud this city is mentioned under the name of "Phahil," as having *hot* springs.⁴ At the present day, however, the springs, though abundant, are apparently not thermal. We found them icy cold, and perfectly sweet, and on this point it may be added that the Arab geographers never allude to them in their enumeration of the numerous Hammâms of the Jordan Valley. Neglecting the Greek name Pella, the Arabs, according to their wont, revived the older Semitic pronunciation of Phahil, which they wrote Fahil or Fihl. It is of interest here to note that Yakut, in his Geographical Encyclopædia,⁵ after stating the correct pronunciation of the name to be "Fihl," continues, "I believe this name to be of foreign origin, since I do not recognise in it the form of any Arab word." And that this Pella was the place which witnessed the Moslem victory over the Greek forces, is placed beyond a doubt by the further statement that "the battle of Fihl, which took place within the year of the capitulation of Damascus, is likewise known under the appellation of the Day of Beisân,"⁶ and from Beisân, on the right bank

¹ "East of the Jordan," by S. Merrill (London, 1881), pp. 442-447.

² Weil, "Gesch. der Chalifen," I, 40, *et seq.*

³ Ed. Kosegarten, II, 158.


⁴ Conder's "Handbook to the Bible," 3rd edition, p. 315.

⁵ "Mo'jam-al-Buldân" (Leipzig), III, 853.

⁶ Quoted also by the author of the "Marâsid-el-Ittilâ," ed. Juynboll, II, 336, whose work is a critical abridgment of Yakut's Encyclopædia.

of the Jordan, we had ridden in a couple of hours. Pella, or Fihl, must have fallen into ruin very shortly after the Moslem conquest, as is proved by the absence of all Saracenic remains among those of the Byzantine epoch which cover the ground in all the neighbourhood of the springs. A like fate also befell most of the great Greek cities over Jordan, such as Gerasa (Jerâsh) and Philadelphia (Ammân), where we find little that is Moslem among much that recalls the Christian times. A few generations later, after the third century of the Hejra, the very name of Fihl ceases to be mentioned in the itineraries and town lists of the Arab geographers, and neither Istakhri, Ibn Haukal, nor Mokaddasi (himself a Syrian) take any notice of the place. Still, in A.H. 278, one of the earliest of their geographers, Yakubi, considered it a place of importance, for in his summary of the cities of the military province of the Jordan (*Jond al Urdunn*), after describing such towns as Acre and Tyre, he mentions¹ together Tibnîn, Fihl, and Jerâsh, adding that "the population inhabiting these towns is of a mixed character, part Arab, part foreign" (*al 'ajam*), by which last term, if I am not mistaken, we are to understand the native Greek-speaking Christians who had not been displaced by the immigrant Arabs. Fihl, or Tabakât Fahl, as the place is now called, having thus been left undisturbed for nigh on a thousand years, would doubtless yield a rich archæological harvest to any one who could spend some days among the ruins, and carefully examine the very large number of broken cornices and other carved stones which lie about on every hand. Considerable remains of buildings also, that were once adorned with columns, surround the spot where the springs gush out from the hill-side.

Although the Jordan Valley is elsewhere parched after the summer droughts, the Fihl Gorge was a mass of waving green reeds, reaching higher than a horseman's head, and almost completely masking from view the ruined edifices which lay partially submerged in the running water. Near what must have been a bath—judging from the large piscina—stood a fine monolith in white marble, above 8 feet in height; and among the reeds, a score of yards further down, and nearer the north bank, were two others, rising, each of them, over a dozen feet out of the pool in which they stood. But nowhere did we notice inscriptions. The great centre of population would seem to have been up on the hill-side on the right or northern bank of the stream. Here there are traces of a large necropolis with innumerable sarcophagi lying about on every hand. In most cases these last had been smashed up by iconoclastic treasure-seekers, but some remained almost intact, displaying the Christian emblems beautifully carved in the white stone. One in particular was noticeable from its high artistic merit. The lid of the sarcophagus was still perfect, adorned with three wreaths chiselled in high relief, and between

them, in monogram, the , and the **A.Ω.** but with no further

¹ "Kitâb-al-Buldân," ed. Juynboll, p. 115.

inscription. Traces of buildings and half-buried columns lie in profusion to the south of the necropolis, on the slope overhanging the green gorge where the stream gushes out, while, doubtless, the precipitous hill which shuts in the left or southern bank of the wâdy, would repay a more detailed examination than any which has as yet been bestowed upon it. Digging would naturally be most desirable here, but much that is interesting might easily be brought to light by any one who would come armed with a crowbar, and give himself the trouble of turning over the drums and the cornices which, to all appearances, have lain in their present position since the days of the Arab invasion; and greatly do I regret that, in our hurried visit, I had neither tools with me, nor leisure time, that would have allowed of a detailed examination of this little visited ruin.

The road from Fahl to 'Ajlûn winds up the steep north bank of the Wâdy Fahl, here running east-north-east into the plateau overhanging the eastern boundary of the Jordan Valley. For the first mile the wâdy is narrow and precipitous, and the road a mere path straggling about the cliffs, a hundred feet above the dry torrent bed; but after passing a curious gap, where two giant boulders on projecting spurs have the appearance of watch towers, the gorge widens and bifurcates, the road taking the branch gulley leading in the direction east-south-east. Since Mr. Merrill has laid such stress on his discovery, in these parts, of the Roman road running between Pella and Gerasa,¹ referred to by Eusebius, and which the American archæologist regards as a final proof that Fahl is Pella, I was naturally on the look-out for traces of the same in the Wâdy Fahl. It is a disappointment for me to have to confess that though evident remains of a paved causeway are found in several places on the uplands above, yet here in the wâdy itself no traces could be discovered of cuttings in the cliff sides. I therefore conclude that the road must have approached Fahl (Pella) down some other gulley.

Three-quarters of an hour after leaving Fahl we had reached the upland rolling plain, intersected in every direction by shallow ravines, and dotted with scrub oak. Before us, in a south-easterly direction, rose the mountains of Gilead; to the right, less than a mile away, and due south, was the village of Kefr Abîl; while on the left, at a distance of a mile and a half, on a low spur, appeared Beit 'Adîs. Skirting the heads of three small wâdies which lead down to the Jordan Valley, our road took a southerly direction for a couple of miles over the barren upland, after which suddenly the path plunged down off this upland into the precipitous gorge, which I believe to be an upper arm of the Wâdy Yâbis. On the height, with a path running up to it from the gorge, lies the village of Kefr Abîl before mentioned, and before leaving the upland plateau, on the very brink of the wâdy, our road passed through remains of former habitations, rendered the more noticeable by the living rock having in many places been cut into to form large square tanks, measuring, roughly,

¹ *Op. cit.*, 357, 445.

in length 10 feet by 8 feet across. These were now filled up with mould so as to be flush with the surface, and have been constructed to serve as vats for oil or wine. The workmanship was assuredly ancient, and such as to do honour to the skill and perseverance of the stone-cutters of Palestine. The wâdy into which the road plunged turned off upwards into the hills in a north-easterly direction, while downwards, towards its outlet, it runs on for more than a mile due south with many smaller wâdies coming into it from the east. In this part both the main wâdy and its tributaries were, at this season, completely dry, though showing clear traces of the rush of spring freshets. The road ran down in the bed of the wâdy, and we followed it for about a mile before turning to the left into a green valley leading up in a south-easterly direction, where nestled the village of Jedaidah surrounded by olive trees and gardens. The natural beauties of this dell, the distant clatter of the two mills which were churning the waters of the brawling stream, the well-tilled fields, and the succulent grass that covered the slopes on every hand, to us invested Jedaidah with all the attributes of a rural paradise; and it being now past midday we proceeded to recruit exhausted nature with certain of the contents of our saddle-bags, while the nags lunched, even more sumptuously than we, on the fresh grass of the brook side.

Whether or not this be the main stream of the Wâdy Yâbis I was unable to ascertain, for the maps of this district are all remarkably deficient and inexact, and a villager whom I questioned was ambiguous in his replies. But from Jedeidah, as far as we could see, the stream, making a bend at right angles about a mile down the wâdy going due south, turns west again, and forcing its way through the mountains would have every appearance of coming out into the Jordan Valley at the spot where the Wâdy Yâbis is marked on the maps. All this we noted while following the path which led away in the opposite direction, for scrambling up the high spur overhanging the left bank of the stream, we proceeded nearly due east into the mountains along and up the ridge, which forms the southern boundary of the little valley where we had made the noontide halt. The wâdies here begin to be dotted with scrub oak, through which, after riding for a short hour, we came into the olive groves surrounding the hamlet of Urjân. There is collected in this village a population apparently too numerous for the accommodation provided by its houses. More than half its inhabitants have turned the caves, which honeycomb the rocks, into habitations, and thus manage to provide themselves with all the comforts of a home in the bowels of the ground. These caverns would seem to be mostly of artificial construction, having squared windows and doors, with properly situated smoke holes, but very awkward for riders, and into which, several times, it was difficult for me to prevent my horse from precipitating himself. These tenements would doubtless prove worthy of investigation by any one who, more fortunate than was the case with myself, shall have leisure to overcome the inhospitable shyness of their present occupants, and thus have the good fortune to gain admittance to these Troglodyte harems.

Beyond Urjân may be said to begin the forest of Ajlûn. At first the

hill slopes, and later on both the torrent beds and the ridges, become covered by oak trees, with an average height of between 30 and 40 feet. In the spring time, doubtless, the ground would be covered with grass and weeds, but now, in the late autumn, nothing was to be seen under the trees but the bare rocks; still from the thickness of the forest, and the low sweep of the branches, a horseman ten yards ahead was generally completely hidden from view. For a mile beyond Urjân the road keeps along the southern slope of the valley under the trees, leading steadily upward and crossing the entrances of many smaller dells, till finally it turns up one of these latter in a direction south-west by south, and round the upper end gains the summit of the ridge, whence a lovely view is obtained through the oak openings back over the Jordan Valley towards the Dead Sea. A little further on along the ridge, and about three-quarters of an hour after leaving Urjân, we passed a large circular hole in the ground, some 6 feet across, opening down into an immense cistern, now partly choked with rubbish, but the bottom of which was still 20 feet from the surface of the ground. It appeared to be bottle-shaped within, as are most of the cisterns in Palestine. In a southerly direction not far from its mouth, under the trees, were traces of ruined walls, but I was unable to obtain from the guide any information as to the name by which the place was, or had formerly been, known.

Our road still lay along the ridge in a south-easterly direction, with the broad wâdy on the left hand down which behind us lay Urjân, while on the right we were continually crossing charming glades where the oaks ever and again give place to bay trees, and through them a rider obtains picturesque glimpses over the well-wooded hills to the south-west. It was up one of these glades, or rather forming the background of an upland plain closed in on either hand by dark green mountain slopes, that we first caught sight of the Castle of Rabûd crowning a hill-top about three miles away, bearing south-south-west. From this point, which is rather more than an hour distant from Urjân, a direct road, said to be very stony, leads to the Kusr er Rabûd straight up this plain. It was, however, now past 3 o'clock, and the days being short we decided to push straight on to the town of Ajlûn, our night quarters, and put off visiting the castle till the morrow. We therefore turned up the hill-side to the south-east, and on the brow first caught sight of the town far below us, at the junction of three valleys, embowered in its gardens, its minaret and walls already gilded by the rays of the setting sun. An hour's scramble, first round the shoulder of the hill and then over into the valley which comes down on Ajlûn from the north, brought us to our destination, and for the last two miles the road lay through a succession of vineyards among the rocks, where the vines, whose leaves the autumn had turned to ruddy gold, stood out against the darker shade of ancient olive trees. The distance we had travelled perhaps lent a false enchantment to the view, but whether or not this be the cause, Ajlûn has a place in my memory as one of the most beautiful and fertile regions of Palestine that I visited, bearing comparison in this even with those far-famed villages that are watered by the rivers of Damascus. The little town is situated at the junction of three valleys, one coming from the north

down which had been our road ; another coming from the west, blocked a couple of miles distant by the spur, crowned with the Castle of Rabûd ; while opposite is the valley leading up almost due east on the road to Sûf and Jerâsh. The place contains a mosque with a tall square minaret, of fine workmanship in yellow stone ; and this last recalls so strikingly some campanile in the plains of Lombardy, that I am inclined to suppose that we have here the relics of a Christian church, perhaps of Crusader times. The town has an abundant supply of water from a spring which gushes out, not far from the mosque, under an archway of ancient masonry, which rises among ruins of columns and cornices. Modern Ajlûn is, however, but an unpicturesque collection of mud hovels, where the homestead generally consists of an agglomeration of windowless cabins surrounding a dung-heap.

In one of these cabins, having accomplished the ejection of our host's family, we proceeded to take up our night's quarters, and made an excellent dinner off the mutton and rice that had been originally prepared for his own household. It then became a burning question to my two companions whether the hospitality which they in turn were forced to offer to the fleas would allow of their enjoying the solace of undisturbed repose. For myself I was happy in being above such considerations. For, during a late trip across the Haurân, sundry insects pervading the guest chambers of my Arab hosts, having kept me for three successive nights without closing an eye, and further observing myself to be rendered incapable of archaeological research through the physical exhaustion brought on by ceaseless scratching, I had, this journey, brought in my wallet a small string-hammock. Now the den in which we were quartered had, like most Arab cabins, square ventilation-holes, left under the rafters on either side below the ceiling. Through two of these holes, from without, I found I could manage to push the straight stems of a couple of long logs of firewood, in such a manner that the ends protruded very appropriately inside, like pegs standing out from the opposite wall of the room ; while the logs were jammed and prevented from being drawn completely through the holes by the gnarled and branched portion that remained without. Having thus got my pegs inside the room I proceeded to sling the hammock from them about a yard and a half above my friends and the fleas, and enjoyed thereby undisturbed repose during the night, having first been duly admired by the whole population of the village, who, during a couple of hours, were admitted in rotation to rejoice their eyes at the unaccustomed sight of a Frank in bed in a hammock.

The next morning, the 13th of November, we were up betimes, and after a thimbleful of coffee rode up, going almost due west, to the Kul'at er Rabûd, and reached it in a few minutes over the half-hour. From the Arab geographers quoted on a previous page, I have been unable to obtain any information as to the early history of this splendid fortress.¹ Raised on

¹ I find no mention of the place in the works of Yakubi, Ibn Haukal, Istakhri, Mokaddasi, or Yakut, neither does the name occur in Ibn-el-Athîr's

foundations that would appear to date from Roman days, its bastions and walls bear silent witness to the energy and skill of the Crusading Knights who, during their two century tenure of the Holy Land, erected this stronghold beyond the Jordan to hold the country of Moab and Ammon in awe. The view from its battlements is grand beyond the power of pen to describe. Looking west, the long valley of the Jordan, from the Lake of Gennesareth to the Dead Sea, lay spread out at our feet, with the windings of the Jordan itself glittering among the green brushwood, its surface being already gilded by the beams of the rising sun. Beyond and for a background were the mountains of Samaria, while on either hand lay the well-clothed hills of Ajlûn, now bronzed by the late autumn, and giving back a sheen of almost metallic lustre under the level rays of sunlight that were pouring over them. Eastward at our feet rose up the town of Ajlûn nestling at the bifurcation of the valleys, in its gardens and vineyards; and beyond, some three miles off, white in a green garland, was 'Ain Jannâ, a village on the road to Jerâsh. The castle itself crowns a height, and is surrounded by a deep moat dug out of the rock. Its vaults and halls are certainly some of the finest in Palestine, the masonry equalling that to be seen at 'Athlit, on the sea coast above Cæsarea, which is always quoted as the most remarkable of the Crusading ruins. Kusr-er-Rabûd amply deserves a more extended examination than any that has as yet been accorded to it by travellers. As I have noted above, the foundations of the building would appear to date from Roman days, for on many of the stones used in the lower walls eagles are carved, in low relief, which seemed to me of earlier workmanship than the tenth century. On the left of the gate-house high up in the wall is a tablet bearing an Arab inscription, which I was unable to come near enough to read. My readers will easily believe how about these old walls, thus perched on the mountain-top as a landmark to all the Jordan Valley, and concerning the men who first constructed its dungeons and wells and dark passages, there was an amount of mystery that it would have been most fascinating to have made some attempt at penetrating, had the time permitted of a detailed exploration. But that night we were bound to sleep at, or beyond, Jerâsh, and therefore

voluminous chronicle. However, although unnoticed among the Crusading Castles of Palestine by G. Rey, in his "*Monuments de l'Architecture Militaire des Croisés en Syrie*," an examination of the architecture and mode of construction has led me to doubt that the building is of purely Saracenic origin. I must state, however, on the other hand, that Burckhardt, who visited the place in his travels and found it occupied by a garrison, writes ("*Travels in Syria*," pp. 266, 267") that he saw Arabic inscriptions (presumably on the slab in the wall that I was unable to reach) which proclaimed that the castle was built by Saladin. Which too is further corroborated by Abu-l-Feda's *Geography*, a work of the fourteenth century of our era, where it is stated (p. 245 of the Arabic Text) that the Castle of Ajlûn was built by 'Izz-ed-Dîn Osâmah, one of Saladin's famous captains. Still, in spite of all this, after having examined the place, I must repeat that there is little doubt in my mind that parts of the building date from prior to the time of Saladin or even the first Crusade.

after a hurried visit we reluctantly turned our backs on the castle, and returning through the town of Ajlûn rode on, up the valley eastwards, towards 'Ain Jannâ.

On the right bank of the bed of the brook up which lay our path, and five minutes after leaving the last houses of the town, is a low cavern, used by the natives as a stable for their cattle. As far as we could see it contained no inscriptions or sculptures, and though originally, doubtless, natural, it had been artificially enlarged for the convenience of the beasts, being in most places upwards of 6 feet in height, and running deep into the hill-side for a distance that we estimated at somewhat less than fifty yards, thus affording a large area under cover, that was at the present moment much encumbered with all sorts of refuse. The distance of about a mile and a half which separates 'Ajlûn from 'Ain Jannâ is almost entirely taken up with olive trees, from which the fruit had now (November) lately been shaken; and in the market-place of the latter village we passed three huge caldrons filled with crushed berries set in a little water to simmer over a slow fire, this being one of the methods of extracting the oil. Beyond 'Ain Jannâ the road still continues straight up the valley almost due east, and, on the northern hill slope about half-a-mile from the village, passes beside a couple of rock-cut tombs overhanging the bed of the stream, the second of the two still containing a broken sarcophagus without ornament. A short distance beyond these we come on the source of the brook, where it wells up from a hole under a rock in the middle of the valley. The stream runs down from here through 'Ain Jannâ, and even at this season suffices to water all the lands between this and 'Ajlûn. Above this point, although no water was visible, oak groves of considerable extent lay on every hand, and the path, after traversing a rocky glen where the branches of the trees almost met above our heads, came to a more open space where at a couple of miles above 'Ain Jannâ the roads to Irbid and Sûf bifurcate. Of these we followed the latter, bearing slightly towards the right and in a southerly direction, through park-like glades, and in half-an-hour reached the saddle which forms the watershed between the valleys of Ajlûn and Sûf. At this point a fine view was obtained over the way before us, running through the broad valley winding down towards Jerâsh in a direction a little south of east. The ground about here was dotted with oak trees and scrub, but the growth became smaller and the clumps more sparse the further we left Ajlûn behind, till at last, near Sûf, about three miles from the saddle, the trees had disappeared almost entirely. Before reaching this village the valley narrows to a gorge shut in by white chalk cliffs, and the track, after climbing among those which overhang the ravine to the south, leads suddenly down on the squalid cabins of the inhabitants.

The Sheikh of Sûf has so evil a reputation among travellers for both cupidity and insolence that, it being yet an hour to lunch time, we decided on hurrying on without paying him a visit; but that we did not make some acquaintance with the people of the village was a cause of

subsequent regret to me, when I heard that they held in their hands many of the coins and antiquities which are brought to them for sale by the Circassians who are colonising Jerâsh. There were, in particular, rumours of a pot said to have been dug up in this neighbourhood, and reported to have contained countless gold coins of large size, which same had not all of them, as yet, been delivered over into the hands of the officials of the Ottoman Government, to whom all treasure-trove is lawfully due. The finding of hoards is of by no means rare occurrence in Palestine, where the people have at all times been their own bankers, and have ever preferred confiding their hard-earned gains back to the bosom of mother earth, rather than entrust them, for safe keeping, to friends in whom they could place no trust, knowing well that they themselves, in the like position, would, without a question, deem it imbecile to be fettered by any shackles of honesty or honour. The road from Sûf to Jerâsh, which we travelled over during a ride of rather more than an hour and a half, has been so well described in guide books as to need no detailed notice. For the most part the path follows the hill-slopes on the southern side of the broad shallow wâdy which runs down in an easterly direction till it joins that wherein lies Jerâsh, which is a valley joining it from the south. Shortly after leaving Sûf, far down to the left of the road and on the northern hill-slope, a ruin was pointed out to us by our guide which our time did not permit of our visiting, but as he assured us that it was the remains of some ancient edifice it may perhaps repay the examination of some future traveller with leisure at command. Even before reaching Sûf, as noticed above, the aspect of the country had changed. The thick oak forest, which is so characteristic of the Ajlûn hills, had been replaced by single stunted trees, pines and scrub oaks, dotted sparsely over the hill-sides; beyond Sûf the slopes became almost bare, and in all the country to the east and south of Jerâsh the land is for the most part treeless, and only an occasional pollarded oak cuts the sky line of the hill-top.

Riding across the hills from Sûf, Jerâsh becomes visible from the village of Deir-el-Leyyeh, a couple of miles from the ruins, which are seen spread out below in the broad valley running north and south. From this upper point, where, at the bottom of a hole in the rock, there is a spring, all along the road lie fragments of sarcophagi and carved stones, showing how extensive must have been the suburbs and necropolis of the Roman city. Jerâsh, or Gerasa, has been too often and too well described to require more than a passing notice in these pages. At the time of our visit the Circassians had possession of the place, but had fortunately taken up their abode on the left bank of the stream, where the ruins are comparatively insignificant, and they had not as yet begun to meddle with the magnificent theatres, colonnades, and temples crowding the right bank, and which are, Palmyra perhaps excepted, the most extensive and marvellous remains of the Græco-Roman rule in Syria. The prosperity of the town, despite its fine situation and plentiful water supply, diminished considerably after the expulsion of the Byzantines. The locality, however, is mentioned by Yakûbi, a couple of centuries after the Moslem conquest,

as being in his time one of the towns of the Jordan province : and again the poet al-Mutanabbi, one of the most celebrated of those who flourished at the Court of Baghddad, in a panegyric, devotes some lines to the praise of the fertility of the Crown domains at Jerâsh. But, except for such incidental notices, if I mistake not, the city is rarely mentioned by the subsequent Arab geographers and historians ; though Yakût, in the thirteenth century A.D., who had not himself visited the spot, writes that it was described to him by those who had seen it as “ a great city, now a ruin, . . . through which runs a stream used for turning many mills ; . . . it lies among hills that are covered with villages and hamlets, the district being known under the name of the Jerâsh Mountain.”²¹ Whatever may have been the original cause of its depopulation, it is very noticeable that the ruins of Jerâsh up to the present day have been but little disturbed. There has never been any great Moslem city in its neighbourhood, and hence its columns remain *in situ* or, thrown down by the earthquake, sprawling along the ground, while the stones of the Great Temple of the Sun and of the theatres are fortunate in having been, as yet, unpilfered for building material. Further, since there is in these regions no sand to drift over and veil the outlines, and the frequent drought preventing the ruins from becoming masked by vegetation, all that remains stands out, white and glaring, in noontide, having that same appearance of recent desolation which is so striking a characteristic of the freshly cleared streets of Pompeii.

After lunching on the bank of the stream, among the gigantic oleanders that, still in November, were covered with delicate pink flowers, we passed the afternoon riding about, examining the ancient city, combining archæological investigations with the keeping of a good look-out against prowling Circassians, and at sundown proceeded out of the southern gate, past the circus, now a meadow, and through the fine Triumphal Arch at the town limit. Here turning to the left, we crossed the stream at the mills and began to climb the conical hill on which stands the Moslem village and sanctuary of Neby Hâd, where it was determined to claim for ourselves hospitality, and safe night quarters for our horses, against the thievish propensities of the Christian Circassians.

The view from this high point is extremely fine, and embraces all the valley and ruins of Jerâsh looking north. While the guest-room was being swept out the elders came round and discoursed on their grievances, against the Government in general, and their new Circassian neighbours in particular. These last are a thorn to the Moslems in their agricultural operations, and further debar them from poking about for treasure among the vaults and cisterns of Jerâsh, a city built, as one of the sheikhs was good enough to inform me, by his own ancestors, the 'Adites, of the Days of Ignorance. After supper till near midnight had we to listen to and discuss politics with these worthy people, among whom the arrival of a traveller is a rare accident, and we three being Christians and they

¹ *Op. cit.*, II, 61.

Moslems, points of religion were often incidentally touched upon to the exceeding happiness of our Arab guide, who was a red hot Protestant and polemic. Despite religious differences, however, we remained excellent friends, and ultimately all slept together in the guest chamber, the party consisting of our three selves, the sheikhs, and the children. During the night an occasional dog chased goats over our prostrate forms, and the fleas hopped about merrily, which combined prevented our oversleeping ourselves. Hence by half-past six next morning (Nov. 14th) we had saddled our horses, and, breakfastless, were off for 'Ammân, to which place it had been determined to proceed by the direct road across country, without going first south-west to Salt and thence back south-east to Ammân, the route generally followed by the caravans. This direct road is hilly, and there have to be crossed numberless valleys, which from the east intersect the tableland lying between Jerâsh and Ammân ; it is but little used, and, as far as I could learn, has been seldom described by previous travellers. To us its being the less known was, of course, a recommendation ; besides, as we had no wish to excite the attention of the officials of the Belkâ, it was perhaps as well to avoid visiting Salt, the residence of the Governor of that province.

Starting from Neby Hûd in a south-easterly direction, after half-an-hour we crossed at right angles the Wâdy Riyâshî, running south-west, and down which lies the direct road to Salt. At the point where we forded the brook is a ruined mill almost hidden in the mass of oleanders and fig trees bordering the bed of the stream, which, it is said, joins the Jerâsh river a short distance before this latter itself falls into the Zerkâ. We, however, turning towards the south, left the Riyâshî behind us, and making our way up the hill slopes above its left bank, here most refreshingly dotted with scrub oak, in rather more than half-an-hour had gained the summit of the watershed which divides the valley of Jerâsh from that of the Zerkâ. The saddle across which the road lay commanded a fine view on either hand, the summit being marked by a cairn of stones a dozen feet high, erected to mark the spot where a celebrated chief had been slain. From here to the right, westwards, there was visible the lower part of the valley of Jerâsh, separated from us by several ranges of bare hills. To the left, and in front towards the south, lay the hills of the Belkâ, cut off from us by a deep gorge, at the bottom of which, as yet unseen, ran the Zerkâ, the Biblical Jabbok, in ancient times the boundary between the territories of Og, the King of Bashan, and of Sihon, King of the Amorites, and still to-day the limit to the north of the Belkâ province. The hills all round were barren and stony, here and there a pollarded oak struggled for existence against the drought and the loss of its branches, which the Bedouins cut off for fuel, and everything seemed lifeless and forlorn, until suddenly, as we were making our way down a steep spur to the bed of the Zerkâ, we came on an encampment of three black tents, hidden away in a delicious little dell, down which went brawling a tiny stream. The Bedouin men were all away with the flocks, but the women received us hospitably, started coffee-making, and the

while were profuse in advice and directions as to the road we were to follow. They belonged, they said, to the Khaza 'Ali, a branch of the Beni Hasan, one of the great tribes of the Belkâ, and seemed in comfortable circumstances. Very pretty striped carpets of goat hair were spread for us to sit on in the shade of the goat-hair walls, and though our hostess was more remarkable for her perpetual chatter than for graces of person, she seemed extremely proud of the rings which adorned both thumb and little finger of her right hand and the two big toes of her feet. What between conversation, coffee-making, and the setting before us of bread and milk, it was fully an hour before we could tear ourselves away from our gossiping hostess, but at last we set off again up the hill spur, and then began once more zigzagging downwards. A final scramble brought us into a small amphitheatre debouching on to the river, the slopes of which were covered with the curious shrub called by the Arabs "Yenbût," its long fleshy green twigs or leaves, of the thickness of crotchet needles, brushing against our faces as we pushed our way through the tangle.

The bed of the Zerkâ, at this season only some three yards broad, and barely a foot deep, is bordered with the "Daflah," or oleander, still showing an occasional pink flower among its dark green leaves. The sides of the gorge in which the river runs are here extremely steep, in places almost perpendicular, and while further to the west, down the river, the valley appears to open out, up eastward the mountains on either hand closed in more and more, till in the extreme distance the stream makes its way out of a gigantic cleft where high precipices would seem almost to meet a thousand feet above the water. At the spot where we now crossed, the Wâdy Zerkâ has a level pebbly bottom above two hundred yards across, which during the freshets must be almost totally submerged. Riding straight across this we proceeded to pick out a torrent bed among the many that cut through the cliffs overhanging the river on the south, and after half-an-hour's climb up a very steep wâdy, we were again on the high uplands, whence, looking back over the gorge, we could trace our late route among the hills of Jerâsh. Continuing on through a broad upland valley dotted with trees, before long there appeared a small village of mud cabins,—among which was a blacksmith's shop in full blast,—clustering together under the shade of a grove of oaks, many of them of no inconsiderable size. The place is called 'Alûk, and is situated about two miles distant from the Zerkâ, due south of the spot at which we came across the river. From 'Alûk the road towards 'Ammân first runs due east for a couple of miles over the upland, crossing every now and again the head of some wâdy running down towards the left into the gorge of the Zerkâ; and finally, bearing round towards the south, crosses a hill shoulder from which back over the gorge and the hills the white dome of Neby Hûd can be made out in the far distance. The country over which we were now travelling may be described as a rolling upland cultivated in patches by the Bedouin, and in places overgrown by brushwood, scrub oak, and yanbût. Among these hollows and hills we frequently lost our way and wandered about till set on the right path by chancing to stumble

on some small camp of black tents, occupied by the women who were herding the camels in the absence of their lords.

Several times in this part of the country we passed "Arab circles" of small boulder stones, and on one occasion, under a fine Butm tree, came on what was evidently the tomb of a much respected sheikh, to judge from the corn measures and the plough which had been deposited within the circle of the shrine for safe keeping. About four miles from Alúk, and roughly to the south-east of it, topping a low hill over which lies the road, are the ruins of a building that was originally constructed of squared stones, but of which nothing is now traceable except the general rectangular plan. The place is known by the name of Sarrúj, and is used by the people as a storing place for grain. Some Arabs who were here, occupied in cleaning corn, invited us to go on to a large encampment of their tribe, the Beni Hasan, which they pointed out in a hollow a mile further off. Here the black tents, fifteen in number, and of the largest size, were pitched in two lines facing east. On stopping to inquire and give the news, we were requested by the sheikh to administer relief to an unfortunate Arab who lay at the back of the tent suffering from failing breath, in what appeared the last stage of consumption, a disease that is said to be of no uncommon occurrence among the Bedouin. The case, however, as far as we could judge, was beyond the reach of medicine, and there was no physician among us, so with expressions of sympathy, and a few general directions as to the patient's comfort, we took leave and continued our way up over a hill to the south-east, from whence was overlooked a broad shallow valley, not unlike that in which is situated Jerâsh. This valley, the drainage of which is towards the north, runs up at a very slight gradient in a direction almost due south, for over six miles. It is called by the Bedouin of the Beni Hasan, Wâdy Khallâ, or Khallî, and affords good pasture to their herds, which find water at several shallow wells that occur in its bed. The sheep and goats that are here met with are of a remarkably fine breed, large in size and having heavy fleeces. The bell-weather of each flock is distinguished by a sort of crown of gaudily coloured feathers attached to the back of the neck just behind the ears, the wool in its neighbourhood being further dyed red with henna. As we proceeded up this valley, which is everywhere dotted with oak trees and thorn, there appeared a ruin on the right hand, high up the slope of the hills shutting in the valley from the west, where by our glasses we could perceive, as we thought, the remains of walls. It is known by the names of Khurbet-er-Rumanêh and Khurbet-el-Bireh, but being much pressed for time it was found impossible to visit the spot, which, further, our guide assured us, was at the present day but little more than a heap of stones. A short distance beyond, where we lost sight of the ruin, the valley takes a sharp turn to the right, and then back into a south-westerly direction, which following we soon after turned up into a branch wâdy coming in from the west, and happily came to the main encampment of the Beni Hasan, it being already two hours after midday. Here twenty-four long black tents, pitched in double row,

took up the whole of the floor of the wâdy, and to that of the sheikh, conspicuous by its superior size, we proceeded to pick our way over the tent ropes, and made ourselves the recipients of Bedouin hospitality.

First came the customary thimbleful of coffee—roasted, pounded, and boiled up in our presence; then followed a more substantial repast of excellent new Arab bread—resembling thick pancakes—which was seasoned by being dipped bit by bit in a bowl of melted butter; then coffee once more, and in an hour we were on our road again, having given our hosts the latest items of political news, and received from them in return minute directions as to the path. Returning back into the main wâdy, the track runs up it some little way, and then turning south-west crosses a low shoulder. From this point there is one road leading almost due west, up a wâdy, going direct to es Salt, while that towards Ammân keeps on in a south-westerly direction over the rolling country, and cuts across many minor wâdies that run down from the east. Near the point of bifurcation of these two roads there is a small clump of Butm or Terebinth trees, at the foot of which are lying the shafts of two broken columns. The larger of them is a monolith some 9 feet long, and is cut out of the piece in such a manner that the base, 4 feet high and about 2 feet in diameter, tapers down to the shaft of half this size, the whole being very neatly executed in white limestone. A mile further on again, where the road runs along the western slope of a shallow wâdy, we passed fragments of six more broken columns of about the same size as the above, but since no further trace of any temple or building was to be seen in the neighbourhood, one is led to the supposition that these fragments have at some period been transported hither from the great centre of ruins at Yajûz. We were now travelling along a raised causeway, the remains of a Roman road, running over the undulating plain, which is covered here and there by patches of corn land, and after a couple of miles our horses began to stumble among stones of Yajûz; but as the sun had already gone down, archæology was out of the question, and it was necessary to discover, without further delay, the whereabouts of the Bedouin camp in which it was our intention to pass the night. Turning, therefore, off the road at right angles towards the west, a goatherd directed us to a slight depression in the plain where, after twenty minutes riding, we came suddenly on about a dozen tents of the Beni Adwân, and without unnecessary ceremony pressed ourselves on the hospitality of the somewhat surly sheikh. The night was bitterly cold, and, what between the wind and the fleas, and the extremely confiding nature of the ewes, who, for warmth's sake, were always trying to insinuate themselves beneath our blankets, sleep was fitful. Further, and as usual, till far into the night, our Arab friends discussed in strident tones politics and finance, for, as every traveller knows to his cost, these worthies have such a habit of sleeping at odd hours during the day, that at night being wakeful, they are sadly addicted to interminable discourses. Discomfort only ceased with the dawn-chill, and, being up betimes, when the sun rose in splendour over the rolling uplands, here in most parts covered with the growth of a plant resembling heather, we were already on

our way back to the road into Yajûz, out of which we had turned the night before.

At the entrance of the ruins is a large clump of some of the finest Terebinth trees that ever I came across. In their immediate neighbourhood is a large Arab cemetery, the most prominent tomb of which is that of Nimî ibn Gobelân, a sheikh of the 'Adwân, whose death, according to the inscription on the headstone, took place A.H. 1238, *i.e.*, some sixty and odd years ago. His memory is still held in awe among the Bedouin, as is proved by the numerous ploughs and other farm implements that lie round his tomb, left there for safe keeping, as in a sanctuary. One of the 'Adwân, our host of the previous night, who accompanied us a short distance on our journey, informed me that this spot is known under the name of A'deyl, and is considered distinct from Yajûz, the ruins of which extend from it eastwards for more than a mile. These ruins, now known by the Arabs under the above name, have been so fully described in their respective works by Mr. Oliphant and Dr. Merrill¹ that further details may be deemed superfluous. It is noteworthy, however, that all attempts at identification seem to have failed, although the extensive remains of carved Byzantine capitals, squared blocks, and the foundations of numerous edifices which crowd both sides of this broad upland valley would lead us to conclude that there must have existed here a very populous town during the Græco-Roman period. It may be worth noting that in the lists of the Arab geographers there is no mention of the name Yajûz; nor was there in the days of the Caliphate, so far as I can discover, any considerable town that agrees in point of situation with the site of these ruins. The caves with which the hill slopes are honeycombed are still used by the 'Adwân as granaries, but apparently no settled inhabitants are found in the neighbourhood.

After spending some time in riding in every direction over these interesting remains, and seeking in vain for anything in the way of an inscription or a date, we proceeded in a south-easterly direction, still over a rolling country that showed ever and anon patches of cultivation. The shallow wâdies that the track crosses for the most part run down towards the east, presumably into the depressed plain of El Bukeia; however, for some miles round the whole district here about is known under the name of Yajûz. Half-an-hour after leaving the ruins we passed a large nameless heap of disjointed but squared masonry, lying in the shade of some Butm trees growing on a hill slope facing the north. From here the path, turning up the wâdy towards the east, crosses some low hills, and finally surmounting the crest, leads down into a curiously long and narrow plain: apparently the bed of an ancient lake, as I should judge, analogous to that which once filled the depressed plain of El Bukeia, lying some miles over to the north-west of our present point. Wending down the slopes which, just before reaching the level, showed successive lines of pebbly beach and water-worn banks, we descended to the ancient lake bottom, here some 400 yards broad, and as even as a billiard table. The Arabs of the

¹ "Land of Gilead," p. 227, *et seq.* "East of the Jordan," p. 273, *et seq.*

Adwân call this tract of land Hemel Belka, and cultivate the rich alluvial soil in patches, raising crops of wheat and maize (*durra*). From the point we struck it, the plain extends for the distance of about a couple of miles due south, having an average breadth that might be estimated at a quarter of a mile, and then bears off in a south-easterly direction, draining down in all probability into the Zerkâ Valley, which, according to the maps, curves round towards it. Where the angle occurred we came up out of the narrow plain, and striking over the hills to the south-south-west passed another nameless ruin, where confused heaps of masonry are crowned by a few small, but most elegant, oval arches, which passed, once again we found ourselves on the upland plain that trends down south towards Ammân.

The land here, after the early rains, was undergoing the process of being ploughed and sown by the Fellahîn of the Beni Adwân. At one moment we could count above thirty yoke of oxen, and the wonted stillness was agreeably enlivened by the shouts of the ploughmen, who, in more than one case, were engaged in directing the capricious evolutions of camels that had been compelled to take the place of the more docile steers. Considering the ungainly size of the camels and the diminutive wooden plough to which they were so clumsily harnessed, it was assuredly a marvel of skill that the furrows ran in passably straight and parallel lines. The camels evidently loathed the business, and to judge by the objurgations of their drivers—who were continually calling heaven to witness that their (the camels') clumsiness was the natural consequence of a dissolute life and a disreputable ancestry,—the camel-men themselves were not enamoured of their job. For a considerable time we passed patch after patch being ploughed in this fashion, and riding over a treeless plateau at length struck back into the high road running south-east from Yajûz to 'Ammân, which we had left to our right in turning off to visit the ruins and the Hemel Belka. After this, very shortly came a rather steep wâdy in a cross direction, running due east, down which the path led, and in a few minutes more we found ourselves for the second time in the Valley of the Zerkâ, and the ruins of 'Ammân were before us.

In these notes, however, the ruins being fully described in all the guide books, it would be waste of time attempting to recall the wonders of Greek architecture that have hitherto lain peacefully entombed beyond the Jordan, but which are now given over by the Ottoman Government to be a habitation for Circassian colonists. At the house of one of these worthies, while being hospitably entertained with tea and new bread, I endeavoured, but in vain, to gain some information concerning the whereabouts of the curious subterranean city of Rahab that Mr. Oliphant, in "The Land of Gilead," reports having heard spoken of as existing in the country to the east of the Zerkâ. All we could learn was that some people had heard tell in stories of this place, but no one at 'Ammân had seen the spot or knew of its exact position. As confirming these somewhat vague notices, it may be, perhaps, worth while to draw attention to the account which Mokaddasi, in the beginning of the eleventh century A.D., gives of a remarkable

cavern in these parts. After describing 'Ammân, where he notes "the Castle of Goliath on a hill overlooking the city, and also the tomb of Uriyyâ (Uriah ?), over which stands a mosque,"¹ he continues: "About a farsakh (three miles) distant from 'Ammân, on the border of the desert, is the village of ar-Rakîm. Here is a cave with two gates, one small, one big, and they say that he who enters by the larger gate is unable to pass by the smaller. On the floor of the cavern are three tombs, concerning which Abul Fadl Muhammed ibn Mansur has related to me the following, on the authority of Abu Bekr ibn, &c.," and after giving his chain of authorities, which reaches back to 'Abd Allah, the son of the Khalif Omar, he reports how the Prophet had said that these were the tombs of certain pious men, who, seeking shelter from the rain, had entered this cave and been shut in by the fall of a rock which blocked up completely the entrance. The impediment, however, was miraculously removed by the hand of the Most High, on their calling to Heaven for aid, and every man conjuring the Almighty, and resting his claim on the virtue of some especially pious act performed in past times. The legend is here not to the purpose, and is besides too long to quote in extenso, it being merely another version of the story of the Seven Sleepers of Ephesus, whose adventures form the subject of a portion of the eighteenth chapter of the Koran; but as confirming the reported existence of some large cavern or underground city in the neighbourhood of 'Ammân, the account is curious, and it shows at how early a date such a report had obtained currency.

From 'Amman it was our intention to get across to Jerusalem, *viâ* Arâk el Emir, but since the route is well described in the invaluable Bædeker, no detail of distances and directions need here be given. Riding up the bank along the now diminutive stream of the Zerkâ, we passed an abundant spring that forms one of its sources, and climbing the northern side of the wâdy gained the treeless upland plain stretching westward. Over this, a ride of two hours brought us to the cleft of the Wâdy Sir, a well-wooded ravine that drains into the Jordan Valley, and in which, but still some miles lower down, lie the remains known as 'Arâk el Emir. At the spot, where we left the bare upland plain to plunge into the green wâdy, the ruins known as Khurbet Sâr are but a short distance to the left, while across on the opposite side there were visible the mouths of several small caverns or chambers hollowed in the face of the cliff, and we noticed other specimens of these abodes of bygone anchorites in many places further down the gorge. Half-way down the steep path that leads into the dell there opens out a small plain, at present occupied by some Circassian families, who have built here a village of wattle and dab houses exactly similar to those that are met with in the neighbourhood of Tiflis. But we had to hurry on without visiting them, for the afternoon was waning.

The whole gorge of the Sir is most beautifully wooded; two mills are turned by the stream that flows through it, and while its sides are almost

¹ Mokaddasi, *op cit.*, p. 175.

everywhere hidden by the dark foliage of the oaks and other forest trees, the margin of the brook is masked by a broad fringe of oleanders that grow here to a height of over 14 feet. In a little meadow, where the cliff on the right bank recedes from the water's edge, and about two miles above 'Arâk el Emir, there is a collection of Arab "circles," of a somewhat abnormal type. The stones are about a foot high, and form the perimeter of a circle that is roughly a couple of yards across. What is unusual, however, is that here the area surrounded by this low circular wall has been roofed over by laying branches rafter-wise, and filling in with straw, the whole being afterwards covered by a coat of clay. There was, as usual, a sort of doorway left in the circle of stones, and in the present instance it faced south. These little buildings have every appearance of being intended for habitations of some sort, only that while the extreme lowness of the roof and the small extent of the covered space would render the ingress of any human being an impossibility, the clean condition of the interiors showed that they were evidently not intended to serve as pens for lambs or other small quadrupeds. Further, our Arab guide immediately recognised them as marking the burial places of sheikhs, reminding us of the very similar, though unroofed circles which we had passed by in the hills on many previous occasions during our journey.

After riding down the Wâdy Sir for nearly two hours, the path lying sometimes in the very bed of the pebbly brook, sometimes along the meadows which skirted its banks, and at times again threading the copses that overhung its winding course, we came out suddenly into the magnificent amphitheatre of hill-cliffs where is situated 'Arâk el Emir—said to be the remains of the palace which, according to Josephus, Hyrcanus built in 182 B.C., during the last days of his exile beyond the Jordan. In the main the description of the Jewish historian tallies well enough with what we find here of rock-cut caverns, and cyclopean masonry carved with forms of huge animals. It is, however, perhaps a point worth noting, and one that did not fail to strike me when I first came on the ruins of the Kusr-el-Abd, that while Josephus plainly states that Hyrcanus "built it entirely of *white* stone to the very roof, and had animals of a prodigious magnitude engraved thereupon," when we come to examine here the carved blocks, alongside of which the inquisitive traveller feels dwarfed to the dimensions of an insect, we find that they are all, without exception, cut out of stone most remarkably *black*. But as Josephus had himself never visited this place, the error is probably due to his having been misinformed by the hearsay report of contemporary tourists. The remains at 'Arâk el Emir, whatever may be their date, cannot fail to strike the traveller with somewhat of that same feeling of awe which he experiences on standing for the first time beside the huge stones at Baalbek, the platform of Persepolis, or the Egyptian Pyramids. Greek and Roman ruins are dwarfed into insignificance beside these, for they tell of an age when labour and time were held as of no account in the calculations of those who built for themselves such temples, palaces, or tombs. It was with difficulty that we tore ourselves away from these wonderful relics of a bygone civilization. But

already the sun was hiding behind the western hill, and while we were lingering in the artificial caverns high up in the cliff, they became shrouded in gloom, though the bold characters of the Hasmonean inscription on the rock above,—read “Adniah,” and said to mean “Delight,”—still stood out distinct in the blush that was already dying from the face of the black masonry in the meadow below.

We had yet to beat up night quarters, and therefore scampering up the shoulder of the projecting spur shutting in the amphitheatre on the south, we crossed into a wâdy known as that of Umm el Madâris, and shortly coming across some homeward-bound cattle were directed by the neat-herd to the encampment of his tribe, the Beni 'Abbâd, located in an adjacent dell. We were now among the wâdies that lead down directly to the Jordan Valley, and just before coming to the tents, while riding over the crest of an intervening spur, suddenly there burst on us a most magnificent view of the Dead Sea, spread out apparently at our feet. From the height, its whole surface, as far as the eye could reach, appeared like a sheet of burnished gold about to become molten, under the rays of the setting sun, whose orb was fast vanishing behind the blue hills of the desert of Judæa; and below, in the foreground, was the opening out of the Jordan Valley, here some ten miles across—Jericho, as a patch of black green foliage, shining out distinct on the further side.

Although the Beni 'Abbâd were hospitable, and their carpets were tolerably free from vermin, the coldness of the night, and the continuous groaning of one of the men who had lately received a spear thrust in his leg, rendered our sleep but fitful. Besides, as usual, our hosts took up the best part of the night detailing their grievances to us, and requested our advice on the important point of how £100 might be obtained on loan to rid them of their enemies. It appeared that certain lands belonging from time immemorial to their tribe, for which, moreover, they held title deeds, had been by Government granted to, and were occupied by, the immigrant Circassians. We suggested that a petition forwarded with the title deeds to the Government would doubtless set matters right, but in reply we were assured that so doing, unless much bakhshish went with the papers, would only lead to the loss of the deeds without there being the smallest chance of the tribe obtaining any re-establishment in their rights. Cheaper than this, they said, it would be to bribe the Circassians to decamp and take up their quarters on somebody else's land, and for this purpose a hundred pounds were needed, which we, however, perforce, deeply regretted being unable to put them in the way of obtaining.

Next morning we were up before the sun, for there was the long ride into Jerusalem before us. Distances in the East, even after long practice, appear most deceptive, especially when looking from a height down and across a plain. The Jordan seemed almost at our feet, but it was four hours' good riding before we reached the ford and crossed the swirling muddy stream, which, even at this season, in some places rose above the horses' girths.

When leaving the mountains and riding between the last hill spurs out

into the Ghôr, I judge we must have passed within a short distance of Tell esh Shâghûr, which recent writers propose to identify with Segor, or Zoar, one of the Cities of the Plain. Dr. Merrill, who discusses the question of the site at some length,¹ concludes by stating that to his mind the arguments for placing the Zoar of Lot at the north end of the Dead Sea are convincing, adding, "We present here a few quotations from Arab writers which bear upon this question." But from these "quotations" I venture to think he deduces an erroneous conclusion, through not bearing in mind the fact that the narrow valley leading *south* from the Dead Sea towards the Gulf of Akabah was known to the Arabs as the Ghôr, and hence bears the same name as that applied by them to the Jordan Valley itself running up *north* from that lake.

Whatever may be concluded from the Bible as to the true position of the Zoar of the Pentateuch, a careful examination of the Arab geographers leads me to conclude that they, at least, stuck to the traditions preserved by Josephus, and followed by Ensebius and Jerome, which place Zoar or Segor to the south-east of the Dead Sea. This place, further, is identical with that frequently mentioned under the name Segor by the historians of the Crusades, and is found in many of the itineraries of the mediæval travellers. To the Arab geographers Zughar, the city of Lot, was as well known a place as Jerusalem or Damascus, seeing that the Dead Sea, more generally called by them Al Buhairah-al Muntinah, "The Stinking Lake," has also the alternative name of the Sea of Zughar. Further, it is evident that there were not, for these mediæval geographers, *two* Zughars, for in Yakut's *Mushtarik*, a Lexicon of Geographical Homonyms, which especially deals with cities of the same name but of different location, the name Zughar does not figure in the list. Turning now to Mokaddasi, who was himself a native of Palestine, and wrote during the century preceding the first Crusade, we find that Zughar (also spelt Sughar) is mentioned as being in his day the capital of the province of the Sharât² (which corresponds in general with the ancient Moab), and he cites it as the sole remaining city of Lot, "saved by reason that its inhabitants knew not of the abominations." As to its position, it is described as standing on (or near) the Dead Sea, with the mountains near about it;³ while that it is to be sought at the south-eastern end of the Lake is shown by the statement that it is one *marhalah* (twenty-five miles—a day's march) distant from Maâb, a town situated in the desert to the east of Kerak; and four *marhalahs* from Wailah,⁴ the port at the head of the Gulf of Akabah. Also Istakhri⁵ and Ibn Haukal,⁶ geographers of the generation preceding Mokaddasi, state that between Jericho and Zughar lay "a day's march," and in one case other MSS. give the alternative but

¹ "East of the Jordan," 233, *et seq.*

² Mokaddasi, *op. cit.*, p. 155.

³ *Op. cit.*, p. 178.

⁴ *Op. cit.*, p. 192, 249.

⁵ Edit. de Goeje, p. 66.

⁶ Edit. de Goeje, p. 126.

probably erroneous reading, "two days' march." At this epoch, that is, during the eleventh century A.D., Zughar was a place of considerable trade, famed for its indigo and dates, these last being of exquisite quality, and quoted as one among the eight kinds celebrated in all the countries of Islam.¹ On the other hand, the climate of Zughar was deadly, and its drinking water execrable, "hot even as though it were over hell fire,"² and later, when characterising the drinking water of Palestine as generally so excellent, Mokaddasi exclaims,³ "but we take refuge in Allah from that of Zughar, though the water of Bait-er-Râm is in truth bad enough."

Turning now to the great Geographical Dictionary of Yakut, compiled in the early part of the thirteenth century A.D., we find two long articles, one under the heading Sughar, and another under the alternative pronunciation of Zughar.⁴ After quoting the verse of a poet who sings of the "southern region of the Sharât from Maâb to Zughar," Yakut proceeds to give various traditions which connect the town with the history of Lot, and says that its name came to it from one of Lot's daughters. Finally it is stated that Zughar is situated in the neighbourhood of the Dead Sea, in a wâdy; it being three days' journey from Jerusalem, and lying near the frontiers of the Hejâz.⁵ Lastly, and not further to multiply quotations, the author of the Meracid, writing about a century after Yakut, after quoting his words as to the position of Zughar on, or near, the Dead Sea, adds that it lies near Kerak.⁶

In conclusion, therefore, and in opposition to Dr. Merrill, I find no authority among such of the Arab geographers as I have read for locating the Zughar or Zoar of their day anywhere but to the south-east of the Dead Sea. For, to sum up their indications, the city stood near the Dead Sea; one day's march from Maâb, the same from Jericho, and four from the head of the Gulf of Akabah; three days' march from Jerusalem, and near Kerak; from all of which it would appear impossible that a town across the Jordan opposite Jericho should be intended; while the assertion that the water at Sughar was execrable, of itself indicates that Tell esh Shâgûr, in the wâdy below Arâk el Emir, where excellent springs abound, can hardly be a satisfactory identification.

From the Jordan ford up to Jerusalem we rode along the beaten track that every Cook's tourist has followed. The ghastly barrenness of the country, and the glare from the chalky hills among which the road winds, renders this one of the most tedious bits of journeying in Palestine, and we were fortunate in being able to accomplish the ride from Jericho to Jerusalem in five hours. It is, however, worth while to come up this

¹ Mokaddasi, p. 470.

² *Op. cit.*, p. 178.

³ *Op. cit.*, p. 184.

⁴ Wustenfeld's *Yakût*, II, 933; III, 396. In the Arab geographers the name is found spelt *صغر*, Sughar; *زغر*, Zughar; and *سقر*, Sukar.

⁵ *Op. cit.*, II, 934.

⁶ "Meracid-el-Ittilâ," I, 514.

dreary road from the east to catch one's first sight of Jerusalem from the summit of the Mount of Olives. Arriving by the Jaffa road, the Holy City is hidden until you are almost within its gates, but from Bethany the pilgrim rides suddenly into view of this unique metropolis, which, in its entirety, lies spread out at his feet. The week's discomfort in Bedouin tents, and the monotonous ride of the last few hours, had, I think, attuned us all to a just pitch of appreciation, and although rather too hungry and weary for æsthetic raptures, it was some little time before we turned down through St. Stephen's Gate, and sought out our night quarters in the Damascus Hotel.

In concluding these notes, and for the information of those who may have any intention of penetrating into the countries beyond the Jordan, I may be permitted to remind my readers that our journey had been accomplished without paying a piastre to Goblân, the famous (or rather infamous) chief of the 'Adwân, or even in any way gratifying the cupidity of the Sheikh of Sâf—both worthies generally but too well known to those who have left Jerusalem for a trip into the Land of Gilead. And yet we had been able, in the course of six days, to visit the sites of Tabakat Fahl (Pella), Jerâsh, 'Ammân, and 'Arâk el Emir, taking the direct route across country from one site to another, and along roads seldom seen by the ordinary tourist. The secret of our successful raid—for so only can I venture to call it—lay in the fact that, taking neither tents nor servants, we were but three horsemen mounted on inelegant hacks, more useful as roadsters than in any way remarkable for breed, and that one of us was a native of the country, personally acquainted with the Arab sheikhs of the district which it was intended to visit. Lastly, as we took no more baggage than our horses could carry, we, in accordance with that ancient and convenient custom of the Arabs, imposed ourselves nightly as guests in some nomad camp, coming down at the hair-tent of the sheikh, whose honour, forthwith, was engaged for our personal well-being and safety. By this proceeding we avoided the necessity of carrying with us provisions for the road, and dispensed with a baggage animal: and hence our appearance was in no way calculated to excite the cupidity of those whom we met in our journey.

The presence of tents and baggage mules, with the attendant dragoman and zaptieh, are plentiful reasons to explain the costliness of which travellers complain who cross the Jordan and go eastward from the Dead Sea. Any one who is lucky enough to get a native friend for companion, who can keep his own counsel, and wants no escort of zaptiehs, can almost always visit any part of the country beyond the Jordan at very little risk. Only his stay must be so little protracted that the authorities get no news of it, and for this short time the traveller must be content with the nourishment of Arab fare, and such repose as is to be obtained on the hard earth under an Arab tent, where hospitality is alike provided for vermin and for men.

NOTES.

I. A DOLMEN IN JUDÆA.

HAVING had occasion recently to ride from Jericho to Nablus, I decided to try and take a short cut from Khurbet 'Aûjah el Fôka (Sheet 15, Or) to El Mugheir (Sheet 15, N q). It will be seen by a reference to the map that there is no path marked, and that the region to be traversed is a desolate tract, upon which no habitations are indicated. It occurred to me that I might chance to stumble across something of interest in this deserted district, and such in fact proved to be the case. A peasant whom I picked up, tilling his land in the Wâdy el Aujah, consented to serve as a guide, but said that he doubted whether the route would prove practicable on horseback. The ascent from the valley of the Jordan for the first 1,500 or 1,800 feet was one which did indeed tax my horse's powers to the utmost, even without a rider, as it involved a climb by a scarcely perceptible goat path, now up smooth steep inclines of limestone, now over jagged rocks. I then traversed for a distance of about five miles or more, taking the windings of our way into consideration, the wildest and most barren tract imaginable of rocky tableland, here and there intersected by deep wâdies, offering from time to time views of considerable scenic grandeur, and in a north-easterly direction up the Jordan Valley, of great extent. Beyond this there was nothing to vary the monotony of ruggedness, and rarely an indication of a path, the guide simply selecting the line of country which seemed most practicable for my horse. It was while indulging in regrets at having ventured on an experiment which seemed likely to prove so uninteresting, that I made a discovery which afforded me some consolation. On the side of a bare hill I came upon four slabs of stone, which from their size and shape presented all the appearance of being the component slabs of an overturned dolmen—one, which was larger than the others, being about 9 feet by 5 feet, formed in all probability the covering slab. As I am not aware of any dolmen, or remains of one, having been found in Judæa, this would confirm the theory that they once existed there, but that the two Tribes were so scrupulous in their obedience to the order "to overturn the tables of stone," that traces of them have hitherto escaped observation. It is possible that a minute examination of this section of country would reveal interesting remains of early rude stone monuments. I roughly took the bearings of the spot by compass, but the whole place is such a wilderness of rocks that I doubt whether I could find it again. About half-a-mile distant from it I found another evidence of a most ancient period. This consisted of a square enclosure 24 yards each way, formed of huge unhewn blocks of stone, each of a ton weight or more, remaining in position to a height of three courses in some places, in others of two. Within this outer massive enclosure there was a circle formed of smaller stones, 12 feet in diameter, and in the centre of this circle was a single stone, but this consisted now of a large splintered fragment about 3 feet high, and it was difficult to form from it an idea of the original shape of the stone. There were also in the neighbourhood what

appeared to be alignments of stones, and numerous cairns. The spot, as nearly as I can judge, is about two miles to the south-east of El Mugheir. Near that place there is a very good Arab stone circle, with a miniature doorway about 2 feet high, and a horizontal club or lintel, facing west.

II. A SARCOPHAGUS AT ZIMMÂRÎN.

A FEW days ago the Jews of the colony of Zimmârîn, in excavating at the base of what appeared to be an artificial mound, suddenly struck a block of cement. Further investigation proved it to be a portion of a thick coating of that material, in which a leaden sarcophagus had been embedded. This was extracted and opened, and found to contain the bones of a human skeleton, and a quantity of dust, which was described to me by a colonist who had seen it as having the appearance of dust mixed with shining particles, which to his imagination resembled gold dust. I have had no opportunity of examining any of this dust, some of which is said still to have been preserved at Zimmârîn, where more accurate information could be obtained as to what actually was found in the coffin, about which there are conflicting accounts. On rumours of the discovery reaching the Caimakam here, he sent to have the sarcophagus brought to this place, where I have examined it. It weighs 250 pounds, is 6 feet 8 inches long, and 1 foot 8 inches in width. Down the whole length of the centre of the lid is an ornamental scroll $2\frac{1}{2}$ inches wide, including the narrow bands which border the design. This is very beautifully executed, and consists of a representation of grape vines, with fruit and leaves and other floral devices. All round the upper edge of the sides of the coffin is a similar border, but it is nearly $3\frac{1}{2}$ inches wide. The artist has avoided repeating himself, and has varied the design, which is in a good state of preservation, so that no two sections of it are similar. The leaden bottom is in places much corroded.

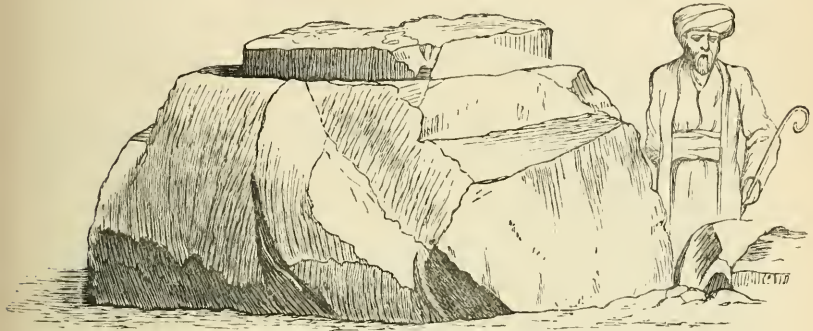
In accordance with the general order regulating the discovery of antiquities, this sarcophagus will be sent to Constantinople. I have every reason to believe, however, that the mound in which it was found contains more, and I hope to be present in the event of further excavations in it taking place, when I shall also have an opportunity of examining the dust which has been already found.

LAURENCE OLIPHANT.

THE ROCK ALTAR OF ZORAH.

ABOUT two years ago Herr Baurath Schick discovered at a deserted site called Marmeta, situated about a mile to the east of the Jewish Refugee Aid Society's settlement at 'Artûf, a remarkable monolith which he believed to be the remains of an old altar.

Some days ago, whilst at 'Artûf, I happened, incidentally, to hear from one of the settlers that another such stone had been recently noticed

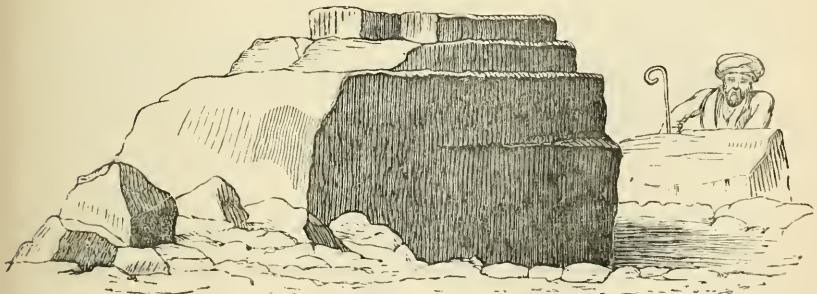


ALTAR AS SEEN FROM N.W.

on a hill-side to the west of 'Artûf, and during the afternoon of Friday, May 8th, 1885, I visited the place with Baron von Ustinoff.

Our delight at discovering at the spot indicated a battered and weather-worn but otherwise well-preserved *rock-altar* with *steps* may be imagined.

It has on the top hollows connected by grooves like Mr. Schick's Marmitah stone. The top is at present from four to five feet above



ALTAR AS SEEN FROM S.E.

ground, but as some heavy blocks of stone which we could not move lie round its base it would not be safe to state any measurements till these and the earth at its base be cleared away.

Zorah, now called Sūrah, the home of Manoah and the birth-place of Samson, is in full view of the spot, at a distance (measuring on an air-line) of, say, a quarter of a mile. Whether or not this remarkable monument be the identical rock-altar of Manoah (Judges xiii, 19, 20), its existence in such a suggestive situation cannot, I think, fail to rouse the interest of Bible readers.

I am, Sir, yours truly,

J. E. HANAUER.

THE ORIGIN OF THE NAME *EN ROGEL*.

SIR,

Without presuming to express any opinion on the probable correctness of C. R. C.'s suggestion that the name *En Rogel* means "the Spring of the Channel," I wish to point out that in writing the last two lines of his note on the subject in *Quarterly Statement*, January, p. 20, *Jove must have been nodding*; for in making the statement that "the name is evidently derived from the famous rock-cut channel leading from the back of the cave in which the spring rises," C. R. C. has evidently overlooked the fact 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*. Or does C. R. C. really mean to imply that "the famous rock-cut channel" was in existence in Joshua's time?

If not, then the *name* cannot be derived from the *underground* channel.

Perhaps it came from the surface channel whose prior existence is so earnestly contended for by the Rev. W. F. Birch?

H. B. S. W

BETH HABBECHEREH, OR THE CHOSEN HOUSE—

continued.

CHAPTER VI.

1. THE whole Sanctuary was not on level ground, but on the rising of the mountain. A person entering at the eastern gate¹ of the mountain of the

¹ Rashi commenting upon the passage "no man might indulge in any levity opposite the eastern gate," remarks that this gate was "outside the mountain of the house, in the low wall which was at the foot of the house, on the east, because all the gates were set one opposite the other, the eastern gate, the

house went as far as the end of the rampart (*chel*) on a level, and ascended from the *chel* to the court of the women by twelve steps, the height of each step *being* half a cubit and the breadth half a cubit.

2. And he went along the whole court of the women on a level, and ascended from it to the court of Israel, which was the beginning of the "court," by fifteen steps, the height of each step *being* half a cubit, and the breadth half a cubit.

3. And he went along the whole court of Israel on a level and ascended from it to the court of the priests by a step a cubit high, and upon this was the *dochan* [or desk], and in it three steps, the height of each step *being* half a cubit and the breadth half a cubit, so that the court of the priests was two and a half cubits higher than that of Israel.

4. And he went across the whole court of the priests, and past the altar, and between the porch and the altar on a level, and ascended thence to the porch by twelve steps, the height of each step *being* half a cubit and the breadth half a cubit. And the porch and the Temple (היכל) were all on a level.

5. The floor of the Temple was therefore twenty-two cubits higher than the floor of the eastern gate of the mountain of the house. And the height of the gate of the mountain of the house was twenty cubits, so that a person standing opposite the eastern gate could not see the door of the Temple, and on this account they made the wall which was above that gate low, in order that the priest standing on the Mount of Olives might see the door of the Temple when sprinkling the blood of the heifer towards the Temple.

6. There were there chambers under the court of Israel opening to the court of the women, and there the Levites placed the harps, psalteries, cymbals, and all instruments of music. And upon the *dochan* [pulpit], which went up from the court of Israel to the court of the priests, the Levites stood when they recited songs at the time of the offering.²

7. The chambers that were built in the holy part and opened into the profane, if their roofs were even with the floor of the court their interior

gate of the court of the women, the gate of the court of Israel, the doorway of the porch and the temple היכל, and the Holy of Holies in the days of the first Sanctuary, when there was *between the holy place and the most holy*, טרקסין, a partition wall of one cubit (Berachoth 54 a). The question whether there were steps up to the eastern gate from the outside or from the gate to the mountain of the house on the inside is not touched by this account of Maimonides. He supposes a person to start from the inner side of the eastern gate, being already on the paved floor of the mountain of the house.

² The contents of these paragraphs are from Middoth i, 3; ii, 3, 4, 5, 6, and iii, 6. The *dochan*, דוכן, *suggestum*, was a kind of bench with steps, upon which the Levites or priests stood to sing or read or pronounce the blessing (*cf.* Nehem. viii, 4; Esdras i, 9, 42; Eruchin ii, 6; Sotah 38 b). In the modern synagogue the bench in front of the cupboard, where the rolls of the Law are deposited, upon which the priest stands to say the blessing, is still called *dochan*. (See Rubric for the Daily Service and the Service of Rosh Hashshannah.)

was profane and their roofs holy, and if not even *with the court* their roofs also were profane, because the roofs that were raised *above the court* were not hallowed, and hence they might not eat the most holy offerings nor slaughter the less holy upon those roofs.

8. If built in the profane *part* and opening to the holy, their interior was holy for eating the most holy things, but they did not slaughter there the less holy, and the entering there when in a state of ceremonial impurity was permitted, and their roofs were profane for all purposes.

9. Cavities [interiors] opening to the court were holy, and those opening to the mountain of the house profane.³ The windows and the thickness [*i.e.*, the top] of the wall were like the inside,⁴ both with reference to eating the most holy offerings and with reference to impurity.

10. If the consistory⁵ desired to add to *the city of Jerusalem*, or to add to the court, they had power to do so. And they might extend the court as far as they chose within the mountain of the house, and extend the wall of Jerusalem to any place they chose.

11. *But* they might not add to the city or to the court, except with the authority of the king, or of a prophet, or by Urim and Thummim, or with the authority of the Sanhedrim of seventy-one elders, as it is said (Exodus xxv, 9), "according to all that I show thee, . . . even so shall ye make it," for *future* generations, and Moses our master was a king.⁶

12. And how did they add to the city?⁷ The consistory made two

³ The question of the holiness of the chambers, roofs, &c., is discussed in M'aasa Shene iii, 8; Pesachim vii, 12; the Gamara of the latter (85 *b*, 86 *a*), and Zevachim 56 *a*. See also Yoma 25 *a*.

⁴ This passage is from the Mishna of Pesachim vii, 12, where (according to Rashi and others) it has reference to the wall of Jerusalem, but the Gamara connects it with the *chel*, and quotes Lam. ii, 8, "he made the rampart and the wall to lament." "The wall," says Maimonides, "was the wall of the court" (*vide supra*, v, 3). The Bar Sorah, בר שורה, "son of a wall," is explained by Rashi to have been "a little wall inside the great wall, and on a level with the court." This little wall was doubtless that alluded to by R. Solomon, on Lam. ii, 8, as connected with the *chel* (Lightfoot 1089). The expression in the Gamara (Pesachim 86 *a*) is שורה יבר שורה, "a wall, and the son of a wall," and lends support to the opinion expressed in a former note that the *chel* may have had a rampart and low wall outside the wall of the court. The subject has here reference to the rules forbidding the most holy sacrifices, the less holy sacrifices, and the Paschal Lamb to be eaten if carried beyond certain prescribed limits (*vide infra*, 15). "As anything which should be eaten in Jerusalem became unlawful if taken out of it, so anything which should be eaten in the court became unlawful if taken out of it" (Shevuoth 15 *a*).

⁵ Beth Din, בית דין, "House of Judgment."

⁶ Sanhedrin i, 5, and 16 *b*; Shevuoth ii, 2, and 16 *b*.

⁷ Shevuoth ii, 2. "They added to the city in no other way than . . . by two thank-offerings, and by music, and by the Beth Din going *in procession*, with the two thank-offerings behind them, and all Israel behind them (the thank-offerings). The inner thank-offering was eaten, the outer burned." The

thank-offerings, and took the leavened bread which belonged to them (Lev. vii, 13), and walked *in procession*, the consistory being behind the two thank-offerings and the two thank-offerings one behind the other, and they stood with harps, and psalteries, and cymbals at every corner, and at every *large* stone which was in Jerusalem, and chanted "I will extol thee, O Lord; for thou hast lifted me up" &c.⁸ (Psalm xxx, 1), *and thus they went* until they reached the end of the place which they consecrated, where they stood and ate the bread of one of the two thank-offerings, and the other was burned. And by the mouth of a prophet they burned the one, and ate the other.⁹

13. Likewise if they added to the court, they hallowed it with the remains of the meat-offering. As the *city of Jerusalem* was hallowed by the thank-offering, which was eaten in it, so the court was hallowed by the remains of the meat-offerings, which could not be eaten elsewhere than in it, and they ate them at the end of the place which they hallowed.¹⁰

14. Every place in the dedication of which all these things and this order were not observed was not completely dedicated. And the two thank-offerings which Ezra made were *merely* a memorial, and the place did not become hallowed by what he did, because there was neither king nor Urim and Thummim. And by what did it become hallowed? By the first dedication which Solomon made, because he consecrated the court (1 Kings viii, 64) and Jerusalem both for that time and for the time to come.¹¹

15. Therefore they offered all the offerings, even though there was no house built there, and they ate the most holy things in all the court, even though it was destroyed and not surrounded by a wall, and they ate the less holy things and the second tithes in all Jerusalem, even though there were no walls there, because the first consecration hallowed *both* for that time and for the time to come.¹²

16. And why do I say in reference to the Sanctuary and Jerusalem, that the first dedication hallowed for the time to come, and in reference to the hallowing of the rest of the land of Israel, for the purposes of the

arrangement of the procession is discussed in the Gamara (15 *b*). It is doubted whether the thank-offerings went side by side, or one behind the other: if side by side, the inner one was that next the wall; if one behind the other, the inner one was that next the consistory.

⁸ In Shevuoth 15 *b*, from which this passage is taken, the word גדולה, *large*, occurs after stone, but is wanting in Maimonides, probably from an error of the transcribers.

⁹ *Ib.* 16 *a*. R. Judah said "by the mouth of a prophet *one* was eaten, and by the mouth of a prophet *one* was burned." The meaning is that a prophet instructed them which to eat and which to burn.

¹⁰ Shevuoth 15 *a*. Rashi notes that the remains of the meat-offering, מנחה, were the cakes which were to be eaten by the priests (Lev. ii, 3, 4, 10).

¹¹ Shevuoth 16 *a*.

¹² *Ib.* Edioth 14 *a*; Megillah 10 *a*; Zevach. 107 *b*. The Rabbis disputed much as to the perpetuity of the first consecration.

seventh years and tithes and things connected with them, it did not hallow for the time to come? Because the hallowing of the Sanctuary, and of Jerusalem, was on account of the Shekinah, and the Shekinah did not cease. And lo, it says "I will bring your sanctuaries unto desolation" (Lev. xxvi, 31); and the wise men say that notwithstanding that they were desolated, *yet* in respect of their holiness they were yet standing.¹³ But the obligations of the land in reference to the seventh years and the tithes were only because it had been subjugated, and after the land was taken from their hands the subjugation ceased, and it became free from the law of tithes and seventh years, for lo, it was no longer the land of Israel. And when Ezra came up and hallowed it, he did not hallow it by subjugation, but by the right of possession, which they had in it, and therefore every place of which those who came up from Babylon had possession, and which was hallowed by the second hallowing of Ezra, that *remains* hallowed to this day, and notwithstanding that the land has been taken from them, it is still liable in respect of seventh years and tithes, for the reasons which we have explained in the treatise "Terumah" (offering).

CHAPTER VII.

1. IT is an affirmative command to reverence the Sanctuary, as it is said "ye shall reverence My Sanctuary" (Lev. xix, 30). And not the Sanctuary shalt thou reverence, but Him who gave commandment that it should be revered.¹

2. And what was the reverence due to it? A man might not enter the mountain of the house² with his staff, or with shoes upon his feet, or with his girdle,³ or with dust upon his feet, or with money bound in his

¹³ Megillah iii, 3, 28 a.

¹ Yevamoth, 6 a, b.

² Yevam. 6 a, b; Berachoth 5 and 62 b; Yeruschal Berach xiii, a, b, 1.

³ בַּפְּוֹנְדָתוֹ. The Mishna of Berachoth (ix, 5) and Yevamoth 6 b, have בַּפְּוֹנְדָתוֹ. The fundah, פּוֹנְדָה פּוֹנְדָה or פּוֹנְדָה, is frequently mentioned in the Talmud. In Shabbath 120 a it is enumerated amongst the eighteen garments which it is lawful to put on or off on the Sabbath. In the gloss on Kelim xxix, 1 (*cf.* Bartenora), it is explained to be an under garment worn next the skin to guard the other garments against the perspiration; and Baal Aruch says פּוֹנְדָה was "an article of dress, a small shirt in which were sewn many places where they put anything they met with," and from Shabbath x, 2, it appears to have been either a bag or some piece of clothing furnished with one or more pockets. Rashi thought it was "a hollow girdle in which they put money." The expression in the Jerusalem Talmud (Berachoth xiii, b 1), that a person might not enter the mountain of the house, אֲפּוֹנְדָתוֹ עָלָיו מִבְּחוּצָה, "his fundah being on him outside," is suggestive of an outer garment of some kind. It may have been a jacket or spencer worn over the other clothing, or a girdle in which money and other articles were carried, like the *kamar*, كَمَر, of the modern inhabitants of

linen. And it is unnecessary to say, that it was unlawful to spit in all the mountain of the house, but if one should be obliged to spit, he must do so in his garment. And one might not make the mountain of the house a thoroughfare,⁴ entering at one gate, and going out at an opposite one in order to shorten the way, but go round on the outside, and not enter, except for religious purposes.

3. All who entered the mountain of the house entered on the right hand, and went round and passed out on the left, except one to whom an accident happened, who turned to the left. Wherefore they asked him, "what ails thee that thou turnest to the left?" "Because I am mourning." "May He who dwelleth in this house, comfort thee." "Because I am excommunicated." "May He who dwelleth in this house, put into thy heart, that thou mayest listen to the words of thy fellows, that may restore thee."⁵

4. When a man had finished his service and was leaving, he did not go out with his back to the Temple, but walked backwards slowly and went gently sideways,⁶ until he issued from the court, and so likewise the watchers and standing men, and Levites from their pulpit, **דרכו**, went out from the Sanctuary like a person stepping backwards after prayers;⁷ all which was to show reverence to the Sanctuary.⁸

5. One might not indulge in levity⁹ opposite the eastern gate¹⁰ of the court, which was the gate Nicanor, because it was set opposite the Holy of Holies. And every one who entered the court must walk gently in the place where it was lawful for him to enter, and demean himself reverently as became one standing before Jehovah, as is said "mine eyes and my heart shall be there perpetually" (1 Kings ix, 3), and he went with

Palestine. The word has been supposed to be derived from *επενδυτης* (John xxi, 7), translated in the A.V. a "fisher's coat." The meaning of the passage which Maimonides has here taken from Berachoth (Jerus. and Bab.) is that no worshipper might enter the mountain of the house either with his girdle or other garment in which he carried his money upon him, or with his money tied in a corner of his linen garments, a custom very common amongst the natives of the country at the present day.

The word for "linen" is **סדין**, translated in the A.V. (Isaiah iii, 23) "fine linen." The English word "satin" is derived from it.

⁴ Megillah iii, 3, and the Gamara 29 *a*, where it is said of a synagogue that a **קצרני**, a short way, may not be made through it.

⁵ Middoth ii, 2.

⁶ That is, he must walk differently from his ordinary mode of walking (R. Abraham).

⁷ As the custom of the Jews now is.

⁸ Yoma 53 *a*.

⁹ Literally, might not raise his head in lightness.

¹⁰ Berachoth ix, 5. "One might not raise his head lightly opposite the eastern gate, because it was set opposite the Holy of Holies." Rashi remarks that it was the eastern gate of the mountain of the house. See Note on vi, 1.

fear and reverence, and trembling, as is said, "we walked in the house of God in tumult" (A.V. *in company*, Psalm lv, 14).

6. It was unlawful for anyone to sit in any part of the court. No one had the right of sitting in the court, except kings of the house of David only,¹¹ as it is said "and David the king came and sat before the Lord" (1 Chron. xvii, 16). And the Sanhedrim who sat in the chamber Gazith sat only in the profane half.¹²

7. And although the Sanctuary is now desolated, on account of our sins, one is still bound to reverence it, as was the custom when it was yet standing. One may not enter except where it was then lawful for him to enter, and may not sit in the court, nor raise his head lightly opposite the eastern gate, as is said, "ye shall keep my Sabbaths and reverence my Sanctuary" (Lev. xix, 30): as the keeping of the Sabbath is perpetual, so likewise the reverencing of the Sanctuary is perpetual,¹³ and notwithstanding that it has been desolated, in respect of its holiness it is still standing.

8. At the time when the Sanctuary was standing¹⁴ it was unlawful for a man to raise his head lightly from the *place called* Tsofim (which was outside of Jerusalem), and inwards, and whoever could see the Sanctuary with no wall intervening between him and it.¹⁵

9. It was unlawful for a man ever *evacuare alvum*, or to sleep between

¹¹ Tamid 27 *a*; Sotah 41 *b*; Yoma 25 *a*; Kedushin 78 *b*; Sanhedrin 101 *b*. In the latter place it is "Kings of the House of Judah." It was customary for the king to sit in a pulpit erected for him in the court of the women when reading a portion of the Law to the people towards the end of the first holy day of the Feast of Tabernacles at the termination of the seventh year. It is related (Sotah vii, 8) that King Agrippa "read standing, and the wise men praised him for so doing, and when he came to 'thou mayest not set a stranger over thee,' his eyes overflowed with tears (because he was not a true Israelite), and they said to him, 'fear not Agrippa! thou art our brother! thou art our brother!'" (because his mother was of the seed of Israel), *cf. Sifri*, יְנוּפְטִים, 105 *b*.

¹² Yoma 25 *a*. The elders sat in the western half which opened into the *chel*, חֵיל, and was consequently profane.

¹³ Yevamoth 6 *b*; *cf. Megillah* iii, 3, and 28 *b*.

¹⁴ בניי, built.

¹⁵ "Tsofim was a place from which they could see the mountain of the house, and from beyond which they could not see it" (Tosefoth Berachoth 61 *b*; *cf. Pesachim* iii, 8). "A person who went out of Jerusalem and remembered that he had with him holy flesh, if he had passed *tsofim* he burned it in the place where he was." Rashi on this passage remarks that *tsofim* was the "name of a village, שֵׁם כִּפָּר, from which one could see the Sanctuary." "What was *tsofim*? Seeing with nothing intervening. Every place around Jerusalem from which one could see the Sanctuary" (Tosefoth Pesach. 49 *a*). The word is from the root, נִצַּף, to look around, to watch (whence מִצְפָּה, *mizpah*, a watch tower). The Greek σκοπη is its exact equivalent. Doubtless the hill called Scopus, north of Jerusalem, is one of the places here referred to. There was a place called Tsofim famous for its honey (Sotah ix, 12).

east and west;¹⁶ and it is unnecessary to say that they did not erect a privy between east and west in any place, because the Temple was on the west. Therefore they did not ease nature *with the face* to the west, or to the east, because that is opposite the west, but they relieved nature and slept between north and south. And every one passing water from the *tsofim* and inwards, did not sit with his face towards the Temple, but to the north or to the south, or placed the Temple at his side.¹⁷

10. And it was unlawful for a man to make a house after the pattern of the Temple, an *exhedra* after the pattern of the porch, a court resembling the court, a table of the form of the table of *shewbread* or a candlestick of the form of the candlestick. But he might make a candlestick of five branches, or of eight branches, or a candlestick of seven branches, provided it was not of metal.¹⁸

11. There were three camps in the wilderness: the camp of Israel, which included four camps; the camp of Levi, of whom it is said "they shall encamp round about the tabernacle" (Numbers i, 50), and the camp of the Divine Presence (Shekinah, שכינה), which was from the door of the court of the tent of the congregation inwards. And corresponding to them from the gate of Jerusalem to the mountain of the house *was* like the camp of Israel; from the gate of the mountain of the house to the gate of the court, which was the gate Nicanor, *was* like the camp of Levi; and from the gate of the court and inwards *was like* the camp of the Divine Presence. And the rampart (*chel*) and the court of the women were an additional excellence of the eternal house.¹⁹

12. The whole of the land of Israel was more holy than all other lands. And what was its holiness? That they brought from it the sheaf, and the two leaves, and the first fruits, which they did not bring from other lands.²⁰

13. There are ten holinesses to the land of Israel, the one higher than the other. Cities *in it* surrounded by walls were more holy than the rest of the land, because they sent away the lepers out of them, and they did not bury the dead in them unless seven good men of the city, or all the men of the city, desired it. And if a corpse had been carried out of the

¹⁶ That is, with his face to the east and his back to the west, or the reverse.

¹⁷ Berachoth 62 *a*; Berach.-Yerushal 13, *a* 2, and 61 (60 *a*).

¹⁸ Avodah Zarah 43 *a*. It is doubtful whether it was lawful to make a candlestick of seven branches, even though of wood. R. Jose bar Jehudah said it was not lawful, because the Asamoneans had made one of that material for the Temple. Maimonides gives what he considers to be the decision. His words are מנורה שאינה של מתכת אפ"ע שיש לה שבעה קנים עושה, literally, "a candlestick which was not of metal even though there were in it seven branches." The Talmud allows a candlestick of six branches (*loc. cit.*).

¹⁹ Zevachim 116 *b*; Tosefta Kelim 1; *cf.* R. Shimson in Kelim 5 *b*. Also Maim. on the same passage; Rashi in Sanhedrim 42 *b*. The meaning of the last sentence is, that there was nothing in the camp in the wilderness corresponding to the rampart and court of the women in the Temple.

²⁰ Kelim i, 6; *cf.* Levit. xxiii, 10, 17.

city they might not take it back again, even though all should desire to take it back. Should the inhabitants of the city desire to remove a tomb to without the city, they might remove it, and all tombs might be removed except the tomb of a prophet or a king. A tomb which the city surrounded, whether on four sides or two sides, one opposite to the other, if there was between it and the city more than fifty cubits on this side and fifty cubits on that side, they did not remove it unless all desired *its removal*; if less than that they might remove it *without* the sanction of all.²¹

14. Jerusalem was more holy than other walled cities, because they ate the lesser holy offerings and the second tithes within its walls.²² And these things are spoken of Jerusalem: they did not allow a dead body to remain all night in it, they did not carry human bones through it, and did not let out houses nor give a place to a sojourning proselyte in it. Also they did not erect tombs in it, except the tombs of the house of David, and the tomb of Huldah, which were there from the day of the former prophets. They did not plant gardens or orchards in it, nor was it sown or ploughed lest it should stink. They did not raise trees in it except the gardens of roses, which had been there from the times of the former prophets, and they did not place dunghills in it, on account of creeping things. They did not make beams or balconies projecting into the public streets on account of the tent of defilement, and did not make furnaces in it on account of the smoke.²³ They did not nourish cocks in it on account of the holy things,

²¹ Kelim, i, 7, and the notes of R. Shimson and Maimonides; Jerus. Nazir 57, *b* 2; Tosefta Baba Bathia, 274 *b*. Rabbi Akibah maintained that the tombs of kings and prophets might be removed (*vide infra*). The Jerus. Talmud and the Tosefta allow tombs to be removed if surrounded on four, three, or two sides by the city, and the distance given in the former (Nazir, *loc. cit.*) is seventy cubits and two-thirds of a cubit (Abal Rabathy 14). R. Abraham raises an objection to the opinion of Maimonides that if seven good men of the city desired it, a dead body might be buried within the walls, and says that they did not bury in the cities, but might carry a corpse about the city to do honour to it and increase the mourning, and this latter opinion is supported by the Mishna (*loc. cit.*), מסבבין לתוכן מת.

²² Kelim i, 8, and the gloss of R. Shimson.

²³ Baba Kama 82 *b*; Yoma 12 *a*; Negaim xii, 4; Tosefta Negaim, 6; Megillah 26 *a*. The reason why Jerusalem could not become unclean from leprosy is that it was not divided among the tribes, and was therefore like cities out of the land of Israel (Negaim, *loc. cit.*); but Rabbi Judah disputed this opinion, urging the tradition that part of the mountain of the house was in the tribe of Judah and part in Benjamin. The tombs of the house of David and of Huldah the prophetess are spoken of in Jerush.-Nazir 57, *b* 2; Tosefta Negaim 6, Tosefta Baba Bathra 274, Avoth Rabbi Nathan 35. R. Akibah said that there was a hollow way or tunnel, מַחְיֵלָה, to these tombs, by which the "uncleanness" was conducted out to the valley of Kedron, and that because of the existence of this the tombs were allowed to remain in opposition to the general law, which, according to him, permitted or required the removal of the tombs of kings and

and also in all the land of Israel the priests might not nourish cocks on account of purity.²⁴ And there was in it no house for persons condemned as lepers, and it did not become unclean from leprosy. It did not become a city cursed for idolatry, and did not furnish a heifer to be beheaded because it was not divided among the tribes.

15. The mountain of the house was more holy than it (Jerusalem), because men and women that had fluxes, and women at the time of their separation, and after childbirth, could not enter there.²⁵ It was permitted to take a dead body itself into the mountain of the house, and it is therefore unnecessary to say that a person defiled by contact with the dead might enter there.²⁶

16. The rampart (*chel*) was more holy than *the mountain of the House*, because Gentiles and persons defiled by contact with the dead or to whom a certain impurity had happened²⁷ might not enter there.²⁸

17. The court of the women was more holy than the rampart because **טבול יום**, *tibbul yom* (a person who required washing and the sun going down to purify him from an uncleanness, and who had washed and was awaiting the going down of the sun), might not enter there.²⁹ And this prohibition is from the words of *the wise men*, but by the Law, **התורה** it was permitted to a *tibbul yom* to enter the camp of Levi.³⁰ And if a person defiled by contact with the dead entered the court of the women, he was not obliged to offer a sin offering.

18. The court of Israel was more holy than the court of the women, because **מחכרי נפורים**, a person whose atonement had not been made after his cleansing from an uncleanness might not enter there.³¹ And an

prophets out of the city. (Tosefta, *loc cit.*, Magin Abraham appended to the Tosefta; cf. Tosefoth Berachoth 19 b, middle of page **רוב ארונות**.) The sum of the Jewish traditions in reference to these tombs appears to be—(1) that they remained and their locality was known up to the time of the destruction of Jerusalem by Titus (cf. Acts ii, 29); (2) that they were within the city; and (3) that they were so situated that a tunnel or gallery or pipe could pass from them to the valley of the Kedron. A garden of roses at Jerusalem is mentioned in Maaseroth ii, 5, the owner of which would allow no one to enter lest the roses should be spoiled (Tosefoth), and who also gathered and sold some figs which grew in the garden, three or four for an *assar*, without paying tithe or bringing an offering from them.

²⁴ Baba Kama vii, 7.

²⁵ Kelim i, 8.

²⁶ Pesachim 67 a; Nazir 45 a; Sotah 20 b; Tosefta Kelim, 1.

²⁷ **בועל נדה**.

²⁸ Kelim i, 8; Tosefta Kelim, 1.

²⁹ Kelim i, 8.

³⁰ Cf. Yevamoth 7 b.

³¹ Kelim i, 8. The Mishna enumerates four classes of persons who might be **מחכרי נפורים**, wanting atonement, viz., men or women with fluxes, women after childbirth, and lepers. R. Eleazer ben Jacob added two others (Kerithoth ii, 1).

unclean person who should enter there was liable to the penalty of cutting off.³²

19. The court of the priests was more holy than *that of Israel*, because the laity might not enter there, except when it was necessary for them to do so to lay their hands on a sacrifice which was to be slain, or to make atonement, or to slay a sacrifice, or to wave a part of it.³³

20. Between the porch and the altar was more holy than *the court of the priests*, because priests who had blemishes, or whose heads were bare,³⁴ or whose garments were torn might not enter there.

21. The Temple, **היכל**, was more holy than between the porch and the altar, because none might enter there who had not washed their hands and their feet.³⁵

22. The Holy of Holies was more holy than *the rest of the Temple*, **ההיכל**, because none might enter there except the high priest on the Day of Atonement at the time of his service.³⁶

23. To the place in the upper chamber which was over the Holy of Holies they did not enter except once in seven years to ascertain what repairs were required! When the builders entered to build or make repairs in the Temple **היכל**, or to remove thence the uncleanness it was commanded that the persons entering should be perfect priests; if perfect priests could not be found, priests with blemishes might enter, and if there were no priests there, Levites might enter; if Levites could not be found, laymen might enter. The commandment is that they be ceremonially clean. If none in a state of purity could be found, unclean might enter. If the choice lay between an unclean person and a person with a blemish, he with a blemish entered, and not he that was unclean, for uncleanness unfits for service in the congregation.³⁸ And all who entered the Temple, **היכל**, to make repairs entered in boxes. If there were no boxes there, or if it was not possible for them to do the work in boxes, they entered by way of the doors.³⁹

³² Tosefta Kelim 1. There were thirty-six offences by which the penalty of cutting off was incurred (Kerithoth i, 1).

³³ Kelim i, 8.

³⁴ Kelim i, 9.

³⁵ Kelim i, 9.

³⁶ Kelim i, 9; Pesachim 86 a.

³⁷ Tosefta Kelim 1; Pesachim 86 a, where it is disputed whether these chambers were visited once in seven years (in the year of release, Rashi), or twice in seven years, or once in the *year of Jubilee*.

³⁸ Erubin 105; Tosefta Kelim 1; Yoma 6 b.

³⁹ Middoth iii, 5, where it is said that the workmen were let down from above into the Holy of Holies in boxes. In Tosefta Kelim 1, this rule appears to be applied to the holy place as well as the Holy of Holies (see note to the works of Maimonides, *in loc.*). "To make repairs," תקן *aptare, reparare, stabilire*. The word sometimes corresponds to הִיטִיב in Hebrew, and is used here in contradistinction to בנה, to build. Perhaps it should be rendered to 'ornament.'

CHAPTER VIII.

1. THE guarding of the Sanctuary was an affirmative command, notwithstanding that there was no fear of enemies or robbers, for the guarding of it was only for its honour. A palace over which there is placed a guard is not like a palace over which there is no guard.

2. And this guarding was commanded for the whole night. And the watchers were the priests and Levites, as it is said "thou and thy sons with thee before the tabernacle of witness" (Num. xviii, 2), which is as if it were said "ye shall guard it," and lo, it is said "and ye shall keep the charge of the tabernacle of the congregation" (*ib.* xviii, 4); and it is said "but those that encamp before the tabernacle towards the east, *even* before the tabernacle of the congregation eastwards, *shall be* Moses, and Aaron, and his sons, keeping the charge of the Sanctuary" (*ib.* iii, 38).

3. And if they ceased guarding, they transgressed a negative command, as it is said, "and they shall keep the charge of the Sanctuary." And the import of the word, שמירה, *guarding*, is אזהרה, an admonition, so thou mayest learn that its guarding is an affirmative command, and the neglect of its guarding a negative command.¹

4. The law of its guarding was that the priests should keep guard inside, and the Levites outside. And four and twenty guards watched it the whole night continually in four and twenty places; the priests in three places, and the Levites in one and twenty places.

5. And where did they watch? The priests watched in the house Abtinas, and in the house Nitzus, and in the house Moked. The house Abtinas and the house Nitzus were upper chambers built at the side of gates of the court, and the boys² watched there. The house Moked was arched, and it was a large room surrounded by stone benches, and the elders of the family whose turn of service was on that day³ slept there and the keys of the court were in their charge.⁴

6. The priests who watched did not sleep in the priestly garments, but folded them up and put them opposite their heads, and put on their own garments, and they slept upon the ground, like all watchers in the courts of kings, who do not sleep upon beds.

7. If an accident happened to one of them, he went along the gallery which was under the surface of the court (because the hollow places which opened to the mountain of the house were not sanctified), bathed and returned, and sat beside his brethren the priests, until the gates were opened in the morning, when he went out and departed.

¹ According to a rule of Talmudical interpretation. Cf. Menachoth 36 b, Makoth 13 b, &c., שלא לבטל שמירת המקדש, not to intermit the guarding of the Sanctuary, is enumerated among the 365 negative precepts.

² Sons of the priests not yet thirteen years of age.

³ The guard was divided into seven houses of fathers (families) according to the days of the week, one for each day (Bartenora in Tamid i, 1).

⁴ Literally, in their hands.

8. And where did the Levites watch? At five gates of the mountain of the house, and at its four corners within, and at the four corners of the court outside (because it was forbidden to sit in the court), and at five gates of the court outside of the court, for lo, the priests watched at the gate Moked, and at the gate Nitzus. Lo, *these are* eighteen places.

9. And moreover they watched at the chamber of the offering, and at the chamber of the veil, and behind the house of atonement.

10. And they placed a prefect over all the guards who watched. He was called the man of the mountain of the house, and went round all night to every guard in turn, with lighted torches before him, and to every guard who was not standing, the man of the mountain of the house said "peace be upon thee." If it appeared that he slept, he beat him with his staff, and he had authority to burn his cloak, so that they said in Jerusalem "what is the voice in the court? It is the voice of the Levite being beaten and his garments burned, because he slept in his watch."

11. In the morning, shortly before daybreak,⁵ the prefect of the Sanctuary came and knocked *at the door of the* house Moked, where the priests were, and they opened to him. He took the key and opened the little gate which was between the house Moked and the court, and entered from the house Moked to the court, and the priests entered behind him. There were two lighted torches in their hands, and they divided into two companies, one going towards the east, and one towards the west, and they searched, and traversed the whole of the court, until the two companies reached the place of the house of the pancake-maker. Having reached it, both companies said "Is it peace?" and they placed the maker of the pancakes to make the pancakes.

12. According to this order they did every night, except the night of the Sabbath, when they had no light in their hands, but searched by *the light of* the lanterns which were lighted here, on the eve of the Sabbath.⁶

⁵ קודם שיעלה עמוד הישר סמוך לו *and* near to it. Cf. Genesis xxxii, 26, which in the Jerusalem Targum has שחרר עמוד ארום סליק עמוד for the column of the morning arises (Buxtorf).

⁶ For the contents of this chapter, consult Tamid i and Middoth i.

YOMA, OR THE DAY OF ATONEMENT.

WITH THE COMMENTARY OF RABBI OBADIAH OF BARTTENORA.

CHAPTER I.

1. SEVEN days before the day of atonement, they separated the high priest¹ from his house, to the chamber *Palhedrin*.² And they appointed another priest in his stead,³ in case any defilement should happen to him. Rabbi Judah said "also they appointed for him another wife, in case his wife should die,"⁴ as is said (Levit. xvi. 17), 'and have made an atonement for himself and for his household: his household, that is, his wife.' They said to him, "if so, there *would be* no end to the matter."

2. All the seven days, he sprinkled the blood,⁵ and burned the incense, and dressed the lamps,⁶ and offered the head and the leg. And on all

¹ Because all the services of the day of atonement were not lawful unless performed by him, as is said, in reference to the day of atonement (Levit. xvi, 32), "and the priest, whom ye shall anoint shall make an atonement." And this separation we infer from what is written (Levit. viii, 33), "the seven days of their consecration," and "ye shall not go out of the door of the tabernacle of the congregation *in* seven days," and what is written afterwards (v, 34) "as he hath done this day, *so* the Lord hath commanded to do, to make an atonement for you." And our rabbis have expounded "to do" as referring to the ceremonies connected with the red heifer (Numbers xix): and "to make an atonement for you," as referring to the day of atonement, because the priest who burnt the red heifer, and the priest who officiated on the day of atonement, were both of them obliged to be separated from their houses seven days, as Aaron and his sons were obliged during the seven days of their consecration.

² The king's officers were called *palhedrin*, and because the high priests of the second Temple, after Simeon the Just, gave money to serve in the high priesthood, and because they were wicked men, they did not complete their years, but were changed every twelve months, like the officers of the king, whom the king changes every year, therefore they called this chamber, the chamber *palhedrin*.

³ They prepared another priest to be high priest in his stead if יקר, or other uncleanness, happened to him.

⁴ If thou takest the question of death into consideration, there is no end of the matter; because this one also might die. But an uncleanness, which is of common occurrence, we take into consideration, and therefore they appointed for him another priest: death, which is not of common occurrence (as death happening suddenly and instantaneously) we do not take into consideration, and therefore they did not appoint for him another wife. The decision was according to the wise men [not according to Rabbi Judah].

⁵ Of the continual sacrifices, in order that he might be accustomed to the service.

⁶ He cleansed them from the ashes of the wicks which were extinguished.

other days,⁷ if he desired to make the offering, for the high priest had the preference with respect to the part he might wish to offer,⁸ and the preference in taking a portion⁹ of the sacrifices for himself.

3. They set apart for him elders of the elders of the house of judgment, who read before him¹⁰ from the order of the day,¹¹ and they said to him, "my lord,¹² high priest, read thou for thyself, lest thou may'st have forgotten, or least thou hast not learned."¹³ On the day preceding the day of atonement, at daybreak, they caused him to stand at the eastern gate, and caused to pass before him bulls, goats, and sheep, in order that he might become acquainted with and accustomed¹⁴ to his service.

4. All the seven days they did not restrain him from eating and drinking, *but on* the eve of the day of atonement at dusk, they did not let him eat much,¹⁵ because eating induces sleep.

5. The elders of the *beth-din*,¹⁶ delivered him to the elders of the priesthood,¹⁷ and they took him up to the upper chamber Beth Abtinah,¹⁸ and imposed an oath upon him,¹⁹ and departed and went their way. And

⁷ If he desired to make the offering, he offered every offering that he pleased; nor had the men of the watch power to stay his hand.

⁸ He had the right to offer any part that he chose.

⁹ In the division of the holy things, he took the portion which he selected as the best. These words refer to the holy things of the altar (Sanctuary), but the holy things of the country, both the high priest and the ordinary priest divided equally.

¹⁰ All the seven days.

¹¹ In the section *achare moth* (Levit. xvi).

¹² אֲדֹנָי = אֲדֹנָי, my lord.

¹³ In the second Temple this was necessary, because at the command of the kings they appointed high priests who were not fitted for the office; but those of the first Temple did not appoint as high priest any one who was not distinguished amongst the priests for wisdom, for beauty, for strength, and for riches; and if he was not rich, his brethren the priests made him so from their own means, as is said (Levit. xxi, 10) "the high priest among his brethren:" they made him great, from what belonged to his brethren.

¹⁴ They caused him to observe the beasts which passed before him in order to impress upon him the rules of the service of the day.

¹⁵ Even of such kinds of food as do not produce heat; and they restrained him altogether from all food which might produce heat or defilement, קָרִי, such as milk, eggs, meat, oil, old wine, and the like.

¹⁶ Who had read before him from the order of the day.

¹⁷ To teach him how to fill his hands with the incense, as is said (Levit. xvi, 12) "and his hands full of sweet incense," which was a difficult part of the service.

¹⁸ It was they who made the incense, and pounded it and mixed the gums.

¹⁹ That he should not be a Sadducee to put the incense on the censer outside of the Temple and then to enter. For they [the Sadducees] explain "I will appear in the cloud upon the mercy seat" (*ib.* 2), that in a cloud of smoke of the incense he should come, and then appear upon the mercy seat. But the thing is not so, for the Scripture says (*ib.* 13) "and he shall put the incense upon the fire before the Lord."

they said to him, "my lord high priest, we are the delegates of the *beth-din*, and thou art our delegate, and the delegate of the *beth-din*, we adjure thee, by Him whose name dwelleth in this house, that thou change nothing of all that we have told thee." He retired and wept,²⁰ and they retired and wept.²¹

6. If he were a wise man, he expounded,²² and if not, the disciples of the wise men expounded before him. If he were accustomed to read, he read; and if not, they read before him. And in what did they read before him? In Job, or Ezra,²³ or Chronicles. Zachariah ben Kabutal said, "many times I read before him in Daniel."

7. If he were inclined to fall asleep, the youths of the priesthood²⁴ struck before him with the forefinger,²⁵ and said to him, "my lord high priest, stand up,²⁶ and cool thyself a little upon the pavement," and they kept him occupied until the time for slaying *the morning sacrifice* arrived.

8. Every day they cleansed the altar²⁷ at cock-crow, or near it,²⁸ either before or after. And on the day of atonement after midnight,²⁹ and at the feasts after the first watch.³⁰ And cock-crow did not happen until the court was filled with people [*lit.*, Israel].³¹

²⁰ Because they had suspected him of being a Sadducee.

²¹ Because they had suspected him, for Mar said, whoever suspects the righteous is to be beaten in his body.

²² In things pertaining to the decisions of the law (*הלכה*); all the night of the day of atonement, so that he shall not sleep and defilement happen to him, and if he were a disciple, and not a wise man, and knew to hear and understand the law, but not to expound, they expounded before him.

²³ Because these attract the attention so that sleep did not overcome him.

²⁴ *פרחי כהונה* young men, the hair of whose beards was beginning to grow, were called *פרחי*, *pirchy* = young shoots, buds.

²⁵ *באצבע צרדה*, the finger nearest the thumb. The meaning of *צרדה* is *צרתה רדה*, "near to it" [Yoma 19 *b*], that is to say, near to the thumb which adjoins it. They joined the thumb and the finger next to it, and struck the palm of his hand and produced a sound, in order that he should not sleep.

²⁶ Upon thy feet and cool thyself a little upon the pavement of marble to take away the heat, for cooling the feet takes away sleep, and *הפנ* has the signification of taking away, as *מפנין טעמן*, "lessen or change its taste" (Pesachim 41 *a*).

²⁷ He took some of the ashes (*תרומת*, *cleansing*, is the same as taking away), either more or less, in the censer, and put them on the east of the ascent to the altar, and they were swallowed up there in their place [*בדרך נס*, miraculously]. This was the beginning of the morning service.

²⁸ Near cock-crow, either before or after.

²⁹ On account of the weakness of the high priest. Because upon him alone was imposed the whole service of the day, it was necessary to rise very early.

³⁰ The multitude of Israel, and the multitudes of offerings, and the great amount of ashes in the place of the pile and the necessity of taking up the ashes from the pile to the place in the middle of the altar which was called *tapuach* [an apple], in which place a great heap of ashes was collected and arranged like an apple, made it necessary to rise very early; and they rose after the first watch, which was the third part of the night.

³¹ At the feasts, cock-crow did not come until the court was full of Israel bringing their offerings, to offer them immediately after the morning sacrifice.

CHAPTER II.

1. At first every priest who wished to remove the ashes from the altar,¹ did so ; and when there were many,² they ran and ascended the incline,³ and he who got before⁴ his fellows, to within four cubits *of the top*, obtained the right to perform the service. If two were equal,⁵ the warden said to them, "extend the fingers." And how? They extended one, or two.⁶ And in the Sanctuary they did not extend the thumb.⁷

2. It once happened, that two of them being equal, ran and ascended the incline, and one of them pushed the other, so that he fell, and his leg was broken. And the *beth-din* saw that they came into danger *through this practice*, they ordained that they should not remove the ashes from

¹ Every priest who was of that house of the fathers and who wished to remove the ashes in the morning did so, and there was no lot cast in the matter.

² Of those who came to take away the ashes, this one said "I wish to take away the ashes," and the other said "I wish to take away the ashes." This was their custom. They ran and ascended the sloping ascent of the altar, which was thirty-two cubits long.

³ He who was the first to get within the four upper cubits of the ascent, which were near the top of the altar, obtained the right to remove the ashes. This was their lot.

⁴ In getting within [these four cubits] neither of them obtained the right, but now they all came and cast lots. And how was the lot cast? The prefect said to them all, "hold up your fingers" [*micate digitis*], that is to say, "put forth your fingers," and every one showed his finger. Because it was unlawful to count the men of Israel, therefore it was necessary for them to put forth the fingers, in order that the fingers, and not the men, might be counted. And how did they do it? They stood round in a circle, and the prefect came and took the cap from the head of one of them, and from this one the lot began to count. Each one extended his finger, and the prefect mentioned a number—a hundred, or sixty, some number much higher than the number of the priests present—and said, "he at whom this number finishes shall have the right [to perform this service]." And he now began to count from him, from whose head he had removed the cap, going round again and again, and counting the fingers until he came to the end of the number, and he at whom the number terminated obtained the office. And this was the manner of all the lots in the Sanctuary.

⁵ One finger if he were a healthy man, and two if he were sickly. Because a sick person is not able to restrain his fingers, and when he extends one, that next to it comes out with it. But only one of the two was counted.

⁶ Because of deceivers. For when the number came near finishing, and they could tell at whom it would finish, he who stood before him might put out two fingers in order that he might be counted as two persons, and thus the number might prematurely be completed at him. And the prefect might not perceive this, because a man can stretch the thumb to a great distance from the finger, so that they might appear like the fingers of two men, which it is impossible to do with the other fingers.

the altar except by lot.⁷ Four lots were there,⁸ and this was the first lot.

3. The second lot was, who should kill *the sacrifice*,⁹ who should sprinkle the blood, who should take the ashes from the inner altar, who should take the ashes from the candlestick, who should take up the pieces of the *sacrifice* to the incline, the head and the leg,¹⁰ and the two fore-legs, the end of the spine and the leg, the breast and the throat, and the two sides, and the inwards, and the fine flour, and the pancakes and the wine. Thirteen priests obtained it. The son of 'Azai said before Rabbi Akibah, in the name of Rabbi Joshua, "as the animal walked,¹¹ so it was offered."

⁷ That [lot] which we have explained.

⁸ Four times a day they were assembled to cast the lot. They did not cast the lots for all at one assembly, in order to make it heard four times that there were many people in the court. And this was for the honour of the king, as is said (Psalm lv, 14), "we walked into the house of God, בְּרִיגִיט, in tumult" [the tumult of a large assembly].

⁹ Who should slay the daily sacrifice, who should sprinkle the blood, &c. All these offices were decided by one lot. He at whom the number terminated (as we have explained) obtained the right, and sprinkled the blood upon the altar after he had received it in the vessel for the purpose, for he who sprinkled the blood received the blood. The next priest to him killed the sacrifice, and this, notwithstanding that the slaying preceded the receiving of the blood, because the office of sprinkling was higher than that of slaying, for the slaying was lawful if done by a stranger, which was not the case with the sprinkling. For from the receiving of the blood and afterwards it is commanded that all the service be performed by priests. And hence he to whom the first lot fell obtained the office of sprinkling, and the next to him that of slaying, and the next to him who slew the lamb cleansed the altar from the ashes, and the next to him who cleansed the altar from the ashes, removed the ashes from the candlestick, and so with all.

¹⁰ The head and right [hind] leg by the first priest; the two fore-legs by the second; the end of the spine (which is the tail) and the left [hind] leg by the third; the breast (that is the fat of the breast, the part looking towards the ground, which they divided on either side without the ends of the ribs) and the throat (the place where animals chew the cud, that is the neck, and joined to it the windpipe, with the liver and the heart), the breast and the throat by the fourth priest; and the two sides by the fifth priest; and the inwards by the sixth; and the fine flour, a tenth deal for the meat and drink-offering of the continual sacrifice (Exod. xxix, 40) by the seventh; and the pancakes, a half tenth deal for the meat-offering of the high priest, which he offered every day with the daily sacrifices, as is said (Levit. vi, 20), "half of it in the morning, and half thereof at night," by the eighth; and the wine, three logs for the drink-offering of the daily sacrifice, by the ninth. Thirteen priests obtained by this lot thirteen priestly functions, numbered to them according to the order stated in the Mishna.

¹¹ As it walked during its life the continual sacrifice was offered. The first doctor thought the good and comely parts were offered first, and Ben 'Azai thought it was offered as it walked; the head and the hind-leg, the breast and the throat, and the two fore-legs, and the two sides, the end of the spine and the (other) hind-leg. The decision was not according to Ben 'Azai.

4. The third lot *was* "those who have never offered the incense, come and cast lots."¹² And the fourth was for those who had, and those who had not before performed the function¹³ to *decide* who should take up the pieces of the sacrifice from the incline to the altar.¹⁴

5. The continual sacrifice was offered¹⁵ by nine *priests*, by ten, by eleven, by twelve, no less and no more. How? *The lamb* itself by nine.¹⁶ At the Feast of Tabernacles,¹⁷ the vessel of water *was brought* by the hand of one, making ten. In the evening¹⁸ by eleven; the lamb itself by nine, and two with two pieces of wood in their hands. On a Sabbath by eleven; the lamb itself by nine; and two with two vessels of frankincense for the shewbread in their hands. And on a Sabbath which occurred in the middle of the Feast of Tabernacles, a vessel of water, by the hand of one.

6. A ram was offered by eleven *priests*; the flesh by five,¹⁹ the inwards, and the flour²⁰ and the wine by two *and* two.

7. A young bullock was offered by twenty-four *priests*. The head and the leg: the head by one, and the leg by two. The end of the spine and the leg: the end of the spine by two, and the leg by two. The breast and the throat: the breast by one, and the throat by three. The two fore-legs by two. The two sides by two. The inwards, the fine flour, and the

¹² Thus they cried out in the court. That is to say, he who has never yet obtained the office of offering the incense come and cast lots. And they did not allow one who had once obtained that office to repeat it, because it made rich, for it is written (Deut. xxxiii, 10, 11), "they shall put incense before thee" "bless, Lord, his substance," and because every priest who offered incense became rich and was blessed thereby, therefore they did not allow any one to do it a second time, in order that all might become rich and be blessed by it.

¹³ "New and old." He who had obtained this lot on other occasions, and he who had never obtained it, come and cast lots.

¹⁴ When they took the pieces from the slaying place they did not take them to the altar, but put them on the middle of the incline below on the east, and cast another lot who should take them up from the place where they had been placed on the incline to the altar; and they did so because "in the multitude of people is the king's honour" [Prov. xiv, 28].

¹⁵ He reckons from the time of taking the pieces of the sacrifice and onward.

¹⁶ Six for the pieces and the inwards, as we have said above, and one for the flour, one for the pancakes, and one for the wine.

¹⁷ Because two drink-offerings were required, one of wine and one of water. The vessel of water was brought by the hand of a priest.

¹⁸ The daily evening sacrifice. Two carried in their hands two pieces of wood to add to the wood of the pile, for it is written (Levit. i, 7), "and they shall lay the wood in order upon the fire." This does not refer to the morning sacrifice, for it is written in Levit. vi, 12, "and the priests shall burn wood on it every morning," which teaches that it refers to the evening sacrifice when two pieces of wood were added.

¹⁹ As the pieces of a lamb, so the pieces of a ram.

²⁰ Two tenth deals were offered by two priests.

wine, by three *and* three. To what do these words apply?²¹ To offerings of the congregation. But an offering of an individual if he wished to offer it²² *himself*, he might offer it. The skinning and eating up²³ of both the one and the other were alike.

CHAPTER III.

1. THE prefect¹ said to them "go out and see² whether the time for slaying³ *the sacrifice* has arrived." If it had arrived, *the priest who went out* to see, said "it lightens."⁴ Matathiah ben Samuel said "it is becoming light along the whole east."⁵ "As far as Hebron?"⁶ and he said "yes."

2. And why did they find this necessary? Because it once happened that the light of the moon ascended, and they thought it was daybreak,⁷ and slew the sacrifice and took it out to the place of burning. They conducted the high priest down to the bathing room.⁸ This was a general rule in the Sanctuary: whoever "covered his feet"⁹ was required to bathe his whole body *afterwards*, and whoever made water, was required to wash [*lit.* sanctify] his hands and his feet.

3. No man might enter the court for the service¹⁰ even though clean,

²¹ In reference to all these priests for one beast, and in reference to the lot.

²² One priest might offer the whole and without casting a lot.

²³ The skinning and cutting up of the bullock offered by an individual, and that offered on behalf of the congregation were alike [י"ו, equal] in that both were lawful by a stranger, and did not require a priest.

¹ He was the *sagan* (or vicar of the high priest).

² To a high place which they had in the Sanctuary.

³ Because it was unlawful to slay the sacrifice by night, as it is said (Levit. xix, 6), "on the day ye offer it."

⁴ It is becoming light and the morning breaks.

⁵ This was after the lightening spoke of by the first doctor. The *halachah* was according to Matathiah ben Samuel.

⁶ Those standing below asked him whether the light reached to Hebron, and he replied yes. They mentioned Hebron in order to call to mind the merits of the fathers.

⁷ This is not said to have been on the day of atonement, for it is not possible for the light of the moon to ascend near the morning on the day of atonement, because that is at the third part of the month, but at the end of one of the months, when the moon rose near the rising of the morning, this mistake occurred; and they were anxious lest on the day of atonement another mistake of the like kind might happen, and therefore considered all this necessary.

⁸ This [that is said about the moon] is parenthetical, and now [the Mishna] returns to what we are taught above, "as far as Hebron?" and he said "Yes." And after that the priest who went out to look said "yes," they conducted the high priest down to the bathing-room, because he was required to bathe before he slew the continual sacrifice.

⁹ An euphemism for the *excrementa majora seu crassa*.

¹⁰ Or for any other purpose.

until he had bathed.¹¹ On *this* day the high priest underwent in it five immersions and ten washings [*lit.* sanctifying], and was sanctified, and all of them *were* in the holy part of the Temple upon the house Parvah,¹² except this one only.¹³

4. They spread a linen cloth¹⁴ between him and the people. He stripped, descended and immersed himself; came up and wiped himself.¹⁵ They brought to him golden garments. He dressed and sanctified his hands and his feet.¹⁶ They brought to him the lamb for the sacrifice, which he partly slaughtered,¹⁷ and another¹⁸ *priest* completed the slaughtering for him.¹⁹ He received the blood and sprinkled it. He went in to offer the morning incense, and to dress the lamps, and to offer the head and the pieces, and the pancakes, and the wine.

5. The incense of the morning was offered between *the sprinkling of the blood*, and *the offering of the pieces of the sacrifice*; ²⁰ *that of the evening* between *the offering of the pieces of the sacrifice*, and *the pouring out of the*

¹¹ The matter is *à fortiori*; for as the high priest changing from holy to holy, from service without [the Temple itself] to service within, and from service within to service without, was obliged to bathe between one service and another, much more as he now came from his house, which was profane, to the holy place, he was obliged to bathe.

¹² Upon the chamber of the house Parvah.

¹³ The first, which was in the profane part of the temple, over the water gate beside his chamber.

¹⁴ To keep in mind that the service of the day was performed in linen garments, because the high priest was accustomed to serve all the year in golden garments.

¹⁵ Wiped clean.

¹⁶ At the laver, because at every change of the garments of the day it was necessary to sanctify at taking them off, and again at putting them on, and this first bathing, which was on taking off the profane garments, did not require sanctifying of the hands and feet at the taking off.

¹⁷ He cut the greater part of the two "signs" [the gullet and windpipe], which alone makes the slaughtering lawful.

¹⁸ Another priest completed the slaughtering, because the receiving of the blood was not lawful except by the high priest, and it was necessary to hasten to receive it.

¹⁹ עַל יָדוֹ, "on his account," or, perhaps, by the hand of another near to him, as in Nehemiah iii, 8, עַל יְדוֹ הַחֹזֵק, "next unto him repaired," &c.

²⁰ Not exactly so. For we are taught above [i, 2] "he received the blood and sprinkled it, *and* entered to offer the incense, and to dress the lamps, and to offer the head and the pieces," so that the incense was offered between the sprinkling of the blood and the dressing of the lamps, and not between the sprinkling of the blood and the offering of the pieces of the sacrifice. But the doctor is not now speaking of the order of the offerings, that this one was after that, and so on, but he only desires to say that the sprinkling of the blood and the offering of the pieces did not immediately follow the one after the other, for the incense came between them, and also the dressing of the lamps was between them, after the incense, *and* before the offering of the pieces.

drink-offerings. If the high priest was old or weak,²¹ they prepared for him hot water,²² and put it²³ into the cold *water*, in order to take away²⁴ its coldness.

6. They led him to the house of Parvah,²⁵ which was in the holy part of the Temple,²⁶ and spread a linen cloth between him and the people. He sanctified [washed] his hands and his feet, and stripped. Rabbi Meyer said he *first* stripped, and then sanctified his hands and his feet.²⁷ He went down into the bath and immersed himself, came up, and wiped. They brought to him white garments,²⁸ he dressed and sanctified his hands and his feet.

7. In the morning he put on garments of Pelusium²⁹ manufacture, of the value of twelve *manim*, and in the evening Indian³⁰ garments, of the value of eight hundred *zuzim*. The words of Rabbi Meyer. And the wise men said "in the morning he put on garments worth eighteen *manim*, and in the evening³¹ worth twelve *manim* ; ³² the whole of these thirty *manim* were the property of the community, and if he wished to add to them, he added from those belonging to himself.³³

8. He came now to his bullock ; and his bullock stood between the porch and the altar,³⁴ its head to the south and its face to the

²¹ So that his body was cold and frigid.

²² On the eve of the day of atonement.

²³ On the day of atonement they put it into the pit built in his bathing-room.

²⁴ To take away its coldness somewhat. *שְׂתַפִּינֵי טַעֲמָן* is like *מְפִיגֵי טַעֲמָן*, "they change or lose their taste" [Pesachim 41 a].

²⁵ A certain magician, whose name was Parvah, built it, and it was called after his name.

²⁶ Because this second immersion, with all the other immersions, except the first, must be in a holy place, as it is written (Levit. xvi, 24), "and he shall wash his flesh with water in the holy place."

²⁷ R. Meyer said, he stripped first and afterwards sanctified. The decision was not according to Rabbi Meyer.

²⁸ The shirt, the breeches, the girdle, and the turban, which are mentioned in Leviticus xvi, 4, for all the services which were within were performed in them, but the services which were without (as the continual sacrifices and the additional sacrifices) were in golden garments, in which he ministered the whole year. And between each change of garments immersion and two sanctifyings of the hands and feet at the laver were required.

²⁹ Fine and beautiful linen brought from the land of Ramses. In the Targum Yerushalmy Ramses is Pelusa [Pelusium].

³⁰ From the land Hodo [India].

³¹ Those which he put on to bring out the *kaf* and the censer.

³² He here repeats the aggregate value, and teaches us to understand that thirty *manim* were the sum of the whole ; to tell thee that it was of no consequence if he diminished from those of the morning, and added to those of the evening [provided the whole was thirty *manim*].

³³ Only he must give those added as a gift to the Sanctuary.

³⁴ By law all the northern part of the court was fit for the bullock to stand in, for it was all "before the Lord." And they did not place the bullock between

west.³⁵ And the priest stood on the east, with his face to the west,³⁶ and laid his two hands upon it and confessed. And thus he said: O God! I have done wrong, I have transgressed, I have sinned before Thee, I and my house. Forgive now, O God, the wrong and the transgression and the sins which I have done, and transgressed and sinned before Thee, I and my house, according as it is written in the law of Moses, thy servant (Levit. xvi, 30), "for on that day shall *the priest* made an atonement for you," &c., and they repeated after him, "blessed be the glorious Name of His kingdom for ever and ever."

9. He now came to the east of the court,³⁷ to the north of the altar, the sagan *being* on his right hand and the chief of the house of the fathers on his left. And two goats were there, also a box,³⁸ in which were two lots of boxwood;³⁹ Ben Gamla⁴⁰ made them of gold, and they were accustomed to commemorate him with praise.

10. Ben Katin⁴¹ made twelve cocks⁴² to the laver, there having *before* been only two, and also he made a machine⁴³ for the laver, that its water might not become defiled by remaining all night. Monbaz, the king, made all the handles of the vessels of the day of atonement of gold. Helena, his mother, made a golden lantern⁴⁴ for the door of the Temple, also she made a golden tablet upon which was written the section of the law the porch and the altar near to the Temple, but on account of the weakness of the high priest, that he should not be oppressed by the burden of carrying the vessel for sprinkling the blood to a distance.

³⁵ It was ordained by the law that its head should be towards the temple, which was on the west, and its hinder part towards the altar; but lest it should drop its dung, and because it was a shame that its hinder part, *בית הרעי*, should look to the side of the altar, its head was put towards the south and its tail towards the north, which was very suitable, and the middle of its body between the porch and the altar, and its head was turned until its face was towards the west.

³⁶ And his back to the east.

³⁷ Because they did not take the goats in to between the porch and the altar when it was wished to put the lots upon them, but they remained in the court till the time of slaying.

³⁸ A perforated vessel of wood.

³⁹ Buso [buxus] in Latin, a kind of wood. This is only a supposition.

⁴⁰ Joshua ben Gamla, when he was chosen to be high priest, made them of gold.

⁴¹ He was a high priest.

⁴² In order that the twelve priests to whom the lots had fallen to perform the continual sacrifice of the morning might sanctify all at one time, and notwithstanding that there were thirteen priests engaged in this service, as we have said in Chapter II, no cock was made for the slayer of the sacrifice, because the slaying was lawful by a stranger.

⁴³ A wheel to immerse it in the cistern [or well] that its waters might be mingled in the cistern and not become defiled by remaining all night [in a sacred vessel].

⁴⁴ Or candlestick [*candelabrum*].

referring to a suspected wife⁴⁵ [Numbers v, 12]. To the doors of Nicanor⁴⁶ there happened miracles.⁴⁷ And him they commemorated with praise.

11. And these were commemorated with shame : the family of Garmu, *who* were unwilling to teach the way of making the shewbread ;⁴⁸ the family of Abtinias, *who* were unwilling to teach the manner of making the incense ;⁴⁹ Hagros ben Levi, *who* knew a portion of song⁵⁰ and would not teach it ; Ben Kamtsar *who* was unwilling to teach his method of writing.⁵¹ In reference to the former,⁵² it was said “the memory of the just is blessed,” and in reference to the latter⁵³ “the name of the wicked shall rot.”

⁴⁵ That it might not be necessary to bring [the roll of] the law, to write from it the section referring to a suspected wife.

⁴⁶ The name of a man.

⁴⁷ He went to Alexandria of Egypt to bring the doors. On his return there arose a great storm at sea, which threatened to sink them. They took one of the doors and threw it into the sea, in order to lighten the ship, and when they sought to throw overboard the other, he said to them, “throw me with it,” and immediately the sea ceased its raging. When they arrived at the port of Acca the door which had been thrown overboard came out from under the side of the ship.

⁴⁸ The other workmen did not know how to take it from the oven without breaking it, because it was made like a kind of open box.

⁴⁹ They knew a certain herb whose name was “the ascending of smoke,” and when they mixed it with the aromatics of which the incense was composed, the smoke of the incense formed a column and ascended in the form of a staff without bending to one side or the other.

⁵⁰ An agreeable modulation of the voice.

⁵¹ He bound four pens to four of his fingers, and wrote the *nomen tetragrammeton* as if it were of one letter.

⁵² Ben Gamla, Ben Katin, Monbaz, and Helena his mother, and Nicanor.

⁵³ The family of Garmu, and the family of Abtinias, Hagros ben Levi, and Ben Kamtsar. And although the family of Garmu and the family of Abtinias explained their words, “that they did not wish to teach,” to mean that they would not teach a person who was not honest and might go and practise idolatry thereby ; the wise men did not accept their words.

THE CITY OF DAVID.

(Continued.)

I. ZION, SOUTH AND NOT WEST OF THE TEMPLE.

IN his Handbook Captain Conder places "Acra or Millo" and the "Tomb of David" further west than Sir Charles Warren's site, and (p. 333) has "little hesitation in identifying that hill (Acra) with the knoll of the present Sepulchre Church." He concludes that the term, the City of David, was applied to this part because (as he urges) Millo was in the City of David, and Millo is rendered by *Acra* in the LXX, and next because Josephus (p. 338) seems by Millo to understand the Lower City ("Ant.," VII, iii, 2), which he identifies with *Acra* ("Wars," V, vi, 1); and, as already stated, Captain Conder takes Josephus to place his *Acra* west of the Temple. It will be seen that the argument is this: Where *Acra* was, there was also the City of David. But it has been proved above that *Acra* was *south*, not west, of the Temple. Therefore the City of David was not on Captain Conder's site, near the Church of the Holy Sepulchre.

Another point may be noticed. As Captain Conder is ready to identify the *Acra* of the LXX with the *Acra* of Josephus, and the Lower City in the "Antiquities" with the *Acra* in the "Wars," he cannot fairly refuse to identify the Lower City and the *Acra* of the "Antiquities" with the Lower City and *Acra* of the "Wars," while the expression in "Ant.," XII, v, 4, he "built the *Acra* in the Lower City," shows that sometimes the *Acra* only means a part of the latter. Now in "Ant.," VII, iii, 1, Josephus says that David *took first the lower city and next the Acra*, and so captured the whole of Jerusalem. Now it is obvious that the *Upper City* on the south-western hill could not be either the *Lower City* or the *Acra* within it. Therefore, according to the "Antiquities," the *Upper City* was not the City of David.

Accordingly, when Captain Conder ("Handbook," 336) wants to show that the *Upper City* was Zion, or the City of David, he appeals to "Wars," V, iv, 1, where Josephus says that the *Upper City* was called *φρούριον* (the citadel) by David, evidently as equivalent to "the fort" (Heb. Metzad) of Zion, which was afterwards called the City of David (2 Sam. v, 7).

Josephus wrote the "Antiquities" after the "Wars," and was of course at liberty to correct his own mistakes as far as he could. Since then, in his later and fuller account, Josephus speaks of David taking the Lower City and the *Acra*, and after the expulsion of the Jebusites from the *Acra*, of his rebuilding Jerusalem and calling it the City of David, it is obvious that the casual remark in the "Wars" is set aside as worthless by Josephus himself. After this exposure I hope no one will maintain that the abandoned statement of "Wars," V, iv, 1, proves that the *Upper City* was ever the stronghold of Zion, or the site of the City of David. For myself I decline to depend on the conjecture in the "Wars"

or the paraphrase in the "Antiquities," as one can go directly to 2 Sam. v, where the Biblical account says nothing whatever about an *Upper* or *Lower* City, but simply mentions the fort of Zion.

Thrupp (Jerusalem, 56) thinks that Acra in "Ant.," VII, iii, 1, may and does mean the Upper City because (1) the Acra in that passage is "not to be identified with the Lower City, the Acra of later times," and (2) because Josephus in "Ant.," XII, x, 4, speaks of an Acra which Thrupp takes to have been in the Upper City.

The answer to (1) is, that the later Acra (as already pointed out) sometimes means only a part of the Lower City, and therefore, in "Ant.," VII, both the Acra and Lower City, without being identical, may be named, just as both are mentioned in "Ant.," XII, v, 4; and to (2) that the passage in Josephus is corrupt, and that a reference to the parallel account in 1 Macc. vii, 32, shows that the Acra named was not in the Upper City, but was the one commonly so called.

Further, in attempting to prove that the Acra of Josephus was west of the Temple, Captain Conder shows but little respect for the statements of his great authority.

In "Wars," V, iv, 1, 2, Josephus says, "Over against this (Acra) there was a *third* hill (obviously the Temple hill), but naturally lower than Acra, and formerly parted from it by another *broad* valley. . . . The Hasmoneans filled up the valley, wishing to join the City to the Temple; and they levelled the summit of Acra and reduced its elevation in order that the Temple might be seen above it in this direction, . . . a *fourth* hill which is called Bezetha (*i.e.*, the new city)."

Compare with this Captain Conder's statements. He says ("Handbook," 332, 3) the "*third* hill was covered by the new city," (!) or Bezetha. The third hill (Bezetha !) was separated from Acra by a *deep* valley afterwards filled up by the Hasmoneans. But if they had wished to join the city (Acra) to the Temple, why should they have filled up the valley between Acra and a different hill, Bezetha, north of the Temple (333)? And, lastly, Captain Conder tells us that his Acra (contrary to the statement of Josephus) is still *above* (instead of lower than) the highest point on the Temple ridge.

Sir Charles Warren's site at any rate satisfies this requirement, and so, of course, does the true site for Acra south of the Temple.

It is one thing for Josephus to have made a mistake about a height being lowered and a valley filled up two hundred years before his day, when in his time neither existed to be seen; and quite a different thing for him not to have known which of two hills was the higher, when he had probably observed both of them daily during the siege. It seems to me, however, that Josephus may have meant that the *Upper City* was joined to the Temple in the line of Wilson's Arch.

Having thus cleared of all obstructions the ground north of the Upper City, the way is now open for me to attack the traditional site.

II. ZION NOT ON THE SOUTH-WESTERN HILL.

The defenders of the Upper City are many and mighty. They are further agreed that their site is the true one, but hopelessly at variance as to the way of proving it. Nehemiah ii, iii, and xii is to them a crucial test.

One (Mr. Tenz) thinks that the words (*supra* 122) "from the dung gate to the fountain gate" give an order from east to west; another (Captain Conder) from west to east; another changes his mind within ten pages ("Murray's Handbook," 172, 181); another protests against thinking about it at all. He writes to me: "I won't consider it any longer, as I nearly went off my head a dozen years ago over it. Of all the subjects I know, there is none more bewildering. I cannot understand how Sion can be anywhere but on the western (*i.e.*, S.W.) hill, and yet your arguments are very strong."

Mr. Tenz, the constructor of a most interesting model of Jerusalem, objects to the Ophel site on page 121 above, and thus defends the traditional one:—

1. He both says he "may justify the remarks made by Captain Conder against the Ophel site" (*Quarterly Statement*, 1883, p. 194), and adds that Josephus "is yet the most reliable authority." Captain Conder there asks, "If David and Solomon did not build a wall round the Upper City, why does Josephus say ('Wars,' V, iv, 1) that *the old wall built by David and Solomon began on the north at Hippicus?* Is this another false statement, or is Hippicus on the Temple spur, and is the Upper City *post Herodian*. And if they did, why should the 'City of David' be applied to a hill which was only walled in by later kings?" I have no objection to the idea that David and Solomon had to do with the wall here spoken of. I would, however, point out that while Captain Conder says Ophel "was only walled in by the *later* kings," Josephus himself in this passage says that the old wall built by David and Solomon and the later kings not only began at Hippicus, but also "had a *bend above Siloam, reached to Solomon's pool and Ophlas, and ended at the eastern cloister of the Temple.*" Thus, according to Josephus, David and Solomon had as much to do with the wall in Ophel as that on the hill of the Upper City, and so Captain Conder's notion about the later kings is wrong. Surely Mr. Tenz, as an admirer of Josephus, ought to have justified him and me and not deserted both of us for Captain Conder.

2. Next, he thinks that the towers, bulwarks, palaces in Psalms xlviii were too many to have been on Ophel, and that therefore Zion must mean the Upper City. The question, however, is not what Zion or Mount Zion may mean in the Psalms (where they sometimes seem to be equivalent to Jerusalem), but what in *historical* passages is meant by *Zion* and the *City of David*. (*Quarterly Statement*, 1881, p. 94.)

3. He thinks the Upper City must have been Zion, because the valley of Hinnom went up on the south side of it. I have shown, however, that the Tyropœon was the valley of Hinnom, and as it is not south of the

Upper City, this very argument shows that the Upper City was not the stronghold of Jebus, *i.e.*, Zion.

4. He thinks Nehemiah went out near the Virgin's Fount, by the valley (*ge*) gate leading to the brook (*nachal*) Kidron, and that when he went up by the brook (*nachal*), he went up *his* (Mr. Tenz's) valley (*ge*) of Hinnom. Here once more *ge* and *nachal* (see 101 *supra*) are confused, and so a hopeless chaos ensues, as will be seen in the next point.

¶ 5. By placing the valley gate near the Virgin's Fount, and David's tomb at or near the present traditional site, it will be seen on reference to Nehemiah iii, and xii, 31-40, that Mr. Tenz sends one procession almost round Jerusalem, first south, then west, next north, afterwards east, and finally south, until Ophel and the Horse Gate are passed in the *wrong* order, a distance of about 10,000 feet, and the other party only march a ridiculously short distance, about 500 feet, and into this short distance he has further to cram the sheep gate, the fish gate, the old gate, the Ephraim gate, and the valley gate—five gates in about five hundred feet, which is of course absurd, but inevitable with his theory.

The argument from military considerations, too hastily supposed to show that Zion was the Upper City, really points to a contrary conclusion.

It is said that as the south-western hill was by nature the strongest position, it must have been chosen for the site of the fort of Zion. But when Antiochus Epiphanes had the whole of Jerusalem in his possession, fortifying the Upper City is just what he did *not* do. He deliberately (1 Macc. i, 33) placed his garrison in the City of David, in the Acra, in the Lower City, where it held its own for twenty-six years, and was at last only reduced by famine. It is clear that what was taken to be the best position by Antiochus might well have been chosen by others before him.

I have shown above how Captain Conder's defence of the Upper City fails, but I must also show how his attack on my Ophel site ends in smoke. He does not admit with Sir Charles Warren that Nehemiah actually places the stairs of the City of David, and the Sepulchres of David, and the House of David, on Ophel, and so is put to great straits in order to avoid this concession.

(a) He draws ("Handbook," p. 345) the stairs either on the side of the Upper City or up the Tyropæon, though the natural course for the procession at the dedication of the wall would be as at other points, along the wall, which confessedly was on Ophel.

(b) He admits that the sepulchres of David are placed by Nehemiah on Ophel, but pleads that the expression means the sepulchres of (some of) the sons (or descendants) of David who were not buried in the City of David.

(c) He also admits that "the House of David" is placed by Nehemiah (xii, 37) on Ophel, but contends that the expression means the sepulchre, &c., as in (b).

This is certainly using the *lucus a non lucendo* principle with a

vengeance. But a new idea ! Why not argue that the tomb was Saul's and that "the House of David" simply means "the tomb of the *father-in-law* (!) of David. For was not Saul buried in Zelah? and by some, I believe, "Zelah, Eleph" has been connected (*Quarterly Statement*, 1881, p. 147) with the eastern hill at Jerusalem.

I now claim to have disposed of the myth that the Upper City was Zion. Jerome seems to have been the publisher of this greatest work of fiction ever produced, for it has had a run of fifteen centuries, and is still in demand. It has not only imposed too long on unsuspecting folk, like myself, of cramped imagination, but it has also bewitched the writer of an impossible story whom I used to think too shrewd ever to mistake such fiction for fact. A few perhaps will be thankful for the dispelling of this patriotic concoction; most, however, will probably choose to believe an error rather than weary themselves in investigating the truth.

If any one wishes to defend either of the pseudo-Zions that I claim to have annihilated, let him do so.

"Vive, vale. Si quid novisti rectius istis
Candidus imperti; si non his utere mecum."

W. F. BIRCH.

THE DEAD SEA.

SOME observations which seemed to point to one conclusion claiming my interest in the autumn of 1854, when I was twice at the southern end of the Dead Sea for the purposes of my Art, have since remained in my mind as indications of peculiar features in its geological formation, and as I have never met with references to them, I will now beg your permission to invite the attention of Mr. Hull, or of any future investigator of the district, in order to have the truth on the point raised satisfactorily explained.

I will tell the facts as they came to my notice. My first journey to the district was made from Jerusalem with Mr. W. Beamont, of Warrington, who wrote a very interesting diary of his visit to the Holy Land, entitled "Journey in the East." A third friend was his son, the Rev. W. J. Beamont, of Trinity College, Cambridge, since deceased. We arrived and pitched our tent on the plain amid the trees, which, as the lake widens two miles or so northward of Usdûm, are thick and about 20 feet or more in height. As there was still enough daylight remaining, we set off to the border of the sea for a bathe. On approaching the coast it was noticeable that the trees on the north-eastern curve of the bay stood closer to the margin of the water than they could have been when first they emerged from the soil, and that into the water itself the whole of the once living forest of tamarisks, junipers, acacias, &c., descended, leafless, dead, and stark. But although the engulfment had

been gradual, and probably the work of some seasons, the trees furthest away from the shore were still with branches unbroken, and even with stems and upper twigs intact until the depth hid them. It was a sight with immediate caution to the swimmer, and we took the hint to go two or three hundred yards more to the north. None of us had bathed before in the waters.

I think we were all good swimmers, but when I dashed in and threw myself forward to get out of my depth, there was enough to do without observing my friends. The unusual degree of buoyancy in the briny liquid threw me off my balance, the salt stung my eyes, ears, and every abrasion on my skin, and I could scarcely tell in what direction I was striking out until I found myself carried by a current into a mass of stiff boughs of trees far off from and still deeper engulfed than those visible from the land.

Making allowance for decrease of height from the carrying away by the waters of the upper twigs, the depth here to the bottom on which the trees stood must have been about 25 feet. The land had therefore sunk thus much since the trees were flourishing. So far, the fact was not for the neighbourhood a startling one. It was an encroachment of the sea on the land by the sinking of the latter.

Two months later I came to the same neighbourhood again to paint at the spot chosen for my landscape, which was two miles more to the south than the point where we had bathed. This time, for considerations of health, and being without friends with independent interests, I encamped under the castle built on the high crag between the divided torrent bed in the Wâdy Zuarabtahta. Before sunrise each morning I started with one Arab, Suleiman, to cross the plain to the shore of the narrowest part of the sea. It was in a line drawn from the mouth of the wâdy to the north-eastern base of Usdûm, only deflected slightly at this spot to escape the irregularities near the foot of the mount as it passed on somewhat more southwardly to the margin of the lake.

Varying our path to some degree one morning, my attention, about midway between the wâdy and the mount, was arrested by a circular opening in the earth, 7 or 8 feet in diameter. It was clearly not a well, its position forbade such idea; but what would in any case have made this evident was that the aperture was not vertical, but oblique, sloping from north-west to south-east. The perforation was so clearly made that the layers of the alluvial soil, some of larger and some of smaller pebbles, were clearly defined in the sectional surface of the circumference. I asked Suleiman what this aperture was. He answered unhesitatingly that it had been caused by a falling star, and after the raw suspicion that he spoke thus with the ordinary love of the marvellous for matters beyond Arab ken, I saw that no other theory could amount for the conditions of the case. Time was too precious for me then to linger long, but on closer scrutiny on that occasion, and on subsequent mornings, I observed that the perforated earth was only a crust of upheaved sand of about 10 feet or so in thickness, and that below in all directions was a hollow

cave about 20 feet in depth without water at the bottom, where I could see the *débris* of the pierced alluvial crust. Unfortunately, my task was too difficult a one to allow me to spare the time for descending into the pit, and thus I could not investigate it except from above; but what I saw of the cavity suggested that the whole plain, having been formed by alluvial washings, had been raised from the bed below by volcanic force; that it remained thus while underwood and trees grew upon it; that it probably was impervious to the water of the Salt Sea, but that the weight of this was gradually pressing it with its growth down, as I had found was already done at the spot where my friends and I bathed two miles or so further north.

When I left the neighbourhood I had the intention of returning there to paint more of the extraordinary and grand scenery of the Dead Sea, but the Art world are slow to exhibit interest in what is not "stale as chimes to dwellers in the market place," and therefore I have never since found myself near enough to the beach of Usdûm to make further investigations into the facts given above. It will be a great satisfaction to me now if some one competent to determine their true significance and value will direct his attention to them.

London, June 1st, 1885.

HOLMAN HUNT.

THE
PALESTINE EXPLORATION FUND

NOTES AND NEWS.

THE packet of papers and plans mentioned in the July *Quarterly Statement* as having been received from Herr Schumacher has been placed in the hands of the printers and engravers. The text has been carefully revised by Mr. Guy Le Strange, not in order to add anything to it or to subtract anything, but in order to anglicise a manuscript written in German-English. The volume is not yet quite ready, but may be expected in a few days. One copy will be forwarded to every subscriber who has already signified, or who will on the receipt of this *Quarterly Statement* signify his desire to possess it. It will be sent, post free, in order of application. A closer examination of Herr Schumacher's map and of his manuscript, together with an urgent request from the author, has made it necessary to change the title originally proposed. It will not be called "The Land of Jaulan," because that title, it is now perceived, would convey an incorrect impression of its contents, but "Across the Jordan," with a sub-title explaining that it is a record of exploration in parts of the Hauran and the Jaulan.

As regards the map, it should be mentioned that Herr Schumacher executed at the same time another survey of a district of equal extent to that done for us. This map, lying north of our portion, he has sent to the German Society for the Exploration of Palestine.

These explorations were made possible to Herr Schumacher by a permission to survey for a proposed railway, the observations, notes, drawings, and memoirs being executed during the course of his work. The triangulation has been found by Mr. Armstrong to fit very well with that of our own Surveys, and there has been no difficulty in laying down the map upon our sheets. A reduced map will be issued with the volume. The number of plans and drawings which illustrate the volume amount to nearly a hundred and fifty. With the volume will be reprinted Mr. Oliphant's and Mr. Guy Le Strange's papers on the country east of Jordan.

The Committee earnestly desire to draw attention to the very important Circular which has just been prepared and issued. It will be perceived that an opportunity is here presented for doing on a large and exhaustive scale what has hitherto hardly been attempted at all, namely, the collection of modern Syrian customs, usages, traditions, languages, legends, and manners. It is an inquiry

which will without doubt prove fruitful in Biblical illustration ; the value of the results will depend entirely on the character of the question proposed ; and it is *most earnestly hoped that every one interested in the subject*, and able to assist, will help the Committee to make this inquiry thoroughly comprehensive, and, with that view, will forward suggestions for questions. These should embrace everything, however apparently trivial, which concerns daily life, religion, tradition, arts, industries, and customs. A sub-committee will receive and arrange them under their various headings, and a beginning will be made as soon as possible. The results, if the Committee receive the support which they anticipate in this most important undertaking, should be to pour light upon many points which are at present obscure. The expense of the work will not, it is anticipated, be very great. On this branch of inquiry, as of the Survey, it may be most truly said that the old things are fast passing away, and that if they are not very soon collected and published they may be forgotten and hopelessly lost. The following is the Circular :—

“The Committee have long had under consideration the collection of all that has to do with the manners and customs of the present inhabitants of Palestine and other parts of Syria. Attempts have been made from time to time, by residents of the country, to do this, especially by M. Clermont-Ganneau, the Rev. A. Klein, the Rev. James Niel, Mrs. Finn, Miss Rogers, and the officers of the Survey. These attempts have been necessarily incomplete, and have done little more than indicate the extent and depth of the treasures which lie hidden among the peasantry of these lands.

“Before a serious attempt could be made to carry out this inquiry successfully, it was necessary first to find an organised machinery of agents, who should be directed by some competent persons in the country, under the Committee at home. It was next necessary that these agents should speak the language of the natives perfectly, so as to note differences and peculiarities of idiom ; that they should be able to command their confidence, so that the women would converse with them and answer their questions ; and that they should be persons of trained intelligence, who would know the questions that should be asked and the reasons for asking them.

“This machinery, with a large body of agents highly educated and intelligent, has now been placed at the disposition of the Committee.

“It remains, therefore, to draw up questions which these agents will be invited to ask.

“It will be possible to extend the inquiry simultaneously over the whole of the land covered by the Bible. That is to say, we may carry on our inquiry at the same time over Syria, Egypt, Cyprus, Asia Minor, the Hauran, the Valley of the Euphrates, and Armenia. It is, therefore, desirable to draw up the questions with as much fulness and covering as wide an area as possible.

“The subject divides itself into the following branches :—

1. Religion and Morals.
2. Land Tenure, the Village Commune, &c.
3. Archæology.
4. Ethnology.
5. Health and Disease.
6. Superstitions.

7. Legends and Traditions.
8. Language.
9. Agriculture, including Botany, &c.
10. The Daily Life.
11. Industries.
12. Arts and Architecture.
13. Amusements and Sports.
14. Birth and Marriage, Death and Burial Laws and Customs.
15. Usages still surviving, which illustrate the Bible.
16. Traces of the successive occupants of the Holy Land.
17. Modern and ancient Literature.
18. Proverbs.
19. Science.
20. Music.
21. Natural History.
22. Peculiar manners and customs not included under any of the above headings.

“The Committee, in the work of drawing up these questions, have resolved upon asking the assistance of the following scholars and Societies:—

1. The Companies of Revision of the Old and New Testament.
2. The contributors to Smith's and Kitto's Bible Dictionaries.
3. The British and Foreign Bible Society.
4. The Scottish National Bible Society.
5. The American Bible Society.
6. The Trinitarian Bible Society.
7. The Missionary Societies.
8. Zion College.
9. The Society of Biblical Archæology.
10. The Royal Geographical Society.
11. The Society of Antiquaries.
12. The Archæological Institute and the Archæological Association.
13. The President of the late American Society for the Exploration of Palestine.
14. The Universities of Great Britain and Ireland and the Colonies.
15. The Heads of Departments in the British Museum.
16. The Department of Science and Art, South Kensington.
17. The Royal Institute of Architects.
18. The Anthropological Institute.
19. The College of Physicians and the College of Surgeons.
20. The Folk Lore Society.
21. The Cambridge Philological Society.
22. The Royal Agricultural Society.
23. The Royal Horticultural Society.

“To these will be added the Archbishops and Bishops of the Church of England, those of the Episcopal Church in Scotland and Ireland, the Colonies and the United States, the Presidents of the Established Church of Scotland the Free Church, and the United Presbyterians, the Presidents of the Wesleyan, Congregational, Baptist, and other Nonconformist bodies in Great Britain, Ireland, the Colonies, and the United States, and the Chief Rabbi of Great

Britain, and, lastly, all scholars, archæologists, and Biblical students who may be willing and able to render assistance and advice, with other societies, colleges, and institutions not included in the above which may also be usefully approached.

“We have, therefore, in communicating to you this preliminary announcement, to ask for your assistance and co-operation. We have also to call your attention to the magnitude of the enterprise, and to its great importance, whether considered from a Biblical or from any other point of view.

“We enclose a specimen page of questions. A form will be immediately prepared, and will be forwarded to you on application, and a sub-committee will be appointed for receiving, arranging, and finally preparing the questions.

W. EBOR, *President.*

JAMES GLAISHER, F.R.S., *Chairman of the Executive Committee.*

WALTER MORRISON, *Treasurer.*

WALTER BESANT, *Secretary.*”

Dr. Selah Merrill writes, on September 2nd :—

“The open space in front of the Mediterranean Hotel and the Barracks, or Castle, has been dug over during the past summer for the purpose of repaving the street, and some very interesting remains have been brought to light. The most interesting of all, however, is what I consider to be the actual remains of the second wall found between Duisburg’s Store (formerly Spittler’s) and the Jaffa Gate, at a depth of 15 feet below the surface of the ground; the stones are similar to the large bevelled stones in the Castle opposite. I will send you a plan of these ruins in a few days, perhaps by the next mail.”

New editions of “Tent work in Palestine” and “Heth and Moab,” Captain Conder’s popular works, have been issued at 6s. each. Professor Hull’s “Mount Seir” is also now ready at the same price.

Professor Hull’s scientific Memoir on the Geology of Palestine is now in the press, and will be shortly issued. It will be uniform with the “Survey of Western Palestine.”

Mr. H. Chichester Hart’s Memoir on the Flora and Fauna of the Wâdy Arabah will also be issued as soon as possible in the same form and size.

A paper by the Rev. W. F. Birch on Aera has been unavoidably kept back until January.

As regards the copies which remain of the “Survey of Western Palestine,” the friends of the Society are urged to get them placed in public libraries. The work will not be reprinted, and will never be sold by the Committee at a lower price; and as it becomes known, for the *only* scientific account of Western Palestine, it will certainly acquire a yearly increasing value. Five hundred were printed, and the type is now distributed.

The Palestine Pilgrims' Text Society has now in hand—(1) A translation of Procopius, that is to say, such parts as concern the buildings of Justinian. This has been annotated by Professor Hayter Lewis. It will also be illustrated by numerous drawings. (2) The Bordeaux Pilgrim, which is receiving notes from Sir Charles Wilson. (3) The Pilgrimage of the Abbot Daniel, which is translated and ready for the press. (4) The Travels of an early Persian Pilgrim, translated by Mr. Guy Le Strange.

The income of the Society, from June 17th to September 21st inclusive, was—from subscriptions and donations £168 12s., from all sources £247 5s. 5d., The expenditure during the same period was £498 12s. 10d. On October 1st the balance in the Banks was £167 16s. 7d.

It is suggested to subscribers that the safest and most convenient manner of paying subscriptions is through a Bank. Many subscribers have adopted this method, which removes the danger of loss or miscarriage, and renders unnecessary the acknowledgment by official receipt and letter.

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.

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) The Rev. Henry Geary, Vicar of St. Thomas's, Portman Square. His lectures are on the following subjects :—
 - The Survey of Western Palestine, as illustrating Bible History.
 - Palestine East of the Jordan.
 - The Jerusalem Excavations.
 - A Restoration of Ancient Jerusalem. Illustrated by original photographs shown as "dissolving views."
 - (2) 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.
 - (3) The Rev. James Neil, formerly Incumbent of Christ Church, Jerusalem.
 - (4) The Rev. George St. Clair, formerly Lecturer to the Society, is about to organise, by arrangement with the Committee, a course of lectures this winter on the work of the Society.
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PROFESSOR SOCIN ON THE SURVEY OF WESTERN PALESTINE.

IN the October number of the *Expositor*, Professor Socin, of Tübingen, contributes a paper called a "Critical Estimate of the Work of the Palestine Exploration Fund." It is not customary with us to reply to criticisms on our work, and in this case we should have refrained from comment on Professor Socin's remarks, except for the fact that certain observations of his, made in the most excellent spirit and with the best intentions, will, if not noted and answered, mislead his readers and our supporters. Professor Socin begins and ends his paper with a most courteous and friendly acknowledgment of the importance of the Society's work. "The Memoirs," he says, "by reason of the new material which they afford, will continue for decades to be the standard work from which Palestine research must set out."

Professor Socin's remarks deal first with the accuracy of the map; next with the Name Lists; thirdly, with Canon Tristram; fourthly, with Captain Conder; and lastly, with what he calls the Results of the Survey. He also touches on the discussions carried on in the *Quarterly Statement*.

(1.) As regards the accuracy of the map. It does not appear, when Professor Socin compares our map with that of M. Guérin, as if he exactly understands the main difference between our map and all other maps of Palestine. Ours is surveyed by triangulation; all others are constructed by some system of "dead reckoning." Now a triangulation is subject to an almost infallible test of accuracy. It is this. At the outset a base line is measured; at any part of the triangulation it is possible to measure by chain any of the lines the lengths of which have been obtained by calculation. The actual measured length should correspond with the calculated length. This has been done by our surveyors, and with most satisfactory results. As a matter of fact M. Guérin's book, which contains a few details not noted by our officers, does not contain one-half the number of names and places; while his map cannot pretend to scientific accuracy as to position, and as to watercourses, hills, and streams it is, and must be, practically useless. It is, in fact, impossible that one man working alone, and without scientific method, should produce a map in any way comparable to that surveyed by Royal Engineers.

(2.) Next as to the Name Lists. Professor Socin states that the "members of the Survey, who manifestly were not Arabic scholars, repeated the names which they had gathered to the scribe Kassatly, instead of his collecting them from the lips of the guides and natives." This is not by any means a correct way of describing the method followed, which was as follows:—The surveyors, in the course of their day's work, collected and wrote down in their own way—the guide being present—the names which they got from the natives. In the evening, on their return, each of them handed in to Captain Conder the day's list, which was gone through by Kassatly, *with the native guide*, and written down by him, or by Captain Conder at his dictation. The surveyors, therefore, had nothing to do

with the spelling of the names, for which Kassatly and the guides are responsible.

Next, as regards the list of the common place appellatives, which, according to Professor Socin, "must have been drawn up by one who had no knowledge of Arabic grammar." It was *drawn up by Professor Palmer himself*. It must, however, be understood that he set down, as was done in the map, not the literary Arabic at all, which was not wanted, but the fellahin Arabic. Thus, to take in order each one of the cases mentioned by Professor Socin. It is true that the plural of "Báb" is not "buwáb;" it is "bawwáb." But the natives of Palestine, like the English, are not good at the double consonant. They do not say "bawwáb," but "buwáb." So also of the plural of *birkeh*: they do not say *burak*, but *burák*, and the popular plural of *tell* is, as stated in the list, *tellál*. The ending *eh* is also given on the map as it was pronounced, which accounts for an occasional variation. And as regards the word *Sh'aib*, it is written, as nearly as possible, as pronounced. The literary way would have been to write it *Shū'aib*, but in common speech the vowels at the beginning of a word are generally slurred over. The surveyors, in fact, set down the names as the people pronounce them. Thus, to take the last of Professor Socin's instances, *Khurbek*, or *Khurbet*, the literary name would be, *e.g.*, *Khurbetu Ainab*, which in the vulgar speech becomes *Khurbet Ainab*, and when the word is used by itself simply *Khurbek*, and as a rough rule for travellers who are not Arabic scholars it is quite correct to say that *Khurbek* in Palestine becomes *Khurbet* before a vowel.

A corresponding example has been suggested to me. On the Ordnance Survey of Oxfordshire will be found a place called *Shotover*. It is so set down because the people call it *Shotover*. Its original name is supposed to have been *Chateau vert*. Yet surely the surveyors were right in setting down the popular name. Again, on Dartmoor is a mountain called on the Survey maps *Hamilton Down*. The people call it *Hamildon*, or *Hamilton*, and so misled the surveyors, because its real name is *Hamil dun*, *i.e.*, I believe, the *Black Down*.

As regards Professor Socin's strictures on the etymologies proposed by Professor Palmer, the identifications proposed by Captain Conder or M. Ganneau, the Hebrew and Arabic of Canon Tristram, or the Tribe boundaries laid down by Mr. Trelawney Saunders, we have nothing at all to say. These gentlemen are, with one exception, quite able to defend themselves against any attacks which may be made on them. As regards that one exception, Professor Palmer's etymologies are on record, as his opinion, and will stand or fall as they are right or wrong, and as the common speech of the Syrian natives becomes better known. In his lifetime there was no better authority on the modern Syrian dialects. Professor Socin, however, raises one other point which commands attention from us. It has been the custom of the Committee to open the pages of its Journal to the free discussion of all points connected with the topography of the Holy Land, routes, itineraries, &c., connected with its history. The Journal has become the recognised—almost the only—organ

for the discussion of these points. It therefore happens that a great many pages may be devoted to the site, say, of Emmaus. This practice, Professor Socin points out, may lead to the general adoption of a wrong theory, or at all events of sites and routes which do not commend themselves to many scholars and students. This may possibly happen. But the best way to prevent it from happening is for every opinion to be represented. The *Quarterly Statement* is read by Palestine students over the whole world. If this is borne in mind by Professor Socin, he may himself perhaps be minded to prevent the spread of what he considers error.

The *work* of the Society, properly so-called—all that the Committee are called upon to defend—is the mass of *facts* which it has been able to amass and is still amassing. A practically impregnable map, for instance; an immense Name List, which may be added to and even revised: great discoveries in Jerusalem and elsewhere: a Geological Survey, not yet published: thousands of ruins sketched and surveyed,—this constitutes the work that has been done. But theories, etymologies, illustrations, tribe boundaries, and speculation generally do not constitute the work of the Society, and must not be criticised under that name.

W. B.

NEW DISCOVERIES IN JERUSALEM.

BY SELAH MERRILL, D.D., LL.D.

DURING the past two or three months some very interesting tombs have been discovered in the western slope of the hill above Jeremiah's Grotto. As these appear to have direct connection with the church in that vicinity described by Captain Conder and Lieutenant Mantell in the *Quarterly Statement* for April, 1882, pp. 116-120, and further described by myself in the *Quarterly Statement* for October, 1883, pp. 238-242, the reader is referred to those two articles for the previous history of excavations in this quarter.

On page 241 (as above) I stated that the ruins appeared to extend under ground to the south-east and east of the point where the Mosaic floor (see page 239) was found, and spoke of the desirableness of the work of excavation being extended in those directions. During the past year (1884) this work has been done to a certain degree, and my supposition has been confirmed by the new facts disclosed.

There was found a short distance south-east of the Mosaic floor, the threshold of a door. This was 8 feet long and 4 feet above the level of the Mosaic floor, and may have belonged to a later structure, unless it was a window in the older structure, which does not seem possible. Its size and the work upon it give the impression that it formed an important part of some large building.

The watercourse described on page 239 was found to extend much farther to the east, and in fact it disappears again in the mass of rubbish beyond the limit of the excavations in that direction. Before it disappears it turns by nearly a right angle to the south, and at the angle there is a large basin, or rather a small reservoir, still quite perfect.

Some 30 feet east of the Mosaic floor, and beyond a thick wall which belonged to the later structure, the base of a column, in position, was found, and this, I should judge, evidently formed a part of the older of the two churches which I have described.

Just north of the point where this base of a column was found, the large roof of a later structure has fallen in, and above the centre of its arch, which in the collapse of the building was inverted, the *débris* is fully 10 feet deep. This ruined building, whatever it was, now forms part of the mound which has yet to a large extent to be excavated.

Twenty feet south-east of this base of a column a deep channel or passage was found to have been cut in the solid rock, apparently coming from the north, and turning a right angle towards the east, in both of which directions it is covered by the great mound of *débris* just mentioned. This passage has been followed down 10 or more feet. The rock walls are vertical, and the passage, which is uniform in width, is 2 feet wide. The rubbish or mound above the surface of the rock is 10 to 15 feet in depth. It will be very interesting to learn the object of this deep channel, and where it leads to. It will be understood that as the bottom of the channel has not yet been reached, I report only the depth to which the clearing has already extended. Perhaps I ought to say that excavations in this particular part of the ruin were suspended nearly a year ago.

Among other things brought to light is a section of a column 15 feet long, 33 inches in diameter, and of the same character as those described on page 241.

The distance from the Mosaic floor to the place where the newly discovered tombs are found is about 60 yards in a south-east direction. They were really discovered by accident. To enclose this large plot of ground, and thus separate it from the road leading up the Jeremiah-Grotto Hill, a high wall was built, and in digging for a foundation for this the workmen dug into the tombs in question. In fact, where the wall passes over them they are very near the surface of the ground, although the *débris* on their west side was 10 feet deep.

The five accompanying plans will give a pretty correct idea of the character of these tombs.

Figure No. 1 is a ground plan of the tombs, of which there are two storeys. The lower storey was covered partly by a roof and partly by the side tombs being cut under the overlying rock.

Figure No. 2 is a ground plan of the lower storey of tombs.

Figure No. 3 shows the vertical wall at the west end of the lower storey of tombs, and how the roof was fitted into the rock.

Figure No. 4 shows the form of the separate rooms, a side, the top, and the front of one of the rooms being removed for that purpose.

Figure No. 5 shows a curious device found in one or more of the tombs (but not in all), namely, a kind of wreath in relief where the head would naturally be placed. Singularly enough, in tomb No. 7 they are found both at the head and the foot. The tombs being of such unusual size it is possible that two bodies were laid on one side, or bench.

GROUND PLAN OF ROCK-CUT TOMBS RECENTLY DISCOVERED

ON THE SKULL HILL, JERUSALEM.

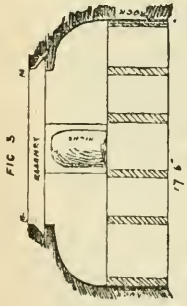
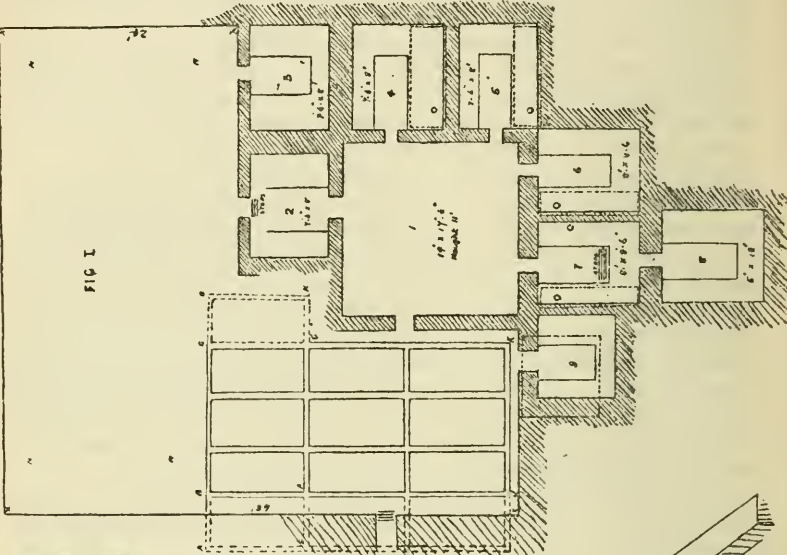


FIG. I



GROUND PLAN OF LOWER STOREY

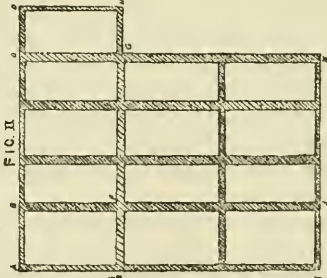


FIG. 5.

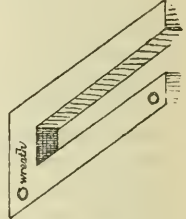
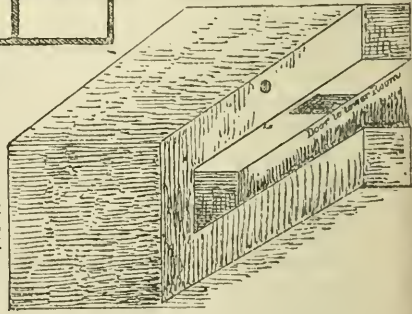


FIG. 4.



Room No. 1, Fig. I, seems to have been a large hall or chapel from which the rooms surrounding it led off in different directions. These are numbered from 1 to 9, Fig. I. Underneath these, or portions of them, are other rooms, represented by dotted lines, which are not numbered. The floors of the different rooms are all on a level with the floor of the chapel, with the exception of 2, which is not certain, and No. 8. A person would leave room No. 1, enter the door of room No. 7, and after a few feet ascend four steps and enter room No. 8, which is on a higher level than the others. Room No. 8 is the largest of all the rooms surrounding No. 1, or the chapel.

Between rooms No. 3 and 4 there was a hole or passage, but it seems to have been caused by a subsequent breaking away of the rock rather than to have been a doorway in the original structure.

Underneath a portion of the structure there was a vault for thirteen bodies or sarcophagi, represented in Fig. I, partly by solid and partly by dotted lines, and marked by the letters *A, B, C, D, E, F, G, H, I, J, K*. This vault was so constructed that the portion *B, C, J, K*, was roofed over (*MM*, Fig. 3), while the parts *A, B, I, J*, and *C, D, G, H*, were cut under the rock as seen on the right and left in Fig. 3. These thirteen graves were arranged in three rows, five in the western row and four in each of the two others. On the right hand side (see Fig. II and Fig. 3), only one tomb, *C, D, G, H*, was cut under the rock. The reason doubtless was that the designers did not wish to weaken the walls and floor of room No. 1, Fig. I. The roof stones over *B, C, J, K* (Fig. i), were nicely fitted into the rock as seen in Fig. 3.

At *L* there was a large door, 3 feet wide and 6 feet high, with steps leading from the outside down upon the roof (*MM*, Fig. 3) over the vault *B, C, J, K*, Fig. I: This roof was on a level with the floor of room No. 1, Fig. I. The door at *L*, and that of room No. 1, were nearly opposite to each other. The roof over the vault being now broken in, we cannot say how one descended to it. This roof was 6 feet or $6\frac{1}{2}$ feet above the floor of the vault.

In the vertical wall of the western end of the vault (Fig. 3), over the middle place or receptacle, there is a niche, and a corresponding niche in the eastern wall. These niches were directly opposite to each other, but there being only four receptacles in the eastern row, the niche in the eastern wall must of course have one receptacle on one side of it and two receptacles on the other side.

The south wall of room No. 2 has been broken away, but being so much above the level of the vault, neither the roof of that nor any portion of *C, D, G, H* were in any manner affected by it.

The large space on the west, *N, N, N, N*, appears like the bed of a quarry, the general level of which being the same as that of the roof over the vault. This bed slopes considerably, however, towards the south-west. The *débris* over this portion was 10 feet deep, and sloped upwards towards the hill above Jeremiah's Grotto. These tombs were excavated in the western or north-western slope of the Jeremiah-Grotto Hill, and the road by which one ordinarily ascends this hill passes over rooms No. 6, 7, and 8, Fig. I.

Underneath rooms No. 4, 5, 6, 7, and 9, Fig. I, smaller rooms are shown by dotted lines. That under room No. 9 is different in shape from the rest, and not quite perfect. With this exception these rooms are 4 feet wide, 3 feet high, and of the same length as the rooms above them. They are in each case on the right hand of the person entering the rooms. They were entered by doors $2\frac{1}{2}$ feet high, and of nearly the same width, cut in the vertical walls of the benches above them (Fig. 4). In the benches above the small rooms there was in each case a large hole marked by a circle in rooms Nos. 4, 5, 6, and 7, Fig. I. The actual arrangement is best seen in Fig. 4, which shows the interior of one of these rooms, the top, one side, and the front being removed so that the three benches for bodies or sarcophagi can be seen, also the passage into the room, the door in the vertical wall of the bench at the right hand leading to the small room and the hole in the bench above the small room. Room No. 7 has two such holes. (For what were these holes designed?—for ventilation? The Arabs say that they were made so that the dead could speak to each other.)

The walls in all the rooms are vertical, and the ceilings horizontal. This remark is intended to imply that there are no arches lengthways of the rooms, as are found in some tombs, over the benches where the bodies or sarcophagi were placed.

Room No. 8, Fig. I, is noticeable by its size, being larger than any of the others surrounding the chapel. I have explained above that it is on a higher level than the others. Moreover, the places for bodies in front and on the right and left hand were not benches as in the case of the other rooms (see Fig. 4), but open boxes like very large sarcophagi. The lids had been removed, whether by the present workmen or in former times I cannot say. Sarcophagi with their own proper lids may have been placed in these stone boxes.

It is reported that crosses have been found, but I saw none, and none were pointed out to me. Likewise, that inscriptions were found in connection with the broken sarcophagi. These had been removed and taken out of the country (so I was told). It may be, however, that, if they really existed, they were simply concealed in Jerusalem, and jealously guarded by the Latins to whom the place now belongs. I may say in passing that my visits, I felt, were looked upon with suspicion, hence I made my observations as quickly as possible and withdrew so as to avoid giving offence.

Great quantities of bones were found and carefully preserved in boxes. They may hereafter serve some priestly or churchly purpose when the place and time have been prepared for their use.

In the middle receptacle of the western row of graves, over which I have said that there existed a niche, there is a part, perhaps one-half, of a sarcophagus still remaining, and it may be that sarcophagi were placed in all these thirteen receptacles. Perhaps it will be understood without my saying it that what I have called receptacles are sunk in the solid rock.

Owing to a fact which I have alluded to above, my measurements were not minutely exact, but sufficiently so, I trust, for all practical purposes, and I will give some of them in detail. Room No. 1, which I have called a chapel,

is 14 feet by 17 feet 6 inches, and 11 feet high. Room No. 2 is broken, and the same is true of room No. 3, but the latter was 7 feet 6 inches by 8 feet. There was here also, as in some of the other rooms, the small room under the right hand bench. This I have indicated by dotted lines because the room was not absolutely perfect. Its construction, however, was like the others. Rooms No. 4 and 5 were each 7 feet 6 inches by 8 feet, and 6 feet high. Rooms No. 6 and 7 were a little larger, being 8 feet by 8 feet 6 inches, and 8 feet high. Room No. 8 was 8 feet by 10 feet, and 9 feet high, being, as I have said, the most spacious of all those surrounding the chapel. The doors of these different rooms were 6 feet high and about 3 feet wide. The width from wall to wall across the western row of receptacles (see Fig. 3) was 17 feet 6 inches. The entire length of the three rows of receptacles I did not get. The distance from the broken western wall of room No. 3 to the western side of the space marked *N, N, N, N*, is 24 feet, and that from the north to the south side of the same space is 48 feet.

Since the 1st of July of the present year the work of clearing away the rubbish has ceased, and forty or fifty workmen have been busily employed in erecting some sort of a chapel or church over the entire space marked in the plan. My plan, however, is of the ruin as I saw it before the building was commenced. Some parts will necessarily be walled in, but doubtless the idea is to preserve the tombs intact as far as possible.

It may be that some of those who read this article will have seen the model of the Golgotha Hill prepared by General Gordon, and if so they will be interested to know that the tomb represented on the side of that model is only ten yards distant from room No. 8 in my plan. Otherwise the tombs have no apparent connection.

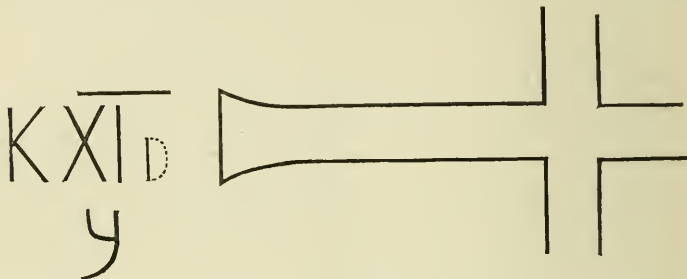
These newly discovered tombs appear to be Christian and not Jewish. It is well known that after the reputed discovery of the body of St. Stephen a magnificent church was erected to his memory by the Empress Eudocia, the wife of Theodosius the younger. The church was dedicated in A.D. 460, and the Empress herself was buried in it. This church was on the north of the city not far from the present Damascus Gate, which for ten centuries subsequent to this event bore the name of St. Peter's Gate. The church was built on the supposed place of the martyrdom of St. Stephen.

Jerusalem, August 18th, 1885.

POSTSCRIPT.

Since excavations in this particular quarter are assuming, as will be seen by the foregoing article, special importance, I would like to add a note to my description of the two churches which appeared in the *Quarterly Statement* for October, 1883; for the reason that on page 240 a singular mistake has somehow been made. It is in connection with the inscription which I found in the tomb near the Mosaic floor. As printed, two horizontal bars appear before, that is, on the left hand of the inscription, which I certainly did not place there. Two lines below the inscription I wrote: "extends from the 'X' to the small character at the end;" and instead

of inserting the letter or character "X," the printer has substituted the word "cross," which makes a bad mess with the sense I intended to convey. To set matters right it will be necessary to reproduce the inscription and the left hand bar of the cross as follows. It will be understood that the large cross was on the right hand of the inscription to one facing it.



NOTES BY CAPTAIN CONDER.

I HAVE just got the *Quarterly Statement* for July, and though very busy with boundary and land questions here, I should like to send you a note or two. It is a valuable number, and I am only sorry not to have seen the two preceding.

On page 154 I should like to say that though the proposed sites for Golan and Alema are possible, the suggestion of 'Arkûb er Rahwah for Argob is inadmissible. It has only the B and the R in common, and 'Arkûb is the common word for a "ridge." The Arabic for Argob would be Arjib or Rujib, and such places as Kefr Arjib and the northern Rujib are more suitable. Argob was, however, east of Golan to the best of my remembrance.

On page 159, I think the hot springs near Pella were probably some of those further north at Gadara. The whole of the paper by Mr. Guy le Strange is most interesting. Perhaps he may have noticed whether there are any mason's marks on the masonry at Kala't er Rubud, which would settle the Crusading origin which I always attributed to this castle, which I have only seen in the distance, but which Mr. Tyrwhitt Drake visited and considered Crusading.

Page 183.—The so-called altar at Zorah resembles many rock cuttings familiar to explorers in Palestine, which result from the quarrying of stone. Manoah would hardly have used an altar of cut stone.

Page 184.—The objection as to En Rogel raises the question of the dates and authorship of Old Testament books, which is evidently not one to be discussed in the *Quarterly Statement*.

Page 181.—Mr. Drake and I, in 1873, found what we took to be an overturned Dolmen in Judea, near the village of Jeb'a (Gibeah of

Benjamin), and I have noticed possible traces of others in "Heh and Moab."




I find some difficulty in bridging the gap which seems to me to occur so often in Mr. Birch's arguments between the proposition and the "therefore." He says I am wrong in saying that later kings built a wall round Ophel, but I think the Bible mentions these kings by name. He says he has proved Hinnom to be the Kedron, but if he has done so to his own satisfaction, he has not convinced other writers. Mr. Birch seems to me to forget how often he has changed his own views when he is severe on others for inconsistency. He might, perhaps, not think it worth while to read what I have recently said on the controversies, in the Jerusalem volume, and in my Primer of Bible Geography. At any rate, Mr. Birch admits the impossibility of confining ancient Jerusalem to the small area on Ophel, and if he agrees that David and Solomon walled in the Upper City, his views as to the limitation of the words Zion and City of David are of secondary importance. I hold Zion to be the poetical name of Jerusalem, and the City of David to be the Jerusalem of David's time. All I am really interested in is the defeat of a new heresy which seems to me mischievous and absurd, namely, that the Jerusalem of David and Ezra was confined to the narrow ridge south of the Temple. Such an idea cannot be reconciled with the Book of Ezra, or with earlier biblical books, and represents the *reductio ad absurdum* of Jerusalem controversy.







C. R. CONDER, *Captain R.E.*

Taungs, Bechuanaland,
August 18th, 1885.

NOTES.

I. THROUGH the kindness of Professor Maspero I am able to correct one point in my note (*Quarterly Statement*, 1885, p. 108) on the identification of the important point Berothah or Berothai, on the northern frontier of David's kingdom.

The name of the place No. 141 in the Karnak List, as given by M. Golenischeff in his corrected readings (*Zeit. f. Aeg. Spr.*, 1882, p. 145 and plate) is imperfect in its first hieroglyphic sign, which appeared to me to be  = *b*. But M. Maspero has since read it on the pylon at Karnak as , *i.e.*, , so that the name is not Buresu, but Zuresu. This, however, does not affect my proposal to identify Berothah with Brisa in the wady where M. Pognon found the rock-inscriptions of Nebuchadrezzar.

II. In my short article in the April *Quarterly* on Exploration in the Nile Delta there are a few insignificant misprints which every reader will correct for himself; but one needs explicit notice. On page 115, for    read   , the last sign being the determinative, a serpent,

HENRY GEORGE TOMKINS.

I LAST week forwarded you tracings of plan of the recently discovered Zorah altar. That it is "strongly suggestive" of the passage Judges xiii, 19, 20, is undeniable.

I would now merely call attention to the fact that "the great stone of Abel," which appears to have marked the limit or boundary between the Beth Shemesh lands and the Philistine territory (1 Sam. vi, 12-19) could not have been far distant. The shrine of Abu Mésar at Ain Shems (Beth Shemesh) is boldly visible from the altar, and about three-quarters of an hour's walk distant (at the furthest) in a south-west direction.

Standing on the hill-sides close to Zorah, with the altar and Ain Shems in full view, the two old narratives seem to assume new and living proportions, and blend and dovetail wonderfully at the spot where stands the lately found sacrificial monument.

In conclusion, I would mention that the German Exploration Society have excavated the altar, the total height of which is 2 metres. I believe that excavations are still being carried on at Artouf for the same Society.

J. E. HANAUER.

A FEW weeks ago I had to survey a part of the interior of *Tiberias*, and found by chance a small column of white marble 1 foot 5 inches long and 9 inches in diameter, which was just dug out in the garden of the Greek convent in the extreme south of the town, and which bears the following Hebrew inscription:—

זאתם צנת א לההם
 ריזאזע נפאֹהנח
 לחתם נזשת קמ א

I am not a Hebrew scholar, but I was told that it bears the date 4148, and was a gravestone.

I have also looked with interest into the large circular vaults which border *Tiberias* from the sea side, and are built close to the city wall of the east and south. They are not built very carefully, but are strong and very spacious. Their building area must be that of this last city wall and fortress. The city wall on the sea side is generally 10 feet 2 inches thick. The new Greek convent will now be built on top of its south-eastern corner, and the partly sunk round corner tower there will be restored.

Haifa, July 31st, 1885.

G. SCHUMACHER.

A NATURALIST'S JOURNEY TO SINAI, PETRA, AND
SOUTH PALESTINE.

BY H. CHICHESTER HART.

CHAPTER I.

INTRODUCTORY.

EARLY in the summer of 1883 my friend Professor Hull, Director of the Geological Survey of Ireland, proposed to me that I should accompany him as a volunteer on a geological and surveying expedition to Sinai and the Dead Sea, of which he was about to take the leadership under the auspices of the Palestine Exploration Society.

With the main object of studying the botany of this region, and as far as possible also other branches of its natural history, I accepted this friendly offer. I was chiefly induced to do so by the assurance I received from Professor Oliver, of Kew, that, whatever our Continental brethren may have accomplished, few British botanists had as yet turned their attention to Sinai. He at the same time promised his valuable assistance in the determination of my specimens upon my return—a promise since fulfilled in a manner which entitles him to my sincerest thanks. Another welcome consideration which helped to determine me was that of a grant of money from the Scientific Fund of the Royal Irish Academy.

I feel bound to take this earliest opportunity of expressing my grateful sense of the courtesy of the Rev. Canon Tristram, the well-known authority on the Natural History of Palestine, who has helped me with his advice before starting, and his scientific assistance since my return. To him the determination of my species of birds, as well as of land and freshwater molluscs, is almost entirely due, and his recent work on the "Fauna and Flora of Western Palestine" has been continually consulted in preparing the present account.

To Dr. Gunther, F.R.S., and to Messrs. Waterhouse and Thomas, of the British Museum, my thanks are due for the naming of other smaller collections of mammals, reptiles, and beetles. Mr. Edgar Smith, of the Conchological Department, has also been good enough to render me as much assistance as his duties would permit in searching for information on the Mollusc-fauna of the Red Sea.

To Mons. Edmond Boissier, the eminent Swiss botanist and author of the invaluable "Flora Orientalis," I desire to tender my warmest acknowledgments. He has very kindly determined for me some of the more intricate genera, which his unrivalled knowledge and extensive Oriental herbarium enable him to deal with satisfactorily. Of Mons. Boissier's "Flora Orientalis" I have constantly availed myself in dealing with the flora of Sinai. Botanists whose inclinations turn, as mine do, to the geographical distribution of plants will find this work, which is now complete, a perfect storehouse of information.

Reference must here be made to the Ordnance Survey of Sinai, published in 1869, where much valuable information on the physical features and natural history of the Peninsula will be found, especially in the appendices by Mr. Wyatt. An interesting paper by Mr. Lowne, on the Flora of Sinai, in the Journal of the Linnean Society for 1865, may also be referred to; his nomenclature, however, differs widely from that at present adopted. There is little other botanical literature available; Decaisne's *Florula Sinaitica*, published in the "Annales des Sciences Naturelles" in 1836, in which many new species are described, is difficult to obtain separately; it is, however, very valuable, but the collections of Schimper and others, distributed throughout the herbaria of Europe, and duly recorded in Boissier's "Flora Orientalis," have nearly doubled Decaisne's original total.

I desire also to express my gratitude to Mr. A. G. More, the well-known naturalist in charge of the Natural History Department of the Museum of Science and Art in Dublin, who has been always most good-natured in rendering me advice and assistance as far as lay in his power.

I must not omit to acknowledge the judicious and kindly guidance by which (with the assistance of our most efficient interpreter and conductor, Bernard Heilpern) Professor Hull brought our travels to a safe conclusion. In a volume recently published by the Society, Professor Hull has given the public an account of our experiences, and to it, and its Appendix by Major Kitchener, the reader may turn for fuller geological, geographical, and other information relative to our explorations. To the other members of our party, for their continual kindness in obtaining specimens for me, I shall feel for ever grateful.

In these pages, which owe their appearance to the liberality of the same Society, I propose in the first place to give a running account of the collections made in the order in which they were gathered, with such extracts from my journal as may serve to illustrate them. Afterwards I will enumerate in detail the various species which I have identified, and conclude with an endeavour to give a full account and analysis of the Flora of Sinai, or rather of the Sinaitic peninsula of Arabia Petræa.

For the systematic list of plants, with their localities, I refer my readers to the Transactions of the Royal Irish Academy, where descriptions of the new species with figures will be found. The specimens themselves are in the Herbaria of Kew and the British Museum.

CHAPTER II.

AIN MUSA TO WĀDY LEBWEH.

HAVING left Suez on Saturday, November 10th, 1883, we took up our quarters till Monday at Ain Musa, the usual starting place for Sinai. A description of the gardens here, with the introduced plants found about them, has been given by Mons. Barbey, in his recent volume "Herborisations au Levant," who visited them at a more auspicious season. His tour did not elsewhere cover the ground we visited till reaching Bir es Seba.

At Ain Musa my hopes fell to a low ebb. With the exception of a couple of showy flowering shrubs (*Lantana camera* Linn., and *Cassia bicapsularis* Linn.) in the gardens of date palm, bounded by prickly pear, there appeared to be hardly a vestige of unwithered vegetable life. Closer inspection, however, yielded dead flowers and ripe seed capsules of several species, all of which were carefully preserved for comparison with subsequent gatherings. One species, *Ceratophyllum demersum* L., found drifting in the gulf, and probably derived from the canal, was not met with again. A prostrate prickly grass in the sandy stony flat between the wells (*Ain Musa*) of Moses and the gulf has been named for me by Mons. Boissier, *Sporobolus spicatus* Vahl.

In these enclosures, and around their edges, were bushes of tamarisks and "ghurkūd," *Tamarix nilotica* Ehr., *T. articulata* Vahl. (?), and *Nitraria tridentata* Desf. The latter is a prickly, fleshy-leaved shrub with small orange berries, greedily eaten by camels. It belongs to the "bean-caper" family (Zygophyllaceæ), well represented in the desert.

From one of the wells numerous univalves, all of one species, *Melania tuberculata* Mull., were obtained. The net produced nothing else except the larvæ of a gnat. A chameleon (*Chamæleo vulgaris* Linn.) and a small very nimble brown lizard (*Eremias gutto-lineata*) were captured close by. The former was pointed out to me by a Bedouin on a stunted palm-tree, else I should assuredly have passed it by, so closely did it resemble the branch along which it clung.

The chief attraction at this oasis was in the birds, of which several species were obtained. Amongst these were the white wagtail and the willow-wren (*Motacilla alba* Linn., and *Phylloscopus rufus* Bechst). A buff-backed heron, *Ardeola russata* Wagl., was seen but not shot: this is the bird which does duty for the "white ibis" amongst visitors. A little cock-tailed warbler with a song and habit of a wren, *Drymoeca inquieta* Rupp, as well as the blue-throated robin, *Cyanecula cyaneoculus* Pall. (the one with the entire blue throat), was shot here.

Across the sand to the shores of the gulf many kinds of sea shell were gathered. A detailed account of these, as well as of those obtained at Akaba, will be given later on. Few specimens worth preserving were met with, but they were for the most part identifiable. At the water's edge a stork gave me a long shot, and several dunlins were flying about.

At evening the air was filled with the attractive notes of species of cicada, and the quaint call of an owl (*Athene meridionalis* Risso.), the "boomey" of the Arabs, was for the first time heard.

Insect life was almost suspended, but a few small beetles (*Adesmia*, *Acis*), ants (*Cumponotus*), and a spider or two, as well as a torpid scorpion, were captured about here, and between this and Wâdy Nusb.

Excepting at wells, met with at rare intervals, life of all kinds was very scarce in this lower desert portion of Sinai. The appearance of a bird within a quarter of a mile in these wastes was a signal for a general call to arms amongst the gunners, and the gurgling sound of the Bedouin camel-driver summoned his obstinate beast to kneel and let

his rider dismount and stalk a distant Egyptian vulture or a raven. These two birds, *Neophron percnopterus* Linn. and *Corvus umbrinus* Hedenb., were frequently in sight, but rarely in range.

After a day or two, when my Bedouin lad, Khalil, had discovered which of us two was master, I generally travelled on foot, letting my camel-driver keep me in view till wanted. For this interesting and faithful son of the desert I conceived a great liking. This feeling towards the Arabs is very frequently indulged in by inexperienced travellers in the East.

As fast as I made gatherings, I was able to deposit them on the back of my admirable beast of burthen. For this purpose I had two sets of camel bags and drying boards, as well as multifarious swinging gear; guns, spy-glass, water-bottle, shoulder-bag, spirit cylinder, portfolios, insect box, *et hoc genus omne*.

The country traversed was of gravel and sand, with occasional outcrops of limestone. This limestone sand is sometimes finely and regularly granulated, as near Wâdy Sudr, a condition not observed by us in other parts of Sinai. The view of the Jebel Rahah mountains across the Gulf of Suez was superb.

Our direction lay nearly parallel to this arm of the Red Sea, gradually widening the distance between us and the coast-line. The sky was of a brilliant blue, and the temperature rarely hot enough to make walking disagreeable. The following plants were observed in Wâdy Sudr:—*Zilla myagroïdes* Desf., *Retama retam* Forsk., *Alhagi maurorum* D.C., *Acacia Seyal* Del., *Deverra tortuosa* Gaertn., *Anabasis articulata* Forsk., *Reaumuria vernicularis* Linn. (*R. palestina* Boiss.), *Fagonia cretica* Linn., var. *glutinosa* et vars., *Erodium glaucophyllum* Ait., *Citrullus colocynthis* Lehr., *Artemisia judaica* Linn., *Odontospermum graveolens* S. Bip., *Gymnocarpus fruticosus* Pers., *Paronychia desertorum* Boiss., *Ærua javanica* Juss., *Heliotropium luteum* Poir., *Aristida obtusa* Del. Most of these are strictly desert species of continual occurrence in the lower parts of the peninsula, and will seldom again be referred to. In Wâdy Sudr *Farsetia ægyptiaca* Turr. and *Anabasis setifera* Moq. were also obtained.

The *Citrullus* bore its ripe fruit, orange-coloured and about the size of a billiard ball, trailing on the gravel and sand in many places.¹ The felted *Ærua* was laden with tassels of wool, the remains of its withered inflorescence; the variety, with narrower leaves and more rigid habit,

¹ The Arabs use this species (the colocynth) as a purgative. A fruit is split into halves, the seeds scooped out, and the two cavities filled with milk; after allowing it to stand for some time, the liquid, which has absorbed some of the active principle of the plant, is drunk off. I refer my readers for further valuable information of this nature to an article in the *British Medical Journal* of April 11, 1885, by my friend and companion, Dr. Gordon Hull. I trust he will forgive me for correcting an error into which I unfortunately led him. The plant which he speaks of "with short succulent jointed segments" as being very common and used for sore eyes is not *Zygophyllum* but *Anabasis* (*Salsola*) *articulata*.

occurred later on. *Acacia Seyal* was a revelation of spinousness whose branches even the camel can only nibble with care. It is a low flat-topped bush, often only 4 or 5 feet high, but with a trunk of considerable thickness.

A *Matthiola*, probably *M. arabica Boiss.*, occurred, and a large cabbage-leaved sticky *Hyoscyamus*, *H. muticus Linn.*, with showy yellow and purple veined flowers, was pointed out to me as the "Sekkaran" which the Arabs are said to inhale in their narghills as an intoxicant.

The pretty little woolly *Reaumuria*, with its densely imbricated leaves, was, after much searching, found in blow at last. A wiry, nearly leafless *Deverra* was in full flower and seed, with a strong but not unpleasant smell of fennel.

The marked characteristics of these desert plants soon become familiar, they have usually a whitened appearance, which was perhaps somewhat heightened at the season of my visit. This is due to woolliness, or scalliness, or some other colouring integument, and is frequently accompanied by heavy odours, succulent or glaucous foliage. Spines, prickles, hooked or clinging hairs are also characteristic, and the whole plant is not unfrequently found to be steeped in a strong viscid exudation. Noteworthy instances of the above peculiarities will be given farther on.

Of the Sinaitic mountains, no part was as yet visible; we were however gradually rising above sea-level, and with the cooler atmosphere there was a steady increase also in the quantity of vegetation. A very fragrant bushy *Artemisia*, *A. santolina Linn.*, had become frequent, and is subsequently one of the most characteristic plants of the flat wâdies.

In Wâdy Sudr *Cleome arabica Linn.*, *Pennisetum dichotomum Del.*, and *Elyonurus hirsutus Vahl.* were secured in good condition, except the latter grass, which is so closely eaten by camels that it is hard to obtain good specimens.

Anabasis articulata Forsk. is a prevalent low-sized species; its dried twigs are always topped by a few scales, the remains of the floral envelopes. These are occasionally a showy red or claret colour, and give a brilliant effect, sometimes equalling that of red heather at a distance. It is perhaps the commonest species throughout Sinai; *Gymnocarpum fruticosum Forsk.*, however, is nearly as abundant. The *Anabasis*, whose slenderer twigs are, I believe, all lost and withered at this season, accumulates round its roots blown hillocks of sand a couple of feet high, favourite hiding places for lizards, and burrowing ground for ants and the smaller rodents. The Bedonins called this plant "Erimth."

The vegetation is scattered in tufts amongst the sand and gravel; except in the occasionally moistened wâdy beds these tufts are usually isolated and often far apart.

On the 13th, at about 350 feet above sea-level, we entered a bed of chalk intermixed with white marls strewn with chert, fossils, and selenite. We reached Ghurundel by moonlight. Tamarisks and palms (*Tamarix nilotica Pall.*, *Phoenix dactylifera Linn.*) form here a pleasant grove; Zilla, Nitraria, and most of the species above mentioned, are plentiful.

At Wâdy Ghurundel ("Elîm")¹ I obtained some fresh species of birds. Of these *Saxicola isabellina* Rupp (Menetries' Wheatear) was several times seen and shot. The "Persian lark" (*Certhilauda alaudipes* Desf.) and the striolated bunting (*Emberiza striolata* Licht.) were obtained, only single specimens being as yet seen and secured of each. Ravens and willow-wrens tenanted this wâdy.

The first large quadruped's tracks were pointed out by the Arabs; they exclaimed "dhaba"—that is to say, "hyæna."

Another lizard, *Agama ruderala* Riv., and a skink, *Sphænopis capistratus* Wagl., were captured here. The latter I found on kicking to pieces an ant-hill, the home of a species of Camponotus, *C. pubescens*. This lizard was afterwards very common throughout Sinai to the Dead Sea. He was easy to catch, and his comical habit of standing at bay with his tail cocked and his disproportionately large jaws wide open was instructive; no doubt it terrified troops of smaller foes. Like most true natives of the desert he was sand-coloured, though the tail has some dull blackish rings. Another lizard, *Eremias guttata*, was most difficult to catch; by pelting him with handfuls of sand, which confuses and stops his movements for an instant, combined with a sudden rush, it may be done.

The rock here is a white cretaceous limestone. The bed of the wâdy is cut deeply into marly deposits, leaving sheer mud-banks sometimes 8 feet high. The bed of this periodic stream was now perfectly dry. From the appearance of these deposits, and those in other places, Professor Hull considered there was evidence of a much greater rainfall in recent times.

On the tamarisk branches a curious buff-coloured chrysalis-like appendage was frequently observed. It was about the consistency of tough paper half an inch long, but more brittle, and proved to be the egg case of a species of Mantis. A large black beetle, *Prionotheca coronata* Oliv., was the only large insect found in Wâdy Ghurundel.

Several plants were here first met with; the most conspicuous were a shrubby mignonette, *Ochradenus baccatus* Del., thenceforward characteristic of the lower desert wâdies, and sometimes, where protected by acacia trees from camels, 6 or 8 feet high.

Here or nearer to Wâdy Useit I noticed for the first time a second species of acacia, *A. tortilis* Hayne, less spiny and usually larger and more upright than *A. Seyal* L. I met only these two acacias in the peninsula, but I found a third and much finer one (*A. leta* R. Br.) at the south end of the Dead Sea. *A. nilotica* Del. also occurs in Sinai. *A. tortilis* is commoner in the Arabah than elsewhere.

Other species were—*Cucumis prophetarum* Linn., *Polycarpæa fragilis* Del., *P. postrata* Dene., *Zygophyllum album* Linn., *Fagonia cretica* Linn.,

¹ This wâdy must not be confounded with others of the same name in Sinai and Edom. A notable instance of confusion occurs in the ninth chapter of the English translation of Laborde's "Arabia Petraea," 1836, where the translator quotes several pages of description of the present wâdy from Burckhardt, to illustrate Laborde's short and correct mention of Wâdy Ghurundel near Petra.

var. *arabica*, *Lithospermum callosum* Linn., *Cressa cretica* Linn., *Euphorbia cornuta* Pers., *Juncus maritimus* Linn., β *arabicus*, *Typha angustata* B. & C., *Cynodon dactylon* Pers., *Phragmites communis* Linn., var. *gigantea*. This latter species, which reaches a height of 10 or 12 feet with its erect plume of floescence, is a truly handsome grass. It appears to have frequently done duty for *Arundo Donax* L. in Sinai.

Many withered Chenopods occurred here, the identifiable species being *Suaeda vermiculata* Forsk., *Atriplex leucoclada* Boiss., *A. halimus* Linn., *Anabasis setifera* Moq., and *A. (Salsola) articulata* Forsk. At Wady Useit occurred a little grove of date palms, some of them at least 40 feet high. There is only one other species, the doum palm (*Hyphæne thebaica* Del.), in Sinai. It occurs near Akaba and at Tor.

From about Wady Saal small burrows, from the size of a small rabbit-hole to the little perforation of a species of ant, *Cumponotus compressa* Fab., become numerous. These belong chiefly to species of *Acomys*, *Gerbillus* and *Psammomys*, but it was some time before I succeeded in capturing any of these animals. On several occasions I saw individuals of the Gerbille genus of sand-rats. These animals usually burrowed in the sand-hills accumulated about the stumps of anabasis and tamarisk; their abundance here was as nothing compared with their numbers in the Wady Arabah later on. Jerboas were not seen in Sinai.

At night in the dinner tent our lights usually attract a few nocturnal insects, which I capture from time to time.

A hornet, *Vespa orientalis* Linn., is the only insect frequently to be seen in the day-time. Nature rests herself in the desert almost as thoroughly as in an Arctic winter; in the latter case she sleeps during an excessive cold, in the former she exhausts her strength during an extreme heat. Nevertheless many late flowering plants still occasionally hold their petals and it will not be many days ere we gather the first harbingers of spring. Possibly these latter should be called hybernal. A few species, as *Cleome arabica* Linn., are in their prime at present for examination, being in full flower and fruit. This *Cleome* is one of the most viscid plants met with, taking many weeks to dry, and never shaking off the adhering sand. It has small deep purple flowers and longish pods.

A black snake, probably *Zamenis atrovirens* Shaw, var. *carbonarius*, was killed here, but I was informed it was last seen with the cook. Whether it subsequently passed under examination in the dinner tent I cannot say, but I never succeeded in identifying it.

Desert larks representing three genera have been obtained; one of these, *Certhilauda*, has been already mentioned. Other two, *Ammodramus deserti* Licht., and *Alauda isabellina* Bonap., were also shot. The latter is one of the most frequently met with of the true inhabitants of the desert. The Persian lark (*Certhilauda desertorum* Rupt.), a bird about the size of our song-thrush, has a low sweet song, uttered while on the ground, and not much stronger than or unlike our robin's winter warble. A large and handsome black and white chat (*Saxicola monacha* Temm.) was shot in Wady Humr. Tracks of gazelles were here first observed.

At Wâdy Humr we are crossing beds of a highly coloured red sandstone, which has replaced the white and black weathered limestone. The black and white chats are more conspicuous amongst these rocks; when at rest on a chalky surface dotted with fragments of chert these birds are not quickly seen. The desert larks are, however, the most securely assimilated to the soil. The females of some chats (*e.g.*, *S. monacha*) are more protectively coloured than the males.

The sandstone which we are now traversing is the regular inscription rock of the desert, on which the Bedouins of all ages have delighted to air their calligraphy, and not unfrequently impose upon travellers with their rude tribe-marks.

Our direction is mainly south-east, and steadily rising. At the head of Wâdy Humr, about 1,300 feet above the sea-level, we obtained our first view of the Sinaitic mountains. Jebel Serbal stood out, grand and rugged, straight ahead of us, looking about one-half of his real distance from us, so excessively clear was the atmosphere.

Leyssera capillifolia D.C. was gathered here for the first time, and the favourite camel grass, *Elionurus (Cælorachis) hirsuta* Vahl., was gathered in flower.

Having left Wâdy Humr, and crossed Sarbut el Jemel at a height of about 1,700 feet above sea-level, we came out on a wide sandy plain, Debbet er Ramleh, lying about 1,700 to 1,850 feet above sea-level. This is the largest expanse of sand in Sinai, and covers about thirty square miles. Some very interesting species were gathered here. The two species of *Polycarpæa* already mentioned, with the *Cleome*, abound.

Setzenia orientalis Dene., *Glinus lotoides* Linn. (not in flower), *Monsonia nivea* Dene., *Pancratium Sickembergeri* A. & S., *Danthonia Forskahlîi* Linn., *Aristida plumosa* Linn., and *A. obtusa* Del. These were all obtained in flower, and the white and perfect *Pancratium* was at its best. It is a lovely flower, and I secured many bulbs here and elsewhere. No leaves were yet in sight, but in some cases the petals had fallen, and the seed pod was filling, showing that the leaves are certainly not synanthous, though appearing soon after the flowers. Plants of this species now growing with me do not exhibit the remarkable twisting described as characterising their leaves. On this *Pancratium*, which was first discovered by Sickemberger near Cairo, some interesting remarks will be found in Barbey's "Herborisations" already mentioned.¹

The *Aristidæ*, small glaucous grasses with long feathery awns, are amongst the prettiest of desert forms.

At a lower level near this, *Lycium europæum* Linn. was plentiful, and in full flower. It is visited by a small copper butterfly, the first of its family met with, which is poorly represented in this dry region. *Formicidæ* and *Aceridiidæ* (ants and locusts) are perhaps the most abundant insects.

In Wâdy Nusb several fresh species occurred. Unrecognisable fragments awoke my regrets at the season selected from time to time.

¹ "Herborisations au Levant," par C. and W. Barbey (Lausanne, G. Bridel, 1882).

The following were determined :—*Morettia canescens* Boiss., *Astragalus sieberii* D.C., *A. trigonus?* D.C., *Crotalaria aegyptiaca*, Bth., and *Convolvulus lanatus* Vahl.

These Astragals were quite withered, and simply well-rooted bunches of strong sharp spines, 2 to 3 inches long, set closely round a stumpy stem ; the spines being the hardened woody mid-rib of the pinnate leaves. The only evidence of their past condition lay in the slight cicatrices in the spines marking the points of attachment of the fallen leaf-pinnæ. Of the convolvulus, a handsome, erect, shrubby, felted species, with good-sized reddish-purple petals, I obtained a couple of flowers.

Desert partridges were first heard here, but not yet obtained. Chats and larks appeared to be pairing. A shrike, *Lanius fallax* Finsch., was first seen and shot. Afterwards this became a familiar species. The "desert blackstart," *Cercomela melanura* Temm., another very characteristic and prevalent bird of Sinai, was also first met with and obtained here. The chats were *Saxicola leucopygia* Brehm., and Menetries' wheatear already mentioned. The trumpeter bullfinch, *Erythrospiza githaginea* Licht., was shot here for me by Dr. Hull, who, as well as Mr. Reginald Laurence, brought me specimens from time to time.

In Wâdy Nusb there is a well, and quite a goodly show of acacias, chiefly of the species *A. tortilis* Hayne, which was in flower sometimes, and usually in leaf. The leaf segments of this species are larger and fewer in number than in *A. Seyal* L., the pods are twisted, and the tree attains a greater size. When old it is less and less spiny, while the reverse seems to be the case in *A. Seyal*.

In this wâdy I gathered *Malva rotundifolia* Linn. and *Amarantus sylvestris* Desf. by the well, both probably of human origin. The former is cooked and eaten by the Bedouins. *Lycium europæum* has flowers either white or pinkish-purple. Other species met here first were—*Damia cordata* Br., *Echiochilon fruticosum* Desf., *Lavandula coronopifolia* Poir., *Crotophora obliqua* Vahl. (a perennial form of *C. verbascifolia* Juss.?), and *Zizyphus spina-christi* W. The latter was not native, and occurred in a miserable little enclosure by a Bedouin's hut at the well. It was less thorny than the native species afterwards gathered, and the fruit somewhat larger, but Mr. Oliver refers it to the same plant, no doubt slightly altered and improved by a rough system of cultivation.

As we are gradually increasing our elevation amongst the wâdies derived from the precipitous escarpment of the Tih plateau (4,000 to 5,000 feet), so there are more remains of last summer's vegetation—later in flowering perhaps, and less scorched than the same species below.

Soon after leaving Wâdy Nusb we entered on plutonic formations, a red porphyritic granite, which was thenceforth to accompany us upwards over a large extent of country. The increased quantity of acacias since we left the limestone, and especially on the granite, is noteworthy. Perhaps its ferocious spines require an admixture of silicon.

A locust and a cricket were taken in semi-torpid condition. Scorpions similarly harmless, have been caught from time to time.

A larger species of lizard, with a handsome blue throat and pectoral, was captured, *Agama sinaitica Heyden*. The bright colour was all below, and was no reproach upon the perfect assimilation of its upper parts with the desert sandy hues. This lizard hid himself amongst stones, and it was with difficulty I dislodged him from a hole which he filled with his body and fortified with his distended and savage little jaws.

Having crossed a high ridge of granite, Ras Suwig, at about 2,400 feet above sea-level, from whence Jebel Serbal looked magnificent, we descended into a wâdy which yielded several new plants. *Pancreatium Sickenbergeri* A. & C. was found in flower here also. A small bulb, apparently an *Allium*, was brought to me by some Bedouins, perhaps *A. sinaiticum Boiss*. It is growing now under Mr. Burbidge's care at the College Botanic Gardens, but has not yet flowered. These two bulbs and a *Uropetalum* (*U. erythreum Debb.*) are, I believe, the only ones which support life in this desert. A few others occur, but at sufficient heights, usually very considerable, to bring them into a different zone of plant life.

At the height of 2,200 to 2,400 feet above sea-level the following species appeared:—*Iphiona juniperifolia Coss.*, *Sonchus spinosus Del.*, and a very fetid species, *Ruta tuberculata Forsk.*, was here first obtained with its yellow flowers.

Major Kitchener brought me branches here of the first *Capparis* I had seen, *C. galeata Fresen.*

Lichens of two species at least occurred, one on the bark of acacia, and the other on sandstone.

In Wâdy Khamileh desert partridges, *Caccabis Heyi Temn.*, were frequent, and some were shot. Two desert plants occurred in some quantity, *Lotononis Lebordea Linn.*, and *Pulicaria undulata D.C.*

CHAPTER III.

WADY LEBWEH TO MOUNT SINAI.

Still ascending gradually, up Wâdy Lebweh, from 2,500 to 3,500 feet, many interesting Sinai plants were gathered. Most of these are true desert species, which reach about thus far, but they are mixed with others of an intermediate elevation about corresponding to the Mediterranean flora. From here come *Glaucium arabicum Fres.*, *Caylusea canescens St. Hil.*, *Cleome trinervia Fres.*, *Fagonia myriacantha Boiss.*, *Tribulus terrestris Linn.*, *Peganum harmala Linn.*, *Neurada procumbens Linn.*, *Santolina fragrantissima Forsk.*, *Artemisia herba-alba Asso.*, et var. *laxiflora Sieb.*, *Anarrhinum pubescens Fres.*, *Trichodesma africana R. Br.*, *Heliotropium undulatum Vahl.*, *Gomphocarpus sinicus Boiss.*, *Ballota undulata Fres.*, *Teucrium polium Linn.*, β . *sinicum*, *Stachys affinis Fres.*, *Primula boveana Dene.*, *Acanthodium spicatum Del.*, *Forskahlea tenacissima Linn.*, *Andrachne aspera Spr.*, *Asphodelus fistulosus Linn.* and others, the specimens too bad

to name. The labiates in the above group are characteristic of the middle and upper zones of Sinai.

On the summit of Zibb el Baheir, at 3,890 feet, a point which all travellers should climb for the sake of the really splendid view, *Gypsophil rokejeka* Del., *Helianthemum Lippii* Pers., *Iphionia montana*, and a *Poa*, *P. sinaica* St. (?), were gathered. A *Psoralea* occurs here also, not found in a recognisable state. It may have been *P. plicata* Del.

Of the plants just enumerated several are peculiar to Sinai. Others, believed endemic, I found later on Mount Hor in Edom.

In addition to the above it is to be remembered that the majority of the earlier species met with occur throughout. The chief failures are *Cleome arabica* Linn. and Salsolaceæ (except *Anabasis*), which are mostly confined to the lower plain. The variable but always pretty little *Fagonia* is continually arresting the attention by some new deviation. Sometimes it is glabrous, sometimes viscid, sometimes very leafy, at others a bunch of twigs or thorns, trailing or sub-erect, while the flowers vary much in size. In one form or another it is a very widespread desert form which has received a number of segregational names. The abnormal *Neurada procumbens*, with its curious flat prickly-edged capsule nearly an inch in diameter, was in good condition, but scarce. *Gomphocarpus* was in full flower and fruit; like *Daemia cordata*, already gathered, and now common, it has a sticky, staining, milky juice, very poisonous according to the Bedouins. These two *Asclepiads*, and about five others occurring in Sinai, point to the tropical element in its flora. *Artemisia herba-alba* Asso., in several well-marked forms, is henceforth one of the most abundant and highly aromatic plants.

From Zibb el Baheir, which I ascended with Dr. Hull on Sunday, the 16th November, we had a grand view of the whole mass of Jebel Musa (Mount Sinai) and Jebel Catharine on the south-east, and of Serbal nearer us to the southward. Down Wâdy Berah the foregoing labiates and composites were prevalent in many places. A little further on is a continuous grove of retem bushes, the first bit of almost luxuriant though limited vegetation I had seen except close to the wells. This wâdy, like most others, is flat, and about half a mile wide, with a slight channel wandering from side to side, and marked by a line of grey-green growth, no doubt fresh and delightful after the rain which is almost due.

Hares have been seen once or twice. I saw one here first, a very long-eared and long-legged whitey-grey animal with a little body (*Lepus sinaiticus* Hemp. and Ehr.). He was a perfect fiend to travel; nothing living except a bird ever got out of my sight so quickly. The little southern owl hovered around our camp one or two evenings. A splendid pair of griffon vultures afforded a nearer view here than elsewhere. The Egyptian species is more approachable. Crows and ravens (*C. corax* and *C. umbrinus*) are also tamer in this less frequently traversed route. Indeed the large birds generally seem fully aware of the harmless nature of Cairo powder. The lark, *Alanda isabellina* Bon., is the commonest of the smaller species. White wagtails, *Motacilla alba* Linn., are also very

frequent, continually hopping about our tents and camels quite fearless of man.

The two lizards of the *Agama* genus already mentioned, especially the smaller (*A. ruderata*), are common. I kept some of these alive as far as to Constantinople three months later, but the cold weather there killed the last of them.

The mountains are of red porphyry intersected by numerous dykes of trap. This is surely the proper country for a geologist to come to; no annoying mantles of soil or vegetation conceal the rock masses; all is bare and clear, and a good view reveals as much as a shire full of well-borings and railway cuttings.

The temperature has become much colder, falling to within five or six degrees of freezing point at night, and we find it difficult to keep warm enough in our tents.

Acacia bushes become rare or absent at about 3,500 feet elevation. Acacias may be said to mark the vertical limits of the desert flora, as the date palm does its horizontal geographical distribution. The desert plants which exceed this range upwards will be found to be mostly Mesopotamian or Syrian species, and not confined to that belt which extends from the Cape Verdes to Scinde.

In Wâdy es Sheikh some large tamarisk bushes (*T. nilotica*) occur, about 15 feet in height. This plant has about the same upward limit as that of the acacia. On these tamarisks were two butterflies, one of which, *Pyrameis cardui* Linn., was obtained; the other appeared to be a fritillary (*Argynnis*).

The Wâdy es Sheikh is of considerable length, upwards of twenty miles, running east at first, and then south to the base of the Jebel Musa group. It lies high, 3,000 to 4,000 feet, and the chief plants in it are Artemisia, Santolina, and Zilla, except on the northern sides at the base of whatever shelter from the sun there may be. Here most of the plants lately enumerated occur still. Some appear which are less common, as *Zygophyllum album* Linn., *Nitraria tridentata* Desf., *Alhagi Maurorum* D.C., *Crozophora obliqua* Vahl., *Pancreatium Siekembergeri* A. and S., and the labiates and composites of Wâdies Lebweh and Berah. *Gomphocarpus sinaicus* Boiss. often arrests attention, shedding its beautifully silky tufts of hair, ready to whisk the attached seeds about the peninsular plains with every breath that blows. *Phagnalon nitidum* Fres., *Anabasis setifera* Moq., and *Atriplex leucoclada* Boiss., occurred in Wâdy Solaf, so that the Salso-laceæ only require favourable circumstances to appear in the upper country. In Wâdy Solaf, a smaller arm of the Wâdy Sheikh, remarkable sections of marl deposits, many feet in thickness, were examined. These no doubt represent the bed of a large lake of the recent period cut through by streams which once contained a steady supply. Examination of evidence of this nature will form an interesting portion of Professor Hull's results.

At Jebel Watayeh a fine granitic pass connects the eastern and southern prolongation of Wâdy Sheikh. The summit of this I estimated at 4,150 feet above sea-level. On it I obtained *Dianthus Sinaicus* Boiss., *Buffonia*

multiceps Dene., *Arenaria graveolens* Schreb., *Cratægus sinaica* Boiss., *Cotyledon umbilicus*? Linn., *Poa sinaica*,? St., and most of the species of Zibb el Baheir. The withered *Psoralea* (sp. ?) occurred also. The first two of these are peculiar to Sinai. There was a well-marked difference here in the floras of the north and south side of the peak, the *Cotyledon* and grass occurring only on the north side, while the *Artemisiæ*, *Anabasis*, and other ubiquitous desert species prevailed on the other or southern face.

Laurence caught for me on this craga locust (*Tryxalis unguiculata* Linn.), resembling exactly the withered straw-coloured twigs and sand in which he lived.

Further towards Wâdy Suweiriyyeh grow *Pyrethrum santalinoïdes* D.C., *Centaurea eryngioides* Lam., *Alkanna orientalis* Boiss., *Lithospermum tenuiflorum* Linn., *Suaeda monoïca* Forsk., *Piptatherum multiflorum* Beauv. and of rarer kinds, *Echinops glaberrimus* D.C., *Iphiaona montana* Vahl., *I. juniperifolia* Coss. *Anarrhinum pubescens* Fres., *Primula Boveana* Dene., and *Teucrium sinaicum* Boiss.

It was interesting to notice a form of *Cotyledon umbilicus* Linn., the only apparently native British dicotyledon I met with in Sinai. It has been gathered here previously by Bové, according to Decaisne, who recorded it under the present name. Unfortunately my specimens are in too bad a condition to determine, consisting only of young leaves and a withered stem. The root was tuberous. It is plentiful on Mount Hor, and is not unlikely to be identical with the new form Dr. Schweinfurth gathered on mountains between the Red Sea and the Nile Valley.¹

Retama Retem Forsk. is very common in these high-lying wâdies. It quite takes the place of acacia, and was now laden with its one-seeded capsules. It is very pretty and sweet when in flower. The varieties of *Anabasis articulata*, whose bracts wither a showy red and rich claret colour, are common here. This species is quite abnormal at this season, having shed all its more slender twigs, and having more the habit of a *Zygophyllum*. It was not till I reached Wâdy Arabah that it occurred in its natural form.

Lepidopterous insects were more numerous in these cooler stations, chiefly attracted by the tent lights at night. Of the earlier desert plants *Reaumaria* and *Gymnocarpum* are still abundant.

Several grasses, Cucurbitaceæ and *Zygophyllaceæ* belong to lower districts, but *Fagonia* ranges everywhere so far. *Ruta tuberculata*, with its disgusting smell, is still to be met with.

At Ain Zuweireyeh, where we camped for the ascent of Mount Sinai, there is a poor little garden containing pomegranates, palms, and nubk (*Zizyphus*), apricots, and mallow. *Gomphocarpus* is abundant about this well. It is one of the most remarkable species in Sinai.

I made the ascent of Jebel Musa and Jebel Catharine on the 20th November. On the way to the convent of Mount Sinai occurred *Centaurea scoparia* Sieb., *Celsia parviflora* Dene., and *Alkanna orientalis* Boiss. At the convent garden, where we dismissed our camels, are cypress, orange,

¹ Barbey, *op. cit.*, p. 134.

figs, olives, dates, and vines in cultivation. These I only saw over the garden wall, for the delay in the convent was irksome since the whole thing was to be done in a day. On the garden gate were suspended several dead Egyptian vultures, which surprised me, as I thought the bird was too much valued as a scavenger to be destroyed. *Gomphocarpus* occurred again a little above the convent which stands at 5,024 feet above sea-level. The following were first met with here:—*Asperula sinaica* Dcne., *Pulicaria crispa* Forsk., *Verbascum sinaiticum* Bth., *Plantago arabica* Boiss., *Phlomis aurea* Dcne., *Nepeta septem-crenata* Ehr., *Mentha lavandulacea* Boiss., *Teucrium polium* L., var. *sinaicum*., *Origanum maru* Linn., β *sinaicum*, *Ficus pseudosycomoros* Dcne., and *Adiantum capillus-veneris* Linn. A single tree stands near the spring, but I unfortunately lost my leaves of it. It was, I believe, *Salix safsaf* Forsk.

At this height, about 5,500 feet, a couple of palms (across the valley), *Phoenix dactylifera* Linn., and a tall cypress, *Cupressus sempervirens* Linn., var. *pyramidalis*, occur. The latter, which is not native, occurs a little higher in a conspicuous place familiar to all travellers.

Cotyledon umbilicus Linn., *Arenaria graveolens* Schreb., *Scirpus holoschænus* Linn., *Peganum harmala* Linn., *Echinops glaberrimus* D.C., *Acanthodium spicatum* Sieb., and several mosses were gathered on the ascent. On such occasions as these the Bedouins made wild gestures and howls as I escaped from them into gullies and up cliffs. One reason of this I found to be their horror of boots, which they think most dangerous to the climber. At the second pyramid, that of Cephren, at Cairo, where I stole a march and reached the summit alone, the Bedouins who pursued me made frantic efforts to deprive me of my boots ere the descent began. I need hardly say I valued the skin of my feet too highly to obey.

In spite of the Bedouins I followed the bent of my own botanical inclinations. The mosses were the result of a detour from the beaten track to a less open gully looking north. On or close to the summit, 7,320 feet, were *Cratægus sinaica* Boiss., *Artemisia herba-alba* Asso., *Verbascum sinaiticum* Bth., *Ruta tuberculata* Forsk., *Peganum harmala* Linn., *Arenaria graveolens* Schreb., *Buffonia multiceps* Dcne., *Poa* sp. (*P. sinaïtica* ?), and *Ephedra alte* C. A. Mey, and others not recognisable. The ascent to the summit from the convent occupied about two hours.

The most striking feature in the aspect of the flora of the upper parts of Jebel Musa, from the convent upwards, is the prevalence of the Labiate and Scrophulariaceous families. Several fresh species had appeared, some of these peculiar to Sinai, and others met before were very abundant here. As these orders increase, the Compositæ, abundant at intermediate heights, diminish towards the upper zone. The fern and the mosses illustrate the cooler atmosphere of the elevated region, though their immediate existence depends on the unfailling springs of water. Having left our party here I descended rapidly to the convent of Deir el Arbain, about 1,700 feet below, in the bottom of the gorge between Jebel Musa and Catharine. With a nimble Arab as guide we did this in half-an-hour. At the convent I was transferred to another native. There was barely

daylight left in which to accomplish Jebel Catharine. I had arranged that my camel should be in readiness here to bring me back to camp at Ain Zuweiriyeh at night. A quarter of an hour after my arrival the faithful Khalil appeared, and I started at once, 1.30 P.M., for the summit.

At the monastery, or near it, were *Bupleurum linearifolium* D.C., var. *Schimperianum* Boiss., *Carum* sp.?, *Pterocephalus sanctus* Dcne., *Veronica syriaca* J. & S. (introduced), and *Celsia* and *Anarrhinum* already mentioned. *Salix safsaf* Forsk. occurs here. During the ascent most of the labiates and the hawthorn of Mount Sinai, were met with; but this mountain wore a far more wintry aspect than its lower neighbour. A lack of running water renders it at all seasons more barren. At the spring Mayan esh Shunnâr, "fountain of the partridge," I made another little gathering of mosses, in all from the two mountains ten species, i.e.: *Grimmia apocarpa* Linn., *G. leucophæa* Grev., *Gymnostomum rupestre* Schwæg., *G. verticillatum*, *Tortula inermis* Mont., *Eucalypta vulgaris* Hedw., *Entosthodon templetoni* Schwæg., *Bryum turbinatum* Hedw., *Hypnum velutinum* Linn., *H. ruscifolium* Neck. These are all British species with the exception of *Tortula inermis*, which occurs also on the Morocco mountain at 8,000 to 10,000 feet, and no doubt elsewhere round the Mediterranean. One only in the list, *Gymnostomum rupestre*, is sub-alpine in Great Britain. There are two other mosses also common British species recorded from Mount Sinai by Decaisne.

The remainder of the ascent was over barren and perfectly unvegetated rock. Nevertheless, within a few hundred feet of the summit I was rewarded by finding the exquisite little *Colchicum Steveni* ? Kth., of a delicate pale lilac colour, sometimes white. It had no leaves, and bore either one, two, or three flowers on the scape; usually only one. It occurred again on the extreme summit, and I secured several bulbs. *Colchicum Steveni* was gathered afterwards on Mount Hor, where the flowers were very decidedly smaller. The Jebel Catharine plant may prove to be specifically distinct. This *Colchicum* has been recorded from the Palestine coast as far south as Joppa.

On the summit there was hardly any life. I obtained *Buffonia multiceps* Dcne., *Arenaria graveolens* Sch., *Herniaria* sp.? (*H. hemistemon*?), *Gypsophila hirsuta* Led., and *G. alpina* Boiss., and fragments of an Astragal, perhaps *A. echinus* D.C. On the ascent I gathered the root and leaves of a sedge looking like *C. distans* Linn.

The summit of Jebel Catharine, 8,536 feet, the highest in the peninsula, was very cold, barely above freezing point. Its mean annual temperature would perhaps about correspond with that of Edinburgh, while Jebel Musa would be nearer that of London. It is a solid hump of syenite with a lower shoulder joining it to a similar prominence about half a mile away. The view was magnificent, including the whole coast-line of Sinai from Suez to Akaba, except the portion intercepted by the Umm Shaumer range to the south, whose summit almost equals that of Jebel Catharine. Jebel Musa looks a mere trifle, one of a fierce sea of red pointed and serrated peaks and ridges.

The summit was reached at 3.15, left at 4, and the convent of Deir el Arbain regained at 5. A long camel ride through a wild gorge by moonlight brought a memorable day to a close.

In the gorge I heard a deep clear strange note which my Bedouin called "hōadoō." It seemed to proceed from an owl, and may have been *Bubo ascalaphus*, the Egyptian eagle owl, but, much as my curiosity was aroused, there was no means of gratifying it.

With the exception of a couple of chats (*Saxicola leucopygia* Br. and *S. lugens* Licht.), and the Egyptian vulture, no birds were seen. A single coney (*Hyrax Syriacus* H. & Ehr.) showed himself for a few seconds on the summit of Jebel Musa.

CHAPTER IV.

MOUNT SINAI TO AKABA.

OUR journeyings from Mount Sinai lay east of north to Akaba, skirting and occasionally crossing corners of the Tih plateau.

Hares were occasionally seen of the little long-eared Sinaitic kind, and gazelle tracks were very numerous in Wādy Zelegah (Zolakah). The lizards already mentioned are plentiful in this wādy, and several geckos were captured, which proved to be of two species. A snake, *Zamenis ventrimaculatus*, was safely lodged in my spirit cylinder.

Wādy Zelegah is a noble valley plain about half a mile wide for upwards of twenty miles, bounded by precipitous cliffs and mountains. Several detours were made into the Tih cliffs on the left of our line of march. The chief plants were—*Glaucium arabicum* Fres., *Capparis galeata* Fres., *Cleome arabica* Linn., *Ruta tuberculata* Forsk., *Odontospermum graveolens* S. Bip., *Artemisia herba-alba* Asoo., and vars., *Sonchus spinosus* Forsk., *Verbascum sinaiticum* Bth., and for the first time *Moricandia dumosa* Boiss., *Capparis spinosa* Linn., *Iphiona scabra* Del., and *Imperata cylindrica* Beauv.

Frequent bags of fossils were obtained *in situ* for the assistance of the Geological Survey.

In birds, the white wagtail and the little cock-tailed wren-like warbler (*Drymœca*) are the most frequent. Desert larks and shrikes also occur at scattered intervals. A very small warbler, *Sylvia nana*, was shot amongst tamarisk bushes. The song of the *Drymœca* is quite wren-like, but less piercing.

The flora is that of the western side; Tamarix, Caylusea, Retama, Ochradenus, Zilla, Santolina, Artemisia, Aërua, Ballota, Stachys, Lavandula, Anabasis, of species already mentioned, predominate. Several of the Mount Sinai groups of labiates are for the present missing, as also are two or three of the Iphiona group of composites. The larger Capparis is very frequent, growing on the most arid rocks above the wādy flats, where nothing else, except perhaps *Lavandula coronopifolia* Poir., appears able to

exist. *Capparis galeata* is sometimes an erect shrub 6 or 8 feet high, of a bright green, differing from the slender trailing blue-foliaged species, *C. spinosa*, which often grows with it. The former is now in fruit, the latter barren.

Camels delight in the larger grasses, in *Ochradenus*, *Zilla*, *Nitraria*, *Anabasis*, and tamarisks.

At the head of Wâdy Elain, a grove of tamarisks was plentifully indued with an excrescence or exudation of greyish-white pillules of a viscid substance, with a faint taste of nucatine. This is the so-called "manna of Sinai," which is, I believe, more plentifully obtained from *Alhagi maurorum* D.C. This gum is said to be due to the puncture of a small insect.

Life became more plentiful. Three butterflies were observed: a pale blue, a sulphur-yellow with brown under wings, and an admiral. Hornets and a long-bodied insect darted about in a broiling sun. I obtained all these except the sulphur-yellow butterfly.

In plants *Suaeda monoica* Fres., and for the first time the rare *Linaria macilenta* Dene. This spring species was in flower, but the fugaceous corolla falls at the slightest touch. *Cleome droserifolia* Del. was also here first obtained. A spring supported a stream that moistened the soil for about a mile ere it gradually died a natural death. It led us the way into an unexpected and magnificent fissure in the red granite, the Wâdy Elain. For five or six miles the gorge passes between sheer cliffs of this richly coloured rock, with a height varying from 500 to 800 feet, and from 10 to 50 yards wide. It is in some ways the most impressive natural feature I have ever beheld. The floor is hard and level, and as the sun rarely hits the base of the cleft, many plants remained here in a fresher condition than elsewhere, and some new varieties were found. I will mention the less common species procured in this remarkable sîk, or cleft, which has rarely been visited: *Moricandia sinaica* Boiss., *M. dumosa* Boiss., *Cleome droserifolia* Del., *Capparis galeata* Fres., *Abutilon fruticosum* G. & P., *Zygophyllum coccineum* Linn., *Tephrosia purpurea* Pers., *Pulicaria* (*Francaëuria*) *crispa* Forsk., *Blumea* (*Erigeron*) *Bovei* D.C., *Iphiona scabra* Del., *Sonchus* (*Microrhynchus*) *nudicaulis* Linn., *Scrophularia deserti* Del., *Linaria macilenta* Dene., *Lycium arabicum* Schw., *Hyoscyamus aureus* Linn., *H. muticum* Linn., *Ballota Schimperiana* Bth., *Teucrium sinaicum* Boiss., *Origanum maru* Linn., β *Sinaicum* Boiss., *Atriplex leucoclada* Boiss., *Typha angustata* B. & C., *Cyperus lævigatus* Linn., et var. *junciformis* *Panicum turgidum* Forsk., *Pennisetum dichotomum* Del., *Imperata cylindrica* Beauv., and forms of *Reseda pruinosa* Del., *Fugonia cretica* L., as well as other indeterminable remains. Several of the above are peculiar to Sinai, and some mentioned here and elsewhere are now first included in its flora.

It was with misgivings we camped in this wâdy. Had a "seil" like the Rev. F. Holland's memorable one at Feiran visited us, we would have assuredly had a bad time. But the expected rain did not yet arrive.

While we were encamped here we received notice of the arrival of

visitors for whom our ever courteous chief prepared coffee. The party, consisting of engineers, Colonel Colville, I believe, and others, passed us at speed on the opposite side of the narrow valley without a greeting. Suspecting that this impetuous haste, and absence of that courtesy for which Englishmen on their travels are so justly famous, arose from ulterior motives, Professor Hull summoned a council of war, which resulted in despatching our able conductor, Bernard Heilpern, with orders to secure our entitled priority to the Akaba Sheikh's camels and services. Bernard passed the fugitives in the night, and was entirely successful.

It was long ere we got clear of this ever widening, slowly rising Wâdy el Tihyeh, which wound through granite hills and lifted us out of Wâdy Elain. Our height above sea-level varied between 2,500 and 3,000 feet. Acacias are numerous, chiefly *A. seyal*. This small tree, when not too flat-topped, as is commonly the case, has at a little distance a close resemblance to our hawthorn, with its gnarled and twisted stem and rugged bark. The granite hills, usually capped with a stratum of sandstone, are barren in the extreme. *Dæmia cordata* and *Tephrosia purpurea* are the only noteworthy species.

Hey's sand partridges are frequent, and good to eat. All seen as yet are of the one species. They rarely fly until almost walked on, trusting for escape to their close resemblance in colour to the shingle and rocks they inhabit. Until they run, which they do with rapidity, they would be most difficult to observe. Nevertheless they often betray themselves by their sharp cry of alarm. The Bedouin then, swift, stealthy, and bare-footed, gets easily amongst them, for they seem more alarmed by a noise than by the human figure. The Bedouin flint lock is, however, slow and dignified in its performance, and usually affords abundant time for escape from its uncertain discharge.

Rock-pigeons and martins (*Columba Schimperi* Bp., *Cotyle rupestris* Scop.) were seen in Wâdy Elain.

All about the caper is frequent. The Arabs eat the ripe red fruit and seeds. I tasted it but did not continue to eat it. The skin is like mustard, and the seeds like black pepper.

In a marshy place at the head of Wâdy Elain, amongst palms and tamarisks, *Typha angustata* was 12 to 14 feet high; *Erigeron Bovei* 6 or 7 feet high, well branched and with many flowers, and *Phragmites gigantea* was fully 15 feet high.

The pricklier plants, Acacias, *Acanthodium*, *Gymnocarpum*, &c., are commoner in a general sense on the granite and sandstone than on the limestone.

In a very dirty well, Bir es Sowrah, near the base of Jebel Aradeh, *Chara hispida* Linn. occurred, and with it *Juncus maritimus* Lam., *Barabicus*, palms and capers.

On the summit of Jebel Aradeh there was no vegetation, and in the limestone now lying above the sandstone numerous cretaceous fossils were obtained. A single white butterfly (*Pieris* sp.) was the only living thing. I estimated the height of this mountain 3,400 feet. It is about 1,300 feet

above the plain, and forms a most conspicuous object. Like others, except those of granite, in this region, it is crumbling away and turning to dust on all sides. The beds of chalk and flints are much disintegrated, while all the outer surface of the lower limestone is on the move.

The only plants were *Gymnocarpum*, *Reaumuria*, *Capparis*, *Acanthodium*, and *Lavandula* of the usual kinds.

We are here in a little known and unsurveyed region. Consequently there is abundant work for the engineering section of our party. Very few travellers have passed this way since Laborde's time, and I was sorely disappointed to find on the tableland we were now entering there was little living vegetation, although abundant withered evidence of a sparse but varied flora.

This tableland is called here *Jebel Hirteh*, and is, properly speaking, a portion of the *Tih* plateau which becomes indefinite at its south-eastern border. A fine oval plain, *Wady Hessih*, about three to five miles broad, literally abounded in lizards, and here I killed another *Zamenis*, a sand-coloured snake about 4 feet long. A large-headed Arachnid (*Sparacis* sp.) is also very abundant, and seems to form food for some of the numerous chats and larks. Small flocks of sparrows, *Passer hispaniolensis* Temm., occurred here, while there is usually a raven or a vulture in sight.

This wady, now clad with withered scraps, is a favourite pasturing place later on for the Bedouins' flocks. I gathered here *Tribulus a'utus* D.C., *Anastatica hierochuntina* Linn., *Zygophyllum dumosum* Boiss., *Lotus lanuginosus* Linn., *Isloga spicata* Forsk., *Filago prostrata* Parlat., *Linaria floribunda* Boiss., *Verbascum sinuatum* Linn., *Heliotropium undulatum* Vahl., *Micromeria myrtifolia* Boiss., *Plantago ovata* Forsk., *Panicum Teneriffæ* R. Br., and *Aristida cærulescens* Desf. These had not been previously met with. Other interesting species not recently seen were *Farsetia ægyptiaca* Turr., *Reseda pruinosa* Turr., *Polycarpæa prostrata* Dene., *Helianthemum Lippii* Pers., *Atractylis flava* Desf., *Zygophyllum album* Linn., and others of commoner sorts.

In these depressions of the plateau, where water and soil are of more frequent occurrence, there is an abundance of greyish scrub, short, thin and interrupted, and composed chiefly of *Zygophyllum dumosum*, *Anabasis* (*Salsola*), *Articulata*, *Ephedra alte* and *Atriplices*, *Nitraria*, *Zilla*, *Retem*, and sometimes tamarisk.

Sonchus nudicaulis Linn., *Damia cordata* Br., *Gomphocarpus* and *Lindenbergia* still occur.

I endeavoured to obtain the Arabic names of the commoner species, and to confirm them from the mouths of two or more Bedouins. These names so obtained rarely agree with those I find quoted in Forskahl, Boissier, Tristram, and others. It is probable that every tribe has its own plant-names.

An Arab informs me that "boothum," a tree growing on *Jebel Serbal* and nowhere else, with a stony fruit, is used, its leaves being boiled as a cure for rheumatism, an infirmity to which the Arabs are martyrs. I suspect the plant to be *Crategus aronia*. Also that *safsaf* (*Salix safsaf* Forsk. or

Populus euphratica Linn.) is the wood in demand for charcoal to colour their gunpowder. This they obtain in the valley between Jebel Musa and Jebel Catharine as well as on the latter mountain. The proportions of their gunpowder are—one part sulphur, four parts saltpetre, and a little charcoal to colour.

Anastatica hierochuntina Linn., "Kaf Maryam," or Rose of Jericho, was first seen here, and becomes common to Akaba and northwards to the Ghôr es Safieh. *Ephedra alte* is the most characteristic and abundant species. Acacias are almost absent. We are on a limestone tableland with occasional outcrops of sandstone. Once on such an outcrop a single shrub of *Acacia seyal* occurred. In exposed situations these acacia bushes, formed like a table with its single leg much nearer one side than the middle, point with their overhanging part in the direction of the prevailing wind. On reaching the granite pass into Akaba the acacias again become abundant, but their absence above may be partly explained by the exposed situation.

Camels eat even the milky asclepiads, as *Dæmia*, which is said to be highly poisonous. *Heliotropium arbainense* Fres. was first met with by the Haj route from Cairo to Akaba, which we were now close to.

Those two especially nauseous species, *Peganum* and *Ruta*, are very frequent. The smell of the former is like that of our hound's tongue, the latter reminded me of some kind of wood-bug, which I collected in an evil moment in the scaffolding of the Milan Cathedral. *Cleome droserifolia* Del. smells like a fox. Other species here are *Malva rotundifolia* Linn., *Linaria macilenta* Dcne., *Deverra tortuosa* Gært., and *Ærua javanica* Juss.

On the 29th November we descended a magnificent gorge between granite and limestone by the Haj road to Akaba, which takes its name (Akaba, "steep descent") from this entrance. The ever varying peeps of the gorgeously blue gulf of Akaba shining in an intense sunlight were a most refreshing change from the desert. The rich purple colouring of the lofty mountains of Midian formed a noble background.

CHAPTER V.

AKABA.

AT Akaba we remained from November 29th to December 8th. I increased my collection here considerably. The flora displayed several fresh species. Bird life was more plentiful, and a large collection of shells was made on the beach. These, consisting of upwards of 200 species, including those from Suez, I have had determined by Mr. G. B. Sowerby, and amongst them are many which do not appear to have been admitted as inhabitants of the Red Sea.

Akaba, even at this season, was oppressively hot. A swim in the sea, or rather a crawl amongst the coral reefs, about 3 feet below the surface, was delightful. Farther out sharks abound.

The straggling Arab village lies at the south-eastern corner of the

plain which forms at once the head of the gulf and the southern end of the Wâdy Araba. This is the narrowest part of the wâdy, being not more than five or six miles across.

A very fine tree of *Acacia tortilis* Hayne stands close by. On the coast are many clumps of the date palm, interspersed with a very few trees of the doum palm (*Hyphæne thebaica* Del.), already noticed here by Mr. Redhead. The doum palm, a native of tropical Africa, Nubia, and Abyssinia, finds its northern limit at Akaba.

In the enclosures here I noticed nubk (*Zizyphus*), henna (*Lawsonia*), palms, tamarinds (*Tamarindus indica* L.), pudding pipe (*Cassia fistula*?), figs, and several kinds of gourds. Most esculents were still invisible or in a seedling state.

There is but one boat at Akaba. Laurence and I succeeded in hiring this with a native fisherman, with two Arabs, nets and lines. There were many flying fish (*Exocetus*) about. We first rowed across the corner of the gulf and landed on the sandy beach, where the two Arabs landed and with a circular casting net captured some small fish ("Akadi" and "Sahadan") for bait. With these and some loose stones, about a pound weight each, we rowed out a few miles. The bait fish, broken in three, is affixed to the hook and one of these stones is hitched to the line a little above with a slip-knot. On reaching the bottom a couple of violent jerks dismiss the sinker and let the line swing free. We caught fish rapidly, "hedjib," at Suez called "jar," "gamar" (a species of *Chætodon*?), and one splendid red fish they called "bossiah," without scales, and very good to eat. We also hooked a shark, "Zitani," about 5 feet long, who amused us for a time and then carried off the line.

Before dismissing our Towarah Bedouins I had endeavoured to pump them of what little information they possessed about the feral inhabitants of Sinai. They knew of leopards on Serbal and Umm Shaumer; wolves in Wâdy Lebweh and neighbourhood; hyænas, ibexes, gazelles, hares, jerboas, rats, and mice made up their total. Their sheep they say were imported from Arabia; they have a few donkeys and camels; their goats are a distinct breed which they are especially proud of. Five kinds of snakes they admitted, all of which were poisonous! The one I caught in Wâdy Zelegah, *Zamenis ventrimaculatus*, attains a full size of 5 or 6 feet. These remarks I set down to be taken for what they are worth.

Dr. Hull captured a handsome little snake here, and handed it over to me; it proved to be *Zamenis elegantissimus*, and is now in the British Museum.

The birds obtained at Akaba were—*Cercomela melanura* Temn., *Cyanecula cærulescens* Pall., *Argya squamiceps* Rupp., *Motacilla alba* Linn., *M. flava* Linn., *Pycnonotus xanthopygus* Hemp. & Ehr., *Lanius fullax* Finsch., *Passer hispaniolensis* Temn., *Egialitis asiatica* Pall., *Tringoides hypoleucos* Linn., and several larks and chats already mentioned. Ravens, crows, martins, rock-pigeons and the little gull, *Larus minutus* L., were also observed. Vultures and English swallows were frequently to be seen, the former usually of the Egyptian species.

Not many identifiable plants occurred here which had not been previously seen. These are—*Cassia acutifolia* D.C., *C. obovata* Coll., *Onobrychis Ptolemaica* Del., *Tephrosia apollinea* Del., *Artemisia monosperma* Del., *Statice pruinosa* Linn., *Salvia deserti* Dene., *Boerhavia plumbaginea* Cav., *Calligonum comosum* L'Her., *Atriplex crystallina* Ehr., and *Andropogon foreolatus* Del. A few other less common species may also be mentioned:—*Lotononis Leobordea* Linn., *Tephrosia purpurea* Pers., *Sonchus spinosus* D.C., *Cucumis prophetarum* Linn., *Linaria macilenta* Dene., *Trichodesma africanum*, R. Br., *Heliotropium arbainense* Fres. Forskahlea, Andrachne, Panicum, and others. Along the shore in some places is a close growth of *Nitrara tridentata*, *Atriplex leucoclada* Boiss., *A. halimus* Linn., *Juncus maritimus* Linn., var. *arabica* and others. *Cressa cretica* is a characteristic species along the shore on the saline flats.

Gathering shells where such an abundance of, to me, novel forms occurred was enthusiastically pursued. I shall not here deal with this subject in any detail, but merely mention the principal genera met with. These were mostly univalves, bivalves being scarcer in species, and infinitely fewer in individuals. Great numbers of opercula of a Turbo, pretty polished little hemispherical bodies retaining the spiral lines of structure, pens of calamaries, and the delicate vitreous wingshells of pteropods occurred, as well as a large variety of fragments of coral. Conus, Cerithium, Strombus, Cyprea, Mitra, Triton amongst univalves; Arca, Pectunculus, Tridacna, Chama, and Venus amongst bivalves, were the best represented genera. Drift shells are rarely disturbed, the tide being apparently not above a foot in range at Akaba.

CHAPTER VI.

AKABA TO MOUNT HOR.

AT Akaba we have left the Sinaitic peninsula; from here we turned northwards up the Wâdy Arabah. Happily we had occasion henceforth to travel more slowly, in order to give the surveying party time to keep pace with us. I was thus enabled to make wide detours east and west out of the Arabah, but my inclination lay chiefly eastwards into the precipitous borderland of Edom.

In the Wâdy Arabah I saw gazelles several times; Wâdy Menaiyeh, on the west, may be mentioned as a good hunting ground. These graceful animals seemed more at home on the west side, abounding on the Judæan wilderness, and all over the Tih plateau. Ibexes, on the other hand, appeared more frequently on the higher mountain declivities of Edom to the east. Hyænas, judging from their tracks, must be plentiful; once I had a good view of one, and quickened his lolling pace with a fusilade from revolver and fowling-piece. At El Taba, on the east side, about twenty-five miles north of Akaba, a fruitful, marshy place with a deep

spring, I saw perfectly fresh tracks of "nimr," or leopard, and subsequently, at Ain Abuweirideh, Laurence came on fresh remains of some beast which had served apparently a meal for these animals. A hare, the Sinaitic species, was killed a few miles north of Akaba. A much larger hare, *L. aegyptiacus*, was seen several times on the eastern declivity of the Tih. My frequent failure in bringing down game and specimens I attributed partly to my having been unable to land English cartridges or powder in Egypt, and being dependent on very worthless and very expensive ones procured in Cairo. I would recommend all sporting travellers to run any risk in smuggling sooner than let this occur to them.

The Wâdy Arabah abounds in rodents. These animals appear to be chiefly nocturnal in their habits, and are very seldom seen. The number of holes and the abundance of their tracks is truly astonishing. Their colours are usually in strict harmony with the desert, for the Wâdy Arabah is some ten to thirteen miles across, and more correctly called a desert than most parts of Sinai. Jerboas were seen a few times, and Gerbilles, of which I trapped one, appear to be most numerous.

Birds have increased in numbers and variety. From El Taba northwards, about twenty-five miles from Akaba, a grove of acacias (chiefly *A. tortilis Hayne*), and a little Zizyphus, stretches about ten miles along the eastern edge of the Arabah. A smaller grove occurs nearer Akaba at the mouth of Wâdy el Ithm, where I first met with the "hopping-thrush." In the larger grove the handsome *Loranthus acacie Zucc.* abounds.

Several times I endeavoured to get a shot at a small bird here which uttered a sharp little note, new to me, but I was unsuccessful. Mr. Armstrong, who was with me that day, and is well skilled in Palestine birds, recognised it, having also seen the bird, as the little Sunbird, *Cinnerys Osee*. Subsequently, when I reached the Ghôr, I obtained several specimens and recognised the note at once. This species has not been detected south of the Ghôr, where it was first made known, like the hopping-thrush, by Canon Tristram.

The Sunbird probably follows the Loranthus, to whose flowers it appears attached. Its long bill reaches the base of the tubular flower, searching for honey, and it thus probably secures their cross-fertilization. One was shot in the Ghôr in the act of doing so, its bill being covered with the pollen of the Loranthus.¹

The hopping-thrush (*Argya Squamiceps*) is a remarkably weak flier, hardly leaving the ground except in tremendous jumps, which cause his large fan-shaped tail to overbalance and almost overturn him as he makes a pause. He is a most grotesque bird; nevertheless the mournful cries of one when I had shot his mate impressed me with a different feeling.

Palestine bulbuls were occasionally seen here also. Hooded chats,

¹ Since writing the above I find that Burton has seen the Sunbird, almost certainly this species, about five degrees from this southwards, in Midian. "Land of Midian," vol. ii.

Persian larks, and desert larks were frequent, and large flocks of sparrows assembled about us in several places.

The floor of the wâdy is sometimes alive with geckos, lizards, and ants, as well as numbers of long-winged males of a Persian species of white ant, *Hoeotermes vagans* Hag., not yet able to fly, over which the hopping-thrushes fall into inconceivable excitement.

The first bee I met with was captured here, and small beetles are often sacrificed to the good of science. I spare the reader the enumeration of their scientific names, which will be given fully at the close.

At El Tabah occurred a greensward of *Cynodon dactylon* Linn. In or near the grove already spoken of were *Cocculas Leæba*, D.C., *Fagonia myriacantha* Boiss., *Scrophularia deserti* Del., *Loranthus acaciæ* Zucc., *Salsola fetida* Forsk., *Eragrostis cynosuroides* Retz., and commoner sorts. In the open sandier wâdy, *Glaucium arabicum* Fres. *Gypsophila Rokejeka* Del., *Monsonia nivea* Dcne., *Microrhynchus nudicaulis*, Linn., *Iphiona scabra* Del., *Citrullus colocynthis*, Schr., *Cleome droserifolia* Del., *Cucumis*, *Pancreatium*, *Danthonia*, *Trichodesma*, *Andrachne*, *Forskahlea*, *Anabasis*, and *Tamarisk* form almost the whole vegetation.

In some places the wâdy is spanned by rolling wastes of sand dunes 10 to 12 feet high. These appear to have been formed around the bases of clumps of tamarisk and anabasis, which is here very tall, 6 to 8 feet high or more.

Ochradenus baccatus is very abundant, often overtopping the acacias by whose protection from camels it thrives. *Lycium europæum* and one or two grasses escape being cropped in the same manner, and grow to an unwonted size.

On the 7th December a long day's climbing with Laurence brought us to the head of Wâdy Ghurundel in Edom. This was at a height of about 1,800 feet above sea-level, six miles east from the Arabah. The scenery on the way was superb. Huge blocks of red sandstone, 800 to 1,000 feet high, towered above us, sometimes sheer and tottering in broken masses from the main cliffs behind. We passed a spring with a few date-palms, and a little higher a large bulb with broad leaves (*Urginea scilla* Steinh ?) first appeared and soon became abundant. It was not yet in flower. *Dianthus multipunctatus* Ser., *Eryngium* sp., *Odontospermum pygmaeus* Cav., *Cotula cinerea* Del., *Solanum nigrum* Linn. (var. *moschatum*), *Satureia cuneifolia* Ten., forma, *Boerhavea verticillata* Desf., *Ficus sycamorus* Linn., *Traganum nudatum* Del., *Aristida ciliata* Desf., appeared for the first time. The *Odontospermum* (*Astericus*), which occurred at a considerable height, was a little woody button representing the hardened flower head, which was usually solitary and close to the ground. This plant, like *Anastatica*, has hygrometric properties, and has been put forward by Michon as the true Rose of Jericho of the travellers of the middle ages. *Anastatica hierochuntina* will not, however, be readily deprived of its claims.

Besides the above, which were all gathered farther on, some plants of more limited range occurred: *Moricandia dumosa* Boiss., *Abutilon*

fruticosum G. & P., *Varthamia montana* Vahl., *Iphiona scabra* Del., *Centaurea scoparia* Sieb., *Iphiona juniperifolia* Coss., *Ballota undulata* Fres., and others already met with.

Judging from the abundance of its bur-like carpels lying in the dry watercourses, *Calligonum comosum* is the most abundant shrub; it is now in a withered condition. Several other bulbous species which occurred here are as yet undetermined. A stiff scramble brought me back to the Arabah by a more northern valley. Amongst land shells, helices of four species were gathered in Wâdy Ghurundel.

CHAPTER VII.

PETRA AND MOUNT HOR; WÂDIES HAROUN (ABOU KOSHEIBEH), AND MUSA; JEBEL ABOU KOSHEIBEH.

THE last valley has shown us some characteristic Sinaitic species extending their range north-eastwards across the great valley of the Arabah. Several more will appear in the group of localities now to be considered. Were I to hazard a suggestion here, it would be that these plants, formerly considered peculiar to Sinai, have had their origin more eastwards, and have spread, like many other Arabian plants, in a westerly direction.

Owing to the greater moisture found in the upper part of some of the valleys of the Edomitic escarpment, there is a greater variety of species and a sprinkling of ferns, mosses, and lichens. These are mostly more northern forms, spreading southwards at high levels.

We are now entering a district which Canon Tristram has somewhat liberally included in Palestine. The flora has its own peculiar plants as well as a large proportion of southern or Sinaitic species, and thus it adds many to the Palestine flora. I will first speak of the wâdies, and then of Mount Hor and Petra. The latter places, I think, have not been botanised previously to my visit, and are visited only with difficulty and expense, owing to the cupidity and lawlessness of the sturdy beggars or Bedouins who dwell there.

Irby and Mangles, Commanders in the Royal Navy, travelling in 1816-1820, were the first Europeans who visited these regions in modern times. Further on I will quote a few remarks from their most interesting volume, since I find no other allusions to the vegetation of the ancient capital of the Nabathæans.

The following plants not previously seen were gathered in Wâdy Abou Kosheibeh (Wâdy Haroun), and on the Jebel or peaked mountain which stands in a commanding position across its head:—*Fumaria micrantha* Laq., *Erodium hirtum* Forsk., *Poterium verrucosum* ? Ehr., *Anvillæa Garcini* D.C., *Carthamus glauca* M.B., *C. lanatus* Linn., *G. arabica*, J. & S. *Podonosma syriaca* Lab., *Nerium Oleander* Linn., *Pentatropus spiralis*, Forsk., *Boucerosia*, sp. nov.?, *Salvia ægyptiaca* Linn., *Juniperus phœnicea*,

Linn., *Bellevalia flexuosa* Boiss., *Asparagus aphyllus* Linn., *Asphodelus ramosus* Linn., *Pennisetum cenchroides* Rich., *Cheilanthes odora* Sw., and *Notholana lanuginosa*, Desf. Of these, *Globularia*, *Podonosma*, *Boucerosia*, *Juniperus*, and the two ferns were obtained above the wâdy amongst the cliffs of Jebel Abou Kosheibeh, from about 3,000 to 3,500 feet above sea-level.

The *Globularia* is a pretty compact little shrub, with blue heads of flowers and small entire leaves; the species here is the Arabian form, *G. arabica*, perhaps hardly distinct from *G. alypum* L. of the Mediterranean.

The two *Asclepiads*, *Boucerosia* and *Pentatropis*, are both frequent; the latter is probably *P. spiralis*, but as it was not in flower, Mr. Oliver would not speak positively. It occurred again at the Ghôr, trailing over acacias.

The *Boucerosia* may be *B. aucheriana* Dcne., an insufficiently described plant from Muscat in South-East Arabia, which is also the nearest known habitat for the *Pentatropis*.

On Jebel Abou Kosheibeh were also gathered—*Moricandia dumosa* Boiss., *Gomphocarpus sinaiticus* Boiss., *Helianthemum Lippii* Pers., *Cotyledon umbilicus* ? Linn., *Linaria macilenta* Dcne., *Verbascum sinuatum* Linn., *Phlomis aurea* Dcne., and *Boerhavia verticillata*, Poir.

Many desert species of *Reaumuria*, *Ochradenus*, *Zygophyllum*, *Morettia*, *Zilla*, *Acacia*, *Retama*, *Ruta*, *Ifloga*, *Lycium*, *Trichodesma*, *Forskahlea*, *Asphodelus*, *Anabasis*, *Ephedra*, and grasses already mentioned, occur also in Wâdy Haroun, the name which the Bedouins invariably give this wâdy.

It will thus be seen that there is no appreciable break as yet in the continuity of the Sinaitic flora as we travel up the Wâdy Arabah, but an increase of species from eastwards and northwards.

The Wâdy Haroun is at first wide and arid, but after a few miles vegetation rapidly increases with moister conditions. The flanks of the Edomitic limestone plateau are better supplied with moisture than the Sinaitic granite. Banks by the edge of this valley at a moderate elevation, 1,000 to 1,500 feet above sea-level, had a sparse coating of mosses and other cryptogams. The mosses were chiefly of the *Tortula* genus, of which five species were collected. Side by side with these grow the desert species above mentioned in great luxuriance. *Demia cordata*, for instance, climbed to a height of 10 or 12 feet in *retem* bushes; the support being as well developed as the climbing plant. In the open desert, *Dæmia*, as mentioned by Mr. Redhead, lies sprawling on the ground, its several stems sometimes closely twisted into a thong towards their extremity, so that all circulation is stopped, and the young shoots are strangled. This is probably due to changed conditions having deprived it of its normal support, which it rarely finds in the desert, and even seems there to have lost the power of utilising. For I have seen it strangling itself side by side with bushes of the very sort which here gave it so much assistance. The desert plant was more plentifully milky, and

we have here seen at work agencies which are giving rise to a modified form, in better harmony with its environment.

From the summit of Jebel Abou Kosheibeh, which I climbed with Dr. Hull, an unusual sight was observed: a stream, small in size, but containing a good body of water, rushing down the cliffs about half a mile to the south-eastward. I could distinguish with my spy-glass the growth of arundos and oleanders that fringed its banks, but unfortunately there was no time to examine it more closely. Running water was once seen before on Jebel Musa.

The juniper is a well-shaped bush or small tree, with a trunk sometimes a foot in diameter. It gives a considerable area of shade with its dark close foliage. A large specimen occurs immediately below the summit, and I could see it on all the highlands around, even at the summit of Mount Hor, which looked but a little distance off.

On the 10th of December we made the ascent of Mount Hor, returning to camp the same day by Petra. Our camp was fixed near the mouth of Wady Haroun. Although having made an early start (4 A.M.), the visit was necessarily a very hurried one. While waiting for a cloud to lift from the summit of Mount Hor for the benefit of the theodolite party, I had time, however, to make a good gathering of the bulbous plants, now just showing their leaves, with which the upper part of this mountain abounds.

The view from Mount Hor, whose height I estimated by aneroid at 4,400 feet, is a disappointing one, and bears no sort of comparison with those from the Sinai peaks. This defect is due to the adjoining high and monotonous tableland of Edom, which obscures one side of the horizon. This tableland averages perhaps 5,000 feet in height in the eastern neighbourhood of Mount Hor, and is composed of the unvarying and unpicturesque white cretaceous limestone. It lowers northwards, and I afterwards reached its outer edge. In some places it has quite a forest of vegetation.

With regard to Mount Hor, Irby and Mangles write: "Much juniper grows on the mountain, almost to the very summit, and many flowering plants, which we had not observed elsewhere; most of them are thorny and some are very beautiful."

As Mount Sinai is a mountain of labiates, so Mount Hor is a mountain of bulbs. The number of species and individuals of these orders respectively vividly coloured my impression of the botanical features of each of these sacred peaks. At the same time many of the Mount Sinai plants, labiates included, occur on Mount Hor. On Mount Sinai I procured bulbs of a single species, a total of three perhaps occurring. On Mount Hor I gathered at least twenty sorts.

In the upper 1,000 feet of Mount Hor a considerable accession of Mediterranean or more northern forms appear. A more interesting group is that of plants which have been considered absolutely peculiar to Sinai. Both these lists, which I here append, would no doubt be swelled by observations at a more seasonable visit.

Northern species ranging south to Mount Hor :—

- Dianthus multipunctatus* Ser.
 ? *Geranium tuberosum* Linn.
Pistacia palæstina Boiss.
Rhamnus punctata Boiss., var., barren (sp. nov. ?).
Paronychia argentea Lam.
Bryonia syriaca Boiss.
Galium canum Reg.
Scrophularia heterophylla Willd.
Sternbergia macrantha Gay.
Colchicum montanum Linn.
C. Steveni Kunth. (also on Mount Sinai).
Urginea scilla Sternh.
Bellevalia flexuosa Boiss.
Asphodelus fistulosa Linn.
Asparagus aphyllus Linn.
A. acutifolius Linn.
Arum, sp.?
Carex stenophylla Vahl.

No doubt many of these occur on the Edomitic plateau, whose botany is practically unknown.

Sinaitic species discovered on Mount Hor :—

- Moricandia dumosa* Boiss.
Pteroccephalus sanctus Dene.
Echinops glaberrinus D.C.
Varthamia montana Vahl.
Celsia parviflora Dene.
Origanum maru Linn., β sinaicum.
Phlomis aurea Dene.
Teucrium sinaicum Boiss.

These have been considered peculiar to Sinai. They may now be included in the flora of Palestine.

A consideration of the latter group is especially interesting when considering the ancestral origin of the more local or endemic portion of the Sinai flora ; and it also gives us a slight clue to the probable nature of the flora of the little known region east and south-east of Mount Hor. Judging from an appendix of species of plants collected by Burton's expedition to "The Land of Midian," the flora of the upper regions of Sinai is more nearly allied to that of Edom to the north of east, than to that of Midian in the south-east. The Gulf of Akaba has formed a barrier in the latter case.

Of the bulbous species, here as elsewhere, I can only enumerate a portion. The bulk of those gathered were in leaf, and were brought home to Mr. Burbidge, of the College Botanic Gardens in Dublin, under whose care many are now growing, but have not flowered.

The arboreal vegetation of Mount Hor was confined to the summit, and consisted of a bladder-senna, *Colutea aleppica* Lam., a turpentine tree, *Pistacia palestina* Boiss., and a juniper, *Juniperus phœnicea* Linn. Each of these was about 10 or 12 feet high. The *Rhamnus* already mentioned was very much stunted.

At Petra two new species were discovered, which will be described in another place. One was a *Galium* allied to *G. jungermanniodes* Boiss., and pronounced new by Mons. Boissier. It is a low straggling matted species, with the habit of our *Asperula cynanchica*. It occurred in the "Sik." The other new species was a *Daphne*, an erect shrub 6 or 7 feet high, with long linear leaves, reddish-brown berries, and small cream-coloured flowers. The fibre is remarkably stringy and tough. The *Daphne* is allied to *D. acuminata* and *D. mucronata*, but differs materially from both these species. It occurred, in flower and fruit, on the slopes of Mount Hor, about a mile from Petra, and again at intervals lower down. The *Boucerosia*, already mentioned as being perhaps an undescribed species, was found on Mount Hor in flower in several places.

Many unrecognisable fragments of Umbellifers, scrophulariaceous plants, grasses, and others were noticed at Petra, and the botany will yield a good harvest to any one arriving at a proper season, and with sufficient leisure. My time in Petra was somewhat under an hour!

The following plants not previously met with, were gathered at Petra and Mount Hor:—*Diploxys pendula* D.C. *Ononis vaginalis* Vahl., *Rubia peregrina* Linn., *Inula viscosa* Desf., *Zollikoferia casiniana* Jaub., *Thymelæa hirsuta* Linn., *Salsola rigida* Pall., *S. inermis* Forsk., *Noëa spinosissima* Moq., *Polygonum equisetiforme* J. & S., *Allium sinaiticum* Boiss. *Asplenium ceterach* Linn., *Andropogon hirtus* Linn., in addition to those already mentioned as reaching here a southern limit, and the Abou Kosheibeh lants, which also, as a rule, occur on Mount Hor.

The majority of these additions occurred from about 3,000 feet to the summit. I extract a few notes from my journal on this subject.

At 3,000 feet Oleander and tamarisk cease, *Scilla* abundant; at 3,450 feet *Thymelæa* (*Passerina*) first occurs; at 3,750 feet numerous species occur, as *Pterocephalus*, *Globularia*, *Onosma*, *Juniperus*, *Ceterach*, *Cheilanthes*, *Fagonia*, *Cotyledon*, *Capparis spinosa*, *Varthamia montana*, *Phlomis*, *Ononis*, *Deverra*, *Moricandia dumosa*, *Rhamnus* as I ascend; at or near the summit (4,400 feet about) are *Geranium*, *Colutea*, *Pistacia*, *Pennisetum cenchroides*, *Hyoscyamus aureus*, *Noëa*, *Poterium spinosum*, *Scilla*, *Malva*, *Carex*, *Ephedra*, *Zollikoferia*, *Echinops*, *Verbascum sinuatum*, *Origanum Ajuga tridactylites*, *Arum* sp., *Bryonia*, *Sternbergia*, and *Colchicum*, of species already mentioned.

Of Wâdy Musa, in which Petra is situated, Irby and Mangles write: "Following this defile farther down, the river reappears, flowing with considerable rapidity. Though the water is plentiful, it is with difficulty that its course can be followed from the luxuriance of the shrubs that surround it obstructing every track. Besides the oleander, which is common to all the watercourses in the country, one may

recognise among the plants which choke this valley, some which are probably the descendants of those that adorned the gardens and supplied the market of the capital of Arabia: the carob, fig, mulberry, vine and pomegranate line the river side; *a very beautiful species of aloe* also grows in this valley, *bearing a flower of an orange hue shaded to scarlet*; in some instances it had upwards of one hundred blossoms in a bunch." Several of these were not observed by us. Of the aloe I can give no information.

At Petra, 2,900 feet above sea-level by my aneroid, many of these and others occurred; the most prominent were Phlomis, Ononis, Thymelæa, Rubia, Rhamnus, Pistacia, Inula, Sternbergia, Bellevallia, Rumex roseus, Verbascum sinaiticum, Ficus sycamorus, and a stunted pinnate-leaved shrub or small tree, perhaps a Fraxinus. The Ononis, very viscid, with pretty yellow and claret coloured veined flowers, was very abundant. So also was Thymelæa. Sternbergia (*Colchicum*) *macrantha* was glorious with flowers of golden yellow, as large as a lemon.

Few observations on animal life were obtained in this hurried visit, but these were all of interest.

Ibexes and gazelles were seen on Mount Hor, and a hare of the Egyptian variety fled from Wâdy Haroun at our approach. Another, seen at Petra, much lighter in colour, may have been the Nubian form.

When climbing Jebel Abou Kosheibeh, a clear loud flute-like whistle attracted my attention. The first few times I heard it I was fully persuaded it was a signal to warn those rascally Petra Bedouins that hated Christians were invading their domain. But I presently saw the whistle belonged to a bird, which proved to be Tristram's Grakle. This species, originally discovered by Tristram about the Dead Sea, has since been found in Sinai at Wâdy Feiran by Wyatt, who also met it at Petra. All the time we were on this mountain several of these birds kept flying around us, often displaying the orange spot on the wing as they hovered close by. Their flight is very graceful, sometimes hovering butterfly-like, sometimes swift and undulating in large curves like the chough. Grakles were seen afterwards a little above Petra, and a flock of a dozen or thereabouts circled round the summit of Mount Hor, disappearing and reappearing from the corners of the red sandstone cliffs, and giving notice of their presence with their melodious whistle. This is probably a favourite breeding place with these birds. It was not until I reached the Dead Sea that I obtained a specimen.

At Petra also occurred the Palestine bulbul, and the rich musical cry of the fantail raven, *Corvus affinis Rupp.*, was almost incessant while we were there. Nevertheless this bird hardly came nearer than two or three hundred yards, and would be difficult to obtain. By its note and by its size, and by its broad expanded tail seen on the wing, I was assured of the species on referring to Canon Tristram's work. This raven and the grakle are two of that author's characteristic birds of the Dead Sea basin.

Hey's sand-partridge, shrikes, and desert larks are also not unfrequent, the latter lower down towards the Arabah.

To Laurence's sharp sight I was indebted for two snakes, *Zamenis*

cliffordii Schleg. and *Rhyncocalamus melanocephalus* Gunt. The latter species was believed peculiar to the Jordan Valley, where it was found by Tristram, and forms as yet the single representative of the genus founded for it by Dr. Gunther. The former has not hitherto been found outside the African continent.

A centipede (*Scolopendra*) and a black millipede (*Spirostreptus*) four or five inches long, but fortunately torpid, were captured here. The latter seemed to be very common.

Wells, which I often searched with a net, yield, as a rule, no life except small leeches and the larvæ of gnats. Some handsome insects of the grasshopper and cricket sorts were captured from time to time.

Up to this very few mollusca have been collected. *Helix seetzeni* Koch and *H. candidissima* Drap. were found in one or two places in Sinai. The latter was again met with in Wâdy Ghurundel in Edom, where I found also *H. prophetarum* Bourg., *H. filia* Mouss., and the handsome species *H. spiriplana* Oliv. On Mount Hor this last was frequent, and another fine shell, *Bulimus carncus* Pfr., was here first found. Most of these became commoner down to the Ghôr. At Petra, and in the Arabah, I collected also *Helix cæspitum* Drap., a rare species. This scarcity of land shells is paralleled on the eastern side of the Gulf of Akaba in the land of Midian, where Captain Burton speaks of them as very rare, and mentions that he only met with two species in four months. In its natural history this little known country appears to be (judging from Captain Burton's work) almost identical with Sinai.

CHAPTER VIII.

WÂDY HAROUN TO THE DEAD SEA.

THE mouth of Wâdy Haroun into the Arabah is somewhat more than halfway from Akaba to the Dead Sea. The watershed between the Dead Sea and the Gulf of Akaba is nearer to Akaba. We estimated its lowest point at 660 feet above sea-level. It lies on the west side of the Arabah. At the mouth of Wâdy Haroun the Arabah is at its widest, being about thirteen miles across. The total distance from Akaba to the Dead Sea is 112 miles.

My chief detour in this part of the Arabah was on the east side, up a long valley to the Edomitic plateau with Mr. Armstrong. On this occasion we returned to the Arabah by a more northern valley, Wâdy Ghuweir, which, from the numerous remains of encampments, tribe marks ("Wasum"), and the well-worn tracks, appeared to be a leading thoroughfare into the Shobek country.

In this wâdy are several springs, appearing, as is frequently the case, at the union of the sandstone and limestone formations. One of these springs supported a jungle of reeds with palms and some interesting

composite species of luxuriant growth. Tamarisks, acacias, and nubk trees (*Zizyphus*) were in some profusion, and on each of these three trees the handsome parasite, *Loranthus acaciæ* Zucc., with its handsome red flowers, was a conspicuous ornament. It was seen only two or three times on the tamarisk, oftener on the nubk, but much more usually on the acacia. Clinging to the reeds was an Asclepiad, *Cynanchum acutum* Linn., whose range is more Mediterranean than the others met with. Amongst them was the stately *Saccharum ægyptiacum* W. and a shrubby composite, *Pluchea dioscoridis* D.C., reached a height of 15 feet. Its flowers were insignificant. A red-barked osier, *Salix acmophylla* Boiss., and a poplar, *Populus euphratica* Linn., which is perhaps the willow of Babylon, occurred along the margin of the short-lived stream. Other species collected were—*Erucaria aleppica* Linn., *Tribulus terrestris* Linn., *Ficus carica* Linn., *Salsola tetragona* Del., and others less noteworthy. A very fragrant savory, *Satureia cuneifolia* Ten., and our early acquaintance the “sekkaran,” *Hyoscyamus muticus* Linn., occurred.

At the head of this valley *Juniperus phœnicea* was found to be the tree visible from the Arabah on the white chalky plateau of Edom, and growing abundantly. Burton found this tree luxuriant and abundant at considerable heights in Midian three degrees farther south.

In this wâdy I gathered maiden-hair fern, the first I had seen since leaving Jebel Musa. Caper (*Capparis spinosa*), *Lycium arabicum*, and *Boerhavia verticillata* also occurred. Bushes of nubk were sometimes canopied with this latter trailing plant, with its pretty panicles of blueish small flowers.

The Bedouins told me that with the juniper trees on Edom occur also “balût,” *Quercus coccifera* Linn., and “arour,” a thorn with a small sweet fruit. This was, I believe, *Rhus oxyacanthoides* Linn., which the above-mentioned traveller found abundantly in Midian. I met it subsequently in the Ghôr.

In Wâdy Ghuweir I captured the first Batrachian I met with, *Bufo viridis* Linn.; running water, the rarest and pleasantest of sights in these regions, was the source of this increased variety of life.

At the Arabah, abreast of the above valley, I examined some large bushes of *Calligonum comosum* L. Her., a desolate, leafless, whitened; scrubby species which often grows in shifting sand. Its roots are beautifully adapted to secure its position. These are woody, springy, and tough, very different from the brittle branches, and about a quarter of an inch in diameter. Some of these are seven or eight yards in length, perhaps much more, and beset with knobs at intervals, which are serviceable in giving them a better grip. These excrescences may have been due to insects, for I afterwards noticed that this plant was much subject to galls; but whatever their origin, they served the purpose of the flukes of an anchor to hold the bush in a sea of shifting sand.

There appears to be a great variety of gall-producing insects in the desert. Almost every woody species is liable to knobs and swellings. One of the most curious of these appendages was that frequently attached

to the common *Salsola*—a shapely little spurred and coloured excrescence like a solidified flower of one of our commoner wild orchids.

A minute cruciferous annual, half an inch high, leafless and with a silicle which formed almost the entire plant, was so fragile that it failed to reach home. The silicle valves had separated, dehiscing from the base upwards, one at either side of the septum.

In this part of the Arabah *Panercatium Sickembergeri* was frequently gathered. At the spring of Ain Abou Weirideh, a little south of Wâdy Ghuweir, I obtained many old friends. *Populus euphratica* attains here good dimensions. No less than three running streams maintain a brief but productive existence across the sands. I gathered here *Prosopis stephaniana* Willd., *Pulicaria arabica* D.C., *Statice pruinosa* Linn., *Artemisia monosperma*, Del., *Sueda asphaltica* Bois., *Salsola fetida* Forsk., and many more.

Several bulbous species were obtained here. One of these which has flowered since my return has been determined by Mr. Baker, *Urginea undulata* Desf.

Further north, towards the Ghôr, I collected *Eremobium lineare* Del., *Monsonia nivea* Dene., *Anastatica hierochuntina* Linn. ("Rose of Jericho"), *Astragalus Forskahlîi* Boiss., *A. acinaciferus* Boiss., *Rhamnus* sp.?, *Carthamus glaucus* M.B., *Androcymbium palestinum* Baker, *Allium Sinaiticum* Boiss., *Aristida ciliata* Desf., *A. plumosa* Linn., *Panicum trugidum* Forsk., with the usual desert species.

The most noticeable feature in the animal life in the northern half of the Arabah has been already mentioned. I allude to the extraordinary abundance of small holes and burrows in stone and gravelly sand. The riddled surface reminded me forcibly of the lemming haunts of Discovery Bay, in lat. 81° 45" north, where, however, all were due to one species with the exception of those of a larger rodent, the stoat, who preyed upon the lemmings. One would expect to find a carnivorous rodent subsisting on the abundant supplies here also, but none such has been as yet discovered. The holes in Wâdy Arabah vary from small ant-holes and lizard cachès to those of rabbit-holes, and one or two fox-holes (?) were also observed. Tracks of various sizes also abound. Jerboas, porcupine mice, gerbilles, and sand-rats (*Psammomys*) are the groups represented, of which it is very difficult to secure specimens during a hurried march like ours. Canon Tristram, however, enumerates a considerable variety. One which I trapped here, *Gerbillus erythrurus* Gr., was sand-coloured and the size of a large rat, and is now in the British Museum. It does not appear in Canon Tristram's work. This gerbille is a wide-spread desert form, from Candahar to Algiers. The holes of this species, and some others, are surrounded outside, besides being well supplied inside, with little heaps of chopped fragments of plants, leaves, seeds, and other remnants of vegetation. Ant-roads are also conspicuous, about an inch wide, and firmly and smoothly pressed down.

Porcupine quills and decomposed remains of hedge-hogs were several times picked up in the north end of the Arabah.

At Ain Abou Weirideh sub-fossil shells were obtained in marl deposits at about 1,400 feet above the level of the Dead Sea, or about 100 feet above sea-level. Two of these, *Melania tuberculata* Mull., *Melanopsis Sauleyi* Bourg., have been figured by Professor Hull at page 100 in his work already referred to. I gathered besides these *Melanopsis bucoinoidea* Oliv., and *M. eremita* Trist. These are fluviatile or lacustrine species, and are all found still living round the Dead Sea in various streams and springs. The last-mentioned species is very rare, and I did not find it alive, but Canon Tristram discovered it at the south-western Ghôr. These marls, in the opinion of geologists, are remaining deposits of an ancient lake or inland sea, of which the Dead Sea is all that now exists. From where we now stood to near the source of the Jordan, about 225 miles northwards, must have been a continuous sheet of water in (geologically speaking) tolerably recent times.

Lower marls are very characteristic at an average level of 600 feet above the present level of the Dead Sea. I searched these marls for similar remains in many places, but always found them absolutely barren in records of the past, and very rarely inhabited by any existing life, vegetable or animal. Trunks of palms, floated to, and then embedded in these marls at the base of Jebel Usdum, form no exception; since these may have been drifted thither in times which are as yesterday compared with the "middle marls." The upper marls are fairly vegetated with the existing flora. The natural conclusion would be that the ancient sea, at first harbouring fresh-water inhabitants, became reduced by a long process of evaporation, or some other cause, to about a mean height between its present and its earliest level, and that it was already so salt that it was almost if not quite uninhabitable.

At this height, judging from the extent of the middle marls, the waters must have remained stationary for a very considerable period, while most of the upper marls became converted into the lower formation by a long process of denudation. From the latter elevation to the present the subsidence has no doubt been very recent, and is still continuing. The most recent deposits of the Dead Sea are of course perfectly barren, except of mixed drift, or where these have been converted into marshes or fertilised by the few small fresh-water streams.

But I anticipate in my anxiety to get down to the fertile Ghôr es Safieh.

At Ain Abou Weirideh a small flock of pintail grouse circled round the wells, but I failed to obtain a specimen. Subsequently I recognised the note and obtained the bird, *Pterocles senegalensis* Linn., at Bir es Seba. Its call is very peculiar, recalling the strange utterance of the Manx Shearwater.

On the night of the 14th we were visited with a thunderstorm and a tremendous downpour of rain. Rain had also fallen on the 3rd December, the day we left Akaba; this was our total from Cairo to the Dead Sea. The thunder on the 14th was grand and continuous for about three-quarters of an hour. Lightning flashed at about every five seconds.

CHAPTER IX.

SOUTH END OF THE DEAD SEA.

ON the 16th of December we obtained our first view of the Dead Sea and descended to the plain at its southern extremity. The whole depression in which the Dead Sea lies, 1,300 feet below sea-level at its surface, is called the "Ghôr," or "Hollow." On the first night we camped in the Ghôr el Feifeh, and from the 17th to the 26th inclusive we were detained at the Ghôr es Safieh while waiting for means of transport from Jerusalem.

This enforced delay in so unique a locality was to me a most fortunate circumstance. Previous visitors do not appear to have obtained more than a hurried peep at the Ghôr es Safieh. The difficulties arise from the hostile character of the adjoining tribes of Arabs, who are constantly engaged in predatory warfare, the Ghôr es Safieh being very frequently the scene of their conflicts. Our imaginations were kept excited by continual reports and warnings of those terrible Kerak Sheikhs, Huwaytats, and others who were about to demolish us. I had also read and heard much of the impossibility of doing any good exploring work where an escort is always necessary, and where the Bedouins were bent on plundering unwary strangers. However, day after day I followed the bent of my inclinations, frequently alone, climbing the eastern hills, searching the jungles and marshes, and collecting birds and plants without ever receiving the smallest annoyance.

The Ghôr es Safieh, where we spent ten days, lies at the south-eastern end of the Dead Sea, about 1,250 feet below the level of the Mediterranean. It is watered by the Garahi river as the Feifeh is by the Tufileh, both descending from the eastern highlands. Between these two oases there is a strip of desert. Both these streams were well supplied with water during our visit, and I understood from the Arabs that the Garahi at least was unfailing. The latter is called also El Ahsi, Hessi, and Safi, and the Nahr el Hussein. Smith's Ancient Atlas calls it the Brook Zered. It is distributed into numerous smaller watercourses for purposes of irrigation by the cultivating Ghawarniheh Arabs, by whose tented village we were encamped. There is another smaller village, called, I believe, El Feifeh, of which we obtained a passing view.

The whole distance from the base of the sudden descent from the barren white marls into the plain is about ten miles to the Dead Sea. The Ghôr es Safieh is about three to four miles wide. The upper Ghôr of El Feifeh is, as I have said, cut off from the lower by a strip of desert, an unwatered patch of sand-dunes and Salsolacæ. On the east the Ghôr is bounded by the highlands of Moab, and on the west by the briny, muddy, barren bed of the Tufileh. Steep marl banks, a couple of hundred feet high, enclose it on the south, while northwards it gradually becomes saltier and swamplier, with a diminishing vegetation to the lifeless margin of the Dead Sea.

On the Moab cliffs, as also on the Judæan to the west, the lower

declivities are flanked in many places with saline white marls to an upper limit of 650 feet. These marls are absolutely barren *in situ*, but they are fast being washed down by aqueous denudation, and thus purified they are scattered by irrigation over the Ghôr. A minute beetle, of the genus *Gabrella*, was a slight exception to this barrenness, which is of course interrupted in the beds and by the margins of the occasional watercourses. This new species, whose description will subsequently be given, is most nearly allied to *G. beccari* Gest of Abyssinia.

The upper Ghôr is by no means so fertile as that watered by the larger and more northern stream. The latter issues with a south-westerly direction from a narrow cleft, or "sik," in the red sandstone by which I penetrated for a few miles into that desolate country. The river is here confined to the base of the sharply cut cleft, and confers no fertility on the unaltered marls above. This cleft is 50 to 150 feet in depth or more, and the period required for its formation must place the marls above at a high antiquity. It should be borne in mind, however, that the water supply is probably now at its minimum, and the means of erosion were formerly much greater. The bed of this stream was in places absolutely dangerous from a curious cause. The side being vertical there was no upward escape, and the bed of the stream was so deeply clogged with the soft moving mass of silted fine mud that, although there was not more than 18 inches of water, I was compelled, and with difficulty, to retrace my course. As usual when anything risky is attempted, my native deserted me. At its embouchure from the cleft this remarkable stream passes through the lower gravel and shingle deposits which form the basement of the marls.

On this occasion, when crossing the marls above, I came suddenly upon three ibexes. They whistled or snorted like Highland sheep. I let fly ball cartridge from my fowling piece, but missed them. My shots attracted some wild and villainous-looking mountaineers, who followed me to camp that night, where I first became aware of their existence. They could not make themselves understood, but I fancy wished to know should they hunt the "beden." Almost immediately after I lost sight of the ibexes I came across some very interesting and rather extensive ruins of apparently great antiquity. I brought the whole of our party to the spot the following day. The ruins will be found planned and described in Professor Hull's work at page 121, and again in Major Kitchener's Appendix to the same at page 216. I leave it to future explorers to identify this site with the ancient Gomorrah.

The following observations were obtained from Sheikh Seyd, of the Glawarnihéh, with regard to the Ghôr:—

"Rain generally falls on about ten or twelve days of the year, usually during December and January. Some years there is none. Much more is seen on the highlands on either side, which does not reach the Ghôr.

"They grow wheat, barley, oats, dhourra (Sorghum), indigo (one sort), tobacco, and Indian corn.

"Wheat, barley, and dhourra are sown in January; Indian corn in March. Tobacco is sown in January. Indigo is sown in March. They grow

some white grapes on trellises. They do not know henna (*Lawsonia*) Zukkum (*Balanites*) is common, but made no use of. Mallow is boiled and eaten. Osher (*Calotropis*) is given to women when barren, or to procure milk, the milk of the bush being taken. Water-melons and cucumbers are cultivated. Of the fruit of the *Salvadora* (*arak*) they make a sort of treacle or sweet mixture. Never heard it called 'Khardal'; Khardal is mustard, but they have none.

"They (the Ghawarnih) mostly leave the Ghôr and go up to the hill country in the hottest weather. Snakes and insects are very bad and very numerous in the Ghôr at that season."

My inquiries about *Salvadora* were made relative to its claims to being the tree of the mustard-seed parable. I could get no corroboration from these Bedouins of this view, first put forward by Irby and Mangles, who are not, however, responsible for the statement that it is called "Khardal" (mustard), nor do they say, as has been misquoted, that they found the "Ghorneys" using it as mustard. The theory has not, in fact, "a leg to stand on."

Mr. Merrill, U.S. Consul at Jerusalem, has kindly made inquiries for me as to the origin of the seed sown by the Arabs. He informs me they save it from year to year, but if they should run short they obtain supplies from Jerusalem. It is to the Mediterranean sea-board westwards, therefore, we must look for the home of any suspicious weeds of cultivation in the Ghôr; and those which are not natives of this region may perhaps be held less open to question as to their being indigenous in the Ghôr.

No sooner has the river Hessi issued from its unfruitful ravine than the scene changes as if by magic. As it moistens the plain, an extensive growth of bushy, low-sized trees almost covers the district.

In the upper Ghôr these are densely tangled and matted, almost to the exclusion of other growth, and afford shelter for multitudes of birds. In the lower Ghôr the trees are more scattered; often no doubt in the more peopled district being consumed for firing, and thinned to admit of pasturage and cultivation. These trees are chiefly *Acacias* (three sorts), *Salvadora*, *Zizyphus*, and *Balanites*. There is also a *Rhamnus* not unfrequent, and Mr. Lowne mentions *Moringa aptera*. This latter writer misquotes the authors (Irby and Mangles), whom he criticizes, when he ascribes to them the remark that the oasis contained "an almost infinite variety of shrubs and bushes." Their words are: "the variety of bushes and wild plants became very great," a phrase which is well within the bounds of the reality.¹

Of these trees the *Salvadora* is the most abundant, and usually occupies a slightly lower region than the *Acacias*. It grows in clumps, several stems arising together, branching at once, and all combining to form a single tree. It is very leafy above, with small entire leathery leaves; below it displays a labyrinth of greyish branches. The flowers and fruit

¹ I quote from Murray's edition in the Colonial and Home Library, vol iv, p. 108, ed. 1884.

are small and numerous. It attains a height of about 20 feet, a stray branch reaching to 25 or 30 feet. The Balanites (Zukcum) is usually a smaller tree, and is now in full fruit. Its fruit is green and wrinkled, somewhat like that of a walnut. Its leaves are few and small. The Zizyphus is the well-known sidr or thorn of the Arabs, the dôm when reaching a large size. Its branches, strewed in lines along the ground, form the fences to protect the grain from cattle.

As the plain slowly lowers to the Dead Sea, becoming at the same time gradually moister, the vegetation changes. The above species decrease in the number of individuals. Tamarisks, Osher, Salsolas, Prosopis, and Atriplices take their place in abundance. Of these, the Osher (*Calotropis procera*) is the most remarkable. It is somewhat like a gigantic small-leaved cabbage bush, with a strong infusion of cactus blood and the bark of a cork-tree—utterly strange-looking to European eyes. Its fruit, the size of a large apple, is full of silk and air, and is probably to be identified with the “apples of the Dead Sea.” The drawing of these “trees that beren fulle faire apples, and faire of colour to beholde,” by Sir John Maundeville, is by no means unlike the Osher. If the early traveller's figure stands for any real thing it is probably for this bush, which here attains a remarkable size. Of it the writers already quoted say: “We were here (Ghôr es Safieh) surprised to see for the first time the Osher plant, grown to the stature of a tree, its trunk measuring in many instances 2 feet or more in circumference, and the boughs at least 15 feet in length, a size which far exceeded any we saw in Nubia; the fruit also was larger and in greater quantity.” This remark is interesting in connection with Captain Burton's, that the Osher in South Midian is “a tree, not a shrub” (“Land of Midian,” ii, 206), as though the plant was more at home in the Eastern continent. Castor-oil (*Ricinus communis*) is also very conspicuous and large (20 to 25 feet), chiefly in the same localities as the Osher. Other bushes are the leafless *Leptadenia pyrotechnica*, and the poplar, *Populus euphratica*. All these were seen in the Ghôr el Feifeh also. A tree of the latter, about 50 feet high, near the Dead Sea, is, I think, the largest tree in the whole Ghôr. Oleanders and Osiers are confined to the embouchures of the stream from the mountains or farther up.

As we approach the Dead Sea, occasional swamps produce jungles of various late grasses, chiefly *Arundo Phragmites* (*P. gigantea* J. Gay), *Erianthus Ravenæ* P. de B., and *Imperata cylindrica* P. de B., mixed with several Cyperaceæ, of which the most interesting were *C. eleusinoides* Kunth., and sparingly, I believe, *C. Papyrus* Linn. Salter patches are given up to *Juncus maritimus* and *Eragrostis cynosuroides* Retz. The former (var. *arabica*) was from 4 to 7 feet high. Tamarisks, Suedas, Salsolas, *Salicornia*, and *Atriplices* are the last to fail. Tamarisk, *Salicornia herbacea*, and a *Ruppia* not in flower, probably *R. spiralis*, L'Her., were the very last; the former all along the inner margin, the latter two where the mud of the sea is in union with that of the Tufleh estuary. The latter two encroach downwards upon the forbidden area here, from

salt swamps to those which are too salt, as they do upwards in our own country, from salt swamps up fresher estuaries until they meet those which are too fresh.

A brief space, fifty yards or more, varying with the slope and the fulness of the basiu, is barren saline mud or sand. This foreshore is at other seasons under water, and all which is liable to be submerged is barren, except in the two instances above mentioned on the Tufileh mud.

An interesting assemblage of sea plants is congregated around the Dead Sea. These are *Sonchus maritimus* Linn., *Inula crithnoides* Linn., *Lotus tenuifolius*, Rehb. (*Lythrum hyssopifolium* Linn.), *Salicornia herbacea* Linn., *Salsolæ*, *Suæda*, *Atriplices*, *Scirpus maritimus* Linn., *Fimbristylis dichotoma*, Rottb., *Juncus maritimus* Linn., and *Ruppia* sp.? (*R. spiralis* J. Her.?). Some of these at first sight will hardly fail to impress the observer with the idea that the vegetation must recently have undergone distinct maritime conditions; but a little reflection will show that the visits of aquatic birds, and the present suitability of the circumstances, suffice to explain their presence. Moreover, the most conspicuous are of the easily diffused pappus-bearing compositæ.

Several of the most interesting species were obtained by penetrating into the jungles in all directions. In the very heart of these, *Cynanchum acutum* was abundant, trailing convolvulus-like about the reeds. These jungles, and along the banks of the stream, were my best hunting grounds.

The luxuriance of some familiar British aquatic plants may be alluded to. The sea rush, as already mentioned, reaches 7 feet in height, *Inula crithnoides* 4 to 7 feet, and *Lycopus europæus*, 5 to 6 feet in height, while gigantic plants of *Lythrum salicaria* had reached a height of 14 feet!

One of my most interesting "finds" was that of a handsome acacia, *A. lata* Br., in the Ghôr. This species has not been recorded north of Syene (Assouan) in Upper Egypt, seven degrees farther south. There were several trees of this very distinct species, which is much larger and better furnished than the other acacias met with. An Arab to whom I silently pointed out one of this species at once exclaimed "Sont," and proceeded to show me the difference in its leaves and fruit from that of a Seyal, its neighbour. At Akaba an Arab called a large *A. tortilis* "Sunt." It is an Egyptian name, but never applied to the "Seyal."

A few other remarkable species not noticed by previous botanists in Palestine may be mentioned:—*Cocculus Læba* D.C., *Sclerocephalus arabicus* Boiss., *Zygophyllum simplex* Linn., *Indigofera panicifolia* Del., *Rhynchosia minina* D.C., *Trianthema pentandra* Linn., *Eclipta alba* Linn., *Pentatropis spiralis* R. Br. *Salsolacæ* (several), *Digera arvensis* Forsk., *Boerhavia verticillata* Poir., *B. repens* Linn., *Euphorbia ægyptiaca* Boiss., *Cyperus eleusinoides* Kunth., and some others. Several of these are distinctly tropical, and add to that most interesting group of those plants already known to inhabit the "sultry Ghôr."

I gathered altogether at the southern end of the Dead Sea about 225 identifiable species of flowering plants. The total there may reach 300.

Many annuals and Mediterranean spring plants, especially of the Leguminous and Cruciferous orders, were still in a young condition.

I defer a fuller analysis for the present, merely remarking that the flora of the Ghôr, a unique locality, is even more interesting, and that in no mean degree, than it has hitherto been shown to be.

The Ghôr has been visited by two competent botanists, Messrs. B. T. Lowne in 1864, and W. Amherst Hayne in 1872, both in Canon Tristram's company. These gentlemen have, however, hardly dealt with the oasis of Es Safieh. Mr. Hayne's essay, appended to Canon Tristram's "Land of Moab," is only enough to make a botanist wish for more of it, while Mr. Lowne's valuable paper, published by the Linnean Society, deals with the south-western extremity of the Ghôr, two dry desert wâdies whose flora is the northern wave from Sinai and the Arabah.

Although devoid of life, the sandy beach of the Dead Sea mentioned above was full of interest. On it were strewed salted remnants of a variety of insects, beetles, spiders, locusts, and seeds which had been floated from the Ghôr by the rivers and promptly killed and cast ashore. Several of these were identifiable, although of no value as specimens. A better collection in the same place was that of shells. In some places these were thickly strewn, and I went through these natural museums with the greatest care, obtaining thus several varieties not previously found in Palestine. Amongst these are *Planorbis albus* Mull., *Limnæa peregra* Desf., *Physa contorta* Mich., *Achatina* (*Cionella*) *brondeli* Bourg., *Ferrusacia thamnophila* Bourg., and a new species of *Bulimus*.

The tamarisks near this were inhabited by a species of ant. These make their home, in parties of 20 or 30, in a sort of purse of vegetable matter, made out of scraps triturated together and worked into a smooth papery lining. The species is *Polyrhachis seminiger* Mayr., belonging to a tropical, chiefly Indian, genus. Multitudes of little fishes, *Cyprinodon dispar* Rupp., as mentioned by Tristram, were seen in the salt pools close by.

Although my visit was too early for many species of plants, yet on my first day in the Feifeh I found at once numerous kinds not seen in Sinai, of which a good many were both in flower and fruit. These must flower continuously, or with a very brief respite; others, chiefly European and Mediterranean species, were rapidly advancing to the flowering stage during our sojourn in the Ghôr.

A good number of Sinai species occur in the Ghôr. An effect of the moister climate on some of the woolly desert plants was noticeable. These became very perceptibly less so in the Ghôr. *Pulicaria undulata*, *P. arabica*, *Tribulus terrestris*, *Verbascum sinuatum*, may be instanced. Possibly the salinity of the atmosphere assists in this; the tendency of plants to become glabrous by the seaside is familiar. On the other hand, excessive dryness appears to provoke pubescence in plants, as well as other striking qualities of pungent odours, gummy exudations, and conversion of leaves to spines, all of which we may expect to find diminished if the species can accommodate itself to moister conditions.

I have hitherto spoken almost entirely of the plants. The district is of as great interest in other branches of natural history. Canon Tristram's various works have made this fact familiar. My prolonged stay at an unusual season must indeed be my excuse for trespassing on a subject he has made so peculiarly his own.

The Ghôr swarmed with birds. About forty species were observed, of which, with two or three exceptions, specimens were obtained. Some, especially doves of two species, and bulbuls of the sort already met, were extraordinarily abundant. The doves were the Indian collared turtle, *Turtur risorius* Linn., and a smaller beautifully bronzed species, *T. senegalensis* Linn.

On the Dead Sea mud, redshanks, lapwings, and sandpipers flitted and fed, but they were confined to those parts of the margin which were tempered by fresh water. Snipe, water-rails, and ducks of British sorts were frequently met with. Marsh sparrows in great flocks also kept near the shore. Buntings and larks of three sorts were in vast numbers throughout the stubbles of maize. The two desert partridges occurred on the margins of the Ghôr, where also the thicknee was shot. Shrikes, "boomey" owls, marsh harriers, buzzards, sparrowhawks, and kestrels were all noted. The mellow, loud whistle of Tristram's grackle frequently caught the ear, as did also the excessively discordant craking note of the Smyrna kingfisher. The beautiful little sunbird and the gaudy blue-throated robin were about equally common, the former usually frequenting those acacias which gave support to the handsome Loranthus. Several other warblers were observed, but for most of these, as well as the swifts and others, the season was too early. On the upper ground at the edge of the Ghôr several pairs of desert chats of two or three kinds might be always studied, and the impression the Ghôr gave me was that many migratory species of Palestine who ought to travel south from the Jerusalem plateau in winter found here a conveniently close and sufficiently warm retreat which they utilise in vast numbers.

Burrowing animals still give evidence of their abundance. Traps set for these were, I believe, appropriated by Bedouin lads, for I could never rediscover them. The traps were strong, and I trust they snapped on their meddlesome fingers. Jackals kept up their high-pitched scream throughout the night. Bedouins, bantams, jackals, and jackasses have all peculiarly high notes in the Ghôr. They howl together in a shrill minor key chiefly when they ought to be asleep.

Fresh boar tracks were always visible; on one or two occasions I heard the animals crushing in the jungle close ahead of me. Ibexes were seen in the ravines close by.

There are many cattle scattered through the Ghôr. These are chiefly small pretty black animals with white faces, somewhat like the Highland breed, while goat-like sheep and sheep-like goats with ears hanging 6 inches below their snouts, are herded evening and morning. Donkeys are more numerous than ponies; there are very few of the latter in the possession of the much molested and peaceful Ghawarniheh.

The Bedouins supplied us with poor milk and very small eggs.

Insect life had as yet hardly awakened. About half-a-dozen species of butterflies were observed, of which some were Ethiopian forms. Scorpions were still torpid. Molluscs, except fluviatile, were scarce, while Batrachians and Reptilia might have been almost non-existent with the exception of the Lacertidæ.

A very nimble fresh-water or rather marsh crab was very abundant. To this animal was due the multitude of burrows amongst the tufts of *Juncus maritimus* near the Dead Sea. Twice I saw them disappear with incredible swiftness into these holes, which were of various sizes, and of so great a depth or length I could not usually dig them out. Several that I did dig out were blind or empty, and at first these holes puzzled me beyond measure. The total absence of tracks or pads leading to them arrested my attention, while their widely different sizes, both in length and diameter, suggested something altogether new. Those crabs I obtained were by means of the Bedouin lads. The carapace of the biggest was about 5 inches by 3. They are grey in the young state, but attain a reddish tint when full grown. The species is *Telphusa (Potamophilon) fluviatilis Savign.* One was killed in our camp, showing that they ramble at night away from water or marshy places. This crab extends through Egypt to Algiers, and occurs also, I believe, farther east than Palestine.

At the time of our visit the mean diurnal temperature was about 50° Fahr. There is no universal check to vegetation in the Ghôr. Acacias, Osher, castor-oil, Loranthus, Salvadora, species of *Abutilon*, *Zizyphus*, and *Balanites* were bearing fruit and flower now in the coldest season in true tropical fashion.

Before we left, the sun was just beginning to "braird the lea," and there was a delicate hue of green perceptible across the ill-tilled soil.

The river, Seil Garahi, alias Hessi, was well filled with water, and on several occasions we enjoyed a swim down the swift deep rushes at the inner edge of the plain. Irby and Mangles, I think, found this river dry on their return journey from Petra.

Before bidding farewell to the Ghôr I should mention one striking peculiarity in its flora. I allude to the great number of species compared with the number of individuals. If those few gregarious kinds (chiefly trees, grasses, and shrubs) already mentioned be eliminated, the remaining sorts would very often depend on a few plants for their claim to a place in the list. Hence a brief visit may give rise to many omissions.

CHAPTER X.

GHÔR ES SAFIEH TO GAZA.

ON the 27th December we finally struck tents and left our camp in the Ghôr es Safieh. As we passed westward near the south end of the

Dead Sea some interesting features were observed. The waters vary in their surface level about 3 feet between the brief wet period and the minimum level. During our visit they stood at a low level, and the drift of timber and terrestrial shells showed an upper margin at a uniform height in several places. Where the shore slopes very gradually, as in most places round the southern end, this variation in depth is sufficient to leave a wide space of foreshore uncovered. This was very noticeable during our journey along the base of Jebel Usdum, at the south-west corner of the Dead Sea. The water was there about 600 yards from the line of drift. Inside this was the usually traversed track along the base of Jebel Usdum, and above, about 7 vertical feet higher than the present high-water drift, was an older well-marked margin looking very recent and pointing to a still continuing evaporation of its waters in excess of the supply.

Logs of palm-trees frequently marked these margins, and these were seen embedded in a drifted position in the marls of Jebel Usdum as much as 27 feet above the highest level now attained by the waters of the sea. Palm-tree trunks were also seen along the river Tufileh in the Ghôr el Feifeh and lower about its estuary. These were probably, from their appearance, torn out of its bed during a flood in a semi-fossilised condition. Thus the subsidence of this sea has continued and is continuing, and earlier deposits are being continually carried down to form more recent ones and to fill up the cavity. Most parts of the Dead Sea south of the Lisan are very shallow. In two places, when looking for a swim, abreast of Jebel Usdum and north from the Ghôr es Safieh, I waded out several hundred yards without getting water above my knees, and the water, like that at the mouth of the Jordan at the other end, is usually turbid. The work of reclamation steadily proceeds, and as the sea is known to be of very considerable depth (200 fathoms) in other places there is abundant room for the inflowing sediment.

Of Jebel Usdum I have given a description to Professor Hull which has appeared in his account of our expedition. It proved, as it looked, to be of little botanical interest, and I should not have climbed it had I not seen it stated in several places that it was inaccessible. The plants found on its upper portion, 650 feet above the Dead Sea, were very few, the whole being a bare flat with a slight central ridge of barren marl—the cap of the central core of rock-salt. A couple of solitary tamarisks occurred and several Salsolaceæ. The latter were *Noœa spinosissima* Moq., *Atriplex alexandrina* Boiss., *Salsola rigida* Pall., var. *tenuifolia*., *S. letragona* Del., *S. fetida* Del., and *S. inermis* Forsk. The “mountain of salt” is, in fact, well characterised by this order. Several of the above are additions to the flora of Palestine. On the western slope a few desert species of the ordinary and familiar types were collected, and these gradually increased to the base at the Mahauwat Wâdy, whose flora has been already the subject of a special paper by Mr. Lowne. This writer gathered here, and in the neighbouring Wâdy of Zuweirah, eighty-two flowering species chiefly of the desert sorts. These are all, or almost all, either Sinaitic or occur in the Wâdy Arabah.

Leptadema pyrotechnica Forsk., and *Ochradenus baccatus* Del., grow to a large size here. The latter was about 15 feet high, close to the Dead Sea, at the confluence of these two wâdies. *Zilla myagroides* Forsk. was here in flower, bearing a pretty little blossom like our *Cakile maritima*.

During the ascent of Wâdy Zuweirah to the plain of South Judæa the following fresh species were collected:—*Notoceras canariense* R. Br., *Enarthrocarpus lyratus* D.C., *Zollikoferia* sp.? (*Z. stenocephala* Boiss.?), *Lithospermum tennistorum* Linn., *Heliotropium rotundifolium* Sieb., *Ballota undulata* Fres., *Arnebia linearifolia* D.C., and *Plantago Loefflingii* Linn. A large bulb, *Urginea Scilla* Stein.?, now only in leaf, marks well the transition stage from the Ghôr flora to that of the Judæan wilderness. Desert species, as *Fagonia*, *Zygophylla*, *Retama*, *Acaciæ*, *Resedaceæ*, *Cucumis*, *Microrhynchus*, *Dæmia*, *Ærua*, *Forskahlea*, and others were here for the most part taken leave of. These ascended perhaps a third part of the climb, several ceasing at about the old Saracenic Fort. Upwards, and on the Judæan plain, a great change takes place. We found ourselves ere long on rich land arousing itself to a spring growth, although the most inclement season was not yet reached. The need of water is of course everywhere apparent. Withered remains are scarcer than in the desert, and the ground is often bare for considerable spaces, or with a few early patches of species to be presently mentioned. It becomes difficult to recall the existence of the contiguous Ghôr flora with its perennial luxuriance. Hardly a bush and no trees are observed to break the monotony. Travelling still westwards, evidences of cultivation, that is to say of the soil being "scratched" and sown, appear. Soon after Bir es Seba, two days from the Ghôr, we find ourselves amongst softly swelling downs covered with sowers and ploughers, but otherwise monotonous in aspect, as the cretaceous limestone formation usually is.

The species first observed at the head of Wâdy Zuweirah and upwards to Bir es Seba were numerous, many of them spring Mediterranean species just opening their flowers. The following were conspicuous:—*Carrichtera Vellæ* D.C., *Biscutella Columnæ* Ten., *Enarthrocarpus lyratus*, Del.?, *Silene dichotoma* Ehr., *S. Hussoni* Boiss., *Helianthemum Kahiricum* Del., *Astragalus sanctus* Boiss., *A. alexandrinus* Boiss., *Erodium cicutarium* Linn., *Senecio coronopifolius* Del., *Scorzonera lanata* M.B., *Calendula arvensis* Linn., *Achillea santolina* Linn., *Anchusa Milleri* Willd., *Cyclamen latifolium* Sibth., *Ajuga Iva* Schreb., *Satureia cuneifolia* Ten., *Marrubium alysson* Linn., *Salvia verbenaca* Linn., *S. controversa* Ten., *S. ægyptiaca* Linn., *Eremostachys laciniata* Linn. (in leaf only), *Paronychia argentea* Lam., and *Urginea undulata* Steinh. (?). Several of these are pretty little bright-flowered yellow and blue annuals.

We were now travelling on horseback, and I had no longer the same facilities for botanising. The pace was usually too fast. My method was to keep well ahead till I reached some inviting point, and then dismount and botanise, usually holding a rein across my arm. The result was that I was usually left far behind, or in hot pursuit of the party. Sometimes I lost my way altogether. It would have needed a botanical circus

rider to get on and off his horse with comfort as fast as new flowers occurred.

Several mosses and lichens were gathered on this march. The mosses were *Tortula muralis* Linn., *Bryum atropurpureum* W. and M., and a Hepatica, *Riccia lamellosa* Raddi. The mosses are both British species.

In animal life, gazelles, mole-rats, *Spalax typhlus* Pall., and sand-rats, *Psammomys obesus* Rupp., appeared to be the most abundant. I captured examples of the latter two, which are now in the British Museum.

The mole-rat, the Asiatic representative of the English mole, though of a very different family, is a strangely ugly little animal with long protuberant teeth. Mr. Armstrong showed me a ready way of obtaining specimens, which at first sight appeared to be hopeless. His plan was to watch the freshly up-lifted heaps of soil which are raised in line at short intervals, and notice the direction the animal is burrowing in by the relative freshness of the heaps. Soon a slight movement will be observed in the freshest heap or beyond it, and on firing a charge into the ground at once, the gun about a foot from a point a few inches ahead of the moving place, the animal will be stunned and may be at once dug out, probably alive. I tried this plan twice successfully.

A buff-coloured snake, about 3 feet long, *Zamenis atrovirens* Gray, was killed in the neighbourhood of Tel Abou Hereireh. Geckos and toads were also captured. A brown and grey fox (*Vulpes nilotica*?) was seen near Bir es Seba. Laurence shot a fine wild cat (*Felis maniculata* Rupp.) in a gulley near Tel Abou Hereireh. It measured 2 feet 8 inches from the tip of the nose to the tip of the tail, the tail itself being 1 foot. It was of a greyish-brown colour, brindled with sandy brown across the back and down the sides. The tip of the tail was ringed with black. This is supposed to be the cat found embalmed in Egyptian monuments. It is found along the Nile, and as far south as Abyssinia.

I spent as much time as I could in digging up bulbs. Of these there were several identifiable species, as *Xiphion palestinum* Baker, a dwarf sweet iris, with large flowers in tints of buff and French grey. *Colchicum montanum* Linn. occurred in the greatest abundance, white or pale mauve, and was very beautiful. *Urginea Scilla Sternih.* and *Asphodelus ramosus* Linn. were most abundant, increasing westwards to Gaza. *Bellevalia flexuosa* Boiss. and *Ornithogalum umbellatum* Linn. also frequently appeared.

About Bir es Seba the birds observed were cranes, black and white storks, buzzards and kites, trumpeter bullfinches, pintail grouse, Greek partridge, black-headed gulls and lapwings, as well as several desert larks and chats. The technical names of these species will subsequently be enumerated. The trumpeting of the crane was heard frequently, usually at night.

At Tel el Millh, in a swamp, a flock of teal was flushed, and a number of the black or Sardinian starlings came to roost in the rushes. Their note is different from that of our species. A snipe handsomely marked

with white, as seen in flight, with a rich brown back, and showing vivid green tints also on the upper surface, was unfortunately missed. It uttered a peculiar quacking cry, and I had several good views of it. There were three or four birds in the marsh, and I have no doubt it was the painted snipe, *Rhynchoea capensis* Linn., which has not previously been known to inhabit Palestine. It is a widely spread species in Africa.

The Cyclamen and the Colchicum are constantly exciting our admiration. In the marsh just mentioned *Spergularia marginata* Koch., *Cyperus longus* Linn., and *C. lævigatus* Linn., var. *junciformis*, were collected.

A feature noticed by all travellers is the abundance of snails on the small shrubs, chiefly on *Anabasis articulata* Boiss. The commonest of these was perhaps *Helix Seetzeni* Koch., but I also gathered *H. joppensis* Rottb., *H. syriaca* Ehr., *H. protea* Zugl., *H. vestalis* Pass., *H. tuberculosa* Conrad., *H. candidissima* Drap., *H. Boissieri* Charp., and *H. cavata* Mouss. *H. cavata* and *H. Boissieri* are the finest of these species in size, the latter being a heavy solid-shelled sort. *H. tuberculosa* is trochiform, or top-shaped. This species and his flattened brother, *H. ledereri* Pfr., gathered between Gaza and Jaffa, are both scarce. They are the prettiest, being delicately mitred and foliated at the whorls.

The black-headed gulls, and no doubt others of the birds, subsist on these molluscs.

Continual evidence of wild boars occurred, and some of our party had the good luck to obtain a sight of a "sunder," or family party. They seem to feed chiefly on the bulbs, of which some large kinds are marvellously plentiful. An *Urginea* (probably *U. undulata*) was sought after especially, so that it was with difficulty roots which they had not mashed were obtained to bring home. It has since flowered, and in the absence of leaves is doubtfully referred to this species by Mr. Baker. *Urginea Scilla* covers the ground for miles, and grows sometimes to the exclusion of everything else. It appears to be a scourge to the fellahin. Great heaps of its bulbs, the size of a melon, are often met with, and lines of its growth are commonly left to mark off each cultivator's allotted space. *Asphodelus ramosus* Linn. is nearly as common. The brilliant anemone (*A. coronaria* Linn.), the "lily of the field," was picked in flower on the last day of the year. The curious stringy *Thymelæa hirsuta*, whose acquaintance I first made on the shores of Brindisi on the outward journey, is profusely common. Between Bir es Seba and Gaza the species now in growth are almost altogether of the Mediterranean type. A few desert species occur, but chiefly of a Syrian or Mesopotamian character, as *Caylusea canescens*, *Deverra tortuosa*, *Alhagi maurorum*, *Peganum harmala*, *Citrullus colocynthis*, *Artemisia herba-alba*, and *Anabasis articulata*.

The universal "rimth" (*Anabasis* or *Salsola*) of the Sinai Bedouin is called by the Doheriye Arab "Shegar." It may be that the Arabs put off inquiries from one whom they perceive to be unlearned in their language with trivial and unmeaning terms; but the results of my short experience would tend to show that little importance can be attached to

these local names. Different tribes and places yielded different terms, so that on comparing my collection of Arab plant-names with those given by several other writers, hardly two were identical, or even alike. In the Serbal district of Sinai, Wâdy Rimthi takes its name from the Anabasis.

The soft note of the trumpeter bullfinch, rising and falling as if borne on the wind, while the bird is concealed on the ground somewhere close by, often arrested my attention. It was impossible to tell whether it was ten yards or ten times that distance away.

Travelling west past Tel Abou Hereireh to Gaza, the following plants occurred in addition to those mentioned already about Bir es Seba :—*Malcolmia pulchella* Boiss., *Matthiola humilis* D.C., *Alyssum Libyca* Vir., *Erucaria microcarpa* Boiss., *Capsella Byrsa-pastoris* Linn., *Polycarpon succulentum* Del., *Dianthus multipunctatus* Ser., *Silene rigidula* Sibth., *Ononis serrata* Forsk., *Hypericum tetrapterum* Fres., forma., *Erodium hirtum* F., *Eupleurum linearifolium* D.C. ?, *Carthamus glaucus* M.B., *Thrinicia tuberosa* D.C., *Tolpis altissima* Pers., *Scorzonera alexandrina* Boiss., *Mandragora officinarum* Linn., *Withania somnifera* Linn., *Echium plantagineum* Linn., *Lamium amplexicaule* Linn., *Euphorbia exigua* Linn., *Paronychia nivea* D.C., *Andropogon hirtus* Linn., and *Poa annua* Linn.

CHAPTER XI.

GAZA TO JAFFA.

AT Gaza we were kept a few days in quarantine by the Turkish authorities. This was not because we were deemed infectious (the idea was absurd), but to levy a tax on our purses. By the prompt interference of Lord Dufferin, British Ambassador at Constantinople, to whom we telegraphed, we were released in four days instead of being confined for a fortnight.

This delay was to me most valuable, as it enabled me to sort my rapidly made collections of the last few days.

On our last day, having liberty to leave quarantine ground, I gathered a good many species south of Gaza which I had not seen before. Many of these belong to well-known Mediterranean types, but there is still an important admixture of desert and Egyptian forms, belonging to a somewhat more southern group.

Gardens of fruit trees, olive groves, and enclosures hedged by the prickly pear (*Opuntia vulgaris* Linn.) reached our camp from the inland side. On the leeward we were hemmed in by high sandhills, the vanguard of an ever advancing column, driven westward by the prevailing winds, which is gradually swallowing up Gaza, old and new, as well as a long belt of coast north and south of it.

Some laborious journeys across this belt of sand, often three or four miles broad, impress them vividly on my memory. They yielded exceedingly few species, being as a rule completely barren. I may

mention *Silene succulenta* Forsk., *Scrophularia xanthoglossa* Boiss., *Euphorbia terracina* Linn., which grew well out on the dunes.

These sands are effecting a steady and enormous change along the coast. It is difficult to reach what is left of Ascalon, which remains on an insulated patch of rocky ground by the sea completely cut off inland. Little of it is left unsmothered. Ashdod is undergoing the same fate. Gaza retreats inland in front of the arenaceous sea, and it is only at intervals, or by ascending some eminence which is rarely met with, that one obtains even a view of the Mediterranean. This was to me a keen disappointment, and I sighed for the reality for a cliff-girt coast like that of north-western Donegal.

In and about the Gaza olive groves several birds familiar at home abounded. Others occurred on the plain hard by. It was refreshing to hear their well-known voices in this strange and inhospitable land. There were English sparrows, swallows, buntings, goldfinches, black redstarts, chaffinches, stonechats, willow-wrens, and chiffchaffs, blackbirds, and hooded crows. Other birds seen were Egyptian kites, buzzards (common species), "boomey" or little southern owl, red-breasted Cairo swallows, pelicans, dunlins, calandra and crested larks, bulbuls, pied chats, and Menetries' wheatear.

At an estuary about four miles south of Gaza, and up a flat wâdy leading to it, I obtained several good plants. This would be capital ground to botanise at a later season. The following are the most interesting:—*Brassica Tournefortii* Gou., *Cratægus azarolus* Linn., *Neurada procumbens* Linn., *Ceratonia siliqua* Linn., *Astragalus aleppicus* Boiss., *A. macrocarpus* D.C. (not in fruit), *Medicago laciniata* All., *Ononis natrix* Linn., var. *stenophylla*, *Anagyris fœtida* Linn., *Acacia albida* Del., *Prosopis stephaniana* Willd., *Xanthium strumarium* Linn., *Artemisia monosperma* Del., *Centaurea araneosa* Boiss., *C. pallescens* Del., *Atractylis prolifera* Boiss., *Linaria Hælava* Forsk., *Anchusa ægyptiaca* Lehm., *Prasium majus* Linn., *Andrachne aspera* Linn., *Ficus sycomorus* Linn., *Ricinus communis* Linn., *Boerhavia verticillata* Poir., *Plantago albicans* Linn., *Euphorbia peploides* Gou., *Emex spinosus* Camp., *Salsola inermis* Forsk., *Cyperus schænoides* Griseb., *C. rotundus* Linn., *Fimbristylis dichotoma* Rott., and *Pennisetum cenchroides* Rich. Some of these, as the castor-oil, the little anomalous desert *Neurada*, and the tropical *Boerhavia*, point to the great heat of Gaza.

The trees about Gaza are chiefly date-palms, olives, sycamore fig, caroub (*Ceratonia*) or locust-tree, and fig; a very handsome tamarisk (*T. articulata* Vahl.) reaches a height of 30 or 40 feet, and has bright green foliage very refreshing and home-like after the dull grey or lifeless green of the desert. The olives are of enormous age. They usually have unbranched trunks, 2 or 3 feet in height, then perhaps divided, and at 7 or 8 feet the leafy canopy, browsed below to a level height by cattle, begins. The average height of the tree is 20 to 25 or 30 feet. Old trees have often mere shells of their trunks remaining. I measured the two largest I saw, a few miles north of Gaza; their right

was 18 and 20 feet respectively at 2 feet from the ground, a size which was maintained, or very nearly so, till the trunk forked.

At Ascalon, which Laurence and I visited at a gallop just before dark, I gathered *Calycotome villosa* Linn. in the sands, a pretty yellow shrubby pea-flower. Ascalon is a wilderness of shifting sands. The small space of remaining earth is inhabited by a few Arabs, from whom I got my first Jewish coins. Several pillars of marble and black granite lie about the ruins of the crusading fort, but none are in position.

Frequently dogs with unmistakable traces of jackal parentage were seen along here. I was assured it is by no means uncommon for these animals to interbreed along this part of the Mediterranean seaboard.

The chief crop showing is of lentils. I saw bean-stalks a foot and a half high in the first week of January.

A few of the commonest British plants, as *Capsella Bursapastoris*, *Silene inflata*, *Convolvulus arvensis*, and *Rumex obtusifolius*, occur along here.

A handsome tree introduced from the East is very common. It is the *Melia azederach*, or Pride of India. It is deciduous, and only bearing fruit, as I saw it, along the enclosures or by the villages. *Lycium europæum* Linn., *Rubia olivieri* A. Rich., *Ephedra alata* Dene., *Asparagus aphyllus* Linn., and *A. acutifolius* Linn., are the larger plants, which help to stop up the gaps in the prickly pear fences.

At Yebdna, and thence to Jaffa, *Narcissus Tazetta* Linn. was in flower. Some damp low-lying patches were white with it. Other species were *Ruta graveolens* Linn., *Erodium* sp.? (*E. bryoniaefolium*?), *Retama retam* Forsk. (in flower), *Lithospermum callosum* Linn., *Echiochilon fruticosum* Desf., *Thymus capitatus* Linn., *Lavandula stoechas* Linn. and *Rhamnus punctata* Boiss. The Retem broom was in flower, very pretty, white variegated with purple. I found it once previously in blow in the desert.¹ *Lawsonia alba* Linn. (henna) was seen several times, but usually here (as at Akaba) either in or on the verge of enclosures. No doubt it remains from ancient gardens at Engedi, where it is, I believe, abundant. It is native much farther east.

In the gardens next the hotel at Jaffa were some very interesting plants. I did not learn their history, or who made the collection. Some of the Sinaitic and Dead Sea plants were there—the handsome trailing pea, *Dolichos lablab*, which I found in the Ghôr, a widely cultivated plant in hot countries, but perhaps originally introduced from India. The Sinaitic *Gomphocarpus*, a milky asclepiad with pods full of silk, one of the most remarkable species in the peninsula, was here also; it differed, however, from the Sinaitic plant in being shrubby and about

¹ This is the Hebrew "rothem" or "rotem," translated juniper in the Old Testament. The same name (*Retama*) is applied to a species of a closely allied genus, the *Spartocytisus nubigenus*, of the middle zone of vegetation of the Peak of Teneriffe, as I learn from Mr. Moseley's "Notes by a Naturalist 'Challenger,'" p. 5.

6 feet high, while the desert plant averaged from a foot to a foot and a half.

Ricinus communis (the castor-oil); *Echaverias*, *Lavandula Stæchas* (the handsome purple woolly lavender just mentioned), and quite a collection of *Acacias* and *Mimosas*, with oranges, bananas, indiarubber trees, fan-palms, *Eucalyptus*, *Mesembryanthemums*, and many others made up a tropical garden which will well repay the traveller's visit. I was peculiarly interested to see my *Boucerosia* from Mount Hor here, a cactus-like plant, which seems to be a new species. Can it be, like the *Dolichos*, an ancient weed of cultivation? When we let the mind go back to times of ancient civilisation, to the traffic and merchandise of pilgrims, monks, and Bedouins, of Israelites and Phœnicians, Pharaohs and Ptolemys, Greeks and Romans, Turks and Crusaders, caravans and ships laden with food, with gums, spices, fruits, and wares during the whole history of mankind, we must reflect that many plants we now view as inhabitants, especially those of any economic use, may have hailed originally from remote sources. Speculations of this kind, at once so uncertain and so unpalatable, had better perhaps not be indulged in. They can only lead to doubt and discussion. Granted that the "osher" is known by the Bedouin "Doctrine of Signatures" as a plant of domestic value, may we not theorise as to whether wandering tribes have not carried it from Midian or Nubia to Sinai? from Sinai to its far northern home in the Ghôr? and so with many others. This line of thought, which these gardens naturally produced, may, I think, except in rare instances, be better dispensed with.

The gardens at Jaffa were fully supplied with its own brand of most excellent oranges.

CHAPTER XII.

JERUSALEM.

BETWEEN Ramleh (a few miles from Jaffa) and Jerusalem, during an ascent of over 2,000 feet, many fresh species occurred. The chief change in plant life lay in the great increase of low shrubby vegetation on the limestone hills and terraces. I had little time to botanise, but with hard galloping to make up for delays, I secured several sorts in condition to be studied. An oak, *Quercus coccifera* Linn., and a handsome large-leaved arbutus in full flower, *Arbutus andrachne* Linn., are two conspicuous trees or bushes characteristic of the rocky regions above the plain of Ramleh. A large daisy, *Bellis sylvestris* Cyr., similar except in size to our own *Bellis perennis*, was in flower. The handsome locust-tree, usually here of only the stature of a bush from being cut for firing like the others, is very frequent. Its rich dark green pinnate foliage is well known to travellers in Southern Europe, where its pods are much used to feed cattle. This is supposed to be the "locust" of St. John. At Kirjath-

jearim a solitary date-palm occurs, and I was informed at Jerusalem that near this a clump of native pines, *Pinus halepensis* Linn., exists. Maiden-hair, ceterach, and the sweet Cheilanthes, were the ferns gathered, chiefly amongst the limestone clefts above Bab el Wad. A handsome sage, *Salvia triloba* L., was in flower, and several other labiates, as *Phlomis* sp.?, *Micromeria barbata* B. & K., *M. myrtifolia* Boiss., *M. nervosa* Desf., and *Teucrium polium* Linn. were collected. A bryony, *B. syriaca* Boiss., and a beautiful clematis with dull purple flowers, *C. cirrhosa* Linn., trailed along the roadside walls near the villages. The leafless Ephedra and Asparagus still help to increase the variety. The spiny-branched *Calycotome villosa* Linn., and *Anagyris fetida* Linn., yellow pea-flowered shrubs, are not uncommon. Other less important plants are—*Reseda alba* Linn., *Malcolmia crenulata* Boiss., *Thlaspi perfoliatum* Linn., *Erodium moschatum* W., *Thelygonum cynocrambe* Linn., *Ononis natrix* Linn., *Inula viscosa* Boiss., *Sherardia arvensis* Linn., *Alkanna Tinctoria* Tausch., and *Onosma syriaca* Lab. Most of these are common about Jerusalem and Bethlehem.

The birds noted were almost entirely British species. Of these the wheatear had not been seen before. *Saxicola lugens* Licht., and I think *S. finschii* Heugl., were eastern chats not seen since leaving the Ghôr, but here not unfrequent.

While at Jerusalem we came in for an unusually heavy fall of snow, lasting from 20th to 25th of January. There was therefore little to be done in botany around the Holy City. Fortunately we had accomplished our pilgrimage to Jericho before the snow set in, which gave me an opportunity of comparing the northern with the southern Ghôr, or hollow of the Dead Sea.

About Jerusalem, but especially along the tiny aqueduct between the Pools of Solomon and Bethlehem, some plants were in flower. *Erodium malacoides* Linn., *E. gruinum* Linn., *Pistacia palestina* Boiss., *Sedum* sp. (*S. altissimum* Poir.?), *Tordylium brachycarpa* Boiss., *Torilistrichosperma* Spr., *T. leptophylla* Rich., *Pimpinella cretica* Poir., *Galium judaicum* Boiss., *Pisum fulvum* S. & L., *Lathyrus blepharicarpus* Boiss., *Carduus argentatus* Linn., *Urospermum picroides* Desf., *Crepis senecioides* Del., *Anchusa mulleri* Willd., *Onosma syriaca* Lab., *Hyoscyamus aureus* Linn., *Cyclamen latifolium* Sibth., *Plantago lagopus* Linn., *Viscum cruciatum* Linn., *Euphorbia aulacosperma* Boiss., *Gagea reticulata* R. & C., *Agrostis verticillata* Willd., and *Avena sterilis* Linn.; as well as some common British plants, as *Nasturtium officinale* R. Br., *Cerastium glomeratum* Thuill., *Geranium molle* Linn., *Torilis nodosa* Gaert., *Rubus discolor* W. & N., *Veronica anagallis* Linn., & *V. Beccabunga* Linn., will serve to give botanists an idea of the species occurring at this season.

Jerusalem, 2,400 feet above sea-level, falls within Boissier's "Plateaux" subdivision of the Oriental region. His "Flora Orientalis" deals with the countries from Greece to India in a width of about twenty degrees of latitude north of the tropics; and he divides these into (1) Mediterranean, (2) Middle Europe, (3) Oriental, and (4) Region du Dattier [or Desert].

The Oriental is subdivided to Plateaux, Aralo-Caspian, and Mesopotamian. In the first of these subdivisions of the Oriental region, Jerusalem and Damascus and the districts around and above each of these cities are placed.

The climate of Jerusalem is milder and more Mediterranean than most parts of this sub-region. The date-palm, though not native nor able to ripen its fruit, can exist, and grows to goodly dimensions, as evidenced by one well-known tree. Others occur a little lower towards Ramleh. Here and at Damascus, as I subsequently saw, the prickly pear is naturalised. A "pipi" tree, *Cesalpinia Gilliesii*, a highland species from Buenos Ayres, was amongst the few cultivated species noticed in a recognisable condition. It was in flower beneath the windows of the Mediterranean Hotel.

From an intelligent resident at Jerusalem I obtained some information of the vegetable products of its neighbourhood which may, I think, be deemed reliable, and gives an idea of the climate.

"Frost, though occurring annually for some nights usually at the end of January, rarely lasts throughout the day, and hardly penetrates the soil [where there is any].

"The sycamore fig, orange, mandarin orange, and lemon, which ripen their fruit so well at Jaffa, will not do so at Jerusalem.

"Apricots, tomatos, grapes, figs (!), thrive better at Jerusalem than Jaffa. Pomegranates and nectarines do fairly well at Jerusalem.

"Bread melons [*Artocarpus integrifolia* ?] and water melons, which attain a weight of 20 to 30 pounds at Jaffa, will not ripen at Jerusalem.

"A small plum, like a greengage, succeeds better at the elevated station; but strawberries, apples, and pears have all been unsuccessfully tried.

"Olives bear well about Jerusalem, especially after a winter of snow and cold; each tree generally gives a good crop every second year. Hail sometimes damages the fruit much.

"Sesame (*Sesamum indicum*) is grown on the plains; its oil is used for cooking purposes [and I suppose for adulterating the olive oil]. The pulp is given to animals. It is a summer crop like the dhourra [*Sorghum*] after wheat and barley."

Cupressus sempervirens Linn., var. *pyramidalis*, the funeral cypress, attains a great size in the esplanade between the mosques of Omar and El Ahksa, but far finer trees were seen later at Smyrna. The "Prince of Wales tree," *Pinus halepensis* Mill., pointed out by this name as the tree the Prince camped under, is the finest tree near Jerusalem. It is about 50 feet high, and well furnished. Smaller ones occur at the Armenian convent.

An interesting plant of Jerusalem is the red-berried mistletoe, *Viscum cruciatum* Linn., parasitic on olive-trees, and known elsewhere only in southern Spain. Mr. Armstrong, who was always willing (when his duties permitted) to give me a helping hand, brought me specimens from the Valley of Jehoshaphat.

During the snow at Jerusalem a gazelle was shot within a mile or two of the city. This was, I believe, a very unusual occurrence. I saw the animal immediately after its death.

CHAPTER XIII.

JERICHO AND NORTHERN GHÔR.

ON the 14th of January we went down to the Jordan Valley. Immediately after leaving Mount Olivet I found abundance of *Androcymbium palæstinum* Baker (*Erythrostictus* Boiss.), first seen in the Arabah above the Ghôr. It is a stemless white-flowered plant, small but leafy, and with rather large flowers of no particular beauty. It belongs to the Colchicaceæ. I mention it specially because Mons. Barbey mentions that Roth found this plant close to Jerusalem, but that after careful search he (Barbey) was unable to rediscover it. I am thus able to confirm Roth's record. Mons. Barbey's visit (April 3) was perhaps too late for the species.

On descending even a slight distance to the east the climate at once improves. Bethlehem and the neighbourhood of Solomon's Pools are distinctly milder than Jerusalem. We gradually travel from mid-winter into spring. Several plants met with before as we climbed out of the Ghôr by Wâdy Zuweirah, are again in flower as we descend. *Fumaria*, *Carrichtera*, *Biscutella*, *Malcolmia*, *Erucaria*, may be quoted. Fresh forms occur, as *Hypocoum procumbens* Linn., *Capsella procumbens* Linn., *Neslia paniculata* Linn., *Hippocrepis unisiliquosa* Linn., *Hymenocarpus circinnatus* Linn., *Astragalus callichrous* Boiss., *A. sanctus* Boiss., var., *Trigonella arabica* Del., *Matricaria aurea* Boiss., *Chrysanthemum coronarium* Linn., *Veronica syriaca* R. & S., *Arnebia cornuta* F. & N., *Asperugo procumbens* Linn., *Emex spinosus* Camp., *Muscari racemosum* Mull., *Lamareckia aurea* Mœnch., and others. These are mostly small bright-coloured spring flowers. At about sea-level some desert species begin to occur, as *Zygophyllum album* Linn. (in flower), *Prosopis Stephaniana* Willd., *Reseda pruinosus* Del., *Retama retam* Forsk., *Ochradenus baccatus* Del., *Tamarix gallica* Linn. var., and a few more of the southern Ghôr plants.

We are again amongst the marls, and before long those of the 600 feet level, so conspicuous round the Dead Sea, can, as Professor Hull concludes, be traced, but evidently far more completely denuded in this moister and more fluviatile district. Lower marl-terraces occur, but various searches failed to bring any more sub-fossil shells to light. Canon Tristram has gathered at 250 feet in the marls near here shells identical with those obtained by us at Ain Buwerrideh.

The flora of this part of the Jordan Valley is to a certain extent a repetition of that of the southern Ghôr, but many of the interesting species are missing, and others of more familiar types take their place. Widespread European species are much more numerous. Common

British species of *Draba*, *Capsella*, *Thlaspi*, *Nasturtium*, *Rubus*, *Helosciadium*, *Malva*, *Galium*, *Veronica*, *Mentha*, *Solanum*, *Lythrum*, *Cichorium*, *Verbena*, *Euphorbia* being all met with, in about the total of five species in the northern Ghôr to one in the southern. Nor did the season at Jericho appear to be more advanced than that at Es Safieh.

Jericho and its neighbourhood have been amply described by many able writers, and its botany has been well illustrated by Mons. Barbey in his work already referred to. This latter visitor has not, however, corrected one statement repeatedly made by various travellers, that of the ancient palm grove, extending for several miles around Jericho, there is no existing representative. There is one date-palm, 20 feet high, at Gilgal.

Of the characteristic species of the southern Ghôr growing here, I may mention *Zizyphus spina-christi* Linn., *Balanites ægyptiaca* Del., *Loranthus acaciæ* Zucc., *Calotropis procera* Willd., and *Populus euphratica* Oliv., the latter being abundant along the Jordan. This poplar is remarkable for the extraordinary variety of shapes in its leaves, especially in young trees and saplings. In full-grown trees, like the one described at the Ghôr es Safieh, they become more uniform; ovate and slightly incised sometimes at the base, or faintly lobed in a wavy fashion. No trees were seen near Jericho in a mature condition. Tamarisk and the "zukkum," or false balm of Gilead (*Balanites*), are very abundant here. An acacia near Ain es Sultan was, I believe, *A. albidu* Del., gathered previously at Gaza. It was a stunted bush, and our old friends the acacias of Sinai and Es Safieh have all disappeared except the *Prosopis* *Stephania*, a small ragged little shrub. This little ill-favoured acacia, which thrives best on saline wet places, bears a very peculiar pod, swollen, solid, and irregular, and so like a gall or deformity of some kind that it was not until opening it and obtaining its seeds I could believe it to be a natural growth.

Bananas, oranges, and a few sugar-canes are cultivated in the Arab gardens at Gilgal, the modern Jericho.

The ornithology of the Jericho district runs in parallel lines with the botany. The European sorts are much commoner than in the Ghôr es Safieh, and the tropical and Asiatic forms generally less so. Only one couple of sunbirds, and but a few of the "hopping-thrushes" (*Argya squamiceps*) were seen. Shrikes were few. The palm-dove and the collared turtle were not scarce, but they were not as one to twenty here compared with those of the more southern oasis. A few bulbuls (*Pycnonotus xanthopygus* H. & Ehr.), pied chats, *Saxicola lugens* Licht., and desert blackstarts, *Cercomela melanura* Temm., occurred.

On the other hand, English robins, jays, chaffinches and wheatears were seen here, though not at the Ghôr es Safieh. Blackbirds, wagtails, and stonechats were commoner, and an unexpected northern visitant, a redwing, *Turdus iliacus* Linn., was shot at Ain es Sultan. This bird has not previously been obtained in Palestine, but it is likely that the wave of unusually severe weather, about to be felt by us at Jerusalem, drove many of its companions into the country.

The river Jordan was considerably swollen, and so muddy that a plunge in its waters did not look inviting. However, Laurence and I swam it and set foot on the other side of Jordan. It was about thirty yards across, with a strong current, about enough to give equal drift and headway to a swimmer. The water was too turbid for me to learn much about its inhabitants; however I picked up two molluscs, a bivalve and a univalve (*Corbicula Saulcyi* Bourg. and *Melanopsis costata* Oliv.) on the muddy edge of the stream.

We returned to Jerusalem by Marsaba, where we camped on the night of the 16th—unhappily our last experience of “tenting,” the most enjoyable kind of Eastern life. Our intended expedition by Tiberias and Merom through northern Palestine ending in Beyrout was put a stop to by heavy snow. Before dismissing Jericho I have to mention the species gathered which were not previously met with:—*Ranunculus asiaticus* Linn., *Matthiola oxyceras* D.C., *Saponaria vaccaria* Linn., *Silene palestina* Boiss., *Arenaria picta* Sibth., *Rhus oxyacanthoides* Dum., *Ammi majus* Linn., *Aizoon hispanicum* Linn., *Ononis antiquorum* Linn., *Evax contracta* Boiss., *Amberboa Lippii* D.C., *Hedypnois cretica* Boiss., *Hagioseris* sp.? (*H. galilæa* Boiss.? *Picris* sp.?, *Orobanche ægyptiaca* Pers., *Linaria albifrons* Sibth., *L. micrantha* Cav., *Cuscuta* sp.? (*C. palestina* Boiss.?), *Convolvulus siculus* Linn., *Vitex agnus-castus* Linn., *Phalaris minor* Retz., *Schismus marginatus* P. de B., *Bromus madritensis* Linn., *Koeleria phleoides* Pers. Of these the *Orobanche* was a lovely bright blue species, and the *Rhus* a pretty red-berried thorn very like the hawthorn, but with flattened berries and minute flowers. This thorn has been found as far south as latitude 26° in Midian at about 4,000 feet above sea-level by Captain Burton. The *Ononis* was an erect shrub, about 5 or 6 feet high, with a few slender long spiny branches and some scattered flowers like those of our own restharrow. The *Ranunculus* is so like *Anemone coronaria* (which occurred) that it was not at first distinguished from it. Both are of a gorgeous scarlet. The *Vitex* was one of the very few northern representatives of the tropical *Verbenacæ*. It is a straggling shrub, with dull blue flowers of no beauty, and, like many other Jericho plants, found all round the Mediterranean.

Young fragments, chiefly of *Cruciferae*, *Leguminosæ*, and *Umbelliferae*, were often picked, but for these orders the season was too little advanced.

Grasses and bulbous plants were also often too young.

On the way to Marsaba, a rough ride across many deep ravines, an interesting effect of aspect was noticeable. A slight greenish hue showed plainly on the hillsides with a northern aspect, while the others were as yet completely barren. In those places where the heavy dews of night are less rapidly dried up by the noonday sun, vegetation is no doubt always more abundant, the effect of shade also being to assist the early growth. An analogous effect was still more sharply defined in a different way on steep slopes looking southwards. These presented the usual monotonous barren chalky white appearance on riding upwards, where the eye only caught the outstanding bosses and prominences of rock and soil in the wady bed. It was difficult to recall this on looking back from

above in a commanding position. The numerous little depressions and shaded hollows with the first symptoms of incipient vegetation gave a faint green tint to the whole. The one rested the sight, the other was a painful glare. It was about the difference between tinted and plain glass spectacles.

At Marsaba there is a date-palm tied up and supported in the courtyard of the convent, which the monks relate was planted by St. Saba (A.D. 490). Without vouching for the truth of this statement, I was interested to learn that it always bears a stoneless fruit. Of the truth of the latter information I believe there is no doubt. This convent is interesting to ornithologists as the place of the discovery of Tristram's Grakle, whose acquaintance I had first made at Mount Hor. There were several about the convent during our visit.

On the 17th we reached Jerusalem. A week later we left for Beyrout, where our party divided itself, Professor Hull and his son returning homewards. Laurence and I, however, faced the snow and succeeded in crossing Lebanon and Hermon by the admirable French road to Damascus, visiting Baalbeck on the way. As I am not writing a volume of travels I will bring this part of my subject to a close. The snow lay many feet deep on these mountains reaching to Damascus and Baalbeck, so that I was unable to make any collections or observations of consequence on the natural history of this country, which is, moreover, fairly well made known by the researches of several eminent naturalists.

YOMA, OR THE DAY OF ATONEMENT,

WITH THE COMMENTARY OF RABBI OBADIAH OF BARTENORA.

CHAPTER IV.

1. HE shook¹ the box² violently and took out the lots.³ Upon one was written "for the Name." And on the other was written "for Azazel." The sagan was on his right and the chief of the house of the fathers on

¹ He seized, snatched, the box and took the lots suddenly with violence.

² (As we learn above "and a box was there." And why was it opened with violence and haste?) In order that he might not endeavour to find out by delay which was the lot for the Name, and to take it out in his right hand, for it was a happy sign when it came up in his right hand.

³ One in his right hand, and one in his left. And the goats were standing one on his right hand and one on his left, and he put the lot which came up in his right hand upon the goat on his right hand, and the lot which came up in his left hand upon the goat on his left hand.

his left. If *the lot* for the Name came up in his right hand, the sagan said to him, "my lord high priest, lift up thy right hand," and if the lot for the Name came up in his left hand, the chief of the house of the fathers said to him, "my lord high priest, lift up thy left hand." He put them upon the two goats, and said, "a sin-offering to the Lord."⁴ R. Ishmael said "it was not necessary to say 'a sin-offering'⁵ but only 'to the Lord.' And they repeated after him,⁶ 'blessed be the glorious name of His kingdom for ever and ever.'"

2. He tied a crimson band⁷ upon the head of the goat which was to be sent away, and caused it to stand opposite the place whence it was to be sent away,⁸ and *the goat* which was to be slain⁹ opposite the place of its slaying. He *now* came to his bullock the second time, and laid his two hands upon it and confessed. And thus he said, "O God, I have done iniquity, I have transgressed, I have sinned¹⁰ before Thee, I and my house, and the sons of Aaron, the people of Thy holiness. O God, forgive the iniquities and the transgressions, and the sins which I have done, and transgressed, and sinned before Thee, I and my house and the sons of Aaron the people of Thy holiness, as is written in the Law of Moses Thy servant (Levit. xvi, 30), for on that day shall the *priest* make an atonement for you, to cleanse you *that* ye may be clean from all your sins before the Lord," and they said after him, "blessed be the glorious name of His kingdom for ever and ever."

3. He slew *the goat*, received the blood in the sprinkling-basin, and

⁴ The *Shem Hamphoresh* (which was the name spelt with *yod he*) was pronounced as it is written.

⁵ The decision was not according to Rabbi Ishmael.

⁶ When he pronounced THE NAME.

⁷ Wool dyed red.

⁸ Opposite the gate by which they caused it to go out.

⁹ The band of crimson was tied opposite the place of its slaying, that is to say its neck; so that it might not be changed for the goat which was to be sent away, for this had the band tied to its head and that to its neck; and neither of them were likely to be changed for another goat, for these had a crimson band tied to them, and other goats had not a crimson band tied to them.

¹⁰ The Mishna is that of Rabbi Meyer which he learns from the Scripture, as it is written (Levit. xvi, 21), "and confess over him all the iniquities of the children of Israel, and all their transgressions in all their sins." But the wise men disputed about it, and said "iniquities," they are sins of pride; "transgressions," they are rebellions; "sins," they are unintentional faults. That after confessing sins of pride and of rebellion, he should return and confess unintentional faults would be astonishing; but he said, "I have sinned, I have done iniquity, I have transgressed;" and so with David, who said, "we have sinned with our fathers, we have committed iniquity, we have done wickedly" (Ps. cvi, 6); the decision was according to the opinion of the wise men. And what was that which Moses spake (Exod. xxxiv, 7); "forgiving iniquity and transgression and sin?" Moses said thus before the holy place at the time when Israel sinned and repented, and he made their sins of pride like unintentional faults.

gave it to him who stirred it¹¹ (upon the fourth row of stones in the pavement¹² of the Temple) in order that it might not coagulate. He took the censer, went up to the top of the altar, turned the coals this way and that way, and took¹³ from the inner consumed portions and descended and put it upon the fourth row of stones in the pavement of the court.

4. On all *other* days¹⁴ he took *the coals* in a *censer* of silver, and emptied *them* into *one* of gold,¹⁵ and on this day he took *them* in a *censer* of gold,¹⁶ and entered with it. On all other days he took *them* in a *censer* holding four cabs, and emptied them into *one* of three cabs, and on this day he took the coals in a censer of three cabs and entered with it. Rabbi Jose said "on every *other* day he took *the coals* in a *censer* containing a seah, and emptied *them* into *one* containing three cabs, and on this day he took *them* in a *censer* containing three cabs and entered with it." On every *other* day the *censer* was heavy¹⁷ and on this day light.¹⁸ On every *other* day its handle was short, and on this day long.¹⁹ On every *other* day the gold of which it was made was yellow (ירוק) and on this day red.²⁰ The words of Rabbi Menahem. On every *other* day a paras²¹ was offered in the morning, and a paras in the evening, and on this day he added his hands full of *incense*. On every *other* day the *incense* was finely powdered, and on this day as finely as possible.²²

¹¹ He blew, and shook, and mixed it in order that it might not be coagulated if he left it until he [the high priest] had performed the service of the incense.

¹² Each row of the stones of the pavement was called *robad*, רובר. And it is not possible to explain "the fourth row in the Temple" as the fourth row in the interior of the Temple (from the door of the Temple inwards), for it is written (Levit. xvi, 17) "and there shall be no man in the tabernacle of the congregation," &c. But the teaching "the fourth *robad* of the Temple" is the same as to say the fourth row in the court as one goes out of the Temple into the court. He counted the rows, and left it upon the fourth row, and there he who stirred it stood. It is not possible that those in the interior of the Temple are meant.

¹³ He took the coals and left the censer until he had taken a handful of incense and put it into the *kaf* (cf. Levit. xvi, 12), and afterwards he took the *kaf* and the censer into the Temple.

¹⁴ When he took coals from the second pile [on the altar, which was the pile] for the incense, to carry in to the inner altar for the morning and evening incense.

¹⁵ They did not take them with the golden one, because taking the coals bruises the instrument and wastes it, and the law is sparing of the riches of Israel.

¹⁶ In order that the high priest might not be fatigued by having to empty from one vessel to another.

¹⁷ Because its sides were thick.

¹⁸ Because its sides were thin.

¹⁹ In order that the arm of the high priest might be helped by it.

²⁰ It was of that kind of gold called *zahab parvim*, זהב פרוים, because it resembled [in colour] the blood of bulls *parim*, פרים.

²¹ Half a *maneh*.

²² As it is written (Levit. xvi, 12), "and his hands full of sweet incense

5. On every *other* day the priest went up on the east of the ascent²³ to the altar, and went down on the west, and on this day the high priest²⁴ went up in the middle and down in the middle. Rabbi Judah said "the high priest always went up in the middle and went down in the middle." On every *other* day, the high priest sanctified [washed] his hands and his feet from the laver, and on this day from the golden pitcher. Rabbi Judah said "the high priest always sanctified his hands and feet from the golden pitcher."

6. On every *other* day there were four piles there,²⁵ and on this day five: the words of Rabbi Meyer. Rabbi Jose said "on every *other* day three,²⁶ and on this day four." Rabbi Judah said on every *other* day two,²⁷ and on this day three.

beaten small." And what does this teach us? That it is said before (Exod. xxx, 36) "and thou shalt beat some of it very small," only to tell thee that the incense of the day of atonement should be as fine as possible.

²³ As Mar said, "every turn that thou makest must be only to the right hand," which is the east (Yoma 17 b), for the ascent to the altar was on the south, and therefore they went up on the east of it, in order to turn to the right.

²⁴ On account of his honour, to show his dignity, that he was as a son of the house and might go in whatever place he wished, which the other priests had not the right to do.

²⁵ On the outer altar were four מערכות (arrangements—piles) of wood upon which they lighted the fires; one large pile, on which they offered the continual sacrifice: a second pile from which they took fire for the altar of incense; and one pile for keeping up the fire, that fire should never fail there; and one pile for the members and fat of the continual sacrifice of the evening which had not been consumed in the evening, and were not burned during the night, which they burned upon this pile. And on the day of atonement they added another pile from which to take coals for the incense before and within the veil.

²⁶ For three passages are written (Levit. vi, 9), "because of the burning upon the altar all night until the morning," this was the great pile: and the fire of the altar shall be burning in it: "this was the second pile for the incense; and (v, 12) "and the fire upon the altar shall be burning in it, it shall not be put out:" this was the third pile for keeping up the fire. And Rabbi Jose did not hold that there was a fourth fire for the members and fat which had not been consumed, but thought that the members and fat which had not been consumed were burned by the side of the great pile.

²⁷ Rabbi Jehudah did not hold that there was a third pile for keeping up the fire; and the third scripture, "and the fire shall be burning upon it, it shall not be put out," he explained to mean that he who set on fire little fragments of wood in order to light the great pile did not set fire to them upon the pavement, and go up to the altar with them burning, but lighted them upon the top of the altar. The decision was according to Rabbi Jose.

CHAPTER V.

1. THEY brought out¹ to him the *kaf* [spoon, A.V.] and the censer, and he took his hands full of *incense* and put it into the *kaf*. If his hand was large, the handful was large, if small, the handful was small, and thus was its measure.² He took the censer in his right hand,³ and the *kaf* in his left hand, and went in the holy place⁴ [הַיְבֵלָה] until he came to the *space* between the two vails which divided between the holy place and the most holy. The *space* between them was a cubit. Rabbi Jose said "there was only one vail there, as is said (Exodus xxvi, 33), 'and the vail shall divide unto you between the holy *place* and the most holy.'" The outer one was hooked up⁵ from the south⁶ *side*, and the inner one from the north⁷ *side*. He went between them until he came to the north⁸ *side*, he turned his face to the south, and went to his left with the vail⁹ until he came to the ark.¹⁰ When he came to the ark he put the censer between the two staves, heaped up the incense upon the coals, and the whole house became filled with smoke. He went out in the same way and

¹ From the chamber of the vessels.

² As was the mode of measurement without the most holy places, so was the mode of measurement within. As without he took it by handfuls and not by a vessel, so also within, when he emptied the incense from the *kaf* into his hand, he did not empty by means of a vessel made according to the measure of his hand, but into his hand itself.

³ Because it was heavy and hot, and the *kaf* of incense lighter than it, he took the censer in his right hand and the *kaf* in his left.

⁴ He entered and went in the interior of the Temple towards the west to between the two vails. Because they doubted in the second house whether the wall which divided between the holy place and the most holy, which was in the first house and was a cubit thick, was holy, as within the veil or as without the vail, therefore they made two vails, an outer and an inner, and between them a space of a cubit to receive between them the space of the partition wall.

⁵ The Rabbis who say this dispute with R. Jose about it, and say that, "and the vail shall divide unto you" refers to the tabernacle only [not to the Temple].

⁶ The end was folded towards the outer side and held by a golden clasp, so as to be open on the south.

⁷ He entered where it was hooked up on the south, and went between them until he came to where it was hooked up on the north.

⁸ When he entered into the most holy place he turned his face towards the south, in order to go as far as the space between the staves, which was in the middle of the chamber. For the staves were long, and reached as far as the vail, one end being towards the west, and the other towards the east, and one was at the northern end of the ark, and the other at its southern end.

⁹ As he was going from north to south his left side was towards the east, and the vail being on the east, his left side was "with the vail."

¹⁰ To the place of the ark and not the ark itself, for in the second house there was no ark.

place¹¹ as he entered, and prayed a short prayer¹² in the outer house.¹³ He did not prolong his prayer lest the people should be anxious about him.¹⁴

2. After the ark was removed a stone was there from the time of the former prophets, and it was called *sheteyah*,¹⁵ foundation. It was three fingerbreadths high above the ground, and upon it he put the *censer*.

3. He took the blood from him who had been stirring it, entered to the place where he had *before* entered,¹⁶ and stood in the place where he had *before* stood,¹⁷ and sprinkled from it once above and seven times below. He did not intentionally sprinkle either above or below,¹⁸ but sprinkled like a person striking.¹⁹ And thus he counted :—one ; one and one ;²⁰ one and two ; one and three ; one and four ; one and five ; one and six ; one and seven. He went out and put it upon a golden stand which was in the Temple.

4. They brought to him the goat. He slaughtered it and received its blood in the sprinkling-basin. He entered to the place where he had *before* entered, and stood in the place where he had *before* stood, and sprinkled from it once above and seven times below. And he did not intentionally sprinkle either above or below, but *sprinkled* like a person striking. And thus he counted :—one ; one and one ; one and two, &c. He went out and put it upon the second stand that

¹¹ He did not turn his face to go out, but went out backwards with his face towards the ark.

¹² This was the prayer, "May it be Thy will, O Lord God, that if this year be hot, it may be rainy ; and let not the exercise of dominion pass from the house of Judah ; and let it not be necessary for Thy people Israel to be fed the one by the other [*i.e.*, by charity], or by another people ; and let not the prayer of travellers enter before Thee." (Gloss, because they pray that rain may not fall.)

¹³ In the holy place, כִּי־הֵאֱלֹהִים.

¹⁴ Lest they should say, "he is dead."

¹⁵ Because from it the world was founded, נִשְׁתַּתָּח ; from it the Holy One, blessed be He, founded the world. שֶׁתֵּיָה, *sheteyah*, is "foundation."

¹⁶ The holy of holies.

¹⁷ Between the staves.

¹⁸ That there should be one sprinkling above on the upper border of the mercy seat, and the seven below upon the body of the ark ; for the blood did not touch the mercy seat, but fell upon the ground.

¹⁹ He sprinkled like a person inflicting blows [upon the back], who begins between the shoulders and goes downwards. Thus he endeavoured that these eight sprinklings should be upon the ground in order, one under the other.

²⁰ In order that he might not count the first sprinkling which was above by itself with all the seven which were below. Sometimes he might make a mistake and count the first sprinkling with the seven, and at the first sprinkling below count two. And it does not say that he should count the sprinkling which was above with the seven which were below, and reckon as far as eight. It is intended to say that the command is to finish the sprinklings which were below within seven, and not within eight.

was in the Temple. Rabbi Judah said, "there was only one stand there." He took the blood of the bullock and put the blood of the goat²¹ *where it had stood*, and sprinkled from it upon the vail,²² which was opposite to the ark on the outer side, once above and seven times below. And he did not intentionally, &c. And thus he counted, &c. He took the blood of the goat and put the blood of the bullock²³ *where it had stood*, and sprinkled from it upon the vail which was opposite to the ark on the outer side, once above and seven times below, &c. He poured the blood of the bullock into the blood of the goat, and put the full *vessel* into the empty *one*.²⁴

5. He now went out to the altar which was before the Lord, that is, the golden altar, and began to purify it from above downwards.²⁵ From where did he begin? From the north-eastern corner, the north-western, the south-western, the south-eastern: the place where he began with a sin-offering on the outer altar was that where he finished with the inner altar. Rabbi Eliezer said, "he stood in his place and purified, and upon all the *corners* he put the *blood* from below upwards, except that one which was before him, upon which he put the blood from above downwards."

6. He sprinkled upon the clean *surface* of the altar seven times,²⁶ and

²¹ He agrees with the words of R. Judah, who said that there was only one stand there, and it was necessary to take away the blood of the bullock first in order to put the blood of the goat upon the stand upon which the blood of the bullock had been. The decision was not according to Rabbi Judah.

²² As it is written (Levit. xvi, 16), "and so shall he do for the tabernacle of the congregation."

²³ As it is written in reference to putting the blood upon the altar (Levit. xvi, 18), "and shall take of the blood of the bullock, and of the blood of the goat;" of the blood of both of them together.

²⁴ Again he poured the full sprinkling-basin into the empty one, in order that the bloods might be thoroughly mixed.

²⁵ This doctor thought that the priest walked to each corner in succession, and that each sprinkling was upon the corner which was before him, and near to him, and therefore took *מֵהַטָּא וּיִרְד*, "he purified from above downwards," to mean that he made the sprinkling from above to below; for if he should sprinkle from below upwards at the corner which was before him, the blood might flow down into the middle of his hand, and soil his clothes. And Rabbi Eliezer thought that the priest stood at one corner, and from there made the sprinklings upon all the corners; for the whole altar was only a cubit square, and since three of the corners were not near to him, he could put the blood upon them from below upwards without soiling his clothes, except that corner near which he was standing, for he could not turn the tips of his fingers downwards but upwards; for if he should turn the tips of his fingers downwards and make the sprinkling from below upwards, the blood would flow down into the sleeve of his shirt. The decision was not according to Rabbi Eliezer.

²⁶ After he had completed all the sprinklings of the corners, he sprinkled upon it seven times, as it is written (Levit. xvi, 19), "and he shall sprinkle of the blood upon it." *טָהַר*, "the clean surface," was the uncovered space upon the altar,

the remainder of the blood he poured upon the western foundation of the outer altar,²⁷ and *the blood* of the outer altar he poured upon the southern foundation. Both²⁸ became mingled in the canal and went out to the Kedron valley, and were sold to the gardeners²⁹ for manure. And they rendered themselves guilty of false dealing in reference to it.³⁰

7. All the work of the day of atonement³¹ which is prescribed in order,³² if he *wrongly* made one part to precede its fellow, it was as if he had not performed it at all [literally, as if he had done nothing]. *For example* :— if the blood of the goat preceded the blood of the bullock, he must return and sprinkle of the blood of the goat after the blood of the bullock : if the blood was poured out before he had completed the sprinklings which were within the *holy of holies* he must bring other blood and return and sprinkle afresh within the *holy of holies*, and likewise in the holy place,³³ and on the golden altar, because all the sprinklings made their own particular atonement.³⁴ Rabbi Eleazer and Rabbi Simeon said, “he began again from the place³⁵ where he had broken off.”

for he turned the ashes and coals to either side, and sprinkled upon the gold of the altar.

²⁷ The remainder of the blood of the outer sin-offerings was poured upon the southern foundation.

²⁸ The outer and the inner bloods [*i.e.*, the blood sprinkled upon the outer altar, and that sprinkled upon the inner altar] which were poured upon the altar of burnt-offering flowed down and fell from the foundation [of the altar] to the pavement [of the court] and became mingled in the canal—the conduit in the court which went out to the Kedron valley.

²⁹ The owners of gardens.

³⁰ It was unlawful to make use of it before the price had been paid.

³¹ All the services which he performed in the white garments in the holy of holies and in the holy place.

³² In our mishna.

³³ וכן בהיכל. If he had made a part of the sprinklings upon the vail, and the blood was poured out, he must bring another bullock and begin again the sprinklings upon the vail, but it was not necessary to begin again within the holy of holies.

³⁴ Therefore the atonement that was completed was completed.

³⁵ And although that particular atonement was not complete, it was not necessary to return and do what he had already done. The decision was not according to Rabbi Eleazer and Rabbi Simeon.

PALESTINE
EXPLORATION FUND.

Patron—THE QUEEN.

Quarterly Statement

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THE
PALESTINE EXPLORATION FUND

LAST YEAR AND THIS.

I. EXPLORATION.

THE principal EXPLORATION work of the year 1885 has been that executed for the Committee by Herr Gottlieb Schumacher. The memoir accompanying his map has been published under the title of "Across the Jordan," and a copy has been presented to every subscriber of the Fund who asked for it—the Committee considering that it was useless to send copies to those who had not sufficient interest in the subject to express their wish to possess a copy. The work is illustrated by 160 drawings, maps, and plans, executed in the same style as that of the "Memoirs," and is furnished with an index by Mr. Guy le Strange, who also superintended its production. It is the memoir of a part of the country covering 200 square miles, and that in the least visited and least known district on the east of the river. The whole of the first edition has been taken up, and a second edition will be ready immediately. Those who have not yet received copies will do so very shortly. Meantime the lists are still open for the reception of new names. The book is uniform with the cheap edition of Captain Conder's popular works "Heth and Moab" and "Tent Work in Palestine." The work is enriched by the publication with it of the valuable papers by Mr. Laurence Oliphant and Mr. Guy le Strange, which had already appeared in the *Quarterly Statement*. These papers, together with notes of discovery by Dr. Selah Merrill, Herr Hanauer, Canon Tristram, and Mr. H. Chichester Hart, complete the exploration work of the year so far as it has been received.

We have, however, the pleasure of announcing that Herr Schumacher has successfully carried out ANOTHER SURVEY for the Society, this time in northern Ajlûn. The portion surveyed is five hundred miles in that piece of country bordered on the north by the Shar'at el Menâdireh, on the west by the Ghôr or Jordan Valley, on the south by Tibni, and on the east by Irbid Beit Râs and the Wâdy Semâr, which joins the Shar'at el Menâdireh near Arâk el Heitaleveh. A greater number of ancient and modern sites was collected here than in the previous survey. Special plans have been

made of Mkeis (Gadara) and Beit Râs (believed by Herr Schumacher to be Capitolias). Another great field of dolmens was found near Irbid.

Herr Schumacher also crossed the Jaulân and Hauran once more, and was able to add more names to the map. At Abdîn he found a Greek inscription.

The map and memoirs of the survey will arrive, it is expected, in February. The Committee have not decided upon the form and method of publication.

The EXPLORATION work of 1886 will follow in the same lines, and, we hope, will show equally good results. Little by little we are rescuing the unknown parts of the country from obscurity, and bringing them, with their ruins, under the surveyor's hands, if not by the rapid methods by which the Survey of Western Palestine was accomplished, yet by safe and scientific methods, and at much less cost.

II. MAPS AND PUBLICATIONS.

The MAPS spoken of in the January circular as in course of preparation by Mr. Armstrong are now executed, but it is desirable to keep them back until Herr Schumacher's work can be laid down on them. Mr. Armstrong has also prepared an ALPHABETICAL LIST of Old and New Testament names, with their modern identifications according to the latest discoveries. This List is under revision by Sir C. Wilson.

An INDEX has been prepared for the whole of the work called the "Survey of Western Palestine." It is in three parts, and consists of—

- (1) An Index of Scriptural References, prepared by Mr. Armstrong.
- (2) An Index of Hebrew Names and Words, prepared by the Rev. Dr. Ginsburg.
- (3) A general Index to the seven volumes which form the work, and to Professor Hull's Memoirs, prepared by Mr. J. E. Stewardson.

The GEOLOGICAL MEMOIR by Professor EDWARD HULL, F.R.S., is now nearly ready. It is printed uniform with the "Survey of Western Palestine," to which it will form a complementary volume. Its price will be ONE GUINEA, but to subscribers TWELVE SHILLINGS AND SIXPENCE. It is illustrated with maps and sections.

The NATURAL HISTORY MEMOIR by Mr. H. CHICHESTER HART will be sent to the Press as soon as Professor Hull's work is issued. The drawings for this work are already prepared. The price and particulars will be announced in April.

There remain to be published Captain CONDER'S "MEMOIRS OF THE SURVEY OF EASTERN PALESTINE," so far as it has been accomplished. These are extremely copious and full of the most varied information. The whole part of the country covered is little more than a single sheet of the map in extent, and yet the Memoirs will fill a whole volume. There are over 400 drawings.

It has now been decided to issue these Memoirs as volume the 1st of the "SURVEY OF EASTERN PALESTINE," uniform with the "Survey of Western Palestine." A limited number of 500 only will be printed, and

the volume will be issued at the price of two guineas, provided a sufficient number of names are entered. A circular is in preparation, which will be issued as soon as possible. Meantime names of subscribers will be received by the Secretary.

As regards the DRAWINGS of M. LECOMTE which are still unpublished, it is not expected that we shall be able to publish them this year.

We have also the pleasure of announcing that Mr. GUY LE STRANGE has undertaken to prepare for the Committee a work much wanted, namely, the GEOGRAPHY of Palestine, according to the earliest Persian and Arabic geographers. He hopes to get the work completed in about twelve months.

Captain CONDER, who has now returned to England, has promised to continue working for the Society as occasion may offer.

The paper by Sir CHARLES WARREN on the Arab tribes of the Desert, promised in last January's *Quarterly Statement*, has been placed in our hands by him since his return from South Africa and will be published in April.

Other papers have been received or promised by the Rev. Professor SAYCE, the Rev. GREVILLE CHESTER, the Rev. W. F. BIRCH, Herr CONRAD SCHICK, Herr HANAUER, and Mr. LAURENCE OLIPHANT.

As regards the remaining copies of the "SURVEY OF WESTERN PALESTINE," they are in the hands of Mr. Alexander S. Watt, 34, Paternoster Row, who has been appointed the agent for their sale. *Subscribers and those who already possess the work are requested to note that no reduction will be made, either now or at any other time, in the price of this great work.* On the other hand, the Committee reserve to themselves the right of raising the price of the last copies.

III. THE COMMITTEE OF INQUIRY.

A COMMITTEE has been appointed for the purpose of making an Inquiry into the manners and customs of the various peoples and tribes in Syria and the East. We have now an opportunity of carrying this out by means of intelligent and educated agents over the whole of Syria, Asia Minor, Cyprus, Armenia, Egypt, and the country as far as the Euphrates. This most important investigation will be carried on during the whole year, and will perhaps last several years. The results as they come home, and can be classified, will be given to the world in the Society's Journal. The Committee now consists of Captain CONDER, Rev. Dr. GINSBURG, Mr. JAMES GLAISHER, Professor HAYTER LEWIS, Mr. JOHN MACGREGOR, Mr. SIMPSON, Sir CHARLES WARREN, Sir CHARLES WILSON, Dr. ALDIS WRIGHT, and the Rev. Dr. WILLIAM WRIGHT—all members of the General or Executive Committee. Mr. FRANCIS GALTON, the President of the Anthropological Institute, has also joined the Committee, and Mr. LAURENCE GOMME, Secretary of the Folk-Lore Society. The Institute of Architects has promised assistance, and may be considered represented by Professor HAYTER LEWIS, while the Bible Society is represented by Dr. WILLIAM WRIGHT. It has been decided to take the "Anthropological

Notes," drawn up for the British Association eleven years ago, as the best basis of the questions, which will be modified and extensively supplemented, in order to suit the requirements and peculiarities of the country and the people. This Committee will meet weekly. Meantime the friends of the Society are earnestly invited to assist in this enterprise, which promises to be the most important work, next to the Survey and the Jerusalem researches, yet undertaken by the Society.

IV. THE FINANCES OF THE SOCIETY.

It is necessary this year to find money (1) for EXPLORATION work proper, (2) for PUBLICATION of results, which are not generally, it must be remembered, of a kind or in a shape to court or win popularity, and (3) for the prosecution of the new INQUIRY.

As regards the first, the ordinary income of the Society has been smaller in 1885 than for many years past, owing, it is believed, to the general impression that because no party is in the field no money is wanted. This is erroneous, first because, as has been seen by the publication of "Across the Jordan," and the announcement of Herr Schumacher's new work, there is always exploration going on, and money is called for on this account; and secondly, because we *must give to the world the results which are sent home to us*. Thus we have in the Society's safe at this moment waiting for publication—(1) Captain Conder's Memoirs of Eastern Palestine; (2) M. Clermont-Ganneau's and M. Lecomte's exquisite drawings of monuments, nearly all absolutely new; (3) Mr. Chichester Hart's Natural History Memoir; and (4) we are daily expecting Herr Schumacher's new work.

As regards the work of the Committee of Inquiry it is impossible to say what this will cost. The printing and postage will be a very large item, and we shall have to pay some of the agents who will answer our queries and furnish us with the desired information. We ought to have at least an additional £1,500 subscribed for this special purpose.

In conclusion, the friends of the Society are earnestly requested to consider that the work is always actively going on; that funds are always needed; that the real and invaluable work which has been already done must be taken as an earnest of what will be done, and that their continued assistance is asked in support of an enterprise which gives results solid, unquestionable, of most vital importance to Biblical students, and for all time.

By order of the Committee,

WALTER BESANT,

Secretary.

January 1st, 1886.

NOTES.

HERR GOTTLIEB SCHUMACHER has executed another survey for the Society, of about five hundred miles in northern Ajlûn. The results of the survey are not as yet known except in general terms. He has sent word that he has collected a very large number of names, and that he has made a special plan of Mkeis, the ancient Gadara, and that of Beit Râs, which, he contends, is the site of Capitolias. Another great field of dolmens was found near Irbid. We expect to receive the map and the accompanying memoirs in February. Probably the Committee will have decided before April on the form of publication.

His first memoir, called "Across the Jordan," is now published, and has run through the first edition. Subscribers for 1886 are allowed to have a copy, post free, on sending their names to the Secretary. *This privilege remains in force, except for new subscribers, during the present quarter only.* The book is an octavo, uniform in price and appearance with "Heth and Moab" and "Tent Work." It contains a chapter on the general physical characteristics of the country, followed by what is practically a Gazetteer of the country examined, each place being treated by itself. There are 150 drawings, all new, and made by Herr Schumacher expressly for this work. Among them are a great number of dolmens, plans of tombs, architectural details, and remains from the very remarkable underground city of Ed Der'aah.

The Committee of Inquiry (see Circular "Last Year and This") is now fully constituted. Specimen questions will be forwarded to every subscriber who wishes for them. It is hoped that every student of the Bible will give his help for this great undertaking. The Committee ask for an additional sum of £1,500 this year in order to carry out their plan.

The "Catechism of the Druse Religion," published in this number of the *Quarterly Statement*, is very kindly presented to the Society by the Rev. William Allan, of St. James's, Bermondsey. It was given to him by the Rev. Chalil Jamal, C.M.S., Native Pastor at Es Salt, in the Belka, and was translated by him from the Arabic original found in one of their Khalwehs during the sacking and pillage of the year 1860.

It will be found from Dr. Selah Merrill's letter of September 18th that portions of what he believes to be the second wall have been found in Jerusalem. Two layers of stone, and at two or three points three layers of stone, have been found still in position. These were, he says, of the same size and character in every case as the largest of the stones in the so-called Tower of David opposite. About 30 yards of this wall were uncovered. The plate which accompanies Dr. Merrill's note will show the position of the wall.

In the death of the Dean of Chester, the Society has lost a friend who from the beginning has followed its work with unflagging interest. One of the last letters he wrote was to the Secretary, expressing his hope that in the projected Inquiry the Proverbs of the people would not be forgotten.

We are happy to announce that Mr. George St. Clair, F.G.S., who was for many years a Lecturer to this Society, has undertaken to lecture again this winter, and may be addressed at the offices of the Society in Adam Street, Adelphi.

Among the many hundreds of Palestine books which appear and are forgotten there is one which remains a continual favourite: Mr. John Macgregor's "Rob Roy in the Jordan" is now going into its seventh edition.

The income of the Society, from September 21st to December 17th inclusive, from all sources, was £1,210 4s. 1d. The expenditure during the same period was £1,153 11s. 7d. The balance in the Banks on December 17th was £230 16s. 11d.

It is suggested to subscribers that the safest and most convenient manner of paying subscriptions is through a Bank. Many subscribers have adopted this method, which removes the danger of loss or miscarriage, and renders unnecessary the acknowledgment by official receipt and letter.

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.

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) The Rev. Henry Geary, Vicar of St. Thomas's, Portman Square. His lectures are on the following subjects:—
 The Survey of Western Palestine, as illustrating Bible History.
 Palestine East of the Jordan.
 The Jerusalem Excavations.
 A Restoration of Ancient Jerusalem. Illustrated by original photographs shown as "dissolving views."
- (2) 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.
- (3) Mr. George St. Clair, F.G.S., Member of the Society of Biblical Archaeology, and of the Anthropological Institute (address, 127, Bristol Road, Birmingham).
- (4) The Rev. James Neil, formerly Incumbent of Christ Church, Jerusalem.

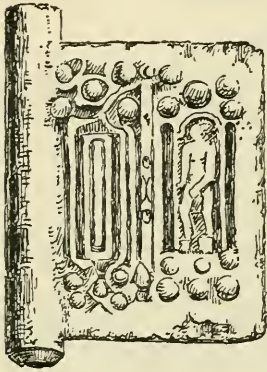
EXCAVATIONS ON CARMEL.

BY LAURENCE OLIPHANT.

DALIEH, 1st November.

As the most interesting Khurbet upon Mount Carmel is unquestionably Khurbet Semmâka (Sheet 5, K *i*), from the fact that it is the only one where Jewish remains can be distinctly traced, I determined to make an excavation, in the hope of coming upon a tomb which had never been opened. In this I was successful. The smooth cut face of a rock projecting a little above the surface of the earth suggested a likely locality, and here, after digging down about 2 feet, we came upon an arch, which indicated that it spanned the doorway to a tomb. On clearing away the earth, I found that this differed from any entrance to a tomb which I have yet seen. Instead of being a huge slab pivoting in the living rock, or an immense circular stone, like a small millstone, running in a groove, as is more usual, it was a slab which pivoted in huge blocks of stone carefully hewn to receive it, and placed there for the purpose. The lintel was a square stone about 6 feet long and 18 inches wide, with a groove on the inside to receive the door, which opened inwards. In its lower surface, 2 feet from one end, was a circular hole 5 inches deep, and 6 inches in diameter, to receive the upper stone pivot of the door. This lintel rested upon two upright blocks, hewn and squared, each 2 feet 9 inches in height; one of these, against which the door was shut, was grooved, and 18 inches from the bottom was a slot, about 8 inches long, $2\frac{1}{2}$ inches wide, and the same in depth, in which worked a stone bolt, which slid into a square hole which was made to receive it, in the door. This door-post was also grooved, so that the door shut closely into it, and as the bolt was on the outside, it was possible after removing the dirt to push it back. The threshold also consisted of a hewn stone corresponding in its dimensions to the lintel, and in it, in the same relative position, was a circular hole 7 inches in diameter, and about $2\frac{1}{2}$ inches deep, for the lower pivot to work in. After pushing back the bolt however, it was found impossible to open the door by any amount of pressure against it. This arose, as we afterwards discovered, from a huge pile of very fine earth which, in the course of ages, had apparently sifted through between the lintel and the living rock against which it was placed; we therefore had, to our regret, to remove the whole stone framework in which the door rested. The door itself was differently ornamented from any that I have hitherto seen. It was divided into two panels by a band 2 inches wide; in the centre of which, separated by two semi-circular lines, back to back, were two circles. At the bottom of this band was a boss, and the remains of an apparently corresponding one at the top. In the right hand panel was a sitting figure 13 inches high, the hands resting on the lap, and the feet on two low pedestals. In the back part of the head was a brass ring,

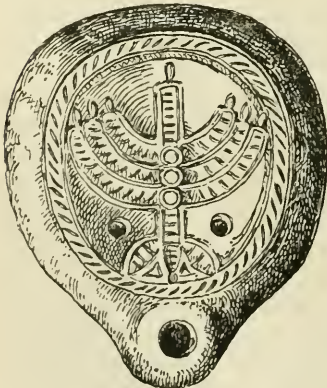
extremely corroded, which had been apparently used for pulling to the door. Above the figure were five bosses, and below it six; a grooved arch enclosed the figure. The device on the



other panel was very simple, and consisted of a long narrow parallelogram, framed by two others. Above were five bosses enclosed by an irregular tracery, winding between them, and below, a corresponding device. It may be possible that these bosses may be intended to represent pomegranates. There was a mark which might have represented a fold of cloth hanging from the waist of the figure, which, if I remember right, was in some ancient styles an insignia of rank; but the stone was so much corroded that the carving was uncertain in places, especially in the features of the figure, which had largely to be supplied by the imagination. The

dimensions of the door, of which the enclosed is a sketch, are as follows:—Height, 2 feet 9 inches; width, 2 feet 5½ inches; thickness, 6½ inches. The lower pivot projects 3 inches, and the upper one 5 inches. The whole execution was rude in the extreme, and represented a very primitive condition of art. The interior of the tomb, which measured about 10 feet square, contained six kokim, and each koka contained human bones; from one of them I carried away a tolerably perfect skull; but they were partially buried in a great accumulation of earth which had been forced in through the crevices above the made doorway. Above one of the kokim was a little niche in the rock, and in the rubbish below it was found an earthenware lamp, which was ornamented with a seven-branched candlestick, proving

unmistakably that it was a Jewish tomb. Another open tomb which I found not far from this, on the entrance to which was also rudely carved a seven-branched candlestick, and the remains of the synagogue discovered by the Palestine Exploration Survey, clearly indicate that Semmâka contained at one time a Jewish population; but all the evidences go to show that it was inhabited from an early period, and this tomb in particular, with its wide, roughly hewn kokim, and rude ornamentation, bore all the marks of a remote antiquity. I sent for this door, which formed a heavy camel-load, a few days afterwards, and have got it now in



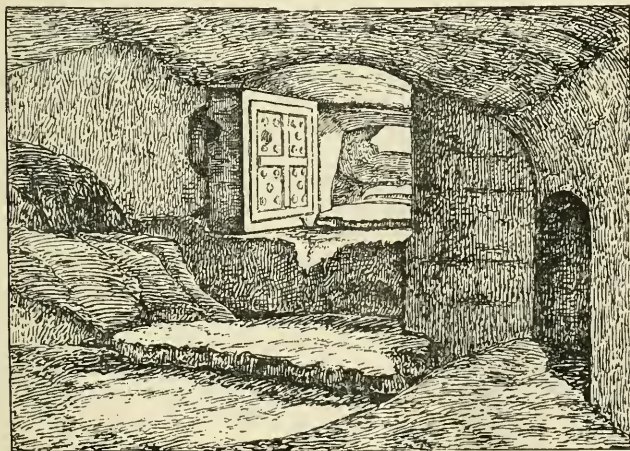
the veranda of my house, but unfortunately not in time to save it from

mutilation, for the brass ring had been broken off and carried away, probably by some shepherds.

The fracture, indicated in the sketch by a black spot in the back of the head, shows its position. The features were so much corroded that it was almost impossible to trace their outline. As a rare instance of a Jewish carving of a human figure, the monument is most interesting.

In the immediate vicinity of this tomb was a handsome sarcophagus, evidently of later date, with its lid by its side. I shall hope at some other time to prosecute further researches in this locality.

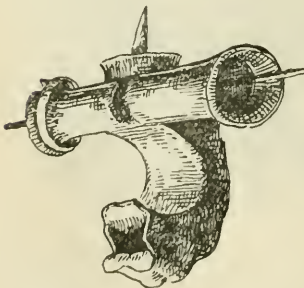
On considering the question of the rollers, of which there is a greater collection at Semmâka than anywhere else probably in Palestine—for these singular blocks of stone seem peculiar to Carmel, where they abound, and have given rise to conjecture in the *Memoirs* (Vol. I, p. 318)—it seems most likely, as is there stated, that they were used for crushing olives; there are usually four slots in a line, sometimes five; by putting two levers in each slot, eight or ten men could easily turn them; they were probably used before the later appliances, with the huge flat circular stones, which are employed up to the present day, were invented. At Khurbet Umm ed Darajeh (Sheet 8, K *f*) I discovered two of these rollers in which four deep longitudinal grooves, equidistant, and extending the whole length, were substituted for the rows of slots. They are the only two specimens I have seen out of at least a hundred of the rollers that have come under my observation. At Umm ed Darajeh there was a group of them lying



near a large flat smooth surface of rock evidently artificially prepared; and about 20 feet each way, and which had doubtless been used as the grinding floor; on the edge of this were two circular holes 18 inches deep, and 15 inches in diameter, about 4 feet apart: from each of these was a

tunnel by which the contents could flow from the adjoining vat, which was 12 feet square and about the same in depth, with hewn steps leading to the bottom. On the opposite side the rock had been cut out so as to admit apparently of a millstone, which had since been removed, but there were the circular grooves which marked its former position, as well as the traces of the hole in the centre. The whole presented the appearance of having been an olive mill on a large scale.

I have also opened two tombs at Dûbil, their entrances, like the one at Semmâka, being about 2 feet below the surface of the earth. On clearing it away we found the door of the first tomb in a perfect condition, with the exception of the loss of the handle, the trace of which was still to be seen. Unlike the one at Semmâka, it yielded to the touch, and swung gently back on its pivot, thus proving that we were not the first intruders, and that it had been broken into before, possibly by the Crusaders, of whose residence at Dûbil there are many traces, or possibly at an earlier period. The bolt was on the inside, and the projection which contained it at the upper part of the back of the door still remained (see figure, which is a sketch taken from the inside of the tomb); but in forcing the door open, the rock inside had been splintered off at the place where the bolt entered it. From the position of the brass fragments of the handle still remaining on the door, it is evident that it communicated with the bolt inside—thus differing from the whole arrangement at Semmâka, and evidencing more mechanical skill. Otherwise, with the exception of being an inch thicker, the dimensions of the door were nearly the same. Its ornamentation consisted of four panels, each of which contained five bosses. The rounded base of the lower pivot was sheathed with a thin brass plate, and when it was thoroughly cleared of earth, turned as smoothly and easily in its socket as if it had been finished yesterday. Although such a heavy slab of stone, I could push it open with the pressure of one finger. Besides the door there was the large circular groove hewn from the rock, which formed the receptacle of the stone which was rolled in front of the door—a double precaution which did not exist at Semmâka. This stone had been removed. The tomb was entered by a deep step, and was 10 feet

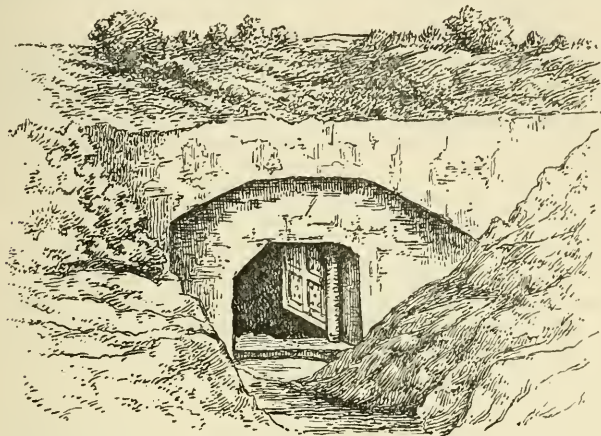


square; it contained three kokim, and three loculi under arcosolia. Some of these contained a few human bones. The only objects I discovered were some fragments of a very thin delicate quality of glass, which I have almost succeeded in piecing together in their original shape, which must have been that of an elegant vase about 10 inches high; the neck of a very large bottle; a bronze handle working on a hinge through which passed a thin copper wire, 2 inches long; a small iron ring, probably part of a

chain; two flat bronze rings, each an inch in diameter; a glass bell-shaped

tear bottle, 2 inches high, with the neck broken ; a small copper coin of the time of the Selucidæ ; and two glass beads.

This tomb was probably posterior to the one opened at Semmâka.



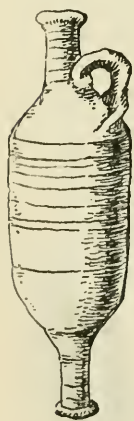
I enclose a sketch of the same tomb from the outside. The other tomb, which was about the same size, and also contained three kokim, and three loculi under arcosolia, was probably of the same date, as they were in the same rock within a few yards of each other, and the ornamentation on the door was exactly similar. In that case the bolt had resisted the riflers, and in order to effect an entrance they had staved in the upper panel. It contained only a few bones. I opened two other tombs in Dûbil, but in both cases found that I had been anticipated by the ancients, and discovered nothing but bones.

It is clear to me that this was the largest centre of population on Carmel, forming with Dalieh, from which it is only separated by a narrow glen, a place of considerable importance. There is, in fact, no other part of the mountain so highly favoured in point of extent of arable land, salubrity of climate, and facility of access considering its elevation. It is only six miles by an easy descent to Athlit, whose relatively sheltered bay must have made it a port of some importance, while in the valley immediately below Dûbil is the copious fountain of Umm esh Shukf. At Dalieh itself I have come across many traces of its former occupants. In digging the foundations of a house which I have built there, I found a dozen large iron rings $2\frac{1}{2}$ inches in diameter, with staples attached ; a fragment of a carved cornice ; a coin of the time of Constantine ; a bell-shaped cistern, which I have had cleaned out and recemented for my own use. In the *débris* with which it was full to the brim, I found a great many glass fragments, among them a very curious double bottle, each bottle $\frac{3}{4}$ inch in diameter, of which the base and 2 inches remained unbroken,



besides many stems, feet, and rims of goblets with folded edges apparently enclosing a layer of silver or of gold. I found on examination, however, that the effect was produced by iridescence, but they were evidently large and handsome vessels; there was also an immense quantity of broken pottery. I have also unearthed in the garden a triangular fragment of tessellated pavement, about 2 feet each way, and found other small patches near, all indicating that the mansion of a person of wealth must once have stood upon this spot. In making a terrace, I came upon one of the huge rollers, while in the immediate neighbourhood I found a Crusading cross, thus proving that Dalieh must at different times have been the home (assuming the roller to be of Jewish origin) of Byzantine and of Crusading occupants.

In the course of excursions from Dalieh and visits to the surrounding villages, I have collected twenty pottery lamps, with the devices and ornamentation of which, however, I am not sufficiently learned to determine their different periods. The most curious is one I obtained at Umm ez Zeinat, which is oblong in shape, the angles only slightly rounded, being 5 inches by $2\frac{1}{2}$ inches, of a different and much harder clay than any of the others, with a peculiar ornamentation, and with three holes for the wicks instead of one of two. At 'Ar'ar'ahshli I got two alabaster saucers and an alabaster tear bottle, the saucers 5 inches in diameter, and the tear bottle $3\frac{1}{2}$ inches high. I also collected at other villages four glass lachrymatories, from 3 to 5 inches high. At Casarea—which, by the way, has been within the last month abandoned by all the Bosnian colonists on account of its deadly climate—I got a marble head, apparently of a youth, $4\frac{1}{2}$ inches high, of fine execution. At a village near Samaria, where the inhabitants were making excavations for building purposes, I procured



three glass saucers, the largest 5 inches in diameter, and nearly an inch deep, with a folded rim, and the smallest 3 inches, besides some other fine fragments, but none of them perfect; also two pottery jars, one ribbed, 8 inches high, and 4 inches in diameter at the base, tapering towards the mouth, the other 13 inches high. I also found, during some building operations which were going on at Acre, some handles of pottery jars with the maker's name stamped upon them in Greek characters. I visited the Jewish colony of Zimmârn one day, in the hope of being able to unearth some more of the zinc coffins which I know are buried in a mound there, similar to the one I described in a former paper; but there were still too many Arab workmen about to make it desirable, as I am anxious, if possible, to obtain quiet possession of one of them. This colony now consists of a street of eighty well-built houses, in which, after many sufferings, the colonists are comfortably established. On my way back, I visited

Kefr Lam, where I heard an interesting stone had been found with inscriptions. I was disappointed in finding that the inscriptions con-

Transcript of Squeezes mentioned on p. 12.

34 3& π6 θ π 95 40 54 h
 95 90 h 7 1 1 & P π 5 6 a H 9

ΚΑΣΣΙΑΤΡΕ
 ΣΚΙΛΛΑΧΡΗ
 ΣΤΗΚΑ ΑΛΥΠΕ

) Η 9 X
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 F H T

Α ω Η
 Ε Τ) Η 9 X
 9 3 X

ΕΙΔΥΔΕ
 ΑΙΝΕΒΑΕ
 ΝΕΧΗΘΕ
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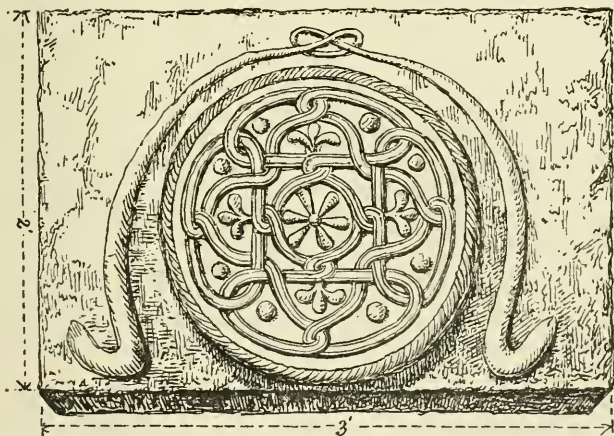


B



From the
 Wax impression
 of a coin

sisted of an elaborate ornamentation, which, however, seemed sufficiently peculiar and beautiful to remove. It consists of a circular disk 15 inches in diameter, and raised an inch and a half above the slab, 3 feet by 2 feet, on which it stands. A friend of mine has opened a tomb at Shefr Amr, in which he found a pottery coffin, which, when a convenient opportunity occurs, he has promised to send me. The same gentleman has also opened a tomb near Sidon, the contents of which, together with some other objects, he has been good enough to send me. They consist of two pottery bottles 7 inches high; three glass tear bottles; one silver ring, much corroded and oxidised, with an inside diameter of an inch and a quarter, the ends united by a scarabæus, on the under side of which is a single character, H; two silver finger rings, in one of which is a small turquoise; a gold pendant, which may have been the drop of an earring; two pebbles, carved to resemble fishes' heads; two copper mirrors; some beads, and many other small objects of interest. He has also sent me the enclosed squeezes. The one marked A, in duplicate, is from a brass pot,



4 inches high, by 2 inches in diameter, girdled by a snake, and will probably be easily deciphered by those learned in Phœnician character. The one marked B is from a stone seal. Both these he found at Tyre. The others he sent me from Sidon, merely stating that he found them on marble and pottery, without further particulars, but the objects from which they were made may be easily obtained. I also enclose an impression in wax of an inscription on a coin. On a pottery lamp is the following inscription:—

ΠΑΡΑΜΟ
ΝΟΥ

About half-a-mile north of Dalieh I have discovered another small Khurbet, called the Khurbet El Wanseh, *خربة النساء*. It was probably

nothing more than a farm, as there are scarcely any remains at the place itself; but near it is an object which has been fertile of conjecture. It consists of a bench cut out of the solid rock, 24 feet long, 2 feet wide, 2 feet high, and with a back of rock a foot high. It looks south, and faces what would seem to be the lower walk of a chamber, with rock-hewn sides 2 feet high, were it not for a rough unhewn mass of rock which projects into it at one corner. On the eastern side the hewn wall of rock rises to a height of 4 feet, and on the opposite side of it, half-way down, is carved out into a semi-circular seat facing east. On the right hand of this seat, and 2 feet above it, is a round hole 18 inches deep and 14 inches in diameter, round which, an inch from its edge, is a groove; on the corresponding place, on the left hand side, is a circular cutting of similar dimensions, but no hole, as though the work was here left unfinished. In front of this seat is a rock-bound area about 20 yards each way, the sides averaging 4 feet in height, but cut in ledges as though it was a quarry, and in one of the faces is a niche as though for a lamp; I made an excavation beneath it in the hope of finding a tomb, but without result. There are no building stones nearer than the Khurbet, where there are very few, some 200 yards distant. The only conclusion at which I have been able to arrive in regard to this singular spot, is that it may have been one of the high places of early worship, the more especially as it crowns the summit of a hill, and that it was afterwards turned into a quarry. Indeed, were it not for the bench, the semicircular seat, the round hole by its side, and the niche, there would be nothing to distinguish it from an ordinary quarry, for the rock walls bear evident marks of quarrying.

I also discovered another Khurbet, Khurbet El Batta, خربة البتة, but beyond some building stones and foundations there is nothing of interest. It is situated on one of the lower spurs of the mountain about a mile north of Ain Haud (Sheet 7, J *i*).

Hearing that there was a cavern in the Wâdy Mugharah, from which the valley takes its name, that was invested with great mystery in the minds of the natives, as according to tradition no one had ever reached its extremity, or indeed penetrated beyond the entrance, owing to the evil spirits which were said to infest it, I determined to explore it. The cave is situated at the base of a magnificent limestone cliff about 300 feet high, at the western extremity of the wâdy at the spot marked "Caves" in the map (Sheet 5, J *i*), two miles south of Ain Haud. I had with me a Druse, who did not seem to share the native superstition, for he did not shrink from accompanying me. There was a sort of antechamber to the cave, which was used by the goatherds for their flocks, which was about 30 feet high, and the same in width. It soon narrowed however, and we found ourselves in a lofty corridor about 20 feet high, and from 15 to 20 feet wide. We had not gone many yards when the reluctance of the natives to enter the cave was accounted for by a distant whirring sound, which increased in volume and intensity as we proceeded, and which I at once recognised

as the noise of the wings of innumerable bats. As we flashed the light into their retreat, they charged it, as is usual in such cases, so that I had to proceed with my head down, and even then they dashed themselves occasionally with such violence against my pith helmet, that they fell to the ground stunned; had I not taken the precaution to carry a lantern, they would infallibly have put the light out—an experience which has happened to me under similar circumstances in Egypt. I confess I was more relieved than disappointed to find the cave terminate suddenly and unexpectedly in the midst of this turmoil. It had preserved about the same dimensions as regards height and breadth throughout, and now the rock closed in abruptly all round. The distance from here to the entrance was exactly 100 yards.

NOTES.

BY CAPTAIN CONDER, R.E.

Flood Stories in Palestine.—It is of course generally known that stories of a Deluge are found throughout Asia as well as in Europe and America (but not among the Negro races or in Egypt), localised in various places and at different historic periods. It might be expected that they would be numerous in Palestine, but as yet few traces have been found. We have Noah's tomb in Syria, and another shrine of Noah near Hebron, and a spring of Noah's wife (*Bint*) in Philistia. Near Kadesh is the great quadrangle, perhaps a fortress called "Noah's Ark" (*Sefinet en Neby Nûh*), and the grey crow is known as "Noah's chicken" (*jâj Neby Nûh*), evidently with reference to the raven sent from the Ark. In Moab is shown the mountain called "Donkey's Back," which alone was above water during the flood. There are also several springs called *Tannûr* ("oven"), in connection with the Moslem legend that the flood issued from a cavern, and was swallowed again by the same.

In addition to these slight indications of a Deluge story generally known, there are several curious legends of water springing up where a prophet has flung his spear, or stamped with his foot, as for instance at *Et Tâbghah* (*Migdol Tzeboia*), on the Sea of Galilee, where is the *Tannûr Eyûb* connected with the *Korân* legend of the spring which rose when Job stamped with his foot. (The same story is told of Ishmael at Mecca.) These stories are interesting in connection with the Greek legend of the fountain *Hippokrene*, which sprang from the hoof mark of Pegasus. Pegasus, the winged horse, appears to be a creature of Semitic imagination. His name means "water steed" according to Hesiod. He is represented on Assyrian bas-reliefs and Phœnician coins, and the horseman who rode him, *Bellerophon*, was perhaps *Baal-Raphaon*.

Phœnician Antiquities.—On suggesting the possibility that the so-called Hittite inscriptions might possibly in the end prove to be of Phœnician origin, objection was raised that these characters had been found near the shores of the Black Sea, far away from Phœnicia. It should therefore be

noted that close to this very district where the most northern of the new hieroglyphics have been found, there were at least three Sidonian colonies, namely, Pronestas, Sesamos, and Sinope.

Phœnician antiquities are of great value for comparison with the Hebrew archæology. The dress, arms, manufactures, temples, &c., of the Israelites, their musical instruments, ships, chariots, and architectural details, seem, like the Phœnician, to have been similar partly to those of Assyria, partly to those of Egypt. Solomon's throne and brazen laver have their counterpart in Phœnicia in existing antiquities, and the sepulture of the Hebrews may be illustrated by Phœnician customs. These parallelisms are yet far from being completely worked out, since our knowledge of Phœnicia has of late years so greatly increased.

At the same time modern customs and dress throw an equally valuable light on the meaning of some Phœnician relics. The Bedawin in Syria, for instance, wear their hair plaited like the Phœnician nobles. The peasant women of Samaria wear a round tire like that of the Phœnician goddesses. The Lazzaroni of Naples, who have often a decidedly Semitic cast of countenance, wear in the Oscan cap (now going out of fashion among them) a head-dress much like that of the Phœnicians, and their boats have an eye painted on each side of the prow, just as it was painted on the prow of Phœnician galleys (and of Egyptian barks—the eye of Osiris). The cap worn by Greek priests in the East recalls the Cidaris head-dress worn in Phœnicia as well as by the Magi.

The Rabbinical legend that no rain ever fell on the altar of the Temple at Jerusalem has also a parallel in Phœnicia. The mason's marks on the wall of the Jerusalem Temple have a close resemblance to those found on Phœnician walls in Sicily. The scorpion monsters described in the Revelation are represented on Phœnician bas-reliefs, and even the Merkabeh, or Chariot of Jehovah, is represented on more than one Phœnician gem. These slight notes may tend to direct attention to the importance of collecting all possible information concerning Phœnicia.

The aqueduct from Râs el 'Ain to Tyre has the appearance of Roman work, though we have early historic accounts of such a work. I have, however, noted that false arches occur in this aqueduct near its source. These false arches occur in Phœnician work at Eryx in Sicily, as well as in early Ionian work. Their occurrence may not suffice to show the aqueduct to be older than the time of Alexander, but they seem to prevent our supposing the Tyre aqueduct to be entirely due to the Romans.

I have also noted at Tyre the use of concrete on the mole of the Egyptian harbour and elsewhere. It may be noted that the Tyrian colonists of Thapsus as well as at Carthage used concrete in their moles and cisterns. It has been found of a red colour at Utica, and tombs made of concrete occur near Tunis, recalling the concrete tomb on the south-west hill at Jerusalem, described in the Jerusalem volume of the "Memoirs." It is curious that the concrete mole in the Egyptian harbour at Tyre (see Vol. III "Memoirs," Appendix) should seem to have escaped

the notice of so many explorers who adopt the view that the port on this side was filled up by Alexander's mole. The mole has thus been supposed to be only a reef, but on swimming out from the shore I found it to have been once covered with artificial walls and pavement, and with an artificial entrance at the end.

Phœnician temples appear to have been hypæthral, with the menhir or cone as a statue. Not only at Belat and elsewhere near Tyre do these occur (and on coins of Byblos), but on Hermon, and perhaps on the north side of the hill at Samaria. The great temple at Baalbek was probably hypæthral also, and, as I have suggested, the Samaritan shrine on Gerizim. We are thus carried back to the rude enclosures—Stonehenge like—which occur in Moab, and have as yet no example of a great roofed temple in Phœnicia like those of Egypt.

Phœnician Tombs.—A very peculiar feature of Phœnician tombs, which I do not remember ever finding in Palestine, is the existence of small shafts in the roofs leading to the upper air. These may, I think, be compared with the air shafts in the Great Pyramid, and with other such shafts in Egyptian tombs intended to give air, or free egress and ingress to the *Ka*, the spirit ghost or double supposed to haunt the statue of the dead man in the tomb. In late times in Egypt this statue became a little pottery figure or doll, and these pottery figures are found also in Phœnician tombs. The same idea of the air shaft is found in tumuli among the Celtic and other primitive people, and the same practice of burying small images in the tombs.

Emmaus.—A difficulty arises as to the thermal springs which should, it is supposed, be found at a place so called, but which are unknown in Judæa. The word Hammâm is used in Arabic of any bath whether hot or cold, though the root means "hot;" but perhaps the origin of the name of the southern Emmaus may be from the same Hebrew root whence Hamath is derived, a word which means a "defended place." In Arabic this root is *Hâmi*, and the name Ard el Hâmi applies, curiously enough, to the country above Hammath on the west side of the Sea of Galilee.

Professor Socin's Paper.—Professor Socin's criticism has been well met by Mr. Besant. The survey of Palestine follows the *Hakki*, or vulgar Arabic of the peasantry—a dialect containing, as I have shown in former papers, most valuable survivals of Aramaic words and forms. Any criticism based on the grammatical rules of the *Nahu* or schoolmasters' Arabic, rules dating not earlier than the ninth century A.D., and often not in accord with the vigorous language of the Korân, must be considered to miss the very spirit of the nomenclature of the survey, which aims at the preservation of the peasant forms. Professor Socin's suggestion as to the method of obtaining the names shows clearly that he has not read my introductory paper in Vol. I of the "Memoirs."

Bethsaida Julias.—The ruin of *Ed Dikkeh* described by Mr. L. Oliphant (*Quarterly Statement*, April, 1885, p. 84) possesses peculiar interest. From the style of the fragments sketched one is led to suppose that it dates from about the Christian era. The grape bunches recall the style

of the monument of the kings of Adiabene at Jerusalem; the debased imitation of classic style, recalling that of the synagogues of Galilee, might belong to this period, or be as late as the second century, but the style is not that of the later Byzantine period. The kind of bird-woman (Fig. 2) seems to indicate a pagan site; the figure is very old in Egypt as a representation of the soul. To me it seems that these remains may mark the site of Bethsaida Julias, and the work of the Herodian beautifier of that town. It may be objected that the site is too far from the Sea of Galilee, since Josephus places Julias near the place where Jordan flows into the lake. On the other hand, we must remember that the land has been making here, and still is encroaching on the lake: just as at the Jordan Delta in the Dead Sea, in about 1,900 years the point where Jordan debouches into the Sea of Galilee must have moved considerably to the south, and in the time of Christ Ed Dikkeh may well be thought to have been at or close to the shore of the Sea of Galilee. It would be of great interest further to explore this site. If possible, excavations should be made, and inscriptions from such a ruin might prove of exceptional value. It is quite possible that the whole of the Batihah plain may have been formed in quite recent historical times.

The Nablus Altar.—It should be noted that the altar described by Mr. Oliphant has been shown by M. Clermont-Ganneau to present the history of the hero Theseus. (Proceedings B.A.S., May 6, 1885.)

The Chimera.—In "Heth and Moab" I have described one of the panels of a Phœnician Bowl as representing the contest of the Hero and Lion. I followed Lenormant's sketch, but now find that the monster is more like a gryphon in the original, with a second head growing up on its back. Thus on a Phœnician bas-relief, we have a representation closely like that of the Chimera on classic bas-reliefs, which agrees with many other indications in giving a possibly Semitic origin to the whole story of Bellerophon. Perhaps the name of the Chimera, for which no Aryan explanation has yet been found giving satisfaction, may be found to come from the root **חמר** with the sense of "blackness."

Bethlehem.—Among many very valuable notes by Mr. Tomkins, with all of which I heartily concur, that concerning the origin of the name Bethlehem is very striking, agreeing with my former suggestion as to the possible origin of Bethsaida, Sidon, &c. Lahamu and Lahami, the original creators from chaos, were, as Mr. Tomkins notes, gods of fertility, and we may note that the name Ephrata, which applies to Bethelchem also, means "fertility," being from the same root with Euphrates, and existing in the modern Arabic form *Ferth*. We know that a good deal of the Semitic nomenclature in Palestine is pre-Israelite (as shown by the Karnak lists), and I think a careful summary would reveal other town names deriving from well-known Assyrian deities. Bethshemesh is a clear example, as is Ashtaroth Karnaim. Some of the Salems may be connected with the god of peace, the Rimmons with Rimmon (formerly read as Vul) the thunderer. M. C. Ganneau has connected Arsûf with Reseph. Anathoth and Beth Anath may be connected with the goddess

Anat. Beth Dagon is clearly pagan. Ophra may be derived, as well as Parah, from the "Calf," emblem of the sun. The Gilgals are named from sacred circles. Kirjath Arba has already been suggested by Mr. Tomkins as a name of polytheistic origin. Zarephath presents a name of the Syrian Venus. Rabbath might be connected with a title of Istar. Lebonah and Beth Laban with the name of the moon ("the milk white one"), as is without doubt Jericho. Hermon is the "great sanctuary." Hazor I have shown to be connected with sacred circles. Ai might be suspected of connection with Ea, the god of the abyss. Nebo is the Assyrian Mercury. Rehoboth and Rahab may be connected. Succoth is known to be connected with the worship of Venus.

C. R. C.

SEGOR, GOMORRAH, AND SODOM.

By C. CLERMONT-GANNEAU.

(From the *Revue Critique*.)

PERHAPS there is no question of Biblical topography which has been more hotly debated than that of the site of the Cities of the Plain. The controversialists are divided into two principal groups—those who place the site on the north and those who place it on the south of the Dead Sea.

Several years ago ("Revue Archéologique," 1877) I was led to take up a position among the latter. It was while I was engaged in combating, on philological grounds, the identification proposed by De Sauley, of Gomorrah with the ruins of Goumrân, not far from Jericho, on the north-west extremity of the Dead Sea. I had occasion then to touch incidentally on the question of Segor, making use of certain data, previously neglected, which are supplied by geographers. I insisted particularly on certain curious legends which appeared to connect the city of Segor with the country of Moab, and which tended in consequence to localise it in the region south-east of the Dead Sea.

The Arab authors, drawing probably on Jewish sources, say that Lot, the ancestor of the Moabites, had two daughters, of whom the elder was named Reyya, Rasha, or Zaha, and the younger Ra'wa, Ra'usha, or Zoghar. MM. Goldziher and Derenbourg had clearly recognised the fact that these forms, apparently so difficult, were nothing but faulty variants, easily explained by mistakes in Arabic writing of the Aramæan words *Rab'eta*, the "elder" or the "great," and *Sighirta* the "younger" (*Zoghara* or *Zoghar*, literally, the "little"). I endeavoured for my own part to establish that the names were nothing but those of the two principal towns of Moab, *Rabbat* and *Segor* ("the great" and "the little"), of which the fabulous daughters of Lot were only eponyms. I have since found in the Dictionary of Yakût the formal confirmation of my conjecture (*s.v.* Soghar). The Arab geographer says, *à propos* of the city of Segor, that *Zoghar* was the name of a daughter of Lot, the younger (Soghara), who

was buried near the fountain of Zoghar : that the elder sister, *Reyya* (read *Rabbat*), who died while Lot was on his way to Damascus, had been interred near a fountain called after the name *Reyya* (now *Rabbat*). The eponymous character of the two daughters is thus clearly avowed.

Recently Mr. Guy le Strange, speaking of a new theory of Dr. Selah Merrill, who wants to place Segor at Tell esh Shagûr, north of the Dead Sea, rightly insists on the indications which go in favour of the southern site. Profiting by the Arab geographers, I should like to take advantage of the opportunity to state the case more distinctly.

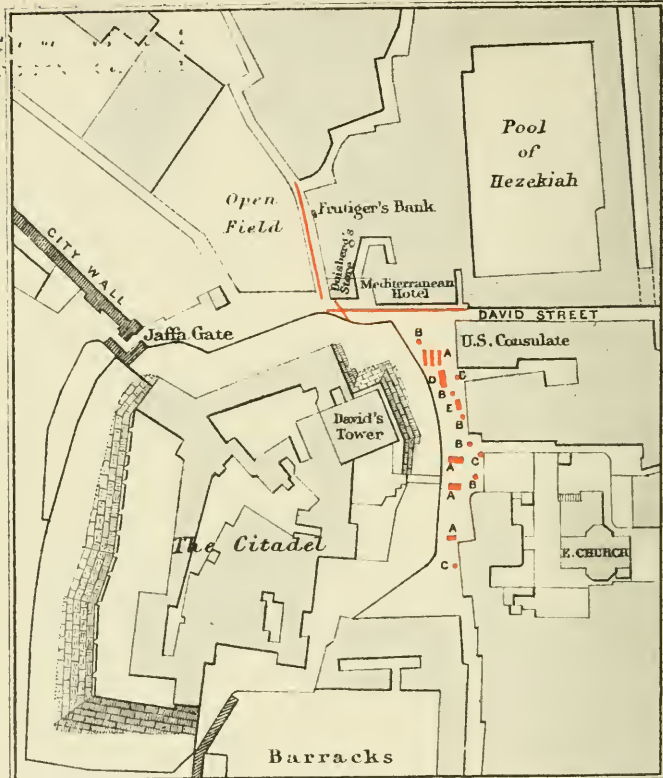
I will not enumerate the numerous evidences which from antiquity to the Arab epoch, and even to the Crusaders, invite us expressly to look for Segor at the south-eastern extremity of the Dead Sea. I will take two only. The *Onomasticon* of Eusebius and Jerome places the Moabite locality of Nimrin (Isa. xv, 6 ; Jer. xlvi, 34) to the north of Zoar, otherwise called Segor. This Nimrin is the Arab N'meira, situated at the opening of the Wâdy N'meira into the Dead Sea, in the region south-east of this lak. Here, then, is a first solid bench-mark. Between this point and Jebel Ūsdum, the uncontested representative of Sodom, in the region south-west of the lake, and nearly opposite there is a distance of about ten Roman miles. Now, the Talmud, in a passage which is not legendary, says that there are nine miles between Sodom and Segor. It is then about half-way that we must look for Segor in the Ghor es Safi, where in fact certain speculative maps have actually set it down. It is astonishing that with indications so precise, none of the travellers who have been so fortunate as to visit this country have been able to find on the spot the name of Segor, which has certainly not disappeared from the Arab name lists. I believe for my own part that a careful examination will cause it to be discovered not far from Kusr el Bashariyeh (?), and the Tawahîn es Soukhâr (ruins of Sugar Mills) marked beside it on the more recent maps. These mills are frequently, in Syria, the indication of an establishment of the Crusading period, and besides, we know that the Crusaders were installed at Segor, which they called *Palmer*. One may hope, therefore, that the question will some day be settled without fear of future controversy. The authors of the *Onomasticon* and of the *Notitia Dignitatum* agree in stating the existence at Segor of a Roman garrison : it will perhaps be sufficient to settle the question if we find one of those inscriptions of which the Roman soldiers were so prodigal. Meanwhile I think that the subject is narrowly limited, and I hope for the day when some traveller will proceed to make the verification, which ought not to be difficult, on the spot.

I will finish by a suggestion on the possible site of Gomorrah. This city is literally called in Hebrew *'Amorah*. The Septuagint transcription Γομόρρα proves that the first letter is in reality a *ghain*, and not an *ain*,¹ with as much certainty as the word Gaza, confirmed by the Arab word *Ghuzzeh*, proves that the Hebrew form was Ghazzah, and not 'Azzah. The southern banks of the Dead Sea do not furnish us with any topical name

¹ Hebrew writing does not distinguish between these two distinct articulations.

PLAN SHEWING POSITION OF RECENT DISCOVERIES IN JERUSALEM.

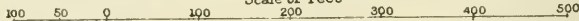
PALESTINE EXPLORATION FUND



From O.S. Plan of Jerusalem. G.A.

Scale of Feet

E. Weller, lith.



similar to this. On the other hand, ancient Arab geographers speak of a locality which from the onomastic point of view would answer perfectly. It is *Ghamr*. Mukadessi mentions it on the road from Ramleh in Palestine to the Desert of Arabia: "from Sukkariyeh¹ to Tuleil, two days' march; from Tuleil to Ghamr, two days; thence to Waila,² two days. At Ghamr, he says elsewhere, bad water is procured by digging in the sand. I do not hesitate to identify the Ghamr with the Ain Ghamr of modern times, situated in the Arabah at the entrance of the Wâdy Ghamr, about twenty leagues south of the Dead Sea.

If objection is taken to placing Gomorrah at so great a distance from the Dead Sea, it must not be forgotten that according to the way in which the Book of Genesis (x, 19) proceeds with its enumeration, Gomorrah, as well as Seboim and Adamah, seems to have been south of Sodom. In this case the cities would occupy the southern part of the basin of the Dead Sea—Sodom and Segor being to right and left the most northerly. This would very well conform with the Arabic tradition, which is not to be despised, and which places in this very region what it calls the "cities of the people of Lot," which also clearly results from the enumeration of Mukadessi, who thus describes the limit of the Arabian desert, going from south to north: "Waila (Elath on the Red Sea), the cities of the people of Lot, Moab, Ammîn, Edra'at, Damascus, and Palmyra."

RECENT DISCOVERIES AT JERUSALEM.

BY SELAH MERRILL, D.D., LL.D.

THE broad space between the castle, the buildings opposite, the barracks and the Mediterranean Hotel, also the street between the Jaffa gate and the entrance to the Mediterranean Hotel at the head of David Street, having during the past summer been torn to pieces, graded, and paved, and even side-walks have been built. When the workmen began in the middle of April last to tear up the rubble pavement, they said they were going to make streets and side-walks "like Europe." What they proposed to do could have been done in Europe in six weeks, but five months have elapsed since they commenced operations, and the work is not yet completed.

In grading the streets some of the houses have been endangered, because they were built almost on the top of the ground, and it has been necessary to supply patchwork foundations; consequently the walls near the ground are unsightly in the extreme. The pavement, however, so far as it goes, is certainly a great improvement upon the rough pavement which has been displaced. Unfortunately, the new pavement extends only about 110 yards from north to south, and about the same distance from east to west.

¹ About half-way between Gaza and Hebron.

² Which is Elath at the head of the Gulf of Akabah.

What I wish to call attention to at present are the remains of old houses, cisterns, and other structures that have been brought to light by the workmen who are making these so-called "modern improvements." These are shown on the plan of this part of the city which accompanies these notes. Before the work of grading the streets began, these remains were not known to exist; many of them were wholly or partially destroyed in the process of grading, and now that the streets have been re-paved no visible traces of their existence can be found.

As these remains were exposed one after another, I marked them on the plan, and was about to forward the same to the Palestine Exploration Fund, but delayed doing so for some weeks; meantime the Greeks began to clear the *débris* from the place marked "open field," and here discoveries have been made of more importance than any of the others. Nothing less has been brought to light than the actual foundations of the second wall described by Josephus as beginning at the gate Gennath and encircling the northern quarter of the town ("Wars," V, vi, 2).

Before speaking further of these I will describe briefly the remains which were brought to light by the grading of the street.

The places marked with the letter *A* represent old houses. Six or more feet of the tops of these were exposed, cut off, and levelled. All of these old houses or magazines were found to be nearly filled with earth and rubbish, and some of them showed excellent workmanship in their walls and roofs.

The places marked with the letter *B* represent old cisterns. Some of them may have been vats, but the cement on the walls of all of them was very thick and strong. These were all filled and the ground levelled. The two marked with the letter *C* are still in use.

At *D* there was a large pier or platform built of finely hewn stones.

E represents a large bevelled stone, 5 feet by 3 feet, and 2 feet in thickness. This was broken up in order to move it the more easily.

The broken line in front of the Mediterranean Hotel represents a continuous wall that was uncovered to a depth of 6 feet, since along this street they were digging a sewer. The wall was built of large hewn stones, and at intervals there were doorways.

When nearly opposite Duisberg's store a wall running obliquely to the other was encountered, but of a much larger and stronger character. This was with difficulty broken through, which must be done in order to open the sewer further along towards the Jaffa gate. This wall is also represented by a broken line.

Another wall was met with opposite Frutiger's Bank, which is represented on the plan in the same manner. Here the stones were larger than those already mentioned, and some of them were bevelled. Although they were displaced, one could not help thinking that they were on the line of an old wall of which they once formed a part. Nearly opposite Frutiger's Bank a stone ball, 11 inches in diameter, was found, the same as those used by the Romans in the siege of Jerusalem.

All these remains are interesting as showing what exists below the

surface of the ground. As the foregoing remarks close what may be called the first chapter in the history of these excavations, I will repeat what I have said, that all traces of them have now been obliterated.

II.

The Greeks, as I stated, began to clear the rubbish from the place marked "open field," with the design of surrounding this plot of ground on each of its four sides with commodious modern buildings, two storeys high, these to be surmounted in the course of two years by a third storey, which is to be used as a "Grand Hotel." This is the reported proposition.

A little below the surface a cistern and two houses or extensive magazines were exposed. These are marked by a circle and by oblong squares on the "open field." I ought to say that this field was 8 or 10 feet above the level of the street, and that the earth was supported by a wall.

Near the western angle of this field, and 10 feet below the level of the street, a large structure was found apparently of Roman work. Still lower, on the west side of this structure, there was a well-built canal, 20 inches square, which descended from the north-west. The character of this building I could not determine, nor could I ascertain where the canal led to. Somewhere near this point, however, there seems to have been a way of conveying water to the tower of Hippicus ("Wars," V, vii, 2).

The excavations all along the southern line of this field were carried down nearly 20 feet below the level of the street in order to secure the foundations of the new building.

Just at the right, or east of the remains marked on the "open field," a massive wall was exposed not far below the level of the street, and followed down about 15 feet. The line of this would be nearly parallel with the line of the broken wall opposite Frutiger's Bank. This wall was not vertical, but inclined like the wall of a deep trench around a castle, yet I should not judge that it had any such use. Near this, two smaller canals were found running in the same direction as the large one already mentioned.

It was below the eastern boundary of this field that the most important remains were found. Here at a depth of 15 feet from the surface of the ground, or rather of the street, a portion of the ancient second wall was exposed. Two layers of stone, and at two or three points three layers, were found still in position. These were of the same size and character in every way as the largest of the stones in the so-called Tower of David opposite. About 30 yards of this wall was uncovered. The large displaced stones represented by the heavy broken line opposite Frutiger's Bank, which were found when grading the street, would be on the line of the old wall beneath them.

These massive stones and all these old remains in this piece of ground have been worked into the foundations of the new buildings, and although they were not broken they are now covered and for ever lost from sight. It is a great satisfaction, however, to have seen these solid foundations of old Jerusalem uncovered after they had been buried for so many centuries.

which in the Arabic version (originally printed at Rome in 1671) is rendered by *عرمة* 'Orma. The same word is also used for "a heap" of sheaves, *vide* Ruth iii, 7. In this passage the noble Arabic version of Drs. Eli Smith and Van Dyck gives *عرمة* as the equivalent of *ערמה*. Turning to Luther's German Bible we are struck with his rendering of the word as "*eine Mandel*." Every German scholar knows that this word, which is feminine in gender, means first, an almond (not an almond-tree, but the stone-fruit), and secondly, a quarter of a *schock* (a *schock* = 60, therefore a *mandel* = 15), or fifteen. Luther could not possibly have meant that Boaz went and lay down behind a single almond-fruit, and we are therefore forced to the conclusion that he was under the impression that the *ערמה* contained fifteen sheaves. In a pile containing that number we should have five in the lowest tier, four in the next above, then three, then two, and at the top one, thus—



This arrangement produces a figure which in its outlines remarkably resembles those of Khurbet 'Orma as seen from a distance, and most especially from the spot where, through a *cleft* in the rock, one *descends* by a staircase cut in the face of the sheer precipice on the opposite side of the valley to the curious ancient laura and cavern in the 'Arak Ism'ain (possibly Samson's Etham, Judges xv, 8).

The plural of *ערמה* in *ים* is *ערמים*, 'Araymim, a word altogether different from *יערים*, 'Yarim = Jearim, which, as every Biblical scholar is aware, is the plural of *יער* = *ער*, meaning a rocky hill-side covered with thickets. *ערמים* may be looked up in Jeremiah I, 26, which in the Authorised Version reads—

"Come against her"—*i.e.*, Babylon,—from the utmost border, open her store-houses, cast her up as *heaps*, = *ערמים*, &c. Here Drs. Smith and Van Dyck give the word *عرامة* 'Erāma (n.).

We now come to the plural in *ות* = *ערמות*, 'Armoth, and find it in the Hebrew in Nehemiah iii, 34, which corresponds with the second verse of Nehemiah iii in our English Bibles. In the Arabic versions the root *ערם* does not appear in this passage.

The Niphal form of the Hebrew root *ערם* is used in Exodus xv, 8, where we read that the floods stood upright as a "heap," &c.

I believe I have now said enough to show that the descriptive appellative Khurbet 'Orma means a "rain-heap," and that though in the latter part of the word Y'arim the letters *יע*, *ר*, and *מ* do occur, yet that the word *عرمة*, which contains these same letters as radicals, has no

connection therewith, and that, taking Baurath Schick's and the Rev. W. F. Birch's objections into consideration, and calmly weighing all the evidence, one cannot help feeling that the gallant officer who so boldly maintains that *thickets* and a *heap* are one and the same thing, has discovered "a mare's nest" at Khurbet 'Orma.

My stay at 'Artouf came to an end early in August, a day or two after I forwarded tracings representing the Zorah altar. On the 23rd of October I rode down again in the company of Baurath Schick, who carefully examined my find, tested my measurements of the same, and inspected some minor discoveries I made in the same neighbourhood, especially a columbarium, and a large and massive but rude stone monument I had found on a hill-top. As Herr Schick intends publishing a description and plans of these I need not dwell upon them.

J. E. HANAUER.

Jerusalem, November 3rd, 1835.

NOTES BY REV. W. F. BIRCH.

I. ACRA SOUTH OF THE TEMPLE.

(See page 105, 1885).

JOSEPHUS ("Wars," V, iv, 1) places his Acra on the site of the Maccabæan Acra, which (1 Macc. i, 33) was identical with the City of David. I propose to show that Josephus places his Acra entirely south of the Temple, *i.e.*, on Ophel (so called), and so without design supports the view that the City of David was on Ophel.

1, 2. In the passage referred to, Josephus says: "The city of Jerusalem was fortified with three walls on such parts as were not encompassed with impassable valleys, for in such places it had but one wall. The city was built upon two hills, one called the Upper Market-place, the other Acra, or the Lower City. The Tyropæon Valley which divided the two hills reached to Siloam. The first wall ended at the eastern cloister of the Temple," and therefore enclosed Ophel (so called).

Now as the Tyropæon Valley reached to Siloam, it must have separated the Upper City from Ophel (so called). Therefore Ophel—*i.e.*, the ridge south of the Temple—was a separate hill from the Upper City (or Market).

Thus, first historically (according to Josephus) we have two hills, *viz.*, the Upper City and Acra, within the first wall, and next topographically (according to modern excavations) two hills, *viz.*, the same Upper City and Ophel (so called), also within what was the line of the first wall.

But the third axiom of Euclid is, that "If equals be taken from equals the remainders are equal." Accordingly, from these two equals let us take the Upper City, and the remainders, *Acra* and *Ophel* (so called), must be equal. In other words, Acra was on Ophel south of the Temple.

I claim, then, to have proved mathematically that Josephus places his Acra south of the Temple, and thereby supports that site for the City of David.

Further, if Acra is placed anywhere else than on Ophel, then, as it was a hill by itself, Jerusalem must have stood upon three hills, viz., the Upper Hill and Ophel (because it was enclosed by the first wall), and lastly Acra. But Josephus says the city stood on *two* hills, and no one, I imagine, will be so sophistical and stupid as to maintain that by *two* he only meant at least two, and might mean more than two.

Again, if the first wall is drawn (as I agree with Sir Charles Warren it ought to be drawn) from near the Jaffa gate direct to the Temple, then his site for Acra, north of the Upper City, is only defended by *two* walls on the northern or weak side, while Josephus distinctly says that the city (which contained two hills) was fortified by *three* walls except on its unassailable sides.

Does any one believe that even Josephus can have so jumbled up the topography of a city with which he was well acquainted, as to say Jerusalem stood on *two* hills, if it stood on *three*, and that it was defended by *three* walls, if one part of it, viz., Acra, had been defended by two only? "Credat Judæus Apella, non ego." But the old device may be tried again, and why should Josephus expect to fare better than Nehemiah?

It will be said, "Other passages in Josephus relating to Acra do not agree with its being on Ophel."

Let us see, then, what else Josephus says about Acra.

3. He *directly* gives to the part south of the Temple the name of Acra, or the low town.

(a) "Wars," VI, vii, 2. After the capture of the Temple "the Romans drove the Jews out of the Lower City and set all on fire as far as Siloam." This Lower City could not be the part just within the second wall, for out of that they had been driven weeks before.

(b) "Wars," VI, vi, 3. Here the order was given to burn and plunder the city. Accordingly the Romans set fire to Acra and the place called Ophlas. The fire reached to the palace of Helena in the middle of Acra. When Sir Charles Warren places Acra and the palace *north* of the Upper City, we have to suppose that for *weeks* this part had been left un plundered and the *wood* of the houses unremoved (for stones alone would not burn), although the country for 90 furlongs round was being scoured for wood for the military works.

4. On the other hand, Josephus never gives to the part west of the Temple the title of the Lower City, or Acra. If any one thinks he does, let him kindly point out the passage.

5. Lewin indeed says that "The part north of the Upper City (*i.e.*, Sir C. Warren's position) did not belong to it, nor yet to Bezetha, therefore it belonged to Acra." This conclusion is quite wrong. For in truth that part belonged to none of the three, and is described by Josephus himself as "the suburbs."

6. Some writers are pleased to assume that there must be *topographical*

order in the enumeration of the gates on the western side of the Temple, i.e., that ("Ant.," XV, xi, 5) "ἡ μὲν . . . αἱ δὲ δύο . . . ἡ λοιπή" imply strict local order. If so, surely there is much more reason to assert that there must have been a similar order observed in the description of the towers in "Wars," IV, ix, 12, for there we have τὸν μὲν . . . τὸν δὲ . . . τὸν δὲ τρίτον . . . ὁ δὲ λοιπός.

7. "Now of these towers, one was in the north-east corner of the Temple court, one above the Xystus, the *third* at another *corner* over against the *Lower City*, &c." As in *local order* this third comes after that near the Xystus, the corner must obviously have been the corner near Robinson's Arch, and it was "over against Acra." This south-west corner might indeed be said to be over against Ophel; but surely not over against the part north of the Upper City.

8. In "Ant.," XV, xi, 5, the first-named gate was one in the line of Wilson's Arch; and the one leading to the other city by a great number of steps into the valley, and thence up again by the ascent, was one in the line of Robinson's Arch; while the deep valley along the entire south quarter of the city is the valley south of the Upper City. Josephus, I believe, never calls the Tyropæon a *deep* valley.

9. If, as Colonel Warren supposes ("Temple or Tomb," p. 119), Robinson's Arch had to do with one of the suburban gates, what are we to think of the vapidness of Josephus in disposing of the stupendous work of that arch under the trifling observation that "two more (gates) led to the suburbs of the city?"

10. Josephus says the two hills of Jerusalem had *deep* valleys on the outside. Acra on Ophel (so called) would have a deep valley on its eastern (or outer) side, but Acra west of the Temple would have no *deep* valley, nor any valley at all, on its western (or outer) side.

Here, then, are *ten* points in which the southern site suits and the western site does *not* suit the Acra of Josephus. Is more evidence necessary?

But I imagine some one objecting, You have suppressed four or five awkward statements of Josephus, viz. :—

- (1) That the Acra used to be higher than the Temple.
- (2) That it was levelled by the Asmonæans.
- (3) That it was separated from the Temple by a broad valley which was afterwards filled up.
- (4) That David called the Upper City by the name *φρούριον*, obviously corresponding to the Hebrew *Metsudah*, the same as the *castle* of Zion.
- (5) That David called Jerusalem the City of David ("Ant.," VII, iii, 2).

Very awkward indeed, I readily admit; yet not for my theory, but for Josephus and all confiding in his inventions. For in all these five points quoted against my theory Josephus is at variance with either the Bible, or 1 Maccabees, or later statements of his own.

As to (1), Josephus thought Acra was formerly higher than the Temple, and so when 1 Maccabees says (vii 33) Nicanor went *up* from the Acra to

the Temple, Josephus says he went *down* ("Ant.," XII, x, 5) from the citadel into the Temple. For whom is this change awkward?

As to (2), Josephus says the hill of Acra was levelled—a three years' work by day and night. 1 Maccabees, however (an authority used by Josephus at other times), says nothing of the sort, and speaks of the Acra as in existence three years after its demolition according to Josephus (xiv, 37; xv, 28, 33-3).

Is not this very awkward for those who blindly follow Josephus?

As to (3), 1 Maccabees says not one word about the filling up of the valley; and when the advocates of *local order* make Josephus to describe as filled up the valley between the Temple and their Acra placed on its western side, they forget that Josephus must thus contradict himself; for the last-named gate led to a descent by many steps into the valley which was no longer a valley, being already filled up according to their interpretation of Josephus.

Again, as to (4), the Bible does not say that David called any place the citadel (*φρούριον*). What it does say is that he called the castle (or citadel) the City of David (2 Sam. v, 9).

Lastly, as to (5), the Bible does not say that David called Jerusalem the City of David. It says (as above) that he called it (*i.e.*, the castle) the City of David." (See *Quarterly Statement*, 1883, p. 154; 1884, pp. 79, 198.)

The fact seems to be that Josephus (like Canon Tristram and others) failed to understand how the stronghold of Zion could ever have stood on a low hill, and therefore in the "Wars" he put it on the site of the Upper City, and at the same time finding the name Acra attached to the Ophel spur, not apparently a good site for the Macedonian Acra, he concluded it must have been levelled. (See 1885, pp. 107, 211.)

Afterwards, when he came to write his "Antiquities," using the LXX and 1 Maccabees, Josephus found that his Acra and not the Upper City was the original castle of the Jebusites, and therefore in "Ant.," VII, iii, 1, he repeatedly applies to their stronghold the term Acra.

By wresting the Acra from the enemy Simon would in Jewish phraseology become "a remover of mountains," and Josephus, who was quite capable of making much out of little, through taking the title literally may out of this soubriquet have developed his cock and bull story of the levelling of the Acra.

It is hardly necessary, however, to find a groundwork for this fiction of Josephus, who, as pointed out by Whiston, seems to have used a mutilated copy of 1 Maccabees which came to an end at the 50th verse of the 13th chapter, just before the capture of the Acra. If only he had possessed a perfect MS. to copy from, probably we should never in the "Antiquities" have heard anything of the levelling of the Acra.

Again, it has been urged that Josephus says the Maccabees filled up the valley between the Acra and the Temple, meaning to join the two.

To this I reply that in the later and more detailed account in the "Antiquities" he says nothing about the filling up of the valley, and that the filling up of the intermediate valley before the Acra was taken is just

what they would not have done. There would have been more sense in making the valley deeper. If this statement of Josephus is to be taken in the way it is usually understood, then obviously there is no more truth or reason in it than in the levelling of the Acra.

I do not, however, believe Josephus meant his words to be so understood. I take him to mean that the Maccabees filled up the valley, in the line of Wilson's Arch ("Wars," V, iv, 1, compared with "Ant.," XV, xi, 5, the intermediate valley being cut off for a passage), wishing to join the "city" (this is his word), *i.e.*, the Upper City, to the Temple. Here I think he had a *confused* recollection of 1 "Maccabees," xii, 36 (raising a great mound between the tower and the city, for to separate it from the city), and interpreted it to mean that they made a great ramp between the Temple (a continuation of the Acra hill) and the Upper City.

Anyhow, as Josephus certainly believed that the Acra originally was on an eminence higher than the Temple, and on its *southern* side, then in his mistaken opinion there must have been a valley between the two, and as it was certainly not visible in his day, he might after all mean that it was filled up somewhere on the line of Dr. Guthe's (misconceived) valley across Ophel. At the same time Josephus may also have believed that Ophel so called had been lowered.

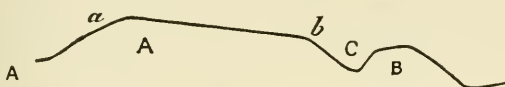
In conclusion, I would call attention to two things. First, on the *ten* points that fix Acra south of the Temple, Josephus is speaking from what he had *seen*. Next, on the five points alleged against this site for Acra, Josephus is speaking about what he had *not* seen, *viz.*, a mountain levelled and a valley filled up, and instead of wisely following his authorities, the Bible and 1 Maccabees, he ventures to disregard and contradict them, and so has blindly fallen into a deep pit, leading after him eighteen centuries of followers.

As, however, I have probed the question of the site of Zion, the City of David, as fixed by Josephus, only for *his* credit, and not for the safety of my theory, I may say once more that any adverse statement of Josephus on this point is worth nothing at all, being but as the dust in the balance compared with the clear and consistent evidence of the Scriptures, not to add of 1 Maccabees.

One indication given by Josephus has been omitted above, because I have never seen it satisfactorily explained. He says ("Wars," V, iv, 1), The hill on which the Upper City stood was much higher, and "in length more direct" (Whiston), while the hill of the Lower City was ἀμφίκυρτος (of the shape of a moon when she is horned—Whiston). When Captain Conder ("Handbook," p. 332) says the upper hill was the *largest*, he is quite correct, but *largest* seems to me an inadequate rendering of Josephus's words. Again, when he says the Acra was "crescent-shaped," it must be objected that ἀμφίκυρτος does not mean *crescent-shaped*, but means *gibbous, curved on each side*, like the moon in its third quarter. Accordingly his site for Acra cannot by being *crescent-shaped* fairly claim to satisfy the description of Josephus.¹

¹ I am glad to find that in the "Memoirs" (Jerusalem, 291) Captain Conder

The following explanation has lately occurred to me. Josephus probably means to describe the city as seen from the south. The appearance, before the Tyropæon was filled up, would be something like this—



A (the upper hill) is thus higher, and *in length* (from *a* to *b*) *somewhat in a straight line*. On the other hand, **B** (the lower hill), instead of being straight or having a flat surface, would (before **C**, the Tyropæon Valley, was filled up) appear as a *humped* bill, having sloping sides on the east and west. "Humped" seems to me a fair meaning for ἀμφίκυρτος, from κυρτός, curved, arched, like a camel's back.

II. PROFESSOR SOCIN'S CRITICISMS.

PROFESSOR SOCIN, of Tübingen, in his "Critical Estimate of the Work of the Palestine Exploration Fund" (*Expositor*, October), takes exception to some of my remarks in the *Quarterly Statement*. Of this I am glad, as it is good for one's errors to be pointed out.

(1) Inquiry (1884, p. 61) satisfied me that the famous cave of Adullam was really the cave of Khureitun, and was not near the city of Adullam. To explain the title "Adullam," I proposed as a solution that *vau* had been changed into *daleth*—*i.e.*, that the original reading was Maarath Olam (= "the old cave"), which some copyist, aware that Adullam was not far from Gath, somehow made into Maarath Adullam. Exegesis like this, Professor Socin describes as "too bad." Let us then see what he considers good.

On page 255, Professor Socin, referring to "the opinion that the tomb of Rachel cannot originally have been shown south of Jerusalem," adds "as is indeed manifest of itself from 1 Samuel x, 2, and Jeremiah xxxi, 15."

But according to Genesis xxxv, 16; xlviii, 7, Rachel's tomb was "but a little way" (Rev. Ver., *still some way*) from Bethlehem, yet, *if* it was not south of Jerusalem, it must have been at least *four* miles from Bethlehem. Surely Professor Socin will not maintain that Gehazi, in waiting until Naaman had gone "some way," must really have given him *four* miles start; while further, the acceptance of Mr. Schick's tomb of Rachel at Abd-el-Aziz transforms in Genesis the four miles into quite eight. If my exegesis is "too bad" in turning *vau* into *daleth*, what is to be said of Professor Socin's in twice turning out of the sacred text the statement "but a little way to Ephrath." He, without apology, ejects four Hebrew words at least, and yet objects to my altering a single letter. Is not this "extraordinary partiality?"

accepts *gibbous* as the right translation of ἀμφίκυρτος. As, however, he at the same time adheres to his former site for Acra, it would seem that his site, which was *crescent-shaped* in 1879, can do double duty by being *gibbous* in 1884.

(2) As to the identification of Aïd-el-Mâ with Adullam, Professor Socin (p. 256) says: "We are glad to see that recently (*Quarterly Statement*, 1884, p. 61 *ff.*) opposition to it has again appeared." As the paper referred to is mine, I may say this approval is undeserved, as it will be seen that from first to last I do not say one word against the identification. What I objected to was stated in the title, "The Cave of Adullam not near the City of Adullam."

(3) I am also concerned in the question of Zoar and Sodom having been at the northern end of the Dead Sea. Such a location, however, Professor Socin describes as "one of the gravest errors." He adds: "The reasons for placing Zoar in the Ghôr es Safiyeh (*i.e.*, towards the southern end) are quite incontrovertible. Only false interpretations of passages like Genesis xiii, 10, &c., can have led to this extraordinary hypothesis." Let us test the value of this criticism.

Lot, from the hill east of Bethel, "beheld (Gen. xiii, 10) all the plain (Heb. *ciccar*) of Jordan, that it was well watered everywhere, . . . and (11) chose him all the plain (*ciccar*) of Jordan, . . . and (12) Lot dwelled in the cities of the plain (*ciccar*), and pitched his tent toward Sodom." Scientific exegesis requires one to admit that the Dead Sea must have existed at that time, and that the Jordan flowed into it. Now—

(a) Lot could see that the plain at the northern end of the Dead Sea was well watered; for it was in sight, and but fifteen or twenty miles off, whilst the Ghôr es Safiyeh is some sixty miles distant.

(b) Lot chose the plain of the Jordan. This *must* mean the plain at the northern end of the Dead Sea, since no valley at the southern end could possibly be called the valley of the Jordan, as the nearest point of that river would be forty miles distant at the opposite end of the sea.

(c) Nor will sound exegesis allow any one to maintain that while Lot chose the plain at the northern end of the sea, he dwelt in that at the southern end, some forty miles distant. The *plain* in xiii, 12, near Sodom, is obviously *the plain of Jordan*, which in 11 was confessedly at the north end of the Dead Sea. Therefore it is the arguments for this northern site that are *incontrovertible*, and the southern site is *one of the gravest errors*.

Even the Biblical use of the word *ciccar* would by itself settle the question. Professor Socin was evidently unaware how sound are the arguments of the northerners, and so has let himself be carried away by *the extraordinary hypothesis* of the southerners.

It seems, then, that the errors needing correction belong to Professor Socin, and not to me, still less to the Fund which, as a Society, makes no identifications.

III. CAPTAIN CONDER'S NOTE ON JERUSALEM.

Now that Sir Charles Warren has returned in triumph from South Africa, I hope he will find time to reply to my attack upon his Zion theory. In the last *Quarterly Statement* Captain Conder, from under the Southern Cross, aimed two arrows against my theory, but so inaccurately that one comes down upon his own head, and the other hits Sir C. Warren's theory, while mine continues unscathed.

As I hope by sound reasoning to convince the opponents of Zion on Ophel that the latter hill was the site of the City of David, I must at once remove the misapprehensions expressed by Captain Conder on page 229. I do not object to his saying that "later kings built a wall round Ophel," but I objected to his statement that Ophel "was only walled in by later kings." Similarly I cheerfully admit that Captain Conder visited Jerusalem, but I should strenuously deny that Jerusalem "was only visited by Captain Conder." Many went there before he did. The fact that both Jotham "on the wall of Ophel built much," and Manasseh "built a wall without the City of David on the west side of Gihon in the *nachal*" (= Kidron), says nothing against Ophel having been built upon before their time, and even in the time of David.

Captain Conder is also in error in saying I claim to prove "*Hinnom* to be the Kidron." This is Sir C. Warren's theory. On reference to page 211 he will see that, on the contrary, I said that the confusing of *ge Hinnom*, with *nachal Kidron*, produced a hopeless chaos, and that I had shown that the *Tyropæon* was the valley of *Hinnom*. Captain Conder can hardly mean that the *Tyropæon* was the same as the Kidron.

Further, he misunderstands Professor Sayce's theory. The latter (mainly agreeing with Professor Robertson Smith) confines Jerusalem to the eastern hill, but not (as Captain Conder thinks) to the narrow ridge south of the Temple. Professor Sayce corrected this misapprehension in *Quarterly Statement*, 1884, p. 250.

To me the old delusion that the Jerusalem of David did not extend to the eastern hill seems worse, because more plausible, than the new notion that it did not reach to the western side of the *Tyropæon*.

The second delusion, that the City of David was identical with the Jerusalem of David's time I deal with elsewhere.

IV. THE APPROXIMATE POSITION OF THE CASTLE OF ZION.

I ENDEAVOUR on the annexed plan to show the probable position on Ophel occupied by the City of David.

It seems to me that its western wall would almost certainly stand close to the water-parting of the ridge. As the point marked 2,270 feet (Sir C. Warren's knoll, I believe) seems the strongest point on the ridge, having a hollow on its northern side, I have drawn the northern wall thence to at least 30 feet east of the rock-cut chamber on Ophel, because in "Jerusalem Records," p. 254, it is stated that the rock was bared for 30 feet, but

apparently without reaching the line of the eastern wall. At the same time the further the eastern wall was up the side of the hill, the stronger would be its position.

Therefore I have drawn it as little to the east as possible, though it is a fact that further north the Ophel wall of later date certainly was some distance down the hill.

How far the City of David may have extended *southwards* is open to question. I have extended it so far as to make the area of Zion at least three acres—sufficient, I believe, for the castle which David took from the Jebusites, and named the City of David.

It may be that in trying to make Zion as strong as possible on its western and eastern sides, I have drawn it too narrow. As shown on the plan, I think that with walls of no great height it would not be dominated from any point within 500 feet. I must confess, however, that such a distance seems to me more than necessary, but I concede it to satisfy Canon Tristram's objection (1885, p. 107).

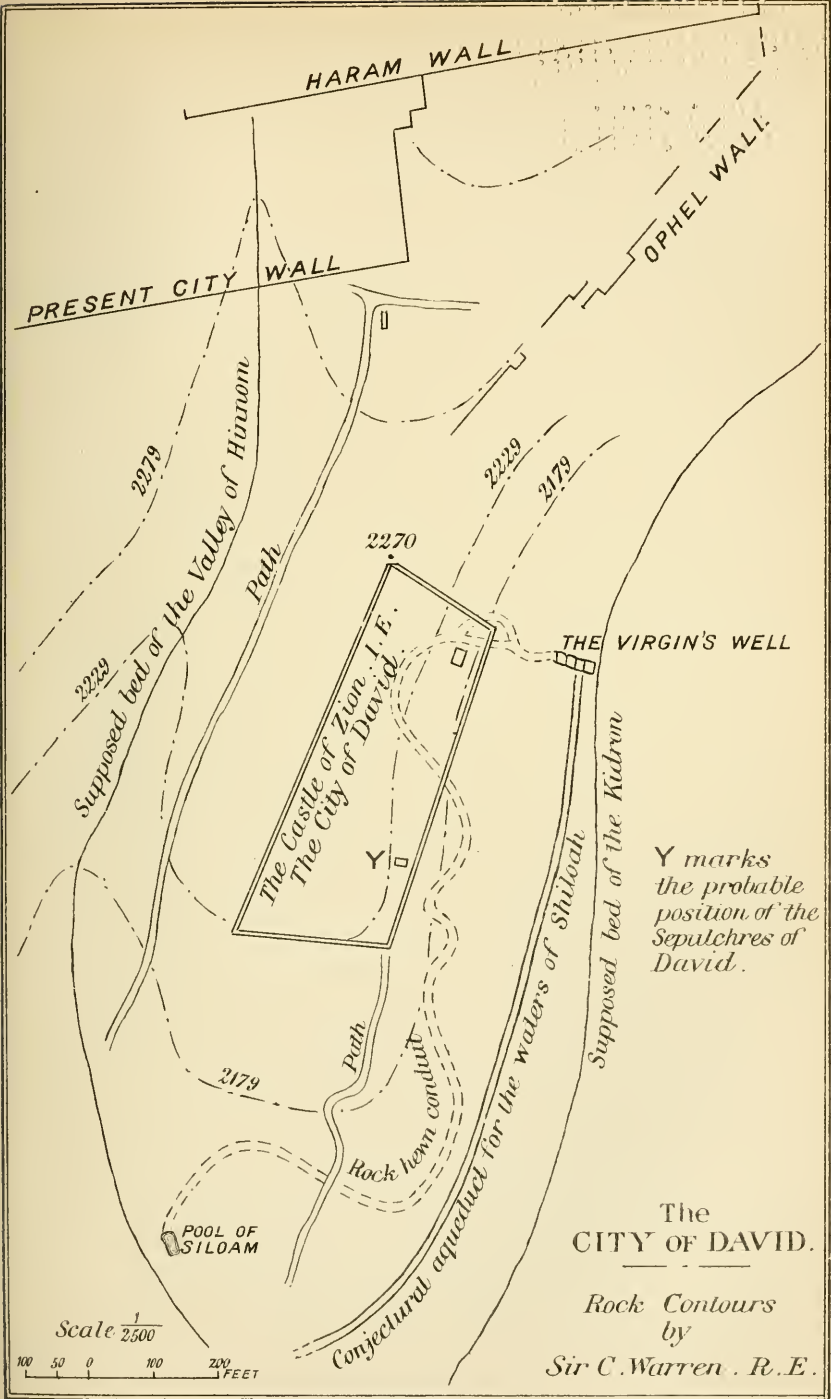
The approximate position of the sepulchres of David is a still more difficult question; but the course of the wall in Nehemiah appears to me to show that they certainly were not on the *western* side of Ophel; for the wall (Neh. iii, 16) was built *over against*, *i.e.*, in sight of, the sepulchres.

Again, as the *eastern* side, being steeper, would more easily than the southern side be cut into a perpendicular face for the entrance to the tomb, I have marked *Y* as its probable position, within the wall of the City of David, on the *eastern* side of Ophel. At the same time I think that the wall built by Nehemiah may not in any part of it have been *necessarily* on the line of the old wall of the City of David, but on the line of the wall outside it (2 Chron. xxxiii, 14), with an unknown space between the two.

When the Jews say that the tomb of David was within Jerusalem, I believe that they are right; but it might have been *within the outer wall* named above, and yet outside the City of David: for the frequent expression "in the City of David" may mean simply *near* it, and not necessarily *within* it.

If Sir Charles Warren accepts the Ophel site for Zion, I hope he will add his opinion on the probable position of David's tomb.

It is high time that a question like this passed from the region of conjecture into that of excavation. Some who reject my Zion theory would like to see the matter without further delay referred to the spade for a decision to which all would cheerfully bow. England is a Bible-reading country, and rich withal. How long for the lack of a few hundred pounds is Zion still to be to us an unknown city?



Y marks the probable position of the Sepulchres of David.

The CITY OF DAVID.

Rock Contours by Sir C. Warren. R.E.

A CATECHISM OF THE DRUSE RELIGION.

(Literal Translation.)

THE FORM OF THE DRUSE OATH.

I, A. B., swear by our Lord who governs by his own order (will), the highest, the righteous, the Lord worshipped in every direction in the form of the creature, the created Astitanil, who is the point of the compass, with the four limits of unity, and by the manhood of the form, and by the hidden wisdom, and the lord of the limit and victory, and by his Hedger (?) and its builder, and by the wisdom of the Ancient of Days, and by what could be measured, and by the calling of my lord Baha Edden and the termination, together with the five and four, which are the boundaries and storms, and by the honour of the one hundred threescore and four shepherds, and by every article read in our Khilwat and places of council, of the books of Hamzi, the son of Ali-Hadi, the answerer (of prayer), and who revenges himself on the polytheists with the sword of our Lord, the sole governor, whose remembrance be glorified; or else I shall be clear of him, and a denier of the lord of the sent ones, the first ones, and the last ones, and I shall be also a discloser of the secrets of religion, and of the secrets of the sublime boundaries or limits, and a denier of the conquering lords, and I shall be alienated from the company of the Unitarians¹ (of both sexes), if I have but taken such and such a sum from such and such a person, and that I owe him not a single derhim (farthing) more, and that I never intended to do him any harm by the form of this claim against him. If I swear falsely, or mean to pervert my sayings, or if my oath be in any way whatever contrary to my religion, or if I did not swear to the truth, whether it be out of any intention to take unlawfully the money of any of the polytheists who are without our unity-law, or for the purpose of doing him any harm, or for any advantage to myself, or out of any covetous intention, or if I have only repeated this form of oath, then I shall be clear of my worshipped Lord, the sole governor, and of the advantage of the limits, or I shall be excluded from the congregations of Hajûj and Majûj (Gog and Magog), and my soul shall be clear of them, and I shall be a denier of my Lord, who rules by his own command, and of Ismael and Hamzeh and Satanaiel and the Migdaad, together with the five, and a denier of my own law and the ten shrines, and the law of the Karamita, and be excluded from their articles (of religion), and a denier of the appearance of the Highest, who has appeared *ten times* in the form of mankind, and also a denier of the transmigration and the transfer of the spirits, and a denier of my own belief, which is denied by every other denomination, and I shall be considered as dishonouring Karûn and Ashfilosh, and all the Greek philosophers, and the inhabitants of China, together with the one hundred threescore and four shepherds, and the godly conquerors, and have denied myself of all that which is lawful to me according to my religion, and of all that I confess as regards fasting and prayer and pilgrimage and religious tithes, and the

¹ The word Unitarian is used throughout for Druse.

rest of the seven obligations which were abolished by our Lord the sole governor, and I shall be considered as honouring and kissing the *Black Stone* found at El Kibleh (south), which is honoured by the polytheists. *Amen.*

This form of oath should be read or repeated in the presence of the learned and godly men of the Druse.

THE EPISTLE OF WARNING.

I trust in the Lord, the righteous, the all-knowing, the highest, the most high, the king of kings, who could never be conceived by the mind or imagination, who is above the description of all describers, and the understanding of all men ; in the name of our Lord the most glorious, the most high, the shepherd of the Imaams, from the servant of our Lord the sole governor, who professes the unity openly and in secret, the leader to unity and faith, and from Hamzitter the purchased one of our Lord, praised be he whose glory has no end, who is the *son* of the leader of the answered ones whose prayers are answered, and the revenger of the polytheists, by the sword of our Lord, and the power of his own dominion. I have written to the company of Unitarians, that they may understand how to walk according to religion.

We command the company of the Unitarian shepherds to observe the mystery of religion in their deeds, and not to let any of the Kafirs who do not believe in the governor and his prophets, who were mentioned in the Form of Oath, to understand the religion of our Lord, of whatever religion they may be—no, not even those of your own religion, who are of the *Ja-li-leen* (*i.e.*, not true believers) or the apostate ones. *Take care!* *Take care!* not to let any one understand your religion or your belief, or even take notice of it. Be careful! Be careful! and if after your being careful you know of any of the polytheists who have acquired any knowledge of the truth of your religion, you must destroy him, and if you cannot destroy him, then poison him secretly, and whatever you do secretly is lawful to you.

If any one come and tell you that he be of the Unitarians, do not acquaint him with the truths of your religion, because there be many who may come in a subtle way merely to know the truth of your religion, and the mode of your worship.

I have therefore prepared this Epistle to make you understand how to walk. Cling to it and depend upon it. I have arranged it in the way of questions and answers.

Q. What is required of a man when he is admitted to the religion of our lord?

A. It is required of him to be under the yoke of our lord.

Q. Who admits him?

A. The Imaam.

Q. In what way is he to be admitted?

A. By earnestly entreating the Unitarians for the term of *two* full years, that he may be accepted amongst them, and be accounted one of

them. When he is accepted, then the Imaam admits him, and he is accounted one of them, and his conduct shall be according to their conduct.

Q. What is the form of admittance ?

A. He is to be brought before the Imaam by the company of the Unitarians, and the Imaam is to give him the orders, and to admonish him to keep the secret, and then he will explain to him the truth of religion and its rites, and he will give him *one dry fig* to eat, and will address him saying, Man ! do you believe that you can obtain the religion through this fig, and become a member of the Unitarians ? and he shall answer, I believe. Then the Imaam will give him the arm of help, and shall announce him as one of them.

Q. How ought he to behave after his admittance ?

A. He ought to make a show of modesty and civility, and to be genteel and patient, and to put on a becoming raiment, and to smile gently when speaking or saluting others, and to resemble his brethren, the Unitarians.

Q. What ought he to do in order to be a thorough Unitarian ?

A. He ought to sign a document of covenant and hand it to the Imaam.

Q. What is the covenant which he ought to sign ?

A. This is its form verbally. In the name of the Imaam, our greatest Lord, the one, the unique, the single, who is in need of nothing whatever, and who is without a son, the mighty, who is neither created nor begetteth, and there is not any one like unto him. I, *a b*, the son of *c d* and *e f*, have intended and decided to lay my soul and body, and state, and wealth, and wives and children, and property, and all that my right hand and my left hand possess, under the yoke of obedience to my lord and sire, the sole governor, the high, the highest, the king of kings, the Imaam, the king of all might, the all-mighty, over all^s beings and created things—yea, I have resigned myself to him, and promise to rely upon him. I here confess the perfect confession, and declare before my brethren and my lord the Imaam, that I deny every other religion that exists, or that shall be hereafter, and that I neither desire anything that may contradict, nor cling to what is averse to the unity, and that I confess that there is neither in heaven any worshipped God, nor on earth any existing Imaam but my Lord and sire, the highest governor, who is great in management, and who is the sole governor, and is my helper and defender, and to him I commit all my affairs ; and I hate and deny and despise, and shall waste all that may interfere with and contradict his worship and service and obedience. I have written this document against myself out of my own free will, while possessing soundness of mind and body, neither being forced to it, nor compelled to draw it. I also acknowledge the existence of the *shepherds*, and the *authorised ones*, and the *limits*, and the owners of truth who believe in our Lord, the sole governor, the faithful. Written in such and such a month, and in such and such a year from the year of our Lord, and his possessed Hamzi, the son of the Kadi of the answering ones, who revenges himself of the polytheists by the sword of our sire and the might

of his revenge, and his sole dominion, and there be none worshipped besides him.

Q. And how is he to appear and converse with men ?

A. Patiently, and with Nah-na-ha (*i.e.*, Hem, the noise made by sudden expiration of the breath), for the nah-na-ha when addressed to a believer indicates a blessing, and when addressed to an unbeliever it indicates a curse. A nah-na-ha when addressed to a Mohammedan means *forty* curses, and when addressed to a Metawileh it indicates *fifty* curses, and when to a Christian it indicates *thirty* only, and when to a Jew it indicates only *twenty* curses, and when speaking to any of the polytheists one can use as many nah-na-has as he pleases. When women have to speak to any of the above-mentioned they all use the word, Bech, Bech, and add to it Walnabel Kazim (*i.e.*, Capital by the gracious prophet !), for it is not becoming that women should use the nah-na-ha, and also our secret will be disclosed to unbelievers, and then they will conclude that it is an agreement between us.

Q. And if we talk about religion how shall our answer be ?

A. Our Lord has commanded that we should cloak ourselves with the prevailing religion, whether it be Christianity or Islamism, for our Lord the governor has said, "Whatever religion prevails, follow it openly, but keep me in your hearts."

Q. How is it possible to us to agree with the Christians or Moslems in their religion while we have signed a bond against ourselves, that we worship none other but our Lord ?

A. We do this outwardly and not inwardly, as our Lord has said, "Keep me in your hearts," and he has given us an example of a man who puts on a garment, whether it be white, or black, or red, or green ; the colour of the garment has no effect upon his body, whether the body be sound or diseased it remains the same, and likewise the several religions resemble the garment. Your religion resembles the body, therefore put on whatever garment you please, and embrace openly and outwardly any religion you please, provided you be at ease.

Q. But if we be required to perform the prayers of that religion (we embrace outwardly), are we to comply with that ?

A. Agree with them, for there is no objection to any outward religious performances.

Q. But how can we agree with the Mohammedans by confessing that Mohammed is a prophet, and that he is the noblest of all prophets, and of all creatures ? And is he a prophet ?

A. No, he is not a prophet ; but our prophet is the governor, who has neither a son nor is begotten, but is destitute of everything that is attributed to man, but this Mohammed is descended from the Arab tribe of Korisheh, and his father's name is Abdallah, and he had a daughter whose name was Fatima, which was given in marriage to Ali, the son of Abi Talib. Outwardly we confess that he is our prophet, merely to be at peace with his people only ; but inwardly we believe him to be a monkey, and a devil, and one not born in wedlock, and that he has allowed what is

not lawful, and has committed all kinds of shameful deeds. He has done all the evil he could, and has considered all women to be lawful to him ; and therefore our Lord the governor has cursed him in every age and time. But a Druse believer can confess that he is a prophet without committing a sin, as has been mentioned above.

Q. Since he is a monkey and a devil, and not born in wedlock, why do we therefore chant his name ?

A. By the name of Mohammed, which we chant, we mean our Lord, Mohammed Baha-ed-Deen (Brightness of Religion), surnamed our Lord the faithful.

Q. And what shall be the condition of his followers in the day when our Lord, the highest, the governor of governors, cometh ?

A. He will dye the breast of the choicest of them violently, and their condition shall be very mean, and they shall serve instead of dogs, and he will pay the wages to each of them twenty dinars annually, and they are those whom the *Book* calls Ya-hûd (Jews), the helpers of the followers of Mohammed.

Q. Are we to believe Esa (Jesus) to be either a God or a Prophet ?

A. Esa is neither a God nor a Prophet, but he was an eloquent man, and a teacher by signs ; and through his knowledge he made himself a nation, and has attributed to himself what belongs to our Lord, and he pretended to be the one of whom Matthew and Mark and Luke and John spoke of ; they spoke of our Lord, but he (Esa) through his skill and good management has made to himself a nation ; he was a friend to Mohammed.

Q. Who are these four whom you have mentioned by the name of Matthew, Mark, Luke, and John ?

A. These four are those who were employed by our Lord as his secretaries, writing down by our Lord's dictation all the events of their days, and Jesus has taken their writing to be his, and said that they were his missionaries to proclaim his signs, and all that is said of Esa (Jesus) in their writings, is to be attributed in reality to our Lord, and not as the Christians say, for they have altered some words and omitted some other words.

Q. What would become of his people when our lord puts them under examination ?

A. They shall be in a piteous state, for he shall cover the hem of their left sleeves with lead, and they shall be naked all through, and barefoot ; they shall carry on their backs fuel to the ovens and baths, and in the ear of each of them a ring of black glass, which shall be caustic in summer and snow-pinchin in the winter, and the value of each of them shall be forty dinars.

Q. And the Metawileh, the followers of Ali, what do you say about their prophet—is he a prophet or not ?

A. Ali is a cuckold fellow, and an accursed one, even by his own religion ; far be it from him to be a prophet.

Q. What shall be the condition of his followers at the day of account ?

A. They shall be used as donkeys by our lord. The secretaries of our lord shall ride them. Their prophet is from the followers of Mohammed.

Q. And what are we to believe about Musa (Moses), the son of Anram—is he a true prophet or not?

A. He was a man of deep and genuine understanding—he led his people by his wisdom, for he used to ascend up the mountain and write down all that he wanted to write; and when he came down he pretended to have seen the Creator, who, as he said, had dictated to him all his writings, and by that he had followers, who obeyed his commands; but he is neither a prophet nor is in any way connected with us. Esa and Mohammed speak very highly of him; they recommend him as a man of sound understanding. The number of the curses to his followers ought to be less than any other denomination.

Q. What would be the condition of his followers the day they see our Lord?

A. Their condition shall be more tolerable than others, because our Lord, who is great in majesty, will make them keepers of his accounts and his secretaries, without any advantage to themselves; and they shall be naked all through, but he will supply them with food only, because our prophet and governor has appeared to him on Mount Sinai, in the form of a milkari (*i.e.*, a camel-driver), under whose command was 1,000 camels. And he was also called a Jew, after the name of the followers of Moses; and he has since then allowed us to eat camels' flesh. And as the followers of Moses have been honoured with seeing him in a visible form he was therefore pleased to raise them a little higher than others.

Q. And, as regards other religions, such as sun-worshippers and the like, how are we to agree with them?

A. The sun-worshippers and the like are as the grass, that has no strength or has no power; when its day comes it fades away, and then their spirits or souls depart with the wind and shall be mentioned no more.

Q. You have already explained to us all religions and the worshipped ones, but you have neither explained to us to the form of (worshipping) our Lord the sole governor, nor anything about ourselves.

A. A war has taken place between our Lord and the Being who has created the universe. And our Lord has ordered the winds to tear him, and the winds did tear him to pieces. And David the prophet has described this by saying, "Did fly, yea, did fly upon the wings of the wind. He made darkness His secret place, His pavilion round about Him, and there is nothing dim in the clouds of the air." And their own lord has taken the dominion from him, and he has neither an equal, nor the like, nor is he comprehended by the mind nor is measured by any measure. And we, whoever of us performs his duties, as he is bound by the seventy-two covenants, is bound to obey our most high Lord in every age. And whoever be found corrupt in any age, all his ages shall be corrupt; and whoever shall be found standing according to his covenants, he shall be of the choicest of our Lord, and shall have a vote in the council of our Lord.

Q. And where are these bonds written against each of us to be found?

A. Our Lord has kept them under custody in the Pyramids of Egypt.

Q. What has our Lord made lawful to us, and what has he forbidden us from ?

A. As our Lord is mystery he has therefore enjoined upon us to keep our religion as a secret. And on this condition, whatever is done secretly and privately is lawful to us, and whatever be revealed or made known to others is unlawful to us. Therefore we admonish the company of the brethren to observe the secret. Warning ! Warning ! from any infringement of the secret of our Lord.

Q. How are we to distinguish our believing brethren from the unbelievers ? For it may be that an unbeliever may disguise himself in order to examine our religion.

A. We are not to accept him before conversing with him.

Q. How are we to converse with him ?

A. By saying—Man ! do they grow the Thlilij (Myrobalan tree) in your country ? If his answer be, Yes, it is planted in the hearts of the believers, he is therefore one of us. Then we are to present to him two earthen water-bottles, the one full and the other empty. If he pours the water from the full one into the empty bottle then he is certainly one of us, because by this he acknowledges the transmigration of souls, as the water is poured out from one vessel into another. Then we will willingly admit him and disclose to him all that we have, and are not to deny him anything, either of our property or of our fame, or of our influence. For the rule of generosity is, that brethren must be of great advantage to each other in the time of distress. And we are also to have confidence in him as regards our houses, and wealth, and wives, and children, because he is a brother and an equal believer with us, and is not like any Christian priest, who could not be trusted with a salad leaf. But if he could not answer the above questions, then he is an intruder and a deceiver, desiring to acquire the knowledge of our religion. Therefore he must be destroyed at once, either by murder or by poison, or by any possible means.

Q. Where does our Lord reside now, and when will he manifest himself to us ?

A. He now resides in China. He appeared or manifested himself five times. The first time he appeared in Persia, and was known by the name of Selman el Farisi, and he was a geometrician. The second time he appeared in Egypt, and was called El Hakim Biamrihi (the Sole Governor), and his occupation was the civil government. The third time he appeared in Algeria, and was known by the name of Baha-üd-Deen (Brightness of Religion), and his occupation was a silversmith. The fourth time he appeared in Andalusia, and was known by the name of El-hikmet (Wisdom), and was a physician. The fifth time he appeared in El Hijaz, or Hedjaz (on the eastern shore of the Red Sea), and was known by the name of Mewla El Akil (Lord of Reason or Understanding), and his occupation was camel-driver, and he had under his command 1,000 camels, and thence he disappeared. He foretold his disappearance for a time and hath commanded us to abide by his obedience until he comes ?

Q. When will he come ?

A. When the cycle of time turns over, and the ages be completed, and the Da-i-rah (circle) turns to the point of the compass, and the wolf walks together with the sheep, and the tiger with the ass, and when he is seen by the eyes and the understanding, and when the secrets are disclosed, then cometh the mighty and powerful one, with howling and thundering, glory and numberless army.

Q. Will his advent be as it was the first time, or with power and might ?

A. He will come with power, and blessed is he who confesses and worships one God, and who truly lives to fulfil and obey what he orders him to obey, and not only this, but also who rejects mean things, such a man has got the desired object and is worthy of such a call.

Q. In what manner does he come, and whereto does he go, and in what place will he reside ?

A. He will come in a time when all foreign nations and Frank troops shall attack these countries and war and sedition will take place, and the sword be used, when but little peace is found, and when Franks shall conquer the troops of Khorasan and take possession of Baalbeck—at that time news shall arrive, and war shall cease, and the strength of the two quarrelling parties shall faint, because they shall be sure of the approaching army from the East, and that they are to stop the raging war, and therefore they shall become more fierce in dashing and lashing against each other—each party aims at winning the day. Seven days before they approach him the sun shall be veiled above their heads, and they shall hear what terrifies them, because the neighing of the horses of our Lord shall be heard from the distance of seven days, and the lances of their spears shall hide the light of the sun from the earth for seven days, and they shall be in great confusion until they come near to him in the land of Hauran, where they shall meet the foremost of his army, which is divided into regiments, and each regiment numbers one hundred thousand soldiers. The first day they shall walk towards the east by the side of the army of El-hikmet (Wisdom); at evening they will see El-hikmet; and when they inquire of him whether he be the judge, his answer will be, I am not, I am but a minister and a secretary. The second day they shall march by the side of the army of my Lord Baha-ed-Deen (Brightness of Religion), and at the evening they shall draw near to him, and when they ask him whether he be the judge, he will answer, I am not, I am but a minister and a secretary. The third day they shall walk in a very mean way by the side of the army of the Inaam, even my lord Understanding, and at evening they shall see him, and when they shall ask him whether he be the judge, his answer shall be like the preceding answers. The fourth day they shall walk by the side of the army of El Hakim (the governor), as they have walked previous to this. And the fifth day they shall walk by the side of the army of my lord Selmān El Farisi, likewise. The sixth day they shall reach what they are aspiring after, and then all their fatigue shall pass away; for they shall see the noble and illustrious Lord walking

by the side of the beasts and animals, and a banner of clouds above his head in the sky ; and when he shall see them he will smile in their faces to refresh them, and to strengthen them thereby to walk with him and be in his service. Then he shall continue in his course until he reaches El Hedjaz and arrive at Mecca, and then he shall pull down the house (*i.e.*, Temple of Mecca), and shall scatter its stones through all the world. Then he shall proceed towards Egypt and shall open the pyramids, and then he will deliver to each of the believers seventy and two documents, in which they confess to be of the company of the believers, and whoever be found thus shall be worthy of his being of his own : and whoever be found corrupt at one time shall be corrupt for ever ; and then he shall order (assign) to every one, both of the Unitarians and the polytheists, of Mohammedans and Christians, of the Metawileh and of the Jews, as has been already mentioned. And our Lord will make his residence in Egypt (Cairo).

Q. How do you say they (two) shall walk by the side of the army of Baha-ed-Deen (Brightness of Religion), and Salmān El Farisi (Salmān the Persian), and El-hikmet (Wisdom), and El-akil (Understanding), and Al Hakim (the governor), and that each of these two walk separately, and they are one—how is he divided ?

A. Our Lord manifested himself in every cycle of his manifestations in a quite different form, and the form in which he once appeared will be a sign by which he himself shall be known afterwards, and none of the forms shall be forgotten, and when he comes again he will reveal himself in all these forms, for our high and supreme Lord had five manifestations, and five opposers.

This Epistle has been written to all the males and females of the Unitarians, that may converse thereof in their assemblies, and councils, that they may be sure of the order of our Lord the sole governor. May his remembrance be great !

Written in the month of Jamadil A-Kher, in the second year of the era of our Lord and his servant (equal to the year of the Hedge-reh 402, equal to the year of our Lord and Saviour 1012).

This copy, the Arabic copy, was taken on the 14th day of March, 1878.
(Translated into English in August and September, 1885.)

MORE NOTES ON PHENICIAN GEMS AND AMULETS.

By GREVILLE JOHN CHESTER, B.A.,
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THE Phœnicians have been well termed the "middle-men" of the ancient world, for just at the time when the peoples dwelling on the banks of the Nile and of the Euphrates had arrived at a point when their respective

¹ This, and the other parentheses, are introduced by the Native Translator.

forms of civilization were ripe for expansion beyond their own borders, the Phœnicians appeared ready and willing to perform this service for the world at large, and to carry the arts and culture of Egypt and Mesopotamia to the nations inhabiting the shores of the Mediterranean, and even beyond the Pillars of Hercules.¹

The ancient Phœnicians appear to differ from the Egyptians in not having evolved a style of art which can be called essentially their own, but, as is proper to a trading and maritime people, they showed from the first a great facility for the adoption of the styles of other nations with whom, in their commercial transactions, they came in contact, and for centuries they continued to reproduce foreign peculiarities in their works of art, with the addition, as it were, of a trade-mark of their own. The extremely limited extent of the Phœnician territory—even at its largest a mere strip of plain, shut in between the mountains and the sea—was manifestly unfavourable for the production of original artistic design, and had the Phœnicians remained an isolated people like the Jews, there is little doubt that, like that inartistic people, they would have had little or no art of their own at all, and, like the Jews, would have had to depend on foreigners for their architecture, the better sort of fictile ware, for textile fabrics, for jewellery, and for all, in fact, except the commonest appliances of daily life.

The Phœnicians, however, did not remain an isolated people, but sprang at once into the position of being the carriers of the ancient world, and so it came to pass that, in order to facilitate their trade with other nations, they adopted and adapted so much as seemed to suit them of their religions, many of their manners and customs, and a large proportion of their art. This fact it is which explains the peculiar style which is the invariable characteristic of Phœnician art in general, and of the seals, cylinders, intaglios, scarabs, amulets, and other small monuments which are discovered from time to time upon that "lonely coast which once echoed with the world's debate." The art displayed is Phœnician, it is true, that is to say, it bears the trade-mark of the Phœnician artist who wrought it, but it is not *solely* Phœnician. The device, or the motive of the design, may be Hittite, or Egyptian, or Chaldean, or Assyrian, or Babylonian, or, maybe, it is a mixture of some or all of these styles. Thus the scarab was a favourite sacred device of the ancient Egyptians, and scarcely an individual was so poor that he did not possess a scarab, even if the ring which secured it upon his fingers was only a ring of string or twine, and accordingly the Phœnicians not only imported scarabs made by Egyptian craftsmen on the banks of the Nile, but made them themselves in imitation of those that were purely Egyptian, and this often, as is proved by blundered inscriptions, without any knowledge of the hieroglyphs which they ignorantly copied by way of ornament. The names, indeed, of several Egyptian kings are frequently found on these objects, such as those of Men-ka-ra, of the fourth dynasty, Thothmes

¹ Cf. Perrot and Chipiez, "History of Art in Phœnicia," English edition, vol. i, p. 3.



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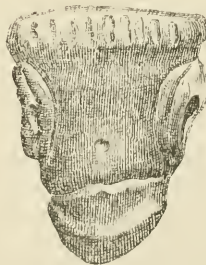
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and Rameses of the eighteenth and nineteenth, and in one instance of Aahmes or Amasis II, of the twenty-sixth (B.C. 564-526). All these scarabs, however, are probably of the same date, and the period of the latest king is that probably of the small monuments which bear royal names of such widely different epochs. In other instances the Phœnicians seem to have placed the names of their own princes upon scarabs, within cartouches copied from those of the Egyptians.

A school of these imitative artists was established at an early period upon the coast of Syria. One of these schools was apparently seated at Arvad (*cf.* Gen. x, 18), the Aradus of the Greeks, now called Ruad, or more probably at the neighbouring Marash (Marathus, now Umrît), where large numbers of Egypto-Phœnician objects have been found; and others perhaps at Sidon, Tyre, and at Ascalon, beyond the boundary of Phœnicia proper. Not less than between two and three hundred objects from Umrît alone were formerly in the collection of M. Perétié of Beirût, and after his decease passed into my hands, and I have likewise obtained a considerable number of amulets in the Egyptian style from Ascalon, to which city, it is evident, were also imported many objects of pure Egyptian work from Egypt itself, which were thus dispersed along the whole coast.

The Assyrians, again, were essentially a seal-bearing people, and it so happened that to facilitate their commercial relations with Assyria the Phœnician artists fabricated seals with more or less of Assyrian design in the devices upon them.

So far as I have been able to form a judgment from the relics which have fallen under my notice, or have been acquired by me in Syria, three styles of work can be plainly distinguished, which may be thus enumerated:—

1. The Egypto-Phœnician style. In this the objects are commonly made of white steatite, and with certain slight but at the same time marked differences, the scarabs, amulets, and deities of Egypt were reproduced. The chief seat of this manufacture was probably at Marath (Umrît). I was for some time puzzled by the discovery on the Phœnician coast of small idols, amulets, and scarabs, formed of a soft *blue* pasta, Egyptian in style, but yet differing from similar objects of true Egyptian work, while at the same time they are identical in material and character with others found at Camirus, in Rhodes, in Sardinia, and even at Cuma, in southern Italy. It is worthy of note that mingled with the Egyptian-looking amulets of this manufacture are others of an exclusively Phœnician character, which were made, no doubt, for the Phœnician market alone; such are phalli, hands with one finger extended, and models of fire-altars.

The admirable researches of Mr. W. Flinders Petrie, the explorer of Tel-en-Nabireh, his newly-discovered site of the long-lost Greek Colony and Emporium of Naucratis in the Delta, go to show that these *pasta* objects, wheresoever found, were manufactured at Naucratis itself, and were thence exported as articles of commerce to Phœnicia and other countries.

2. In the second style, the use of steatite was given up, and the

favourite material was a hard brown or black limestone. The scarab was still a favourite symbol or ornament, but the figures and devices engraved thereon are native rather than foreign. Egyptian deities no longer, or at any rate rarely occur, but in their place are found the effigies and symbols of Phœnician gods and goddesses, such as Baal and Astoreth. Cylinders of limestone now appear with devices of Assyrian and Kypriote character, and it is, in fact, often difficult to distinguish whether a cylinder is from Cyprus or the opposite coast of the mainland. The similarity of these works of art is indeed so great, that the conviction is forced upon the mind that there was a great and brisk exchange of productions for purposes of luxury and of daily life between the islanders and their kinsmen on the neighbouring continent. To this epoch also belong a number of seals and scarabs of very Kypriote character, and many which were engraved with the antelope, crescent, star, moon, fruitful tree, and other attributes of Astoreth. Circular seals, with handles pierced for suspension, and other seals of square and oblong form, belong to this period, and I once possessed a unique specimen of triangular shape of red jasper, upon which was engraved a horse and its rider.

3. In this style again the scarab form is still in vogue, but the material is no longer limestone, but of a nobler material. Chalcedony, agate, carnelian, and red and green jasper are employed;¹ and although a modification of the Egyptian winged disk and certain other Egyptian symbols and devices are retained, the work and feeling are no longer Egyptian. The lions, antelopes, and bulls so often found in Assyrian sculptures now become the favourite subjects of representation, and sometimes, although rarely, seals occur in the cone form so common in Persia. The Phœnician prince now appears like the Assyrian king, struggling with monsters, or contending with a lion; but as a rule, unlike the more civilised and dignified Assyrian, he is naked above the waist. It was during the prevalence of this style of art that Phœnician inscriptions were cut, and spite of the introduction of foreign devices the Phœnician individuality is more strongly marked in this than in either of the other styles already alluded to. The work itself, moreover, is less conventional and more free, and the devices cut upon the stones are often executed with great spirit and vigour. Towards the close of this style, and when I suppose Greek influence was beginning largely to exert itself, the fondness for the use of hard and precious stones becomes remarkable, not only for seals and scarabs, but for beads, ear-drops, pendants, brooches, and other personal ornaments, which were executed in carnelian and beautiful banded agates of various colours. The chief seat of this beautiful manufacture was, I am inclined to think, at Antarakus, now Tartûs, the Tortosa of the Crusaders, or at the neighbouring Marath (Umrît).

With these brief preliminary remarks, I proceed to describe some of the amulets and scarabs which I have collected on the Syrian coast, and

¹ It is a question which deserves investigation, whether the green jasper scarabs of Sardinia were fabricated in that island, or imported from Phœnicia.



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which seem to illustrate the various styles of art practised in Phœnicia, or which from peculiarity of form, or some other reason, appear to be particularly worthy of notice.

1. Perforated amulet of white steatite, formerly glazed. On it a goddess, probably Isis or Astoreth (Venus), in the form of the Egyptian deity, crowned with the *pschent*, and seated on a throne. In front of her head is a small tablet with hieroglyphs; behind and before the throne are uræi. The background behind the figure is filled up with the stalks and buds of the papyrus rush, the whole device being within a hatched square border.¹

℞. The reverse side of this amulet is divided into two compartments, in the uppermost of which are three seated figures turned to the right, in the lower a scarab between two uræi. This amulet is of very fine work, and is Egyptian in its style of ornamentation, but *Egyptian with a difference*. The openwork, zigzag ornament at the two sides of the tablet is wholly unlike anything Egyptian, and is rather suggestive of the conventional Phœnician manner of representing the waves of the sea. It was found at Jerusalem, but is probably the work of the school of Marath. (See Plate. Fig. 1.)

2. Perforated amulet of yellowish steatite, with remains of green glaze. On it a goddess, probably Astoreth, Astarte, or Venus, crowned with the horns of the moon, and seated on a throne. A small tablet with illegible hieroglyphs in front of the head. The field behind the figure is filled up with palm branches, emblematic of Phœnicia, or of Astoreth, as "a Fruitful Tree."

℞. A cross formed by interlacing lines, with a uræus at each angle, within a square border. This beautiful amulet, like the last, is of very fine work, and its style of art is very Egyptian. It was found at Umrît.

3. Small oblong amulet of whitish steatite. On it the Symbolic Eye, supported on the legs and tail of a vulture or hawk.

℞. The name *Ra-men-ka* twice repeated, with other hieroglyphs between them. Found at Umrît. (See Plate. Fig. 2.)

4. Oblong, perforated amulet of whitish steatite. On it a cynocephalus, emblem in the Egyptian mythology of the lunar gods Thoth and Khons, seated on a basket with a feather in front. On the right a cartouche with the royal name *Ra-men-ka-neb*.

℞. A hawk-headed, winged, seated sphynx, in front of which is the cartouche of *Ra-men-kheper*, perhaps Thothmes III. Egyptian style. Found at Umrît. (See Plate. Fig. 3.) This amulet and the last have three holes drilled through them, and are manifestly parts of an ornamental collar.

5. Brown limestone seal, the upper part in the form of a hedgehog. On it, human-headed sphinx standing, with *ankh* in front; above, a vulture

¹ The papyrus, which has disappeared from Egypt, still exists, it will be remembered, in Syria, at the Lake of Huleh, and at Ain-et-tin on the Sea of Galilee.

and illegible hieroglyphs ; below, symbol *neb*, signifying *lord*. Egyptian style. Found at Ascalon.

6. Conical seal of yellowish steatite. On it, floral cross with lotuses (?) of Egyptian form at the angles, within a circular Phœnician border.

On two sides of the cone is the same device repeated, viz., a scorpion, a line of four dots, and two Egyptian symbols of *men*. On the third side is a male figure on horseback, and on the fourth two standing figures in Egyptian tunics. This seal, so far as I know, is unique in form and execution, and deserves close study, as combining in a remarkable degree the characteristics of Egyptian and Phœnician art. It was found at Ramleh, near Jaffa. (See Plate. Fig. 4.)

7. Amulet of hard, close-grained, black stone. It is in the form of two male figures wearing conical head-dresses, seated in front of each other, kissing, and grasping each other's hands. It may be conjectured that this subject may represent the making of an agreement or the confirming of an oath. Found at Beirût. (See Plate. Fig. 5.)

A somewhat similar device occurs as a hieroglyph upon an inscribed Hittite monument, found at Jerabis (Carchemish).¹

8. Amulet of the same black stone as the last. It is perforated for suspension. This curious object represents a male bearded head of Phœnician type, and behind it on the other side of the central orifice is a well-made scarabæus. It is so arranged that the profile of the face and half the scarab are seen upon either side. Found at Beirût. (See Plate. Fig. 6.)

9. Seal of black limestone. The handle is in the form of a bird, probably an eagle. The intaglio represents a lion with a cruciform ornament under his four paws. An inscription on one of the quadrangular sides of the base seems to be Cufic or early Arabic, and consequently of later date than the seal, which is believed to be of unique form. Found in the Haurân. (See Plate. Fig. 10.)

10. Amulet of hæmatite in the form of a bull's head. The eyes were probably originally inlaid with some other substance. The bull was a favourite Phœnician device, and a bull's head is a Hittite hieroglyph or emblem. This relic, which was found at Jerusalem, is of very archaic work, and seems also to have served as a weight, for, allowance made for the portion broken off, Mr. W. Flinders Petrie finds that it weighs five shekels. (See Plate. Fig. 7.)

11. Hæmatite scarabæus, of archaic work. On it, a lion attacking a bull ; behind, a serpent ; under the bull a bull's head. Professor Sayce, writing on this scarab, says : " It is most interesting ; the device reminds one of the lentoid gems, but underneath one of the animals is a *Hittite* hieroglyph, the ox-head ; the appearance of the serpent is also most curious and new." It is of very spirited execution. From Beirût. (See Plate. Fig. 9.)

12. Scarabæoid of a hard, pale green stone, perhaps jasper. On it, a lion passant to the right ; above, a bird resembling a duck. In front, a solar disk (?) and another symbol, which, with one behind the tail, a kind

¹ "Trans. Soc. Bib. Arch.," Vol. VII, Part 3.

of double chevron, appear to be Egyptian in character. The work seems to be very archaic. Found at Beirût. (See Plate. Fig. 8.)

13. Imperforate scarabæoid of red carnelian. On it the symbol *ankh*, on either side of which is a uræus. Below, winged disk and scarab with expanded wings. The body of the scarab is enclosed within an oval, and is surmounted by a symbolic eye. Pure Phœnician work. Found at Beirût. (See Plate. Fig. 13.)

14. Black limestone scarab. On it, an ornament composed of seven dots, forming a six-pointed star, and perhaps representing the seven stars often found engraved on cylinders, on either side of which, but divided off from it by double lines, a uræus. Below, the cone-altar of Astoreth, surmounted by a solar disk, to which is attached two wings, between two winged animals, whose character it is difficult to determine. Beneath, again, what is perhaps meant for a row of five stones, possibly representing a circle which stood around the altar (*cf.* Herodotus III, 8). At the base of the subject is the conventional Phœnician representation of water by a kind of chevron, intended for the waves of the sea. Cipro-Phœnician work, but found on the coast of Syria. (See Plate. Fig. 11.)

15. Pierced scarabæoid of dark, reddish chalcedony or sard. On it a winged deity, crowned with conical Assyrian head-dress, but nude above the waist, holding a lion by the hind legs. Assyro-Phœnician work. Found near Konia, in Asia Minor. (See Plate. Fig. 12.)

16. Scarabæus of light brown, semi-transparent chalcedony. On it the favourite late Egyptian device of Horus (Harpocrates), crowned with disk and uræus and holding a flail, sitting upon a lotus flower. On either side is a female deity with expanded wings, at the ends of which are curved objects difficult to explain. Above, disk with wings. Below, Egyptian symbol *nub*, gold. Very fine late Phœnician work. Found in the Lebanon near Beirût. (See Plate. Fig. 16.)

17. Scarabæus of green jade. On it a spotted vulture preying on a serpent; above, partly broken, a winged and draped figure, naked to the waist, holding the bird with the left hand. Very curious; archaic work Assyro-Phœnician work. Found at Beirût. (See Plate. Fig. 15.)

18. Scarab of red carnelian. On it, double meander or spiral pattern. Found at Beirût. I possess a scarab with a similar device found at Safed. Precisely the same pattern occurs upon an altar found in the Phœnician Temple of Hagiar Kim in Malta, and now preserved in the Public Library of Valletta. It is engraved by Perrot and Chipiez in "History of Art in Phœnicia," Vol. I, p. 314. (See Plate. Fig. 19.)

19. Chalcedony cone seal of Persian form. On it the horned moon, a star or planet, and a palm branch or fruitful tree, all emblems of Astoreth or Venus. *Ashthoroth-Karnaim*, *i.e.*, Astoroth of the two horns, is spoken of in Gen. xiv, 5. From Beirût.

20. Pierced scarabæoid of burnt cornelian (?). On it, at the top an arrow-headed character, with, apparently, a rude animal upon either side. Below, successively, a line, a row of arrow-headed letters, another line, two rows of similar characters, a third line, and a fourth row of letters.

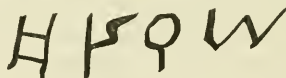
The characters are well formed, but the inscription is illegible and perhaps cabalistic. This rare and curious gem was found at Samaria. (See Plate. Fig. 14.)

21. Seal of white opaque stone, with pierced handle. On it a seated antelope, emblem of Astoreth; above, a lion passant; in front, a palm branch, emblem of Phœnicia or Astoreth. This form of seal is highly characteristic of Phœnicia, and so far as I know is confined to that country. I had formerly several seals of this form found at various parts of the coast, in a collection of Phœnician antiquities, which, being rejected by the authorities of the British Museum, is now unfortunately dispersed. The present specimen was found at Tartûs (Antaradus). (See Plate. Fig. 17.)

22. Carnelian gem, cut down. On it a uræus, crowned with disk and perhaps horns, with four expanded wings, and an inscription of three Phœnician letters, another probably being cut away. The letters are L, "to" or "belonging to;" B; then a lost letter, and finally N. It is probably a personal name. The letters are blundered in the plate. Fine Phœnician work. (See Plate. Fig. 18.)

23. Spindle whorl of brown limestone, resembling some of those found at Hissarlik by Dr. Schlieman. Upon its concave side are engraved four Phœnician letters, and an object resembling a serpent. Professor Sayce considers this whorl to belong to the seventh century B.C., and, as it was found at Jerusalem, thinks it may be Israelitish rather than Phœnician. The letters read שִׁקְצָה, *i.e.*, SH-Q-TS-KH.

Mr. F. Flinders Petrie, after observing that the characters



closely resemble those on the Moabite Stone, remarks: "The words suggest a connection with שִׁקְצָה, hair-cloth, and צֶהָ, white and shining, perhaps showing that it belonged to a spindle for fine white goats' hair or wool. The wavy line on it may represent a thread and not a serpent as seems at first sight." Found at Jerusalem. Weight, 39 grs.

The illustration (See Plate. Fig. 20) is unfortunately so blundered that little idea can be obtained of the inscription.

24. Imperforate scarabœoid of brown opaque stone. On it, male figure with his hands raised in supplication between two uræi. Phœnician work. From Damascus.

THE VALLEY ZEPHATHAH AT MARESHAH.

(2 Chron. xiv, 10.)

THE satisfaction and pleasure which we derive from the identification of names of Scripture places is often enhanced when a text or a passage in which the name occurs, becomes thereby more clear and intelligible.

Yet these results can and must in some cases be obtained by other means than identification. Proper names are sometimes found in the English Bible which are only transliterations of common words in the original; whilst terms which are intended in the original to be names, are translated as common words. Instances of the first kind of these mistakes are Isaiah xv, 2, "Bajith" (the temple), and Genesis x, 11, "the city Rehoboth" (the streets of the city). As for the instances of the second kind, readers of the Revised Version will remember Genesis vi, 4, "giants" having, rightly or wrongly, become Nephilim; Leviticus xvi, 8, "scape-goat" being turned into Azazel; besides several passages in which "destruction" gives place to Abaddon, and "groves" to Asherim or Asheroth, &c. By such corrections, especially if they are also better translations of old mistakes, difficulties may be cleared up, or passages be made smoother and more intelligible, with as much satisfaction as may be done in other cases by identification.

In our text above there is just a little harshness which, I believe, can be removed in yet a different way from those I have mentioned. The harshness apparently lies on the word **למרשה**, "at Mareshah." It may be an ellipsis for some phrase like **לפני מרשה** or **על פני מרשה**, "before Mareshah," which has numerous parallels. It might also have been expressed by **אשר למרשה** (Jud. xviii, 28), or **אשר עם מרשה** (Josh. vii, 2), or **מול מרשה** (Deut. iii, 29), or **מצד מרשה** (Josh. iii, 16), or **אצל מרשה** (Deut. xi, 30), or **על יד מרשה** (Josh. xv, 46), &c. But the whole expression seems superfluous after that we have been told in the preceding verse that Zerah had arrived at Mareshah. Moreover, when we look at the map, we are met by other difficulties. The places with which the two names are identified seem too far apart from one another. Zeita, which is identified with Zephathah, is five or six miles from Kh. Marash, which no doubt is the ancient Mareshah. In a case like this we almost expect a full statement, that it is so many furlongs or a day's journey from Mareshah, rather than any of the above phrases. The difficulty increases when we compare the name Zeita with Zephathah, and find how few letters they have in common. Nor can Dr. Robinson's identification be regarded as much more successful; for Safieh may have more letters in common with Zephathah, but is further still (viz., eight miles) from Marash. Both places also, Zeita and Tell-es-Safieh, are north-west of Marash; whereas, even allowing that the battlefield on which King Asa met the Ethiopian invader Zerah might have stretched so far away from Zerah's headquarters at Mareshah, we should at least have expected it to do so in a direction toward Jerusalem, *i.e.*, north-east of that village.

All these objections, I say again, seem indeed small, and need make no difficulty if they could not be solved. In fact we may leave the identification in uncertainty, and compare **למרשה** with Josh. xii, 22, 23. But if a solution can be found which has no difficulty in it, it

cannot but be worth our earnest consideration. That solution, I believe, is found in the LXX, where Zephathah is altogether omitted and *κατα βορρην*, "north of," put in its place. This alteration is not arbitrary, but has arisen in the easiest possible manner from a mistake of frequent occurrence in the Hebrew letters. If you compare the Hebrew of *κατα βορρην*, i.e., צפונה with צפתה, which it displaces, you will find that it requires a mere dot to join the two letters ח and נ together at the top, when they become a ת, and the one word is changed for the other. It is curious that the reverse mistake between the same two words also exists in another place. In a conflate reading of the LXX, in Joshua xix, 27, the second rendering for צפונה is *Σαφθα*, showing that some one had read the word צפתה. The solution then which I here propose consists in a slight correction of the Hebrew. In general I am no advocate for correcting in any degree the Hebrew Bible by the LXX. At least, when the circumstances of any variation between them are equal, I would always ascribe the mistake to the LXX rather than to the Masoretic Hebrew. But when the circumstances are not equal, a friend of the truth must judge impartially. Here, when we remember the above difficulties caused by the common reading, and compare the improvements which we shall see below to be obtained from the LXX reading by that small correction, can we reject these improvements because they come from the LXX only? It seems to me that the Version cannot be deprived of the palm in this case. For now, when the words of the above text are changed into "the valley north of Mareshah," then instead of למרשה being harsh and elliptical, it is quite smooth according to Hebrew usage. Instead of its being superfluous, it is indispensable, so that we cannot do without it. Instead of the battlefield being at too great a distance, and in an unlikely direction from Mareshah, we see it on the most suitable spot close by. Kh. Marash is found on the map to lie on an elevation between two feeders of the river called Nahr Sukereir. One of these feeders or streamlets is south, and the other north of the village. The valleys, therefore, through which they run, must have been called respectively the valley south of Mareshah, and the valley north of Mareshah. Hence the author had to point out distinctly that the battle was in the valley north of Mareshah, not south of it; and this indeed was, under the circumstances, far more likely to be the place of meeting of the two hosts than any other conceivable place.

E. FLECKER.

DEAD SEA WATER.

(From the "Times," November 21st, 1885.)

Many scientific readers may be interested in the following analysis of water from the Dead Sea, which has just been furnished to me by

Dr. Bernays. The water was taken by me from the northern end of the lake, but not near the Jordan, in the month of March. In the autumn season, and further south, the solid matter would have been in still larger proportion. The analysis was made under Dr. Bernays' instructions by Mr. J. C. Bredin, superintended by Mr. C. G. Stewart, the chief assistant in the chemical laboratory of St. Thomas's Hospital. Dr. Bernays informs me that this is the first time that the nitrates in the water have been calculated.

WILLIAM ALLAN.

St. James's Vicarage, Bermondsey, March 30th.

Sp. gr. 1·1528 at 15·5 deg. C.

Total residue 15260·0 grs. per gallon.	grs.
Calcium carbonate	70·00
Calcium sulphate	163·39
Magnesium nitrate....	175·01
Potassium chloride....	1089·06
Sodium chloride	5106·00
Calcium chloride	594·46
Magnesium chloride	7388·21
Magnesium bromide	345·80
Iron and aluminum oxides	10·50
	<hr/>
	14942·43
Organic matter, water of crystallisation and loss	317·57
	<hr/>
	15260·00

THE PHYSICAL FEATURES OF EGYPT AND SYRIA IN RELATION TO BIBLE HISTORY.¹

THIS little work comes opportunely to hand at a time when general attention is turned towards the East, and when such an extraordinary and unexpected amount of light has been thrown on the history and customs of the inhabitants of Ancient Egypt and adjoining countries. Sir William Dawson's book supplies a link in the chain of history connecting the historical with the prehistoric epochs, in a manner which has not hitherto been attempted, and in language which will be quite intelligible to the ordinary educated reader. It unfortunately happens that few Egyptologists and students of ancient history are geologists as well; so that such a book as the present, written by an author of matured judgment and wide knowledge, and who has been a keen investigator of geological phenomena in the field for many years, may be expected to throw fresh light on the physical changes which Ancient Egypt, Palestine,

¹ *Egypt and Syria and their Physical Features in relation to Bible History.*
By Sir J. W. Dawson, LL.D., F.R.S. Religious Tract Society.

and Syria have undergone, and their connection with the advent of man. Such an expectation, we venture to think, will not have been disappointed on the perusal of "Egypt and Syria." The book is essentially popular in style, and written for all classes of readers, and as it gives the results of personal observation made during a short tour through Egypt, Palestine, and Syria, it necessarily brings before our notice many localities belonging both to sacred and secular history, such as the position of the land of Goshen, the conditions of the passage of the Red Sea (Yam Suph) by the Israelites, the site of Calvary, and the Holy Sepulchre, and of the Cities of the Plain. We may not agree in all of Sir William Dawson's conclusions, but the reasoning by which they are supported is deserving of careful consideration. But of all the subjects with which the author deals, probably the most interesting and novel are those connected with the physical history of the Nile Valley and the Delta, and the first appearance of man therein. The author identifies the partial submergence of the land at the close of the "second continental period" of post-Tertiary history as that of the Biblical Deluge, and the appearance of man in Egypt, wandering from his Eastern home, was probably at the time when the land had emerged. His first settlements were in the Nile Valley, not the Delta, which was formed by a natural process of "warping," and as the expanse of alluvial material spread northwards, primitive man followed in the wake, connecting the alluvial flats into arable land. The latter pages of the book are devoted to the consideration of the conditions under which prehistoric and historic man existed in Syria and the district of the Lebanon to some extent contemporaneously with his appearance in Egypt, and they conclude with pointing out the responsibilities of British and American Christians towards the populations of Syria and Egypt with a view to their advancement in the path of Christianity and civilization.

E. H.

BOUNDARY BETWEEN JUDAH AND BENJAMIN.

In the *Quarterly Statement* for 1884, page 242, Captain Conder, R.E., made some comments on and asks a number of questions about my paper headed "Boundary between Judah and Benjamin," which appeared in the *Quarterly Statement* for 1884, page 181 and onward.

I neither dare nor wish to enter into a controversy with such a master on these subjects as Captain Conder is known to be, but would simply give some explanations and answers to his questions.

Captain Conder says that, "in some details I agree with the views of General Gordon, whilst in others I reproduce a former paper." This is quite true. General Gordon supplied me not only with the ideas, but also with some of his own drawings and written notes,¹ and expressed a wish

¹ A great number, most of them in form of letters to me.

that I should publish them under my own name. As to "reproduction," I would remark that on page 110 of the *Statement* for 1883 appears a paper handed in by me on "Saul's Journey," in which paper Rachel's tomb is mentioned as being on the boundary of Benjamin; and when treating of the "boundary" I certainly mention this fraction again when speaking of the whole. It seems to me, however, that neither of these points has anything to do with the question as to whether my statements are right or wrong.

I now come to the queries.

Why does "Stone of Bohan" mean "white-striped?"

I answer, that as Mons. Ganneau and others take "Bohan" to be not the name of a man, but to signify "a thumb," applying the term to the form of a rock on the western mountains near the Dead Sea, but which rock considered with regard to the boundary is situated too far southwards, I also took Bohan in a somewhat similar sense, but as meaning white-striped, or rather white-spotted, and a derivative of "bohak," which I took to be from the same root as "Bohan," and this more especially as the rocks thereabouts really are spotted with divers colours. I may have been wrong in this assertion, and, after all, I am inclined to the opinion that "Bohan" is the name of a man, a son of Reuben, who either performed some memorable action or died here, and whose name was afterwards applied to a rock generally known, so that it could be spoken of as a recognised point on the border-line. If so, the term must have been given to the rock or stone during the stay of the people at Gilgal.

2. Why does "Bueimat" mean "door of death," as the word means "little owls?"

A. The name "Valley of Achor" means "Valley of Trouble or Great Sorrow." Here Achan, the "troubler" of Israel, and his family were executed. Death and sorrow are always connected, and the owl has always been looked upon (with rare exceptions) as a bird of ill-omen—a harbinger of mourning and death. Hence the term "Valley of Owls" is a very appropriate term for a spot having such melancholy associations as the Valley of Achor. I termed it "gate of death," mentally contrasting it with the references in Isaiah lxx, 10 and Hosea ii, 15, where it is predicted that it will be changed into "a door of hope"—in Arabic, "bab er raja." Though the derivation I gave might be grammatically wrong, the idea was certainly correct.

3. "Why should an ordinary boundary cairn of the Arabs be the heap of stones the Israelites placed over Achan? The cairn is called Esh Shemalieh—'northern'—which has nothing to do with Achan."

A. There are a great many such "ordinary boundary cairns of the Arabs" not at all marked on the large Palestine Exploration Fund's map, with the exception of two, which must be remarkable for some reason, most likely for their size, as otherwise they would not have been entered. One is called "the northern," the other "the southern." These appear to be modern names given to describe their situation. Now we know from Joshua vii, 26, that the Israelites raised a large heap of stones over Achan.

We at no time find any mention made of its having been removed, nor was the land there cultivated, and we may therefore boldly conclude that it must still be there; and as Achan was stoned in a valley, if such a heap is discovered in a valley which may safely be recognised as the Valley of Achor, other circumstances not being in any manner contradictory to such an identification, it may be inferred that this is the heap sought for. The southern cairn cannot be the one, as it is situated on a hill, and not in the valley as the northern one is, namely, in the valley with the gloomy name; and therefore I conclude that the northern cairn is Achan's heap, and find that this identification suits very well all the requisitions of the boundary line.

4. "The idea that Khirbet Soma is Beth Shemesh implies two errors: first, that Soma cannot be Beth Samys, as this is found in Hizmeh, the Hebrew Agmaveth."

I would answer to this, If Hizmeh be the Hebrew Agmaveth, as I think it is, how can it at the same time be Beth Samys? Two different names generally mean two different objects as well; and then what was Khirbet Soma if not Beth Samys?

"Secondly," according to Captain Conder, "Soma being spelt with an Ain has nothing to do with Beth Samys," &c.

I humbly wish to state that, according to my ear, the name is pronounced by the natives in such a way that it must be spelt in a manner which makes it remarkably like Samy, and therefore it may well be Beth Samys or Beth Shemesh.

5. "Why is En-Rogel placed at Bir Eyub? This is not the general belief of students."

A. I follow Robinson's and the German school of students, and have, I believe, the right of my opinions, as I find that it was the general belief of English students as well till M. Clermont-Ganneau believed that he had discovered the stone Zohelath at Siloam, and therefore identified the Virgin's Fount with En-Rogel, though, according to 2 Kings i, 9, En-Rogel cannot have been nearer the town than Bir Eyub, but that it is probable that Adonijah held his supper and prepared his revolt rather further down, for Josephus ("Ant.," IX, x, 4) says that a place called Eroge (which I believe to be synonymous with En-Rogel) at an earthquake a piece broke off the western mountain and located itself against the eastern mountain. This must also have been at some distance south of Bir Eyub (or En-Rogel), and therefore if the latter is to be considered as the same with Siloam and the Virgin's Fount, Josephus would have had to say that "a piece broke off from the town," whereas he says distinctly that it was outside the town. By taking Bir Eyub to be En-Rogel we avoid all these difficulties.

6. Why is Lifta identified with Nephtoa?

A. Because it can thus be identified both on "topographical" and "philological" grounds. The boundary lines passed through it, as the names of all the places mentioned in the Septuagint as well as our modern Bible versions prove. Then also we have numerous examples of the

change of consonants (especially of the liquids *l, m, n, r*) in ancient names. Thus Jezreel is now called "Zerin;" here final *l* has become *n*. Again, it is an undeniable fact that Bethel was in the days of the Bordeaux pilgrim (A.D. 333) called Bethar, whereas it is now known as Beitin. Here we have *l* becoming first *r*, then *n*. Even at the present day the lower class of natives are constantly interchanging these liquids. American is pronounced "Melican," and the well-known village near Nicopolis (now Amwas) is called by some Latrûn, by others Ratlûn.

7. "Ephron and Ephraim are certainly not the same in Hebrew."

A. I may have been mistaken in this assertion, but certainly not in the point I wished to prove. North of the road between Kulonieh and Kustal there exists a Khirbet Farhan. It is marked in the second edition of Van de Velde's map, but does not appear on that of the Palestine Exploration Fund. I have been told that this name is identical with Ephron, Joshua xv, 9, and therefore when we read that the boundary line "went out to the cities of Mount Ephron," the mountain on which Kulonieh is situated is evidently meant, and besides Kulonieh the cities would, I presume, be Beit Talma, Beth Misse, Farhan, and Kustul, all situated on one and the same mount.

8. "Ikbala is a Crusading convent, and nothing else."

A. This I allow; but though I attach no importance to the *ruins*, I do to the place itself and to its name, for as at the present day there is a fountain watering some gardens there, so also as far and even further back than the conquest of the land by Joshua there must have been something here. Later on we find mention in connection with Kirjath Jearim (which Robinson and others locate at Abu Ghosh) of a place called "Baalah," and we may conjecture with a good deal of probability that it is the same as the place referred to, though the Crusader's convent may have borne another name. Again, the word Ikbala may be translated as "place of meeting," "place of reception," or "place of delivering or handing over." This evidently refers to some important event, possibly the story of the ark of the covenant, possibly the meeting of the disciples, in the same way as during the Middle Ages Abu Ghosh was considered to be Anathoth.

Thus far on Captain Conder's questions.

Following the boundary line we now reach Kirjath Jearim, which Robinson and others identify with Abu Ghosh, is still being called Kiryet, though no longer Jearim but Anab. Captain Conder brings forward another identification, viz., Khirbet "Erma," about two hours further south. Here the word Kirjath is missing, and I am besides told that the word "Erma" has nothing to do with Jearim, and comes from another root (namely, ערם in Hebrew, and عرم in Arabic), and means a heap of wheat on the threshing-floor (compare Ruth iii, 7, and Jeremiah l, 20, and not from *וער = יער* which is the root of Jearim, which means a rocky mountain slope covered with forest. As Khirbet Erma has exactly

the form of a heap of wheat, the site already being a conical hill and the ruin shaped up to a point at the summit thus—



it is quite clear is a modern one, taken from its form and having nothing to do with Kirjath Jearim. So I find no reason for giving up Kiryet el Anab as Kirjath Jearim, the more so as I find the continuation of the boundary line testifying to this. To the above I may add that from Saris it went on to Mount Jearim and then to Kesla. It is remarkable that just on this rocky mountain slope there still exists small forests or groves, which are considered sacred to some saint or ancient deity of the country. No one dares fell a tree or take a seed from these groves, hence they have been preserved till the present day. This would indicate that even in Joshua's time they existed already and were points mentioned on the boundary line.

C. SCHICK.

YOMA, OR THE DAY OF ATONEMENT—*continued.*

CHAPTER VI.

1. THE two goats of the day of atonement were commanded to be both alike in appearance¹ and in height and in price;² also in being purchased both together. But even if they were not alike they were lawful. If one were purchased to-day and one to-morrow they were lawful. Did one of them die; if it died before the lot had been cast he took a fellow for the other, and if it died after the lot had been cast he brought another pair, and cast the lot upon them afresh. If that for the Lord died³ he said, "let that upon which the lot for the Lord comes up stand in its stead," and if that for Azazel died, "let that upon which the lot for Azazel comes up

¹ Both of them white, or both of them black.

² For three scriptures are written (Levit. xvi, 5, 7, and 8): "And he shall take of the congregation of the children of Israel two kids;" "And he shall take the two goats;" "And Aaron shall cast lots upon the two goats." And since by שְׁעִירִים is understood two [goats], why are we taught to say two, two, two (three times), but because they should be alike in appearance, in height, and in price?

³ Thus it is explained: if that for the Lord died, he said, let that upon which the lot for the Lord falls stand in its stead; and if that for Azazel died, he said, let that upon which, &c.

stand in its stead." And the second *goat*⁴ was allowed to feed until it became defiled, when it was sold, and the price of it put to the voluntary offerings, because a sin-offering of the congregation could not be consigned to death.⁵ And, further, Rabbi Judah said,⁶ if the blood of the goat for the Lord became spilled *before the sprinkling was completed*, the goat which was to be sent away was allowed to die; if the goat which was to be sent away died,⁷ the blood of the goat for the Lord was poured out.

2. He *now* came to the goat that was sent away⁸ and laid his two

⁴ If that for Azazel died, and now there were two for the Lord, one from the first pair, and one from the second pair, and with one of them the atonement was made, the second one was allowed to feed; and in like manner, if that for the Lord died, and there were now two for Azazel, one was sent away and the second was allowed to feed. And the second one of the second pair was that which was allowed to feed until a blemish happened to it; and the second one of the first pair was that which was offered if it was for the Lord, or sent away if it was for Azazel, because a living animal might not be repudiated; and if there happened at any time a defilement to [either of] them, they were still able to remedy this by substituting another for it.

⁵ This that we learn about letting sin-offerings die, we learn in reference to those of an individual; but the goats of the day of atonement were sin-offerings of the community, as is written (Levit. xvi, 5), "And he shall take of the congregation of the children of Israel;" and the letting a sin-offering die, this is, that they put it into a certain chamber and left it there until it died [of hunger].

⁶ If the blood of the goat for the Lord became spilled, the goat which was to be sent away was let die, because the commandment in reference to the blood had not been performed, and in reference to all those parts of the service which were performed in white garments, whether within or without, חֻקָּה, "a statute," is written to hinder [*i.e.*, to show that the service cannot be regarded as complete unless each of these parts is done in due order], and it was necessary to bring other blood, which could not be otherwise than by lot, and since in his opinion a living animal might be repudiated, the first goat, which was to have been sent away, was let die.

⁷ Although according to the words of all the sending away did not hinder; for it is written, "a statute" to hinder in those things which the priest did in white garments, not in those which were done by the hand of אִישׁ עֵתִי, "a fit man" (A. V). We learn from the scripture "[the goat] which shall be presented alive before the Lord to make an atonement with him" (Levit. xvi, 10, 11). To what time was it required that the goat to be sent away should stand living [before the Lord]? Until the time of sprinkling the blood of its fellow. And if it died before then, the blood had not made any atonement at all, and therefore it was necessary to replace it, and this could only be by lot, and it was required for the two. And the first was repudiated, for all acknowledge that beasts slaughtered may be repudiated.

⁸ After he had finished the sprinkling of the blood of the bullock and goat, the priest came to the goat which was to be sent away in the place where he had been put opposite the place of sending away.

hands upon it and confessed. And thus he said, "O God, they have done iniquity, they have transgressed, they have sinned before Thee, Thy people, the house of Israel. O God, forgive now the iniquities and the transgressions and the sins which they have done and transgressed, and sinned before Thee, Thy people, the house of Israel, according as it is written in the Law of Moses, Thy servant, saying (Levit. xvi, 30), "for on that day shall *the priest* make an atonement for you, to cleanse you, that you may be clean from all your sins, before the Lord." And the priests, and the people standing in the court, when they heard the *shem hamphorash* [*nomen expositum*] proceed out of the mouth of the high priest, bowed down and prostrated themselves, and fell upon their faces and said "blessed be the glorious name of His Kingdom for ever and ever."

3. They delivered the goat to him who was to lead it away. It was lawful for any one to lead it away, only that the high priests made it a fixed rule⁹ not to allow a layman to lead it away. Rabbi Jose said "once Arsala of Tsefurich led it away, and he was a layman."

4. And they made a platform¹⁰ for him, on account of the Babylonians, because they used to pull his hair and say to him, "Go and go out! Go and go out!" Some of the chief men of Jerusalem¹¹ accompanied him as far as the first hut.¹² There were ten huts between Jerusalem and *tsook*, ninety stadia **רֹס**,¹³ seven and a half to each mile.¹⁴

5. At every hut they said to him, lo, *here is* food; lo, *here is* water,¹⁵ and they accompanied him from hut to hut,¹⁶ except the last one, for they

⁹ That they should send it away, and the *beth-din* of the priests did not allow a layman to lead it away.

¹⁰ They made a *kebesh* like a kind of step, which was high, and by means of this *kebesh* he went out of the court and out of the city, in order that the Babylonians might not touch him who led away the goat, because they were accustomed to pull him by the hair and say to him: "Go quickly and go out, and let not our iniquities remain any longer upon us."

¹¹ Some of the most esteemed men of Jerusalem.

¹² They made huts on the road, and people went to dwell there before the day of atonement that they might accompany him from hut to hut.

¹³ From Jerusalem to *tsook*. Every lofty and precipitous mountain is called *tsook*.

¹⁴ Seven and a half *stadia*, **רַנְסִין**, to each mile. I have heard that we ought to read **רֹס** with *rau*, and these are two hundred and sixty-six paces, according to the sum of the word **רֹס** [**ר**=200, **ו**=6, **ס**=60], so that seven and a half **רִיסִין** would be two thousand paces, less five; nearly the measure of the Sabbath boundary, and ninety such stadia are twelve miles.

¹⁵ They said this to him only to comfort his heart, because he who has a loaf in his basket does not become hungry like him who has no loaf in his basket. But never did a man [leading away the scape-goat] find this necessary.

¹⁶ From Jerusalem to the first hut was a mile, and there were ten huts, between each two a mile, so that from Jerusalem to the last hut was ten miles. There remained two miles between the last hut and the precipice: they

did not accompany him to *tsook*, but stood at a distance and observed what was done by him.

6. What did he *now* do? He divided a band of scarlet and tied one half upon the rock and one half between its horns,¹⁷ and pushed it backwards, so that it rolled over and over as it went down, and became shivered to pieces before it reached half-way to the bottom. He then came and sat under the last hut until it grew dark.¹⁸ And from what period did his garments become unclean?¹⁹ From the time he went outside of the wall of Jerusalem. Rabbi Simeon said "from the time of pushing it down the precipice."²⁰

7. He *now* came to the bullock and the goat²¹ which were to be burnt, opened them and took out those parts which were to be offered upon the altar. He put them into a dish,²² and burned them upon the top of the altar.²³ They slung the carcasses upon poles,²⁴ and conveyed them out to

accompanied him one mile, according to the measure of the Sabbath boundary, and stood at a distance and observed what he did.

¹⁷ He did not tie the whole of the scarlet band to the rock lest it should become white immediately, before the goat was pushed down, and from joy that the band of scarlet had turned white (which showed that their iniquities had been already atoned for) he might forget the command to push it down, and think that the command was already fulfilled after the band had turned white. And he did not tie the whole of it between its horns, lest at the time of being pushed down, the goat might turn its head under its body as it fell backwards, so that one could not see the band as it turned white, and all Israel would be troubled; therefore he tied half to the rock, and the halves did not become white until the whole work was completed. And as he tied the half between its horns last, even if it did turn white immediately he would not omit the pushing down, because he was then engaged with it.

¹⁸ He returned to the last hut, and although one going beyond the [Sabbath] boundary, even by permission of the wise men, was allowed only two thousand cubits from the place from which he had gone out by permission, to this man it was permitted [to come back two miles from *tsook* to the last hut], lest he should be afraid to remain in the wilderness after dark.

¹⁹ As it is written (Levit. xvi, 26) "and he that let go the goat for the scape-goat shall wash his clothes."

²⁰ The decision was not according to R. Simeon.

²¹ After the high priest had delivered the scapegoat to him who was to lead it away, he came to the bullock and the goat which were waiting to be burned, and opened them and took out the parts which were to be offered on the altar.

²² A dish, קערה, one of the vessels of service.

²³ It is not possible to say that he burned them now, for he was dressed in the white garments, and had yet to read the section of the law in the white garments, but it is so said, that they were put into the dish, in order that they might be burned afterwards when the time arrived, after he had bathed and put on the golden garments.

²⁴ They were slung up, as it were [and carried by men upon poles], entire with their skins, and their flesh, and their dung, but with their bellies opened to take out the parts which were to be burned upon the altar.

the place of burning.²⁵ And from what period did their garments become unclean?²⁶ From the time that they went outside the wall of the court. Rabbi Simeon said, from the time that the greater part of the offerings became on fire.²⁷

8. They said to the high priest "the goat has reached the wilderness."²⁸ And whence did they know that the goat had reached the wilderness? They made great *heaps of stones*,²⁹ and waved handkerchiefs, and they knew that the goat had reached the wilderness. Rabbi Judah said "had they not a great sign? From Jerusalem to Beth Hidudo³⁰ was three miles, they walked a mile,³¹ and returned a mile, and waited as long as it would take to walk a mile, and then knew that the goat had reached the wilderness." Rabbi Ishmael said "and had they not another sign? A tongue of scarlet was tied at the door of the Temple, and when the goat had reached the wilderness, the tongue turned white, as is said (Isaiah, i, 18,) "though your sins be as scarlet, they shall be as white as snow."

CHAPTER VII.

1. THE high priests *now* came to read.¹ If he wished to read in the white garments,² he did so; and if not he read in the white stole,³ which was of those *garments* which belonged to him. The minister [*chazan*] of the synagogue⁴ took the book of the law and gave it to

²⁵ Outside of Jerusalem.

²⁶ The garments in which they were employed in performing the service, as it is written (Levit. xvi, 28), "and he that burneth them shall wash his clothes."

²⁷ The decision was not according to Rabbi Simeon.

²⁸ Because they were not permitted to begin another part of the service until the goat had reached the wilderness, as is said (Levit. xvi, 22), "and he shall let the goat go into the wilderness," and afterwards (v. 25), "and the fat of the sin-offering shall he burn upon the altar."

²⁹ Great stones raised one upon another where the watcher stood and waved handkerchiefs.

³⁰ This place was the head of the wilderness, and Rabbi Judah thought that when the goat reached there the commandment was fulfilled, although it had not reached the precipice, *רָאָה*. The decision was not according to Rabbi Judah.

³¹ As we are told above, the chief personages of Jerusalem accompanied him to the first hut, and when they returned and waited afterwards as long as one could walk a mile, they already knew that the goat had reached the wilderness.

¹ The section for the day.

² He read in the white garments in which he had performed the service of the day, for it was permitted to put on the priestly garments even though it was not the time of the service, for the priestly garments were given that the priests might make use of them.

³ A dress made like a kind of white shirt, and it was of those which belonged to him because the reading of the section was not worship.

⁴ The *shamas*, servant or deacon.

the president [*rosh*] of the synagogue,⁵ and the president of the synagogue gave it to the sagan [or vicar] and the sagan gave it to the high priest, and the high priest stood and received it,⁶ and read. He stood, and read, אַתְּרֵי מוֹת, "after the death" [Levit. xvi], and אֶדְ בַעֲשׂוֹר, "also on the tenth" [Levit. xxiii, 27],⁷ and rolled up the book of the Law, and put it into his bosom. And he said "more than what I have read before you, is written here;"⁸ and בַּעֲשׂוֹר, "on the tenth," in the book of Numbers [xxix, 7], he said without the book,⁹ and pronounced eight blessings: for the law,¹⁰ for the service, for the confession,¹¹ for the forgiveness of sins,¹² and for the sanctuary¹³ by itself, and for Israel by themselves, and for Jerusalem by itself, and for the priests¹⁴ by themselves, and for the remaining prayer.¹⁵

⁵ By his direction all the necessary duties of the synagogue were distributed, who should say the *haph Torah*, and who should divide the *shma* (hear O Israel, &c.), and who should pass before the ark. And they gave the book of the law from one to the other on account of the honour due to the high priest to show that there were many offices below him.

⁶ It is understood from this that until now he had sat, and we thus learn that he read in the court of the women, for in the court of Israel, and *à fortiori* in any place more holy than that, it was unlawful to sit; but for kings of the house of David it was lawful to sit in the court, for it is written (2 Samuel vii, 18) "then went King David in and sat before the Lord."

⁷ In the section אֲמֹר [Levit. xxiii, 27], because it was lawful to pass over a portion of the law, when reading on one subject, provided the continuation of the subject was so near that the translator did not come to a pause before the reader began again; but if before he could roll the book of the law as far as the place to which he had passed, the translator who was interpreting the portion which the reader read came to a pause, it was unlawful to pass over and to roll, because the congregation would be sitting and expecting, and this was not for the honour of the congregation.

⁸ In order not to bring contempt upon the book of the law—lest when they saw that he said the third section without the book, they might think that the book of the law wanted that section.

⁹ Because it was more distant from the section *achry moth* and *ach b'asoor* than that the translator could occupy the time taken up in rolling without a pause, therefore they could not roll the book of the law to that place; for they might not roll the book of the law in the congregation because of the honour due to the congregation, and another book of the law they might not bring, lest the first should be dishonoured, and they should think it defective.

¹⁰ Two blessings, one before it [the section] and one after it, as we bless in the synagogue.

¹¹ The blessings מוֹדִים, and רַצְיָה.

¹² The blessing סֶלַח לָנוּ.

¹³ That the *shechinah* might remain in it.

¹⁴ That they might be blessed and their offerings accepted.

¹⁵ This is explained in the Gemara. Beseeching, singing, praying are before Thee for thy people Israel who need to be saved, blessed be Thou Lord, who hearest prayer.

2. He who saw the high priest when he read did not see the bullock and the goat burned, and he who saw the bullock and the goat burned did not see the high priest when he read ; not because he had not the right, but because the way was distant and the acts were both of them performed at the same time.¹⁶

3. If he read in the linen garments, he sanctified his hands and his feet, stripped, went down and bathed, came up and wiped. They brought to him golden garments, and he dressed and sanctified his hands and feet, and went out and offered his ram and the ram of the people,¹⁷ and the seven perfect lambs of one year old. The words of Rabbi Eliezer. Rabbi Akibah¹⁸ said "they offered them with the continual sacrifice of the morning, and the bullock for the burnt offering and the goat which was offered without, they offered with the continual sacrifice of the evening."

4. He sanctified his hands and his feet, and undressed and descended and bathed, and came up and wiped himself. They brought to him white garments and he dressed, and sanctified his hands and his feet. He went in to bring out the bason and censer. He sanctified his hands and his feet, and undressed and descended and bathed, came up and wiped himself. They brought to him golden garments, and he dressed and

¹⁶ This is said lest we should think that he who saw one service was not permitted to leave it and go to see another, for we may not leave one precept for another : and to see the service is a precept, for "in the multitude of people is the king's honour" [Prov. xiv, 28], whence we are taught that he did not pass by a precept inasmuch as he was not engaged in it.

¹⁷ The reason of R. Eliezer's opinion is that the ram of the high priest and the ram of the people, and the fat of the sin-offering, and the taking out of the bason and the censer being all written first in the law of the priests (*cf.* Levit. xvi), in the section of the day of atonement, are to be performed first, and afterwards the additional sacrifices, the bullock for a burnt-offering, and the seven lambs, and the ram which was prepared without, were all offered with the continual sacrifice between the evenings, as is written at the end in the book of Numbers.

¹⁸ Rabbi Akibah said that the bullock for a burnt-offering and the seven lambs of the additional sacrifices were offered with the continual sacrifice of the morning, because it is written (Numb. xxviii, 23) "besides the burnt-offering in the morning which is for a continual burnt-offering," &c. Therefore the additional sacrifices of the burnt-offering of the morning were made near to it, and afterwards the service of the day, and then the goat which was prepared without : and although it was one of the additional sacrifices it might not precede the service of the day, because it is said in reference to it (*ib.* xxix, 14), "beside the sin-offering of atonement," whence we learn that the goat whose blood was sprinkled within, which belonged to the service of the day, preceded it, and afterwards his [the high priest's] ram and the ram of the people, and then the fat of the sin-offering. All of these were at the third bathing. And afterwards the taking out of the bason and censer, and then the continual sacrifice of the evening. The decision was according to Rabbi Akibah.

sanctified his hands and his feet, and went in to burn the incense of the evening and prepare the lamps,¹⁹ and he sanctified his hands and his feet, and undressed. They brought to him his own garments, and he dressed, and they accompanied him to his house. And he made a feast for his friends when he went out from the Sanctuary in peace.

5. The high priest ministered in eight garments, and an ordinary priest in four: in a coat and breeches, and a turban, and a girdle. The high priest added to these the breastplate, and the ephod, and the robe, and the *golden plate*. In these they enquired of Urim and Thummim.²⁰ And they did not enquire for a private person, but only for the king,²¹ and for the *beth din* (Sanhedrim), and for what the congregation needed from it.

¹⁹ This preparing the lamps was the lighting them.

²⁰ The priest who enquired of Urim and Thummim must put on eight garments. And how did they enquire of Urim and Thummim? The enquirer with his face behind the priest who enquired, and the latter with his face towards the ark, and the enquirer said "Shall I do this thing or shall I not do it?" And he did not ask in a loud voice, and did not consider in his heart, but in a low voice. And the Holy Spirit clothed the priest, and shone upon the breastplate, and he saw letters projecting in the breastplate opposite to his face, "do so," or "thou shalt not do so." For there were written upon the stones of the breastplate the names of the twelve tribes, and of Abraham, Isaak, and Jacob, and the words *ה' כבטו* [Psalm cxxii, 1], so that the whole alphabet was there. And the Holy Spirit instructed the priest how to join the prominent letters one with another until the meaning of the words was ascertained.

²¹ For it is written (Numb. xxvii, 21), "And he shall stand before Eleazer the priest" &c.; *he*, that is the king, "and all the children of Israel with him;" all the children of Israel were with him to go out to war after him, namely the [priest] anointed for war. And for what the congregation needed from it. It is written "and all the congregation"—these are the great Sanhedrim.

(*To be continued.*)

THE
PALESTINE EXPLORATION FUND

NOTES AND NEWS.

THE Society completes in May the TWENTY-FIRST YEAR of its existence. It has been resolved by the Committee to celebrate this event—(1) By issuing a short history of its proceedings and achievements from its first foundation; and (2) by holding a public meeting, at which it is hoped that those of its founders who survive and those Engineer officers and others who have worked for the Society will be present and will speak. Full notice will be given of this meeting, its place and date. All the subscribers to the Fund are invited to be present, and admission will be by ticket, which may be obtained of the Secretary by sending a letter or post-card.

We are enabled to publish this quarter a paper from Mr. Laurence Oliphant, in which he gives an account of some discoveries made by him during a recent journey to the north-east shores of the Lake of Galilee. Among other things, he has found the remains of two synagogues, one of them so far entire that its walls are standing to the height of nine feet. It does not appear from his brief account that the internal arrangements of this building have been ascertained. These it will be most desirable to examine at the earliest opportunity. A synagogue so perfect does not, needless to say, exist on the western side, though Sir Charles Wilson was able, in 1866, to make a plan of the White Synagogue at Tel Hum.

The results of Herr Schumacher's recent work have not yet reached us: we are, however, happy to state that the German Society has consented to exchange the piece of map work executed for them by Herr Schumacher for that done by the same surveyor for ourselves. This will be added to our maps. The applications for his book "Across the Jordan" have been very numerous. In answer to a great many inquiries, it is well to state that the drawings are all original, and were all made by Herr Schumacher himself for the work, and have never been before published. The plan and description of the subterranean city of Derâ will be entirely new to most readers. Sir Charles Wilson, however, sent to the *Athenæum* three years ago an account of some subterranean cities met with

by him in Anatolia on a much larger scale. The plan of Ed D'rah is as yet incomplete, and there may be important additions to make, while with the aid of a magnesium lamp and other instruments it may be possible to obtain some formation upon the date of its construction and its history.

Professor Hayter Lewis started for a second journey to Palestine on Thursday, the 25th ult., intending to make a further examination into the Dome of the Rock. Professor Dr. Post, of Beyrout, is about to pay a botanic and archæological visit to Damascus and the Hauran, and has promised a paper on the results of his journey and any general information which he can gather, to the Society. Dr. Chaplin has resigned his office at Jerusalem, and will not go out again. The Society lose in him a steady friend and representative, but they hope that his vast knowledge of modern Palestine may be in some way utilised at home. Sir Charles Warren returns to London to take up a most serious and responsible office. Mr. Laurence Oliphant returns next month to England.

Professor Hull's Geological Memoir is now ready. It is issued as a supplementary volume to the "Survey of Western Palestine," uniform in size, though not so thick a volume; its price, to subscribers only, is 12s. 6d. It is fully illustrated by geological maps and sections.

Captain Conder is writing another book for the Committee, on the condition of Palestine and its inhabitants in various ages, from the earliest times to the end of the Crusading period, founded mainly on the monumental evidence. He intends to show in that work what we should have known if the country and the people of the Hebrew literature had entirely perished. It will be published in the autumn.

Captain Conder has also written a reply to a recent article by Professor Socin in which a few remarks were made in this Journal of October last. The article investigates certain strictures which the Professor thought proper to pass upon the Survey of Western Palestine, and will be found fully to corroborate the short reply made to Professor Socin in the *Quarterly Statement* of October last. It is promised for the *Expositor* of May.

Mr. Guy le Strange is compiling for the Committee a Gazetteer of Palestine from the early Arabic geographers. He expects to have this ready by the end of the year.

The Palestine Pilgrims' Text Society has issued its "Procopius," long promised. It is not published for the general public, but sent out to subscribers only. The Council's Report for the year 1885 can be had on application.

The following is the Balance Sheet, with the Treasurer's Statement, for the year 1885:—

BALANCE SHEET, 1885.

RECEIPTS.			EXPENDITURE.		
January 1, 1885—	£	s. d.	December 31, 1885—	£	s. d.
Balance	249	3 2	By Exploration Maps		
December 31, 1885—			and Memoirs ..	1,560	15 11
By Subscriptions and			Books	288	6 4
Donations ..	1,389	17 6	Printers	400	0 0
Maps and Memoirs	464	6 1	Salaries, Rent, Office		
Books	135	11 4	and Stationery ..	486	7 4
Legacy	900	0 0	Advertising ..	12	15 0
Photographs ..	14	5 7	Lecture expenses ..	17	4 6
			Postage and Parcels	56	13 6
			Balance	331	1 1
	<u>£3,153</u>	<u>3 8</u>		<u>£3,153</u>	<u>3 8</u>

Examined and found correct.

WALTER MORRISON,

Hon. Treasurer.

TREASURER'S STATEMENT.

The proportion of expenditure is as follows, the items of "Exploration" and "Maps and Memoirs" being thrown together as necessarily connected:—

Exploration, Maps and Memoirs	·61
Printers	·16
Office and management	·23

At the beginning of the year the liabilities were—

(1) On Maps and Memoirs	£1,572
(2) Printers	£400

The liabilities are now (March 26th) on the former account £1,112, of which the sum of £850 is a loan, the repayment of which is not immediately pressing, though it would be desirable. On the second account the present liability is £300.

The assets of the Society consist of—(1) Its large and important collections at South Kensington and its office in Adam Street. It is, of course, impossible to value this unique museum. (2) Its books, consisting of the unsubscribed copies of the "Survey of Western Palestine," with the new Geological Memoirs, which are alone sufficient to cover all the liabilities; almost complete new editions of "Tent Work" and "Heth and Moab;" "Across the Jordan;" and "Mount Seir." (3) The collection of survey instruments, valued at several hundreds of pounds. (4) The valuable maps, five in number. (5) The Library, rapidly growing, the furniture, &c. (6) The unpublished MSS., namely, Conder's Eastern Survey, Ganneau's drawings, Hart's Naturalist's Memoirs, and Schumacher's new Survey not yet received. Subscribers will please to remember that exploration does not stop short at the collection of facts, but includes their publication. If, therefore, money is required for publication of results, thus also is Exploration.

The Committee conducting the Inquiry have sent to press a large number of Questions, and hope to have begun their labours before the next number of this

Journal appears. Meantime, any suggestions that may be made will be gratefully accepted.

As regards the copies which remain of the "Survey of Western Palestine," the friends of the Society are urged to get them placed in public libraries. The work will not be reprinted, and will never be sold by the Committee at a lower price; and as it becomes known for the *only* scientific account of Western Palestine, it will certainly acquire a yearly increasing value. Five hundred were printed, and the type is now distributed.

The income of the Society, from December 12th, 1885, to March 17th, 1886, inclusive, was—from subscriptions and donations, £816 2s. 11d.; from all sources, £994 8s. 5d. The expenditure during the same period was £930. On March 18th the balance in the Banks was £303.

It is suggested to subscribers that the safest and most convenient manner of paying subscriptions is through a Bank. Many subscribers have adopted this method, which removes the danger of loss or miscarriage, and renders unnecessary the acknowledgment by official receipt and letter.

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.

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) The Rev. Henry Geary, Vicar of St. Thomas's, Portman Square. His lectures are on the following subjects:—

The Survey of Western Palestine, as illustrating Bible History.

Palestine East of the Jordan.

The Jerusalem Excavations.

A Restoration of Ancient Jerusalem. Illustrated by original photographs shown as "dissolving views."

- (2) 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.

- (3) The Rev. James Neil, formerly Incumbent of Christ Church, Jerusalem.

- (4) The Rev. George St. Clair, Bristol Road, Birmingham, has resumed his Lectures for the Society.

THE LATE MR. JAMES FERGUSSON.

IN the death of Mr. James Fergusson the Society has to lament the loss of one who was not only largely instrumental in its foundation, and has been upon the Committee since its foundation, but was the first writer in this country who seriously questioned the genuineness of the sacred sites. His first book on Jerusalem appeared in the year 1847, while his latest, which strictly maintained the same views with some slight modifications, was published only a few years ago. It will be remembered that he advocated the south-west corner of the Haram Aera for his site of the Temple, and maintained that the Dome of the Rock, so far from being an erection by Byzantine architects at the order of Abdel Melek in the seventh century, was really no other than the church supposed by himself to have been built at the order of the Emperor Constantine over the site of the Holy Sepulchre. He advocated these views in Smith's "Bible Dictionary" in the year 1865, and at one time he had a large following of those who believed in his arguments. At the same time there has always been a respectable section of scholars whom he could not convince, and, on the whole, it may be said that the literature of the subject has of late years leaned decidedly more towards some modification of the traditional view than the adoption of Fergusson's opinions. The extension of his views has also been greatly checked by the fact that Sir Charles Warren first, and Captain Conder afterwards, openly joined the opposite camp. Among the more important works which came from his active and untiring brain were an "An Inquiry into the True Principles of Beauty in Art," and his "History of Architecture." For a short time he held a post under Government in the office of Her Majesty's Works and Public Buildings. He died, at the age of 78, at his residence in Langham Place.

Captain Conder writes—

"Will you allow me to say with what regret I notice the death of a valuable original member of the Palestine Exploration Fund, Mr. J. Fergusson? His great work on architecture was my mainstay in studying the antiquities of Palestine, and in reading it again just at the time I heard of his death I found my admiration of it greater than ever. Although in particular points Mr. Fergusson's views may have been superseded by the results of further discovery, we should be guilty of great ingratitude if we forgot that he was among the first to lay the basis of a scientific study of architectural antiquity. He was to this important subject what Dr. Birch was to the study of Egyptian antiquity, and it is on the shoulders of such men that the present generation of archæologists stands.

"On the few occasions when I had the honour of meeting Mr. Fergusson, I have had to thank him for his cordial encouragement and indulgence. He first looked over in 1874 my architectural sketches now published in the Memoirs, and gave me an opinion on the dates of various buildings which I had discovered, which was most valuable to me in the classification of the ruins I found later. I have read all he ever wrote about Palestine, and have learned much therefrom.

"Chatham, 14th January, 1886."

ON SOME NEWLY FOUND INSCRIPTIONS.

I.

I AM afraid that anything I have to say about the inscriptions, of which you were good enough to send me copies at the moment of my departure from England, will have become unnecessary long before you receive this letter. I had no time to write to you before leaving Cairo, and on board a dahabiah one is beyond the reach of the post.

No. 1 reads *Μαρρούλη Χρηστή Χαίρε, ζήσασα ἔτη ξ*, "Farewell, good Marroulê, aged 7 years." *Χρηστος* is a common epithet in early Christian epitaphs, owing to the similarity of the word to *Χριστός*.

No. 2. *Ἰηω[ν]α Χρηστε Χέρε*, "Farewell, good Jonas (?)." The reading of the proper name is uncertain.

No. 3. *Κλαύδιε Σαβεινίανε Χρηστε [κα]ῖ ἄλυπε Χαίρε*, "Farewell, good and harmless Claudius Sabinianus."

No. 4. *Κασσία Πρισκυλλα Χρήστη καὶ ἄλυπε*, "(Farewell), good and harmless Cassia Priscilla." *Ἄλυπε*, "unsuffering one," is an adjective of two terminations; hence the masculine form of the vocative.

The potter's stamp shows that the maker's name was Paramonos.

The Phœnician inscription is a forgery. The Phœnician letters in it belong to different epochs, and are mixed with Greek characters, as well as with wholly imaginary ones.

The inscription on the gem seems to be Gnostic, and may be read *ω"Οραρε*.

I have unfortunately mislaid the Egyptian text, and owing to the want of books of reference can make no annotations on the names mentioned in the Greek inscriptions.

Syût, 4th January, 1886.

A. H. SAYCE.

II.

I wish to emphasise a remark which I made in my last report, and which appears on the top of p. 24, *January Statement*, namely, that I did not attempt to represent any of the older ruins found in excavating the place marked "open field." The field is now quite enclosed by the fine and substantial walls of the first story of the large building which is designed to occupy that ground. The work on this building has ceased during the rainy season.

A number of relics of the Tenth Legion were found deeply buried under the accumulations here, and I present herewith a description of one of the most interesting of these. The column was found 10 or more feet below the surface of the ground, and about 7 yards directly west of the northern end of the red line which in the plan is shown opposite Fruteger's bank.

M'IVNIO'
 MAXIMO'
 LEG'AVGG'
 LEG'X'FR'
 C'DOM'SERG'
 IVL'HONORATVS'
 STR~~XXXXXXXXXX~~EIV

This inscription was found on a marble column about 15 feet below the surface of the ground. The column was lying among *débris*, and the dimensions are as follows: length 40 inches, diameter 21 inches, length of space occupied by inscription 26 inches; inscription in seven lines, length of ordinary lines 16 inches, length of longest line 25 inches.

I wish to add that I have measured again the ground beneath which, during last summer, the second wall was exposed, and find that the portion exposed was 120 feet in length; about 30 yards only had been uncovered when I made my last report.

Jerusalem, January, 1886.

SELAH MERRILL, D.D., LL.D.

NEW DISCOVERIES.

BY LAURENCE OLIPHANT.

As upon the occasion of my last visit a year ago to the north-eastern shore of the Sea of Galilee I had heard of certain ruins which I was then prevented from visiting, I determined to take advantage of the month of December, which, on account of the absence of vegetation at that season, is the best time for investigation, to return to that district. On arriving at Mohammed Said Pasha's Hasil at El 'Arâj, on the north shore of the lake east of the mouth of the Jordan, I was so fortunate as to find his Vakeel, who informed me that the natives had been getting out more stone at El Hasanîyeh, and had found two on which were carved the figures of lions.

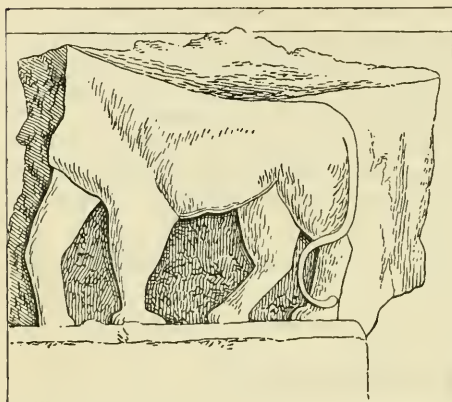
I accordingly proceeded thither, and perceived the aspect of the ruins some-

FIG 1



what changed by recent excavation since my last visit, and that with the stones which had been excavated the people had been constructing granaries. They had built into a wall one of the stones on which was carved the figure of a lion, the head alone being visible (Fig. 1). The other stone had not been used for building purposes, but the head of the lion had unfortunately been broken off (Fig. 2). From El Hasaniyeh I proceeded for a mile and

FIG 2.



a half up the Wâdy es Saffah to a ruin called Dardara, but found nothing beyond rough basalt blocks, and traces of foundations. I now determined to explore the Wâdy Jeramaya, a wild ravine which has never been examined. This is so thickly strewn with huge basalt blocks that the bed of the wâdy, through which rushes a small torrent, even at this season of the year was impracticable on horseback; the goat-paths, which

skirted the precipitous flanks of the gorge, were not much better; and along these I forced my way for four miles, to a point where the wâdy bifurcates, the northern branch being called the Wâdy Bazouk. I passed only one small unimportant ruin called Zeta, with blocks of basalt and foundations; near a spring were two or three date palms, but no traces of ruins near them. The southern slopes, if slopes they could be called, where scrambling is so difficult for man and beast, are sparsely clothed, whenever there is holding ground, with oak and doum bushes. I found that the sketch map which accompanied my former paper on this district requires modification. The network of wâdies is so intricate that it is not easy to trace them from native description, but I now discovered that the Wâdy Dâlieh does not bend to the east as indicated in the map, but runs north, and that another wâdy runs into the Wâdy Jeramaya, joining it about two miles from its outflow into the lake; it is upon this wâdy that the ruin of El Ychudiyeh is situated, from which the wâdy itself takes its name: below the junction it is called Wâdy es Sennam. On my return I struck higher up the slopes on the southern side, partly to avoid the villainous road by which I had advanced, and partly to visit a ruin called el Koka, where I found numerous fragments of columns, and a block which was built into the wall of a granary, so that I could not decide whether it formed part of a cornice or frieze, but upon which there was carved a very beautiful scroll of flowers and foliage; in the neighbourhood of the ruin was a spring 10 feet long and 4 feet wide, which had been

masoned with large square blocks of basalt (Fig. 3), those in rear of the spring alone remained in position, and were each 5 feet long; el Koka was evidently a place of some importance.



FIG 3.

On the high bluff which separates the Wâdy Shebib from the Wâdy Shukeiyif, and two miles and a half east of El Akib (see map, *Quarterly Statement*, April, 1885, p. 82), are situated the ruins of Kanef. Hearing from the Vakeel that I should find important remains there, I rode up to examine them, under the guidance of a Bedouin sheikh. Kanef is situated about 1,300 feet above the level of the lake, and the latter part of the ascent is somewhat steep. The whole of this region belongs to Mohammed Said Pasha, who has a hasil, or granary, here; but the only inhabitants are some Diab Arabs, who are his tenants, and whose tents were pitched not far from the Khurbet. This consisted of a considerable area of ruin, and numerous fragments of columns were scattered about; a row of five, some standing to a height of 7 feet, supported the roof of a cow-shed, but of these only one was a monolith, the others consisted of fragments which had been placed one upon another, and I could not trace on the spot the foundation of the building of which they may have formed part. They probably belonged to the ruin which I immediately afterwards discovered on the other side of

the hasil, about 50 yards distant, and which unquestionably was that of a synagogue, as will appear from a fragment of a cornice which I found

החרת ללבי וסח. נרחל וכלה נ

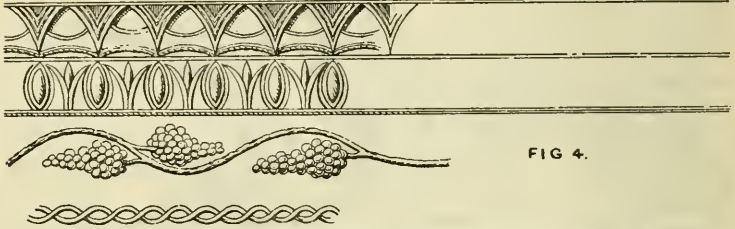


FIG 4.

here, measuring 7 feet by 2 feet 8 inches, on which was a Hebrew inscription (Fig. 4). Close by were other carved fragments, pedestals, &c., and

FIG 5.

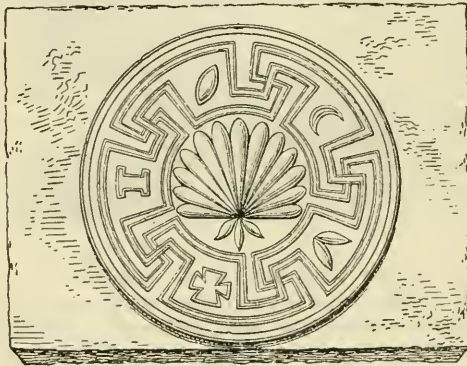
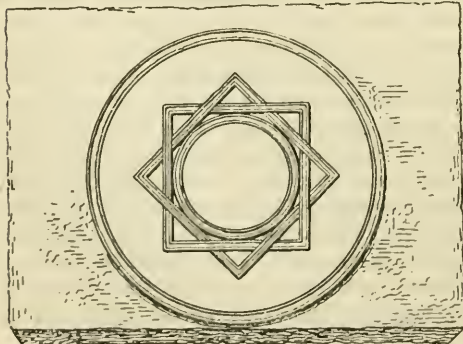


FIG 6.

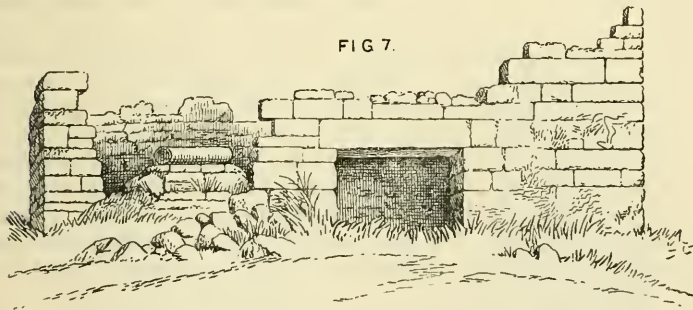


two square stones, on which were carved circular devices, both of them 18 inches in diameter (Figs. 5 and 6). The ground was so thickly strewn with huge basalt building stones that I could only discover here and there traces of the foundations, and was unable to measure the dimensions of the building. About two hundred yards from the ruin was a spring, which had also been masoned like the one at el Koka, but which was not in such a good state of preservation.

My guide now offered to conduct me to another Khurbet, and I followed him due east along the high plateau for a distance of nearly two miles, when we reached the

Khurbet of Dar Aziz. Here I found a large encampment of Arabs, their tents huddled amid the flat-roofed granaries in which they store their crops, and which were constructed as usual from the stones of the Khurbet. These ruins were enclosed on two sides by a massive ancient wall, measuring 140 feet one way by 90 feet the other, and with an average height of 6 feet. Many of the beautifully squared blocks of which it was constructed measured 6 feet by 18 inches, and were laid on each other without cement. Within this enclosure were many fragments of columns and traces of foundations, besides two small arches, 10 feet high with 13 feet span; but these, I think, were of a later date than the wall: one of them supported the roof of a granary; the other, connected with it, though enclosed by walls, supported nothing. I also found a piece of a cornice with moulding of the unornamented Jewish type.

But the most interesting discovery was that of the synagogue. This stood a little way down the slope of the hill, on the northern flank of the Wâdy Shukeiyif (see map, *Quarterly Statement*, April, 1885, p. 82), near the head of which this Khurbet is situated. The walls were still standing in places to a height of 9 feet, and the whole character was clearly defined (Fig. 7). The dimensions were 60 feet by 37 feet;



the diameter of the columns, of which none were standing *in situ*, 2 feet. The lintel over the door, 6 feet by 18 inches; width of door, 4 feet 6 inches. It was oriented, and the entrance was in the eastern wall. I searched in vain for cornices or carving of any sort. The whole architecture was of the plainest and simplest description, but the interior was so thickly strewn with masses of building stone that some of the more ornamental features may have been concealed.

I also found in the neighbourhood a circular basin hewn out of a solid block of basalt 5 feet in diameter, and with a depression of 4 inches. In the centre of it was a broken shaft of a column a foot high, and the same in diameter, in the centre of which was a hole 2 inches square. The spring was of the same character as that which I have almost invariably found in the neighbourhood of the ruins of this district. It was contained in a basin 15 feet by 6 feet, and had a depth of 8 or 10 inches. The masonry of large basalt blocks on three sides was in a perfect state of preservation

to a height of 6 feet from the water. I now descended into the Wâdy Shukeiyif to a small ruin called Subbahiye, where there was nothing but a few fragments of columns. Below this, nearer the mouth of the wâdy, is the Khurbet from which the wâdy takes its name; but I had no time to visit it, as I was anxious to examine the Khurbet of Musherfawi which crowns the lofty projecting bluff that separates the Wâdy Shukeiyif from the Wâdy es Semakh, and which, from its commanding position, is a conspicuous object from Tiberias, though, so far as I know, it has never been visited. I fully expected to make some interesting discoveries here, as the site was one calculated to attract considerable population in times when every position of natural strength was occupied, and the long heaps of black stone that I saw from a distance tempted me from afar. We had a steep climb up the southern slopes of the wâdy to reach it. These are also clothed, like those of the Jeramaya, with oak and doum. On arriving at the ruin I had no reason to be disappointed as to its extent, the strewn blocks covering a greater area than any I have hitherto visited; but I searched in vain for remnants of its former character or importance, other than was afforded by the inevitable fragments of columns. Here also there were Arab tents and stone quarries, and perhaps if I had time to search carefully over the wilderness of stone I might have found something; as it was, I still had another ruin to visit, at which I was promised results, but a Bedouin's notion of results in matters archaeological are too vague to be very encouraging. The Khurbet to which we were now bound, is called El Lawiyeh, and was situated at a very short distance from Musherfawi, immediately below it on the steep hillside which descends from that lofty summit to the lake. There is certainly no point on the whole shore of Lake Tiberias—and I have visited all the summits of the hills which immediately surround it—which commands a more magnificent or extensive view than the one I was now leaving, and I was exceptionally favoured by the clearness of the atmosphere to take in its every detail.

It was a sharp descent to El Lawiyeh, where I found three columns *in situ*, a piece of cornice with the egg-and-dart pattern, and a block on which was carved a small oblong panel, which seems a characteristic of Jewish ornamentation. I could also trace the foundations of the building in which the columns were placed, and although it was impossible to determine its dimensions, enough was visible to convince me that the few remains existing were those of a synagogue, thus making the fifth Jewish synagogue the ruins of which I have found in the cornice of these two visits to the north and east of Lake Tiberias. From which it would appear probable that the whole of this district in the first centuries of our era was thickly inhabited by a purely Jewish population. Its proximity to the chief seat of Talmudic learning, and the wild and inaccessible nature of the country, forming a combination peculiarly adapted to the conditions of their existence at that epoch.

On my return to Tiberias I was informed that a few weeks previously a stone had been unearthed with an elaborate inscription, and on visiting

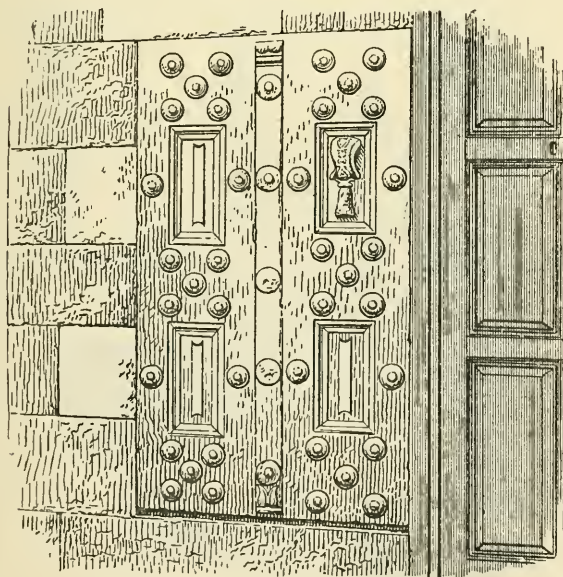
it, found it to be evidently a Greek memorial tablet, though many of the letters were too much worn by time to be very legible. It ran as follows :—

ΑΥΡΝΑΡΚΕΝΛΕΙΝΩ
 ΧΝΠΦΡΠΒΙΝΣΑΝΠΙ
 ΠΑΜ ΝΕΣ ΗΜΕΡΑΣΙΕ
 ΑΥΠΒΑΣΣΑΣΥΜΒΙΟΣ
 ΚΑΙΚΑΗΡΟΝΟΝΟΣ
 ΠΙΑΣΥΝΚΡΙΠΙΜΝ
 ΗΝΗΣΧΑΤΗΝ

The two last words leave no doubt as to its character.

Not long ago a Jew, in digging the foundations of his house, came upon a pair of ancient stone doors, which he had built into the wall on each side of the entrance to his present residence. I visited the spot, and was so fortunate as to be able to have a photograph taken of one of them,

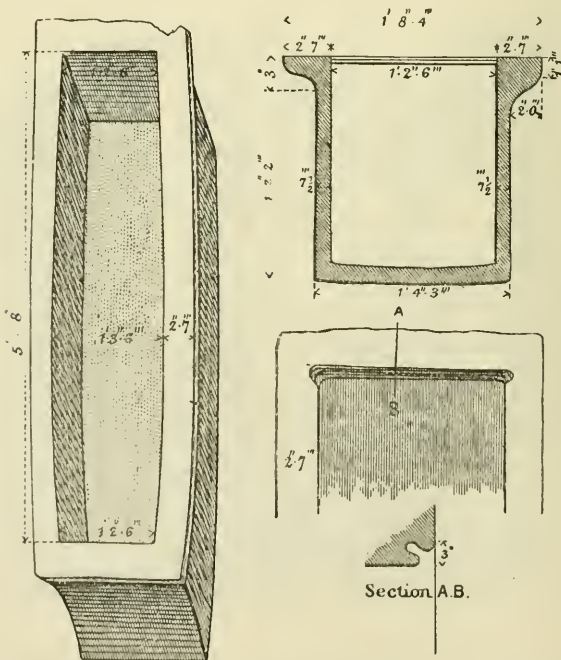
Stone Door.



which I enclose. Each door is 5 feet 8 inches in height by 3 feet in width. The knocker, also of stone, seems to have been more for ornament than for use : this, however, may have been the result of time ; the only difference

between the doors was in the ornamentation of the top and bottom of the central bar which divides the panels. The discovery was interesting, as proving that in ancient times there may have been stone dwellings at Tiberias, such as are found at Bashan, as the doors seem more adapted to form the entrance to a residence than to a tomb, though the devices upon them resemble those commonly found on tomb doors; I have never, however, seen any of these latter of nearly so large a size.

On my way back to Haifa I determined to look at 'Abellin, a village near Shefr Amr, for the pottery coffins which I had heard had been lately found at that place. I found there were four in all, though I only saw one, in the house of a native merchant; the others had also been appropriated by individuals. This one I succeeded in purchasing, and have had it brought here. It is made of cement, and was excavated with the others from a mound. The lid was broken into two parts, and has not been sent with the coffin on that account. I have, however, sent for it. It was 1 foot 4 inches in width, with a raised edge, and a thickness of an inch and a half. The measurements of the coffin are accurately given in the accompanying sketch (Fig. 8). To judge by its dimensions, it was probably that of a woman.



Pottery Coffin & Sections.

LIST OF NAMES IN ARABIC OF PLACES VISITED.

Dardara....	....	....	....	....	....	دردارة
Zeta ....	....	....	....	....	....	زيتا
El Koka	....	....	....	....	....	النخوخة
Kanef ....	....	....	....	....	....	كنف
Dar Aziz	....	....	....	....	....	دير عزيز
Subbahiyeh	....	....	....	....	....	صباحية
Musherfawi	....	....	....	....	....	مشيرفاوة
El Lawiyeh	....	....	....	....	....	اللاوية

P.S.—I have just received the enclosed design, with the inscription accompanying it, from a colonist of a new Jewish colony, which is about being founded in Jaulân, at Remseniyeh, near Kuneitereh. As there are many ruins at this place, I have instructed the colonists carefully to preserve any antiquities which they may come across in the course of their excavations and building operations, and to send me drawings of them, as, although these will necessarily be somewhat rude and imperfect, they will enable us to form some idea of their character.

ⲪⲚⲨⲢⲓⲡⲣⲟⲥⲁⲓⲛⲉⲧⲏⲡⲣⲟⲥ

Ⲫⲟⲩⲁⲛⲧⲟⲩ

ⲗⲁⲙⲧⲧⲃⲟ

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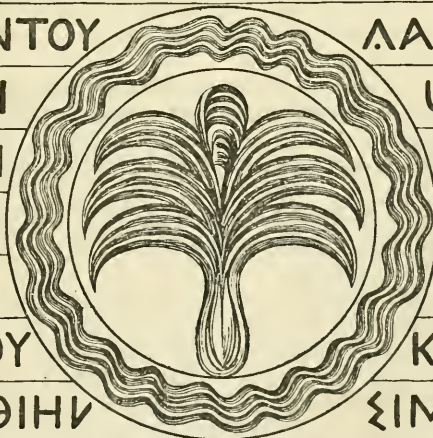
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ⲉⲃⲨⲏⲑⲓⲏⲩ

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ⲕⲟⲁⲟⲙⲟⲩⲧⲟⲩⲕⲉⲛⲓⲕⲣⲁⲑⲁⲛⲧⲟ



NOTES ON QUARTERLY STATEMENT, JANUARY, 1886.

THE ornamental door found by Mr. L. Oliphant at Semmaka must be compared with one at Samaria and one from Neby Turfini ("Memoirs," Vols. II and III). The new example has a human figure, the Neby Turfini door has heads of lions and bulls. It is very curious that in spite of the Levitical law the later Jews seem constantly to have carved figures of animals, even on their synagogues.

The pottery coffin from Shefa 'Amr is also interesting. I found fragments of such a coffin at Sheikh Ibreik, and they are known to have been used by the Phœnicians.

Mr. Selah Merrill will no doubt give us further accounts of the masonry at Jerusalem, found very near where I have always proposed to place the "second wall." Dimensions of the stones, measurements of the drafts, and of the projection of the boss, whether the face is flat or rustic, and what is the precise character of the tooling, are all points of importance, also the level of the foundation, and whether it is of rock or earth. We must be very cautious, because the Crusaders had an inner wall in this part of Jerusalem. It is also necessary to know which face of the wall is seen, inner or outer, east, west, north, or south, and how much is *in situ* or displaced. An elevation with measurements, showing each stone, or a photograph, would be very valuable.

Herr Hanauer does not say if he has ever visited the ruin of Erma. I recommend to his notice Vol. III of the "Survey Memoirs," and the name lists. The meaning of the Arabic word I have long known, and it occurs in my original MS. of the name lists.

Mr. Birch's "City of David" now occupies an area of 200×600 feet, or $2\frac{3}{4}$ acres. I do not consider this large enough for a city, or even for a country house and grounds.

The *Druze Catechism* is a very mysterious document as it stands, but the meaning is clear enough on the basis of what is already known about the Druze religion. A very unnecessary conception of the mysterious character of Druze dogmas seems—judging from my correspondence—to prevail.

The Druzes are an offshoot of the Moslem Batanîn of the eighth and ninth centuries, whose teachings owed much to the Zoroastrians, the Sabians, and the Manichæans.

"The five and the four" are the five incarnations of the Deity in humility and the four in glory, one of which is still to come. The "boundaries" or Hodûd are certain emanations of the infinite Deity thus 'limited' for a time, or in a certain aspect. Satanaiel and Hamzah are the first and the last of the nine incarnations of the Soul of the Universe. Gog and Magog are the enemies to be slain in the final struggle preceding the Millennium. "The first and the last" are the incarnations just noticed. "The five" again appear to be the five emanations, Natek, Asas, Imam, Hoja, and Dai. The Greeks and the Chinese are held in honour

by the Druze, apparently because their system is partly based on Platonism, and partly on the Bactrian Buddhism which is connected with Platonism. The Druze doctrine as to our Lord is clearly Gnostic, regarding the Eternal Christ as a true Deity, but Jesus as "the Rival," or enemy of Hamza. The true Christ was not crucified, they say, but the body of Jesus was stolen and hidden after his crucifixion by the true Christ in order to prepare men for the preaching of His religion. "The Being who has created the universe" is the Rival, answering exactly to the Demiurge of the Gnostics. Hakim Bi Amrhi is a reverent substitute for Bi Amr Allah. Ismail is Ismail the sixth Imam, also a historic personage. "What they are aspiring after" means the Imâmat answering to the Buddhist Bodhisatwah. The Catechism represents a fairly high stage of initiation, but not apparently the highest, which ends in a negation of all dogmas. It would require many pages to explain thoroughly the Druze system, and the utility of the inquiry is not great. All the elements can be recognised either in Buddhism, or in the Gnosticism described by Irenæus. I have written a full paper on the subject, which may perhaps find its proper place in the "Inquiry" now set on foot by the Palestine Exploration Fund Committee.

Zephathah.—The ingenious suggestion of Mr. Flecker does not seem to me necessary, because Wâdy Sâfieh, which I some time ago proposed as the Valley of Zephathah, passes quite close to Maresshah. Objection could well be raised to Tell es Sâfi as being too far away, but this does not apply to the great valley called Wâdy Sâfieh, up which runs one of the high roads to Hebron. No one who knows Hebrew or Arabic would identify Zeita and Zephathah, which have only the T in common, and not as a radical in Zephathah.

NOTES ON "ACROSS JORDAN."

THIS is a very interesting account of part of the Haurân, and contains much good work. A few notes occur in reading it. The Arabic names in some cases might be translated, and the transliteration in some cases does not quite agree with the original lettering; but these are minor points. *Ain el Ekseir* ("Spring of the little house or tower"). *'Ain Esfeira* I should propose to render "the yellowish spring." It should probably not be spelt with *Te*. *Ain Janna*, evidently an old En Gannim, "Spring of the garden." *El 'Ajamy*, "the Persian," a common word used to denote any stranger from the East. *El 'Araj*: I have ascertained that this word, which is very common, means the "the ascent," not "the lame." The former meaning may be supported from Lane's Dictionary.

Dâkah is a word meaning a "tract" of land. *Deir el Leyyeh*, evidently a corruption (like *Deir et Mus*, for "Monastery of Amos"), meaning "Monastery of Elijah." *El Emshiyadât*, "the white-washed," from *Shûd*, chalk, used for whitewash; "the sublime" is not very applicable. *Jillin* is probably

an old Gallim ("springs"), as it is near a great stream. The word *Rubud* appears to mean a "lurking place" or "lair," and occurs also in Hebrew. *Kefr es Samûr* is interesting, as showing Samaritan extension towards Damascus. We know that in the seventh century the Samaritans were widely spread over Syria. *El Mezeirib*, "the Channels." The word *Mezrab*, of which this is a diminutive form, is very common, meaning a place irrigated and producing vegetables. *Nâb*, evidently an ancient Nob. *Na'aeimeh*, "the garden." The word occurs near Jericho. *Nukrah*, as in the case of Râs en Nakûrah, I think is used in the Aramaic meaning of "hollowed out" or "cavernous." *Rasm el Haurah*, "the heap of chalk." *Tawahîn el Mughr*, "Mills of the caves," a common collective form from the root Ghâr. *'Ameidân*, an irregular form from 'Amûd, a "pillar." *Tullâl Kanaan*: It is interesting to know if this is certain. The word Kanân means "ridges," and has been confused by some writers with the Hebrew word Canaan. *Et Tirih*: This is spelt with the wrong T. I believe I was the first to explain the Aramaic origin of the word, the meaning of which, "the fort," is lost among the modern Syrians. *Shukeiyf* means "little cliffs," that being the local explanation of the word, which is very common. *'Uleika*, also a common valley name, seems to mean "overhanging." The hermit's caves in inaccessible cliffs are called M'allakah. *Wely*, though used to mean a shrine, really means a "favoured person," i.e., the Saint himself.

Khudr does not mean a "a Moslem saint's tomb;" probably this is only an apparent mistake, as El Khudr, the mysterious "green one," who was sought by Alexander of the two horns, is well enough known.

It cannot be too often said that the fellah dialect is peculiar, and much nearer to Aramaic than to Nahu Arabic. I notice that Professor Palmer has sometimes altered my translation of the names to make them accord more with Arabic, but in some of these cases I am quite certain that the meaning which I attached originally is that which the fellahîn give to the word. Professor Palmer had never lived for any length of time among the fellahîn, and the language of the Arabs with whom he was familiar differs in many respects from that of the peasantry.

Page 22. Further observation as to the Feddân seems to be required. It is stated to consist of two yokes in Western Palestine. I never heard of this before, as I always understood the Feddân to be one yoke everywhere.

Page 45. *Arkûb er Rahwah* certainly means "the wide ridge." It cannot represent Argob, which in Arabic would be Arjib or Rujib.

Page 50. The curious cone may perhaps be a religious emblem (or lingam) as in Phœnicia.

Pages 64-65. The dolmens on platforms and with surrounding circles are very interesting. I found them also in the Jordan valley with such circles, perhaps representing the prototype of a cromlech.

Page 84. The figure on this page appears to represent the Phœnician Eshmun or Œsculapius.

Page 132. The Médany, if correctly spelt, is a curious form of the word *Mâdkneh*, meaning "Place of hearing," and being the usual name of the

prayer towers which we call Minarets—properly *Menârah*, "Place of fire," a beacon or lighthouse. The woodcutter seems to forget, by the way he shows the grass, that this is a tower 60 feet high.

Page 197. *The Makâm Eyub* is a Christian shrine. Pilgrimages to the place occurred in Byzantine times, and the monastery is said to have been built in the third century by Amr, the Jefnide chief. The Greek inscription over the Church door does not seem to have been recopied. The old *menhîr* is no doubt much earlier than the monastery, but the legend of Job, like many other Bible stories, as localised in Palestine, may possibly be of Christian origin. The Ebionites settled very early in this district, and converted the Arabs. It is difficult to see what Tell el Khammân can have to do with Teman, a word usually represented by Tibneh in Arabic. As to Beidar Uz, the form suggests the origin of the name to be Greek. Uz in Hebrew would in Arabic become 'Aûs or 'Aûd, the latter being the name of a Nabathean and Arab deity. There is a Tibneh in Gilead, but there are many reasons for supposing that the real Land of Uz may probably have been near Petra. It is difficult also to understand why Nâwa is connected with Noah, as the Hebrew word ends with a strong guttural represented by the last radical of the Arabic Nûh for Noah. Nâwa might come from the Greek Noe, but hardly from the Hebrew Noah. Nôby Sâm, mentioned on the same page, is found also in Philistia, and appears to be Shem. The Biblical traditions of Palestine require to be very cautiously treated, as Christians were settled and were teaching the Arabs in Syria from the second to the seventh century, and even later, and again in the twelfth and thirteenth centuries, and from the fifteenth century down to our own times. I have already pointed out one certain case in the Jordan valley of a monkish legend preserved by Bedawîn.

The inscriptions appear to have been copied with care, though occasionally similar letters have been mistaken. The texts are chiefly funerary. The long text (p. 134) from Ed Dr'ah contains the date 158, probably of the era of Bostra, making the year 264 A.D.; it contains the title Autocrator, the names of Galienus, of Isidorus, Bassus Marcus Antoninus, Zenodorus, Ælius Torinus, and Sabinus also occur. The two texts from the Wely Neby Sâm bear no Christian emblems, but it is not impossible that they may be Christian, since monasteries were built by the Beni Ghassan in the second century in the Haurân. The first is funerary, the tomb apparently of a certain Phædrus, who is said to enjoy "eternal life in heaven." The second seems to contain the name Dosetheas. Another text from Sheikh S'ad has the date 65, or 171 A.D. Another from Zeizûn has the name Lucius Antonius. Two others from Zeizûn are said to be Christian, but bear no Christian emblems. The first has the date 80, that is to say, 186 A.D., and contains the name of Zeizûn itself in the form ΖΙΖΙΟΥΣ, the other mentions a certain Epiarch Antoninus. These texts, therefore, like many others already collected, belong to the time of the later Antonines, and of the Syrian Emperors, down to the days of Palmyrene supremacy. I have not yet been able to compare them with Waddington or De Vogüë.

There seems to be no impossibility in the suggestion that Zeizûn represents Capitolias as far as position is concerned.

No translation is given of the Arabic text from Ed Dr'ah, though presumably the meaning was clear to the copyist. "In the name of God the merciful, the pitiful renewed this Minaret (Menârah) the ruler of the pilgrimage, Daud Ibn, Othman Ibn . . . the humble before God Most High in the reign of the Emîr Aly, son of Shahl. . . . Selim the Kâdy; may both his hands be made strong (or healthy). In the year seventy and seven hundred" (1369 A.D.). Probably Daud was in charge of the Haj to Mecca, then as now passing yearly through the Haurân.

As regards Argob, the Targum of Jonathan translates it Tarakuna, which explains the usual identification with Trachonitis—the Lejja. Reland, however, suggests a connection with the Talmudic Ragaba, now the village of Rujib, north of the Jabbok, which I visited in 1882, and found to be evidently an ancient site. The Havoth Jair villages were in Argob, and this region is said to have been in Bashan (1 Kings iv, 13). So that although Ragaba would be within the kingdom of Og, it seems perhaps too far south for Argob, but it cannot be certainly said that Reland is wrong, for Bashan included Batanea, now El Butein, nearly as far south as Regueb or Ragaba. There is no apparent notice of a *town* of Argob in the Bible.

While speaking of the towns of this district I may note a new identification. Maked (1 Macc. v, 26), also called Maged (verse 36), was in Gilead. I think it may clearly be the ruin El Mejed near Ammân, which is described in my "Memoirs of the Eastern Survey."

Page 54. The curious loopholes in the corridors at Beit Akkâr may be compared with a similar arrangement at El Khashm, near the Roman theatre of Majumas at the south end of Carmel.

Page 56. Mr. Schumacher falls back on the old idea that dolmens are sepulchral monuments. I think, however, that the observations taken of some seven hundred examples in Moab preclude the possibility of such a view. In the present instance (see p. 152) the theory necessitates the very improbable conclusion that bodies were laid uncovered to rot on the surface of the ground, the head thrust under a stone, and the rest of the corpse exposed.

Now it can be shown clearly that from the earliest times in Syria the method of burial aimed at *hiding the corpse*, under a great tumulus perhaps, but generally deep down in a trench at the bottom of a rocky shaft. The idea of erecting a conspicuous funereal monument is a late idea. In Syria it does not appear before about 300 B.C., and the Hebrews and Phœnicians, like Kafirs and other early tribes, endeavoured to conceal the whereabouts of the body, as did the Egyptians also in their earliest tombs. The Romans in the second century built tomb towers containing heavy sarcophagi, but even sarcophagi before the Christian era were placed in subterranean tombs. The Babylonians used vaults, and indeed it is clear that for ordinary sanitary reasons it would have been impossible for any people to conceive so foolish an idea as that of burial in free standing

dolmens, leaving the corpse to rot above ground and liable to the attacks of wild animals. We know for certain that the Syriandolmens were not covered over with mounds, and did not stand over excavated graves. It seems, therefore, quite impossible that they can have been sepulchres, while they are noticed in the Talmud as altars, and still are used as such.

The monument drawn on page 152 resembles other known examples of the *Markulim* or *Menhir* and altar shrine, which we can trace as late as the second century A.D., and also very early in Phœnicia.

As regards the conclusions (p. 65), they will be of value if they are founded on tabulated results of numerous observations. As they stand they do not agree with the observations which I have tabulated in Moab. I have found, after careful comparison, no law of orientation in the dolmen fields I explored, though very many dolmens were parallel to each other. The size of these dolmens is not equal to that of the splendid specimens at El Māslubiyeh. The holes in the side stones have been found in other cases in Syria.

The Greek masons' marks from Ed Dr'ah are interesting. Similar marks occur on the masonry at Baalbek.

The golden candlesticks from lintels at Nāwa may possibly be Christian, for the Ebionites were a very Judaizing sect, and long dwelt in this region.

I cannot find any authority for the statement (p. 209) that there was another Ashtaroth mentioned in the Bible, and distinct from Ashtaroth Karnaim. Reland believes only one such town to have existed, and the Jews and Samaritans only believed in one such city. Ashtaroth Karnaim was named not from any physical feature as here suggested, but from the two horns of the crescent. Istar is called in Akkadian "the lady of the horned face." I think that Ashtaroth Karnaim may best be placed at Tell 'Ashterah, where the name remains unchanged, and not at Tell Ash'ary, a name which represents the Hebrew Seir rather than Ashtaroth. The indications of position are so vague that no objection on this account can be taken to Tell 'Ashterah.

Page 220. I would finally ask why are the Ahseiniyeh rendered "foxes?" Hasein, meaning "goodly," is a proper name. The fox is called Abu el Husein, but this means "father of the fortress," that is to say, the fox's hole. The proper name of the fox is Thaleb.

These remarks are not intended as captious criticism of a useful book. Positive statements have, however, a tendency to reappear in other works unless they are called in question, and the advance of knowledge is thus delayed. We are still suffering in archaeology from many old errors which have passed into received opinions without having any solid foundation in fact. Perhaps some of these notes may be found useful in a second edition of "Across Jordan."

C. R. C.

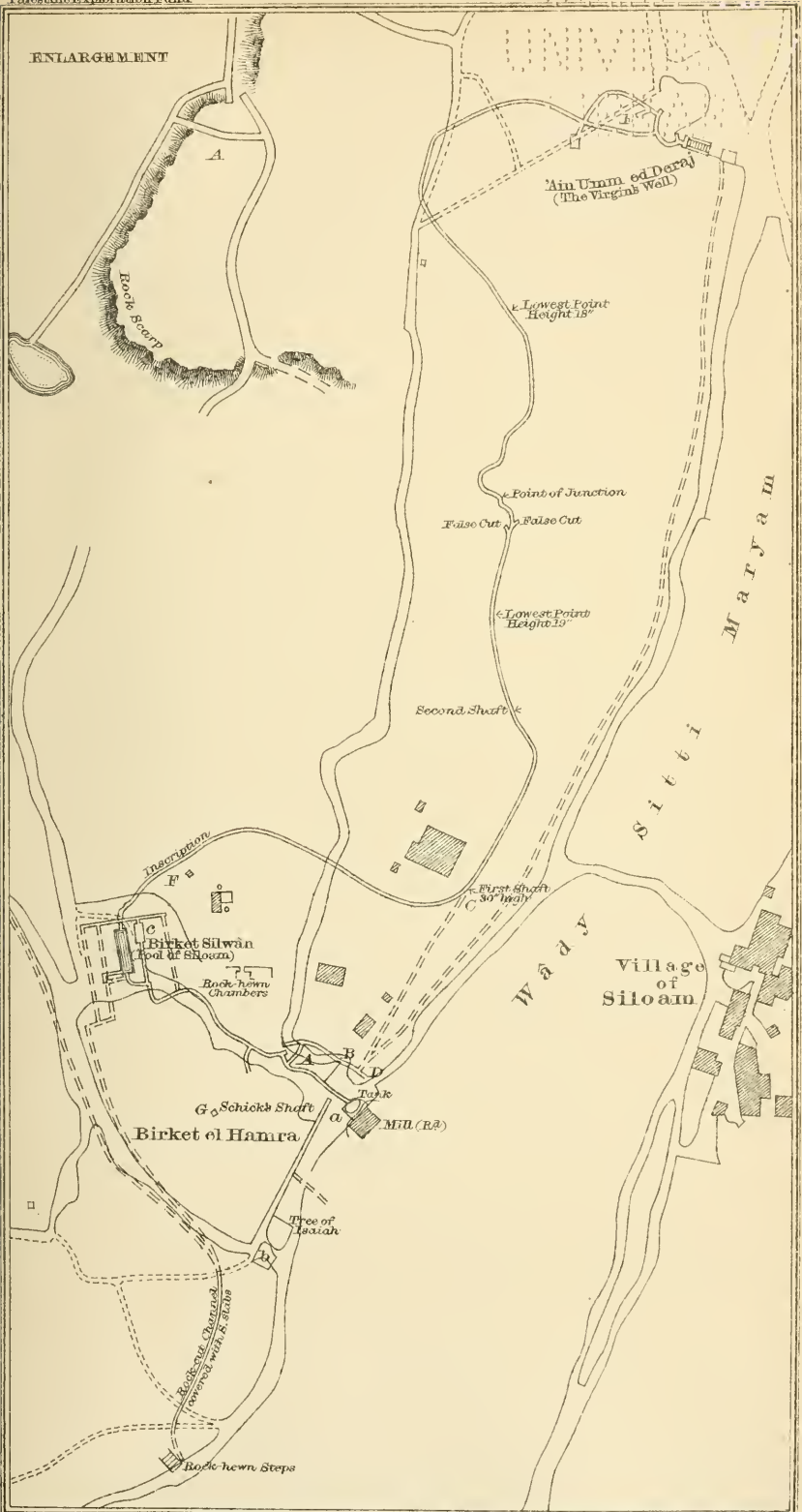
THE AQUEDUCTS AT SILOAM.

WHEN the *Pool of Siloam* is mentioned, that which contains water at the present time is generally meant ; below this there is another and much larger pool, which is now used as a garden, and called *Birket el Hamra* ; it is formed by a thick wall or dam built across the Tyropœon Valley from Ophel ("City of David") to the western hill (Jerusalem). There are three other tanks, one (near the mill) of an oval form (*a*) on the top of the dam, which is now filled up, but was seen by Herr Schick in 1846 ; another to the south, outside the dam (*b*), discovered by Professor Guthe, but the north-east corner is believed not to be a right angle ; and a third, a small square pool (*c*), found by Professor Guthe in 1881, near the north of the Pool of Siloam. There is now only one real *pool*, but ancient Christian writers mention several (three, four, and more) ; one was called "natatoria," or the swimming pool ; it was large, and had a kind of apsidal end ; this appears to be the *Birket el Hamra*.

There were also many aqueducts, of which, though there is no record of their existence, traces are being found. First, the famous one, so often alluded to during the last four years, of which I have not much to say ; I found, however, several others when cleaning out the main aqueduct from the Pool of Siloam to the mill ; they all lead into the main, along which water now runs. Going down the road from the Pool of Siloam to the mill there is, in the rock-wall on the left, a hole like the entrance to a *rock-hewn tomb*. I cleared it out and found it to be a rock-hewn tunnel, like the famous one, only short. Its form and direction are given on the plan at *A*. For about 16 feet it runs northwards into the rock, and it is then crossed nearly at right angles by another aqueduct. The portion of this latter aqueduct running west has no roof, and is now filled with stones and earth ; the part running east has a roof of rock slanting rapidly downwards to a place where there is a regular doorway (*B*), about 4 feet high, hewn in the rock ; beyond the door the aqueduct is only about 4 feet high and 2 feet wide, and very regularly cut, and it would be seen on the face of the rock scarp, if it were not covered by the earth of a garden. I sunk a shaft in the garden and found the continuation was only partly cut in the rock, the greater portion, having been masonry, has disappeared. In the garden the aqueduct separates into two branches, one *descending* eastward along the side of the scarp, the other *ascending* northwards. I cleared the aqueduct which I discovered for about 22 *metres*, and as the northern branch seemed to run towards the first shaft (*C*) in the famous aqueduct, Sir C. Wilson called it a "second" aqueduct. It is quite clear that this aqueduct at one time conducted water to the large pool ; was it simply surface water, or was it from the "Virgin's Well ?" this question has still to be decided. As the levels not only allow but seem to indicate it, it seems to me that the famous aqueduct originally ran from the first shaft (*C*) in a straight line to the corner of the scarp (*D*), and then passed through the rock to the large pool. I was confirmed in this view when I heard

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

Palestine Exploration Fund



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

SCALE

Stanford's Geogr. Establ.

100 Feet 0 100 200 300 400 500

from those who had been through the famous aqueduct that the first shaft (*C*) was not a regular rock-hewn shaft, but made of masonry in a way which gave the impression that some alteration had been made or some demolition had taken place. It is only about 60 *metres* from the first shaft (*C*) to the traces of the "second" aqueduct. My idea is that the waters of the "Virgin's Well" originally rose to a higher level and ran down the valley as a small open brook, and that even in the most remote times its waters were brought into a sort of pool made by a dam across the Tyropœon Valley. When the place became a *fenced* city it was necessary to bring the water inside the fortifications, and if possible conceal it from an enemy; the rock-hewn tunnel was then made. The work was commenced at the lower end; they could not have commenced at the "Virgin's Well," for the water would have followed them and made the work impossible. I think they made the upper part first, entering by the first shaft (*C*) and Warren's shaft (*E*), and working towards each other; and that the great bend is caused by a wish to keep clear of some important building in the town above (the City of David). I think there were several shafts now filled up and concealed by calcareous deposit; I believe also that a good deal of the work was done from above in the form of a trench, and that the aqueduct was covered with large slabs, the joints of which are now concealed by calcareous deposit. To cut through hard rock, for a long distance, a passage so narrow and low that the workman has to lie on the ground without being able to lift up his head or sit is impossible. I think, further, that at that time the aqueduct was carried from the first shaft (*C*) to the angle of the scarp (*D*), and thence through the rock to the large pool, so that this "second" aqueduct was older than the portion of the famous aqueduct from the shaft (*C*) to the inscription (*F*), which was made afterwards. The doorway mentioned in the "second" aqueduct could be closed in some way when it was considered desirable to stop the flow of water into the pool and turn it down to the gardens.

In regard to this "second" aqueduct, Captain Conder says in *Quarterly Statement*, 1884, p. 241:—

"I believe that the fact which has originated the idea of a second aqueduct, is that a short tunnel (1) has been found in the rock just north of the dam (2) which closes the old Pool below the modern Pool of Siloam. This tunnel I have seen and entered (3). Its lowest part is considerably higher than any part of the Siloam Tunnel (4), and it runs rapidly up hill (5). If it was ever more than a drain, it was probably the end of the surface channels which existed on Ophel (6) in 1872, but which are now destroyed in quarrying (7). The level (8) precludes the idea that it can have any connection with the Virgin's Fountain."

This is very positively and decidedly spoken, and I have only humbly to remark: at (1) that 22 *metres* is not so very "short," and it only wants three times more to meet the main aqueduct; at (2), the inlet is "north of the dam," but not the upper end; at (3) when "entered" it is clear that it was not carefully examined, very likely under the influence of a guide who wished to conceal as much as possible; at (4), is not correct.

Proof: on the Ordnance Survey plan the *bottom* of the present Pool of Siloam is shown at a level of 2,087 feet above the sea, the top of the "dam" 2,091; difference, 4 feet. Now the *bottom* of the "second" aqueduct is lower than the top of the dam, and further the water from the pool falls rapidly to the dam top. At (5), only the first part (going north to the lower branch) runs "very rapidly up hill;" not the eastern part. The reason why the original straight and open channel was abolished and this southwards leading tunnel was made, I cannot tell, but think it was used as a stair to go down into the aqueduct, hence left on the top again. At (6), there are still several surface channels on Ophel, besides (at 7) the one destroyed. Further, the Ordnance Survey plan gives the bottom of Virgin's Fountain also at 2,087 feet exactly, as the bottom of the present pool; hence both are on the same level;—the flow of water is therefore due to the rising of its level at Virgin's Fountain. Before the whole aqueduct (*i.e.*, the lower part to the pool with the inscription) was made (or any aqueduct, as I said above) the water rose *much higher than it does now*, and so a connection of both was possible.

I say, therefore, the *large pool* got water from the Virgin's Well *before* the lower part of the large aqueduct was made, but as such an arrangement was not convenient for bathing or other pleasure purposes, it was found profitable to cut from the "first shaft" (c) a tunnel through the hill westwards, under the City of David, to a *point higher* up the Tyropeon Valley, where a swimming pool and other bathing arrangements might be made, with the water to be had (from the spring and) higher up in the town. At the lower end of the aqueduct is a rock scarp across the valley, where (in its midst at the bottom) the water runs out. This "scarp," to give it a better look, and also to secure regularity, is cased with a *wall* of fine hewn stones. Along this wall Professor Guthe found a kind of *trough*, made by large and polished stones, into which the water runs. The "trough" has several *outlets*—one to the present *pool*, one to the little pool, and two in the southern part, and I suppose a further one on the north, as I found its lower end entering in the main aqueduct.

Now all drawings and plans of the pool which I have hitherto seen make it a right-angled oblong, but this is incorrect. There are no right angles, and its outlet is in a kind of recess in the south-east corner; its southern wall is not quite straight, and of modern construction, but the lower part of the northern (projecting as a kind of bench) is straight and ancient, and well built of comparatively large stones. I conclude, therefore, that the ancient southern wall was originally of the same construction and in a similar line, so that the outlet would be in the middle. On the bench of the north wall there are still standing a row of pillars *in situ*, but when the wall was made higher, to keep up the accumulation of made earth and *débris*, the half diameter was taken into the thickness of this new wall. Professor Guthe found by his excavation that there was formerly a row of "chambers," or rather halls, along the facing wall across the valley, and gives the measurements of some of their supports, so by this and the "pillars" still *in situ* one is able to restore the plan of the

whole building, a fourfold row of halls for bathing purposes and other amusements.

From the outlet in the pool the water runs first for several yards southwards; it then bends eastwards and enters the main channel, which goes straight on until it bends at a right angle northwards to the foot of the rock cliffs; thence it runs east in a rock-hewn channel to the "dam" and the "mill," partly covered, partly uncovered. The fellahin of Siloam told me, that when there is much water all of it does not go to the mill by the prescribed channel, but part goes towards the south, and this I found to be really the case. So there must have been a channel towards south, like that towards north; but it is in disorder, and entrance to it broken down (all here is masonry and no rock). Whereunto the water is now going, I cannot tell—either lost in the earth and *débris*, or running in a continuation of an old channel; who can say? Whilst digging for hewn stones the fellahin found on the southern hill a deep and wide conduit partly hewn in rock and covered by flagging stones, in which at certain distances are holes, so as to let in surface water. May this have been the continuation of the southern channels of the Siloam waters? The level would allow it. Or was it rather (as I believe) part of the old sewer of the town? If such is the case, then we can with some certainty fix the old "Dung-gate" which wandered afterwards higher up the hill to its present site. The "sewer" of the town now runs under the modern Dung-Gate, and 80 metres further on (on the same side of the hill) it is broken and running on the surface or to places to which the fellahin direct it.

In 1880 (in autumn, when the country is everywhere dry) I made a shaft in the Birket el Hamra (*b*) for water; I found I could not go deep, but drove in an iron rod till it struck the bottom. In the Ophel hill are some caves and cisterns. I should think the "Tombs of the Kings" may be similar.

It would be interesting if learned men could throw some light on all this from the inscription, or the contrary. The " $2\frac{1}{2}$ cubits" I think means that the shaft (*C*) was $2\frac{1}{2}$ cubits from the town wall distant; here in the inscription noted, that at any time it might, when wanted, be opened again. My suggestions to the Palestine Exploration Fund would be—

(1) To excavate the "second" aqueduct from the corner of the rock scarp under the soil of the garden northwards to the "first" shaft (*C*), in order to find out whether there was once a connection or no. The cost would not be very great.

(2) To trace and excavate the aqueduct or sewer at the foot of the southern hill, in order to find out whether it has been a sewer, or connected with the Siloam Pool. If proved to be a sewer it could very likely be restored, and thus—

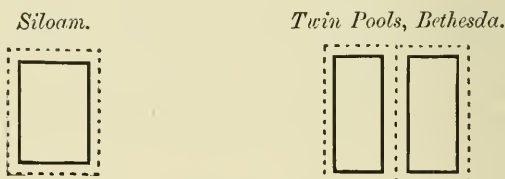
(3) When there is enough money, the neighbourhood of the pool be cleared from earth and *débris*, and all the old remains uncovered, and probably restored again.

(4) The caves on the southern end of Ophel have not been fully cleared nor examined; something might be found to throw light on the "Tombs of the Kings."

NOTE.

HERR SCHICK's discovery of a second aqueduct, partially rock-hewn, in connection with the water system of Siloam, is very interesting. It is clear from his description that the lower pool, *Birket el Hamra*, received water direct from the "Fountain of the Virgin" at some period which Herr Schick places prior to the completion of the well-known Siloam Tunnel. There is much to be said in favour of his view, but whether he is right or wrong, the question is of sufficient importance to require further examination. It is therefore to be hoped that the Fund may enable Mr. Schick to prosecute his researches, especially in the neighbourhood of the shaft *C*, and trace out the further course of the aqueduct.

It may be of interest to notice that the "four-fold row of halls," or portico, running round the four sides of the Pool of Siloam, is mentioned by the Bordeaux Pilgrim (333 A.D.), and that a somewhat similar arrangement appears to have existed at the Roman bath at Bath. This may also throw some light on the arrangement of the five porches, or porticoes, of the twin pools mentioned by the Bordeaux Pilgrim, which I, in common with others, am inclined to identify with the Pool of Bethesda and the *Souterrains* under the Convent of the Sisters of Zion. Four porticoes would be round the pools and one between them, as in subjoined diagrams:—



C. W. W.

THE HERODIAN TEMPLE, ACCORDING TO THE
TREATISE MIDDOTH AND FLAVIUS JOSEPHUS.

THE great value resulting from a comparison of two independent sources of information as to an historical monument is further enhanced when this comprises a religious motive power, thus making the research of science as interesting to the feelings as it is to the intellect.

The Herodian Temple belongs to this class of monuments, and an exact acquaintance with it is to many the fulfilment of a religious duty as well as the solution of an archaeological problem. Of this Temple we possess two totally independent accounts: one in the *Treatise Middoth*, the other in the works of Josephus. The advantages to be derived from an examination of both sources and documents have been hitherto altogether ignored,

and indeed are still far from receiving their proper value, for it is obvious that this is only possible when the two narratives are regarded as equally trustworthy, when they are scrutinised with impartial eyes, and when the conclusions arrived at are based on internal evidence, not on dogmatic prejudice or pedantry. But in this matter such a criterion has been entirely lacking, for in this case (as in all Judæo-antiquarian questions) Josephus alone receives credence, while the Rabbis—like the Pariahs, with whom no man may come in contact—are not considered competent to give evidence, and have been in this, as in other cases, the object of the most contemptuous attacks for negligence and untrustworthiness.

But, now that impartial and unprejudiced research has at last begun to scrutinise the infallible Josephus somewhat more closely; and to judge him on his own merits alone, not a few dark spots have been observed on this great luminary, especially on the parts now under our consideration. What follows is an instructive example of the difficulty of demolishing the wall of a thousand-year-old superstition or pulling down the stronghold of prejudice. The hundreds of arguments which prove partisanship in his narrative (especially in his account of the Galilean war, in which he was personally interested, or when his time-serving of Titus and the Imperial House guided his pen), the numerous contradictions in his writings (proving beyond doubt that he often worked in the dark, and did not gather his information from pure and authentic sources), and the many other failings conspicuous in his works, have not hitherto been sufficient in the non-Jewish literary world, nor indeed, as we shall see, in the Jewish world of letters in all cases, to promote to its legitimate position a source of information, whose chief fault is that its authors were "Rabbis," to whom truthfulness in matters of history and precision in narrative must always be denied. But though some of the errors which occur may be obviously set down as copyists' mistakes (the *agadic*, where a somewhat emphatic portrayal is required, are easily distinguishable), surely not those, or at any rate not so many of them, as are to be found in the Ideal Historian. In point of precision the Mishna is surpassed by no other work of research, as can be amply proved by the arguments of the Talmud. And yet this original work is pushed aside, though it has at least as much to show in favour of its trustworthiness as the other has against its own veracity. In the following treatise an attempt is made by means of a closer investigation of the two, to harmonise, where possible, what appear to be discrepancies; or, where this is impossible, to reduce the divergence to its smallest dimensions, and to establish the correctness of the statements in the Mishna. If this be called a panegyric, I answer, Why not?—let the Mishna, so long reviled, despised, or totally neglected, have its panegyrist for once. Moreover, the following analysis will furnish supplementary information for the Treatise Middoth from Josephus, as well as other elucidations of the Mishna.

We shall arrange our material according to the threefold division in Tosifta (*cf.* Bab. Tal., Yoma 69*b* and Sota 40*b*), viz.: (1) The Temple-Mount, (2) the Women's Outer Court, and (3) the Men's and Priests' Outer

Court and the Temple proper, subdividing this last into three sections ; in short, we shall divide their construction as the Mishna does, and shall search Josephus for divergences.

A. THE TEMPLE-MOUNT.

(הַר הַבַּיִת) τὸ ὄρος τοῦ ἱεροῦ, 1 Macc. xiii, 52) to the Women's Court.

This space consists of two parts, viz., (i) the eastern, outer, and Temple-Mount proper (500 cubits in length and in breadth), and (ii) the western, Chêl. The outer part was wholly surrounded by a wall, and the other part was separated from it by a boundary called the Soreg. The breadth of the former is not given in either of the authorities, but from the statements of the Mishna it can be deduced that it measured 168 cubits, including the wall and the Soreg ; the breadth of the latter is accordingly 10 cubits (Mid. i, 3 ; ii, 1, 3).

The divergences between the Mishna and Josephus, at this point, are as follows :—

- (1) The Mishna allots to the Temple-Mount an area of 500 cubits square ; Josephus one stadium (= 600 feet).
- (2) According to the Mishna there were altogether five gates in the wall of the Temple-Mount, viz., two in the southern side, and one each in the western, northern, and eastern ; Josephus, on the other hand, says there were four in the western side, an indefinite number in the south, and *none* in either of the other two sides.
- (3) According to the Mishna the סוּרֵג was only 10 handbreadths high, *i.e.*, $1\frac{2}{3}$ cubits (ii, 3) ; Josephus gives its height as 3 cubits.
- (4) According to the Mishna there were twelve steps in the Chêl ; according to Josephus, fourteen.

With regard to (1), first let us examine the relations between the measurements furnished by Josephus, who uses the Greek scale, and those of the Mishna, which are according to the Mosaic mode of reckoning. We shall then see not only that the differences which appear so vast are reduced to comparatively small dimensions, but also that the Mishna furnishes the means required for correcting Josephus.

- (a) According to the Treatise Kelim xvii, 9, 10, there were two kinds of Jewish cubits, viz., a "lesser" cubit of 5 handbreadths, and a "middle-sized" cubit (the Mosaic one) of 6 handbreadths (*cf.* Ezek. xl, 5 ; xliii, 13 ; also Erubin, 4a, Menachoth, 97). Now, according to R. Jehuda, whose view is generally accepted, the latter was used in the measurements of the actual building, while the Temple utensils were measured with the former. The Mishna furnishes no indication of the way in which the ground measurements were taken, and since it cannot be shown that any rules for measurements of this kind have come down to later times, either one or the other standard may have been used ; let us then adopt the lesser cubit.

- (b) According to Thenius (*Theol. Stud. and Critiken*, 1846, p. 109 *et seq.*), the Mosaic cubit measured exactly 214·512 lines (1 foot = 12 inches, 1 inch = 12 lines) = 18·5 inches; thus the lesser cubit = $\frac{5}{6}$ the Mosaic cubit = 178·76 (but *cf.* Zuckermann, *Frankelsche Mtschr.*, 1864, pp. 335 and 348).
- (c) Of the Greek cubit ($\pi\eta\chi\upsilon\varsigma$) = $1\frac{1}{2}$ feet, there were also several kinds: (1) the ordinary cubit = 6 handbreadths = 24 fingers (*Her.* ii, 149) = 205 lines = 17·587 inches; (2) the greater or royal cubit, Babylonian or Egyptian = 7 handbreadths or 28 fingers (233") (*id.* i, 178); and finally (3) the little or 5-handbreadths cubit ($\pi\acute{\upsilon}\gamma\omega\nu$, *id.* ii, 175), which, however, is sometimes confounded with the $\pi\eta\chi\upsilon\varsigma$.
- (d) A stadium is equal to 570 feet 3 inches 4 lines (Uckert, *Geog. of Greece*, I, ii, 73 *et seq.*; and Forbiger, "Handbuch," I, 551 *et seq.*; *cf.* Winer, *R. W. B.*, s.v. Stadium). Now the dimensions furnished by the Mishna (on the hypothesis that they are calculated with the lesser cubit) = $500 \times 178\cdot76 = 89380$ lines = 620 feet 8 inches 4 lines. Difference from a stadium, a little over 50 feet. But
- (e) Rosen has proved (*Das Haram zu Jerusalem und der Tempelplatz des Moria*, p. 35 *et seq.*) that the estimate of Josephus (in the *Antiquities*) which sets down the extent of the Temple-Mount as one stadium square is too small, but that very likely, according to the estimate given in the Wars, which states the area of the Temple and the Castle Antonia together as six stadia. A considerable amount ought to be subtracted from the extent of the latter, and added on to that of the former. The more exact language of the Mishna therefore supplies us with this correction. (*Cf.* also on this point Keil, *Archæol.*, § 28, 5.)

Regarding (2), Josephus says (*Antiquities*, XV, xi, 5):—

"On the west side of the outer Temple wall there were four gates, one of which led into the royal castle at the time when the ravine lying between them was filled up, two led into the Lower Town (Acra), and the last into the 'other' town. . . . The fourth façade had also gates towards the middle of it." Keil (*Solomon's Temple*, p. 131 *et seq.*) considers the latter description of the gates on the east side very obscure, for Josephus adds that there was here a triple colonnade, which was built over a deep ravine, so that it seems incomprehensible that there could also have been gates and entries here. Scholz (in his *Comment. de Hierosylmæ singularumque illius partium situ et ambitu*, *Bonner Program.*, 1835, p. 11) says that three of these gates were on the western side, and the fourth in the south-west corner; which indeed must have been the case if, besides the four gates, there had been another in the south. The Rabbis, he says, also mention five gates, it is true; but as they place two of them on the south side, and transfer the other three to the west, north, and east respectively, *therefore* (thinks this critic) they show that their narrative is not historical truth, since no gates could have been constructed over a ravine

400 cubits deep, and he blames De Wette (*Archæol.*, p. 240) and Hirth (*Year Book of the Royal Academy, Berlin, 1816*: 17, Philosophical Section) for giving credence to the Rabbis in the division of the gates. Keil, in his *Archæology*, laconically observes that the evidence of "the Rabbis of course counts for nothing" against the express statement of Josephus. But I think I need hardly say that this "ipse dixit" does not settle the question in our opinion. If we examine Keil's argument we shall find his dogmatic assumption is quite groundless. In the south, we are told, there could not be one gate, much less two, as the Mishna says; for if so, they would have been built over stupendously deep abysses. But this is in flat contradiction to Josephus himself, and therefore he (Keil) is convicted on his own evidence. Moreover, it is altogether opposed to the evidence of the most competent experts—Tobler, Williams, Schulz, Krafft, and Ritter: *for these scholars deny the very existence of this ravine which is alleged to have been so perilously deep—this so-called Cheesemakers' (Tyropæon) Valley, which is said to have extended from the northern peak of Zion to this spot—because minute investigations of the ground all prove it to have been a level plain!* Hupfeld indeed tries (*D.M.Z.*, xv, p. 93) to weaken this hypothesis by stating that we cannot draw any correct inference from its present aspect; for though it is now a plain, yet (says he) it *may* have been filled in by numberless landslips, &c. But this is scarcely sufficient to prove this alleged deep abyss, and certainly does not establish its existence *beyond doubt*.

On the eastern side there undoubtedly was a deep valley (the valley of the Kidron), as there still is. But because "Josephus knows nothing of a bridge over the Kidron," of course—we are told—there *was* none; yet there might well have been one then as there is now (Robinson, *Palest.*, ii, p. 171). But we need not pause to seek for errors in Josephus here, for this is just the very weakest part of his topography, since most accurate topographical researches have shown (Hupfeld, *ib.*; Keil on 1 Macc. i, 33) that he has incorrectly assigned the position of the Acra, which he must have known better than almost anything else. Again, his division of the gates is impugned by many anomalies, for (1) the connection with the "other" town (*i.e.*, the upper town, Zion) would have been far more natural and obvious from the south than from the west; but not "about the middle," where Josephus places the southern gate, but in the south-west corner. And so Scholz seems to have thought, seeing that he assigns the southern gate or one of the western ones to the south-west corner. (2) The connection with the royal castle, situated at the north-west corner of the Temple (Baris, Antonia, *cf.* the description in the Wars, V, v, 8). And so with the whole of the lower suburb of Bezetha, would have been much closer and more direct on the northern side than on the west, whence they could only be reached by a circuitous walk. (3) The unequal distribution of these gates, by which two are made to lead to the smaller Acra, and only one to the town proper (the Upper Town), must surely appear equally incomprehensible. We shall scarcely therefore be wronging Josephus if we impute to him an error of memory

on this score ; but even this is hardly necessary, for he does not *distinctly* declare that the four gates were *on* the western side (πλευρά μέτωπον), but that they were “towards the western side” (ἐν δὲ τοῖς ἐς περίοισ μέρεσι), so that one of these may, in fact, have been in the south-west, leading to the city of Zion (in the Mishna it is reckoned as one of the two southern gates, and the other may have been the gate which Josephus places “towards the middle” of the south side), and the other, the western gate of the Mishna, to the Acra. Again, as to the two gates of Josephus leading to Baris, one was not a real gate, and therefore is not mentioned in the Mishna. The other (טרי or טרי), in a more northerly direction, was restricted in its use by the Castle Antonia. Moreover, later explorers (Catherwood, Robinson, &c.) by discovering remains of the southern gates in the subterranean double gateway beneath the Mosque el Aksa, have thereby confirmed the Mishna’s statements (Winer, *ib.*, p. 580-3), that they were on the other side of the eastern gate, through the πύλη ὠραία (Acts iii, 2-10), which most commentators have held to be this gate.

As regards (3) the commentators of the Mishna differ concerning the structure of the Soreg. According to some, it was a latticework with large interstices (R. Obadia Bartenora, &c.) ; it was, according to others, a firm wall (Aruch, Maim., &c.). Josephus supports the latter theory, and declares that on this wall pillars were placed with inscriptions for warning off the heathen.

L’Empereur (De Mensuris Templi, p. 42) tries to reduce the great discrepancy between Josephus and the Mishna in this respect by the emendation τριστεγος (having-three-layers) or τριστοιχος (three-walled) for τριπηχυς (three-cubits), and supposes three layers of stone and a fourth of wood, which last by itself (leaving the foundation out of account)-might have been of the height given in the Mishna. It is possible also that the balance of the height of the Soreg given by Josephus, where it contradicts the Mishna, was the measurement of the underground foundation (*cf.* אומם on the Inner Temple, C 3, and R. G. Lipschutz in Comm. תפארת ישראל).

Concerning (4), as far as this passage, abounding in contradictions and inaccuracies, may be aided by one number, the difference will disappear if we suppose that before ascending the twelve steps, and also at the entry into the Women’s Court, there stood a threshold stone.

Before passing to the middle part of the Temple, let us here state certain details in which the accounts of the Mishna are sometimes confirmed and made more evident ; or, at other times, one among the various elucidations of the Mishna commentators receives additional support. Hence we are able to state—

- (a) That the Temple-Mount was surrounded by double rows of pillars (Pesach, 13*b* and *c*), since Josephus also speaks of splendid colonnades, which were supported by the outer walls of the Temple-Mount. Moreover, the second explanation of Aruch is justified, viz., that the סטיון (στοαι) colonnades were sup-

ported from below. And so also is that of R. Lipmann Heller (Bem. ii, 1) that the Temple-Mount was completely covered except at the sides. We may add thereto from Josephus that the colonnades were from 30 cubits broad, and that the arched roof and ceiling of cedar-wood was supported by white marble pillars, 25 cubits in height, and hewn out of a single block. This last, however, appears to be one of those stretches of imagination he is so fond of, as the passage is in contradiction to another one. (See further down.)

- (b) That the Soreg was a solid wall, and also that it surrounded the Temple on all three sides of the Temple-Mount.
- (c) That the Chêl had no special walls of its own, but began immediately after the Soreg. See R. Obadia in opposition to the theory (Maim.), which allots an eastern wall to it (*cf.* Schilte ha-Gibborim, 2*a*). Josephus's account supports the former hypothesis, not only because he mentions no walls between the Soreg and the Women's Court, but also because he says that the inscriptions warning the heathen were placed on the pillars *over the Soreg*, thus indicating that the Chêl began there.
- (d) That the various flights of steps in the different parts of the Temple filled up the openings of the gates and the whole façade as well, as has been already conjectured in תפארת ישראל ii, 3, No. 23. This, too, is confirmed by Josephus, inasmuch as he says that the 40- (or 30-) cubit eastern wall of the Women's Court was all covered with steps, which also extended over the whole façade. This latter observation will better illustrate the universally maintained statement of the Mishna, that the walls were "high," even if the number be not inaccurate.
- (e) That the pavement of the Temple-Mount was tessellated with various kinds of stone, unlike that of the Solomonian Temple which had a flooring of cypress planks; and since such was its pavement, this throws some light on that passage (Megilla 22*b*) where it is said that "a man should not throw himself down to pray outstretched on a paved floor." *Cf.* also the frequently recurring רצפה in Ezek., Chron., and the Mischna; also Aruch under רצה.

Without connection with the source of information we are examining, and partly in direct antagonism to it, are the following statements:—

- (a) That in the inscriptions, heathens were forbidden to cross the boundary of the Chêl, on pain of death. If this inhuman edict was ever published, it would at most have been in times when such heathen-hating zealots as Elieser ben Ananias (see Wars, II, xvii, 2) were masters of the situation.
- (b) That around the Temple hung warlike equipments taken in battle with foreign tribes, to which Herod is said to have added those taken from the Arabs. No mention is to be found of this in our authorities; the עטרות (Zech., vi, 14), which

were above the Ullam Gate, were according to Aruch and Tosaphot (עטרות) bow-shaped golden window ornaments (*cf.* Oholot xiv, 1). Also Hecataeus says (Josephus contra Apion, i, 22) that there was no dedicatory offering (*ἀνάθημα*) in the Temple; but this would be sheer tautology if, as Herzfeld thinks, this is identical with the foregoing *ἄγαλμα* (statues). Moreover, it is contradictory to the general conception of a Temple among the Jews—"the place of prayer for *all* men" (Jsa. lvi, 7)—the place of peace, to whose altar no iron was to be brought, "so that that which shortens man's days might not be brandished above that which lengthens them" (Mechilta, Exod. xx, 22)—it would, we repeat, be repugnant to Jewish feeling, to make it a standing evidence of the overthrow of their enemies, and though it might have been expected from Herod of Idumæa, it is scarcely to be conceived in his predecessors. In 1 Macc. i, 22, mention is only made of "the golden ornament" on the outside of the Temple, after speaking of the Crown of the Secharja; nor could the "wreaths and scutcheons" (*id.* iv, 55) refer to these trophies, since the Maccabees, at the time of the dedication of the Temple, did not possess the trophies taken from Antiochus. Finally, Josephus himself says (Ant., XVII, vi, 2), on the occasion of the rebellion organised by the patriotic jurists, Judas ben Sariphæus and Matthias ben Margoloth, that Herod had undoubtedly broken the Law by causing a Roman eagle to be placed over the greatest door of the Temple, seeing that the Law forbade the setting up of images.*

The statement of Josephus that the Temple was somewhat lower on both sides than in the middle, so that the latter could be seen at a distance of many stadia by those dwelling opposite or journeying towards it, is neither contradicted nor supported by our authority.

B. THE WOMEN'S COURT (עזרת נשים).

This space was an area of 135 cubits square; no actual mention of any gate is found, but we are told that in each of the four corners was a cell, לשכה, without roof, 40 cubits in length and 30 or 40 in breadth, (R. Schmajah); that scaffolding was brought and set up for the women, at the division of the sexes in the water-drawing festival during the Feast of Tabernacles; that fifteen semi-circular steps, each a cubit and a half in height and breadth, led into the next court; and finally, that there were two underground cells between the two courts for storing the musical instruments of the Levites.

Now Josephus is in this place somewhat obscure, and his two accounts

* [But this evidently applies (1 Kings vi, 29, 35) only to raised pictures (עזרות בולטות) or actual images, not to engraved ones (שוקעות). *Cf.* Abod Sara, 43b].

obviously contradict one another: nevertheless, in each case they differ from the Mishna on the point under consideration. The divergences are as follows:—

- (1) Josephus assigns a number of gates to this outer court, viz.: three on the south side, three on the north, and one large one on the east, in the Antiquities; but in the Wars he gives us nine, viz., four in the north and south respectively, and one in the east.
- (2) According to Josephus, the double gates were 30 cubits high and 15 broad, but the one "behind the Corinthian," says he, was 50 cubits high and 40 feet broad; now the Mishna tells us that all the gates were each 21 cubits high and 10 broad, except the Ullam Gate, which measured exactly double each way.
- (3) Josephus speaks of five steps at the gate of which the Mishna says nothing, although it calculates closely enough the ascent (of 22 or $22\frac{1}{2}$ cubits) from the Temple-Mount to the Hechal Portal (ii, 4, cf. Yoma 16a), and he says these five steps were not so high as those above, whilst the Mishna states that all the steps were of the height and breadth mentioned (ii, 3), with the single exception of the Ullam flight, and there were only fifteen of these.

As regards (1) later archaeologists, Winer and Keil make the two accounts of Josephus tally, by supposing that in the Antiquities he has merely left out the two Women's Gates on the north and south, and that the statement in Middoth ii, 6, where four doors are enumerated in the north and south, harmonises with this. Let us scrutinise this more closely. According to I, iv, 5, there were 7 gates in the "Outer Court," viz., 3 north, 3 south, and 1 east (Nikanor); according to ii, b, however, there were 13, namely 4 north, 4 south, 2 smaller gates near the great gate in the east, and two "nameless" in the west. The first-mentioned south gates are all included in the second narrative, and an upper gate (שער העליון) is added, but only one of the first-mentioned north gates is there, and three other names, among them a Jechonja gate, which may well have been identical with the one (ביצוץ) included in the first account in the Mishna, and would only have been regarded as an historical reminiscence; the question whether there was a double name for one of the two other gates last mentioned, and the admittedly omitted בית המוקד is of no consequence to our inquiry. The two last mentioned are the Song Gate (שער השיר) and the Women's Gate (שער הנשים); the former name is explained by the fact that the Levites brought their instruments out of their underground depositories through this gate. Now these depôts lay between the Israelities' and the Women's Court (*id.*); it is very probable, therefore, that this exit was at least in the immediate neighbourhood of the Women's Court. Hence it appears probable that these gates near the western boundary (סמוכות למערב) were situated low down towards the west: on the south were the שער העליון and then the שער חדלק in the north the Jechonja Gate (ביצוץ) and the Gate of Offerings

(שער הקרבן), and for the two others we may reasonably assign on the one side the gate of the First-Born (שער הבכורות) and the Water Gate (ש המים), on the other the Women's Gate and the Singers' Gate, if not *in*, at least *near*, the Women's Court.

That the latter is included in the general conception of עזרה is evident from Biblical usage, for in Ez. (at the place before cited) the Women's Court and the others appear under the general term הצר, and are only distinguished by the epithets פנימית and היצונה, and also from Rabbinical authority (see among others, Maim., Beth Habech. v, 3). Moreover, if we consider the south side, it seems very probable that the last of the gates was situated in the Women's Court. The name of the Water Gate is plainly derived from a well situated there, and in Ez. xlvii, 2, it is stated "the water gushes forth there, and will again flow forth from the well of the Temple;" and again he tells us, God led him to the gate of the House (*i.e.*, Temple), from whose threshold gushed forth water. "And he led me forth to the outer gate of the way, to the gate that looks towards the east, and behold! water trickled out," &c.; thus it was in the extreme east, *i.e.*, the Outer (Women's) Court (*cf.* Rashi and other commentators). Finally, our theory is supported from post-Exile times by a passage in Nehemiah viii, 1, 2, and receives additional corroboration from Yoma 69*b*. In that passage it is distinctly stated that Nehemiah performed the reading and expounding of the Law on the place by the Water Gate for men and women, which (says the Talmud) took place "at the Women's Court;" hence it follows that the Water Gate must, at any rate, have been in its immediate vicinity. We are thus quite justified in placing the outermost gate on the north and south side of this space. That Josephus omits the two little side gates of the Nikanor Gate does not call for special remark, as the first Mishna (which only mentions seven) does the same. It seems much more difficult to understand the two ("nameless") western gates of the last Mishna. True it may be that these are not mentioned in the first Mishna because they were much smaller than the other ones. On the other hand, Josephus positively declares that "the western side had *no* gate: the wall here ran on in an unbroken line"—just as also the Ezek. Temple has no water-gate, which Abard (Intr. to Ezek., *cp.* 40) has already pointed out, and even "ת"ר"ט" on Schekalim V, v, 3, would be inclined to support Josephus if he were not restrained by reverential belief in the Mishna.

Even if Josephus is correct—as many archaeologists, both ancient and modern, think—in placing the Nikanor Gate in the east and at the entrance to the Women's Court, in opposition to the constant testimony of the Mishna and the Talmud, which places it in the west by the Israelites' Gate, the difficulty in this passage will, on further scrutiny, be found to be in nowise diminished. For Josephus has distinctly declared that special gates were constructed for the women on the north, south, and east sides, but (says he) the west side (called the women's bounds) had no special gate, but ran on uninterruptedly, which, however, does not preclude their having been one or two gates on the west side

of the Israelities' and Priests' Courts. But the premiss itself is false : Josephus places the Nikanor Gate on the same spot as the Mishna does (see below). Nevertheless, the difficulty can be got over if we agree with the lately edited *באר הגולה** in placing the two west gates in the corner of the Ullam which projected into the Hechal (see below), for then the west side of the actual wall would of course be without gates and run on uninterruptedly.

As for (2), the divergences, which seem so obvious and so immovable, will be found to admit of complete explanation by a closer comparison of the texts. The Mishna says (ii, 3), "All the gates (except the Ullam) were 20 cubits high and 10 broad, and all of them (the Ullam again excepted) had doors." Josephus says, after giving the dimensions, "The space broadened from the entry inwards on both sides into tower-shaped niches, 30 cubits in width and in length, 40 in height." But neither the Mishna nor Josephus says that the doors were immediately by the entry, so that they may easily have been hung much further back in the sloping interior at a correspondingly greater elevation and width.

As for (3), the five steps which led "to the gates"—mention having already been made of fourteen—have been the cause of much racking of brains for archæologists, which has finally led to Winer's complaisant solution, accepted even by Keil ("Archæol.," p. 151) and Rosen (*ib.* p. 43), viz., the assumption of $14+5=19$ steps to the Women's Court. Thus once again the peace we thought to have established between the accounts of the two authorities on this point is imperilled. But to these accounts there is something to be added. Josephus tells us of fifteen steps, agreeing with the Mishna, which led out of the Women's Court into the Men's, and he adds that one-third longer steps led to the other gates. This is explained (*cf.* Winer) by the Women's Court lying five steps lower than the men's, for Josephus observes that these fifteen steps were "lower" than the five which led to the other gates (those of the Men's Court), and thus the five and the fifteen had each the same total altitude ; but this is again contradictory to the Mishna, in which it is said that each step, except those of the Ullam, had the same height and breadth. Thus the hypothesis and the deductions obtainable from it are alike invalid, owing to internal contradictions in their enunciation. If we are to suppose the five steps connected with the fourteen in the Women's Court—(and we have already expressed our opinion that had this been the case Josephus would surely have said so, which opinion is strengthened by the fact that he allots another number (*viz.*, 15) to the next flight)—by which means alone we can get number nineteen, then it would seem obvious that they could not be connected with other steps in a totally different situation. But Josephus would surely have spoken of nineteen steps, not of fourteen and five, to which, lastly, moreover, he expressly applies the epithet "other"

* [Mainz, 5637. An anonymous work belonging to the first third of the seventeenth century. See the introduction for Delitzsch's and S. Sach's theories as to its author.]

(ἀλλοι); and finally, Josephus says, not that these fifteen steps were "lower," but that they were "shorter" (βραχύτεροι), apart from the fact that it would be a peculiar architectural freak to flights of stairs with such high steps on the north and south, and on the west a flight with lower steps, altogether out of proportion to the others. It seems, therefore, most probable that the five steps were totally disconnected with any of the other flights, and that in a diagonal direction towards the northern and southern gates (to which, for completeness' sake, may perhaps be added to the eastern gate, though one of the two flights certainly led to it already), the terrace-shaped walls of earth were led up to by five steps, which were longer than the others. The Mishna in its description takes no notice of these, because it is only concerned with the direction from east to west; and by limiting the aim of its dimensions (ii, 3) by the words "which were there" (שהיו שם), it excluded the application of them to the other sides.

We cannot here obtain from Josephus so much material for supplementing the Talmud as we did in the last section; such as it is, it may be summed up as follows:—

- (a) The wall of the Women's Court (if Hirth's emendation be correct) was 30 cubits high.
- (b) The broadening of the portal inwards into tower-shaped niches of 30 cubits in length and breadth, and 40 in height, supported by two pillars, each 12 (!) cubits in girth.
- (c) The height of the gate towers.
- (d) Confirmation of the probability that the two ("nameless") western gates were not in the middle of the wall, but in the corners.
- (e) The five steps situated at the side gates, providing a connection with the Women's Court.
- (f) That the Nikanor Gate was made of shining metal (ii, 3) (Corinthian bronze).

Not in accordance with our tradition are the following:—

- (a) That the gates, posts, and threshold-coping were covered with gold and silver; according to ii, 3, they were covered with gold only; however, the record there speaks of gates only, and it is possible that the silver covering may apply to the posts and threshold-coping.
- (b) That women were so rigorously forbidden to overstep their prescribed limits; of this our Talmudic sources say nothing, or at most the passage (Kidduschin, 52*b*) relating to it involves nothing like this rigour. Moreover, according to the commentators, the above-mentioned women's gate was so called because the women entered the inner court through this gate to assist at the offering of sacrifice, then that the women present were not to advance as far as the men.

In conclusion, just a word or two as to the position assigned by Josephus to the Nikanor Gate. Many scholars, of our own and of former days, conceive that this gate, which the Mishna situates at the end of the

Women's Court, is placed by Josephus at the east side of the court, hence adjoining the Chêl. But a closer scrutiny of this part of his narrative will show the error of this belief. He does indeed say (Wars, V, v, 3) that this gate of Corinthian bronze (the Nikanor Gate) lies without the Temple (by which we must also understand the two inner courts, for he calls the sanctuary, in its narrower sense, "the sanctuary itself"—*αἶθρος ὁναός*—§ 4); but this is certainly indefinite enough, for the Temple proper only embraces the Hechal and the Holy of Holies. However, the two inner courts may be perhaps included in the chief division, as in our arrangement. If so even, it must be admitted that this Nikanor Gate is situated by him in front of the Israelites' Court at any rate, and certainly not on the east side of the Women's Court; moreover, in the very passage we have been dealing with, Josephus speaks of the gate "behind the Corinthian, in the women's court, on the east side," opposite the entry into the sanctuary, so that the Corinthian must have been westward of this gate, *i.e.*, at the entry into the Israelites' Court, which he (as aforesaid) includes in the sanctuary. The last-named gate is the above-mentioned שער הקדים, or שער התחתון (see כפתור ופרח, *cp.* 6).

We now come to the last division of our subject, which we split up into the following subdivisions, proceeding from east to west:—(1) The two inner courts (Israelites' and Priests'), the courts (in a narrower sense) to the altar of sacrifices; a space behind this altar stretching to the forehall of the Temple proper (בין מזבח לאולם), 22 cubits wide; (2), this forehall; (3) the sanctuary proper, consisting of two parts; (4) the space behind this sanctuary.

C 1. THE OUTER COURTS UP TO THE ULLAM.

Each of these courts has the same breadth as the Women's Court (135 cubits), and a depth of 11 cubits; between the two was a boundary of ראשי פספסין. The explanation of these words is much disputed; some hold it to have been a beam running across the bottom (R. Shmajah), while others maintain that it was a projection of timber from the north and south walls (R. Obadia). According to a statement of R. Cheser ben Jacob (derived from Maimonides), the connection between these two courts consisted of an erection, 1 cubit in height, extending along the whole breadth, and on this stood the orchestra of the Levites, made of stone, $1\frac{1}{2}$ cubits high, and having three steps, each $\frac{1}{2}$ a cubit in height. In the fore-courts were a great number of cells (לשכות), and in the Priests' Court, the altar of sacrifices, constructed as follows:—It stood on a base 32 cubits square, of such sort that on the south and east from the edge to the boundary on the north and west, there was a gradual diminution of a small (5-handbreadth) cubit; so that the base on the north and west was 32 middle cubits, but on the other sides was less by a small cubit in the north-east and south-west (increasing to a smaller cubit). On these lines stood a rampart filled with stones, one (middle) cubit high; then an

embankment on all four sides, a (smaller) cubit high, and a similar rampart 5 (middle) cubits high was erected round the sides of this area ($30\frac{1}{3}$ middle cubits); then, on a further embankment of a (small) cubit was thrown up a rampart 3 (middle) cubits high, and of similar composition, so that the area of the new surface was $28\frac{2}{3}$ (middle) cubits. On the four corners a space was embanked, a (middle) cubit longer and broader and a (smaller) cubit higher, and this was left hollow. Thus the priests only moved about on a surface whose sides were $26\frac{2}{3}$ (middle cubits) and breadth less than a (middle) cubit; for the inner square of $24\frac{2}{3}$ (middle) cubits was the actual burning-place. The height amounted to $9\frac{2}{3}$ (middle) cubits = 58 handbreadths, or 8 middle and 2 smaller cubits (Middoth, *cp.* iii, Menacoth 97*b*; Maim., Beth Habech. ii, 7). The space (of 22 cubits) behind the altar was entirely taken up by a flight of stairs, having twelve steps of various breadth and height, which ran along the Ullam Wall (תפארת ישראל), iii, 6.

Now let us see what Josephus says in this respect, as to the constituent parts of this portion :—

- (1) He places a little low stone barrier of one small cubit in height (πηχναῖον) between the Israelites' and the Priests' Courts, which may easily be reconciled with the ראשי פספסין, especially with the first of the accounts given (פספסין *v.* ψηφίς); still more easily with R. E. b. J., whose height of one cubit may well be identical with Josephus's boundary, from which, however, he must have omitted the three steps of the דרבן. Again, he says the Temple and altar were surrounded by this enclosure (περίεστεφε δὲ τὸν τε ναὸν καὶ τὸν βῶμον, κ.τ.λ.) so that the people might be separated from the priests: according to *v.* 2, the boundary was only on the east side.
- (2) The altar (according to Josephus) was 50 cubits in length and in breadth, and 15 in height. As for (1), whilst it may be shown, by internal evidence from Josephus, that his usage of the words "enclose," "surround," is inexact, yet he here probably meant only *one* encompassing wall: otherwise he must have allotted to this partial enclosure the whole 135 cubits, as he himself gives the breadth of the Temple as 20: hence, if the expression is to be taken literally, it would follow that the people had free ingress as far as this enclosure. But, according to our authorities, the people could not set foot in the space of 11 cubits before the altar, *i.e.*, the whole width of the Priests' Court, and this is confirmed by Josephus when, in his usual summary fashion, he distinctly mentions (Ant., XV, xi, 5) a third inner room which priests alone might enter, and also when (Wars, v, 6) he refers to the altar the space "before the Temple," having previously left room in the Priests' Court. Finally, no credence can be given to this "enclosure-wall," because the altar was placed so far in the interior of the Temple towards the west that we

have no space left at our disposal for the continuation of an east wall round the altar and its appendages ; besides which the Ullam would have been divided by it. The expression, therefore, must certainly be altogether inexact, and we need only devote our attention to an east wall at the entry to the Priests' Court, by which the people were certainly kept back from entering the altar. But if any one is still inclined to insist on enclosures round the altar, let him content himself with the many cells in the east and west corners, which certainly, in an indirect fashion, surrounded (*i.e.*, enclosed) the Priests' Court with regard to the altar (*cp.* also Herzfeld, *Gesch.*, p. 488, Ann. 114).

As for (2), Hirth has already shown (as before, p. 12) that there would certainly not be room enough for an altar covering so large an area ; he therefore suggests as an emendation 40 instead of 50 cubits,* while others before him would alter cubits to feet (*cp.* Haverkamp note on this passage). According to this latter assumption the difference in the statement of the dimensions is reduced to so small an amount that it might well remain unnoticed in much more precise accounts than those of Josephus ; for 50 feet (Greek) = $\frac{2}{3} \times 50 \pi\eta\chi\epsilon\iota\varsigma = \frac{2}{3} \times 15 \times 17\cdot587$ inches = 586·2 ; while 32 (Mosaic) cubits = $32 \times 18\cdot5$ inches = 592 inches ; the total deficit not quite 6 inches (see above, A (*b*)). Moreover, it is distinctly laid down by both Josephus and the Mishna that the base was made in such a way that the surface gradually became narrower, and this view is adhered to by former and present archæologists (*cf.* Reland *Ant. Sacr.*, 97f ; Cramer *de ara exteriori templi*, Ugolini, Winer on *Altar of Burnt Offering*). Undoubtedly the difference in height is in any case greater, but this also may be much reduced. To justify our method let us first take a cursory view of all the numbers which occur in our survey. There are 53 of them, viz., 1 stad. (4 times), 300 cubits (2), 120 (1), 100 (2), 90 (1), 70 (1), 60 (2), 55 (1), 50 (5), 45 (1), 40 (5), 30 (4), 25 (5), 20 (3), 15 (3), 10 (2) (but one of these should only be 9), 5 (2) : to these add 12 (2), and 162, 27, 16, 14, 8, 6, 3, each occurring once. Very competent investigators have declared that five of these last nine numbers are untenable (some from internal evidence, and some from their obvious improbability), so that only four of these are left. Thus he gives us 44, most of them divisible by 10, the others divisible by 5 ; also 4 not reducible. Is it then a very arbitrary statement to assert that Josephus has a violent longing for numbers as large as possible at one time, and at other times for numbers divisible by 5, and that he tried everything to obtain them ? Now we have already mentioned (A *i*) that there was among the Greek lineal measures a small cubit ($\pi\acute{\upsilon}\gamma\omega\nu$), which contained only 5 handbreadths, and that this was sometimes put for the $\pi\eta\chi\upsilon\varsigma$. Let us suppose, then, that Josephus, from a predilection for multiples of 5, used this as his standard in the height : we get $17\cdot587 \times \frac{5}{6} \times 15 = 219\cdot837$ inches ; the Mosaic = 58 handbreadths = $10 \times 18\cdot5 -$

* Yet this does not, as he thinks, give the *same* ratio between the dimensions as in the Solomonic Altar (2 Chron. iv, 1), where the ratio is 1 : 2 (10 : 20), while here it is 3 : 8 (15 : 40). Still the difference is diminished.

$\frac{18 \cdot 5}{3} = 179$ inches (*circa*), difference (slightly over) 40 inches, *i.e.*, $\frac{40}{17 \cdot \frac{40}{587}} =$ (*circa*) $2\frac{1}{7}$ Greek cubits, thus nearer 15 than 10, for which reason Josephus put them down as 15.

By way of supplementing our knowledge of Middoth through Josephus, we get well nigh nothing more than the new explanation of the ראשי פספסין or of the מעלה of R. E. b. J. On the other hand, we are made acquainted with not a few absurdities and unnecessaries (see note 39). There is one remark touching the ritual, *viz.*, "that no non-priest might, *in any case*, enter the Priests' Court;" but the Mishna, much more precise in these particulars, says (Kelim i, 8) that this veto was not altogether absolute, but forbade any non-priest to enter the Priests' Court "except on occasions of bringing their offerings there;" and Herod (Josephus notwithstanding) certainly did not hesitate to make use, like any Israelite, of his ritual rights.

C 2. FORE HALL.

(אוּלָם) ITS WALLS AND ENTRY.

The twelve steps at the end of the Priests' Court formed the entry into the Ullam—the fore hall of the two divisions of the Temple proper, which in the Mishna's language is included under the denomination, Hechal (iv, 6, 7). It had an eastern wall 5 cubits thick, with an entrance gate (40 cubits high and 20 broad), the latter having merely a curtain and no doors (ii, 3), though the other gates were furnished with both (Yoma 54*a*. Ketuboth 106*a*). Above the Ullam Gate was an ornamentation consisting of five cross-beams (אמלתרה *μελάθρον*) of oak, so arranged that a beam of 22 cubits long stretched above the threshold and extended, on each side, one cubit beyond the portal; above it the next beam was one cubit longer in each direction, and so on, each beam increasing one cubit each way, as it ascended; the whole being interspersed with masonry. The east wall was longer than the 70 cubit broad façade of the Temple proper (Hechal, in the narrower sense, and the Holy of Holies) by 15 cubits both north and south. This east wall was connected with the wall of the Hechal opposite to it by cross-beams at the top, and from these beams golden chains hung down into the Ullam space (iii, 5, 6, 7; iv, 7).

Here let us note the following points in the narrative of Josephus which differ from our authority:—

- (1) Josephus states that the Ullam Gate was 70 cubits high and 25 wide.
- (2) He says the length of the Ullam was 50 cubits; and
- (3) That the wall in front on the Ullam extended 20 cubits each way beyond the Hechal.

As regards (1), the difficulty may be solved as above in B 2, for Josephus is here again speaking of *doors*, where the Mishna only speaks of *entries*.

As for (2), the figures given by Josephus are at variance with his own

statements, and therefore they furnish no materials for criticising a record which is unimpeachable, either on internal or external grounds; especially when this record shows us cubit by cubit the relative positions of the many hundred cubits.

As for (3), *cp.* iii, 2.

Let us once more set forth such information supplementary to our authority as is obtainable from Josephus and *vice versa*.

- (a) The two projections of the Ullam walls on the right and left are called by Josephus "shoulders" (*ὤσπερ ὤμοι*). This should support the opinion of the ר"א"ב"ד (Beth Habech., iv, 5, *cp.* also ת"י"ט iv, end) against that of Maim., viz., that the Ullam wall was *only* in the east, and not also in the north and south.
- (b) Josephus is in harmony with the Mishna in speaking of a separating curtain in front of the fore hall without doors, and (like the Mishna) he again makes mention of such a curtain in front of the Hechal; this information is further supplemented by the Talmud telling us that there were thirteen such curtains of the Israelites' Courts altogether (Yoma 54a, Ketuboth 160a, *cf.* Tamid vii, 1), among them one in front of the Hechal, which, however, ת"י"ט on Tamid vi, 1, has overlooked, although he himself quotes the passage in the Talmud, Shekalim iv; *cp.* on this R. Jesaia Berlin, in his Annotations to the Mishna (ראשון לציון).

A not altogether uninteresting little point in a certain passage in the Talmud may be cleared up from Josephus. He states (Wars, V, v, 4) that on the fabric of these curtains was a representation of all the sky, except the zodiac, while according to Jerus. Shekal. viii, 5, lions and eagles alone were said to have been represented thereon. Hence the passage we have referred to would seem to support the hypothesis of R.

Elijah Misrachi on Exod. xxvi, 31, and R. Juda Rosanis משנה למלך on Klê Hamikdash viii, 15, who think that Jerus does not mean that the representations on the fabric were limited to these two forms.

To conclude, some light may be thrown on a doubtful passage in Josephus, not hitherto properly understood, and this may be done from our authorities and by means of the comparison above made between the various cubits. Josephus says that from the Ullam outwards the front part of the nave was open, and was 90 cubits high, and so forth. This number 90 appears incomprehensible after Josephus has given the inner temple a height of 100 cubits, and to ascribe the difference (like Winer does) to the slope of the roof is unsatisfactory, because the roofs in the east are quite flat (as Hirth here takes it), or at any rate never afford such a precipitous slope as this would require. But on comparing the statement of the Mishna as regards the height of the Temple (iv, 6), we find that the main part ends with the 91st cubit (inclusive) and the other 9 cubits are only ornamental. Now, suppose that the outer hall (תפארת ישראל No. 74) provided, like the Temple itself, with a roof, had actually one in common with the Temple, but, not having such ornaments,

its height was terminated by the roof itself : then in the total height there would be a deficiency of 9 Mosaic cubits = $9 \times 18.5 = 166.5$ inches ; 10 Greek cubits = $10 \times 17.587 = 175.87$ inches ; difference (slightly over) 9 inches, which, coming from Josephus (who is summary in these matters), may be regarded as in accordance with the Mishna.

C 3.

HECHAL, HOLY OF HOLIES, SPACE BEHIND.

Next to the Ullam comes the 6-cubit thick Hechal wall, in which was a gate (20 cubits high and 10 broad) with doors, and on the boundaries. Over this gate was a golden vine resting on poles, and frequently augmented by new offerings such as golden leaves or pears, or grapes of gold. The Hechal itself was entered by the Hechal Gate. The lower nave was 40 cubits in length and height, and 20 in breadth ; cornices and ornamentations 5 cubits in height, succeeded this lower space ; then the upper storey with the same dimensions as the lower, and in addition timber ornamentation, latticework and bird-scarers, in all 9 cubits high. From this could be entered the Holy of Holies, of the same height and breadth, adornments, projections, &c., but only 20 cubits long. In front of the Holy of Holies was a cubit's space, partitioned by two curtains. The west wall of the Holy of Holies was 6 cubits thick, and by it was a cell 6 cubits broad, with a back wall 5 cubits thick and 11 cubits vacant space behind it, in which the priests could move about (*cp.* Yoma 21*a*). The breadth of 100 cubits was completely filled by the Ullam wall ; Hechal and the Holy of Holies were respectively at a distance of 15 cubits each northwards and southwards, and constituted a breadth of only 70 cubits. These were thus distributed : on each side the outermost wall of enclosure, 5 cubits thick ; next outer cells 3 cubits broad, cell-walls 5 cubits thick, cells 6 cubits broad and the Temple wall proper, 6 cubits thick (iv, 1, 6, 7 ; v, 1).

On comparison with Josephus, we have the following divergences to consider :—

- (1) The Hechal Gate was (according to him) 55 cubits high and 16 broad ; moreover, Josephus appears to know nothing of the double doors.
- (2) The breadth of the Hechal and of the Holy of Holies was, says Josephus, only 60 cubits, and consequently the wall of the Ullam projected, according to him, 20 cubits in each direction beyond it.
- (3) The Mishna (as shown above) allots the height in such a way that both lower and upper naves are each 40 cubits ; in the total of 100 cubits are included the foundation, the 5 cubits of woodwork between the two storeys, and the 9 cubits above the upper one ; Josephus merely remarks, very laconically, "Lower nave 60 cubits, upper 40."
- (4) Josephus appears to think there was only one curtain between the

Holy of Holies and the Hechal, but the Mishna gives two
(אמה טרקסין).

- (5) Lastly, Josephus having disregarded the due proportion between the breadth of the Hechal, together with the Holy of Holies, and the Ullam, has no space to spare behind the west wall of the Holy of Holies.

As for (1), we will not merely content ourselves with the remarks on B 2; for, according to the Mishna, this gate was not like that of the Ullam, higher than the others; and therefore we have no warrant to go beyond the maximum height of the highest part of the portal, as given by Josephus, viz., 40 cubits. Now Lightfoot has brought the foregoing divergences into harmony, by the supposition that Josephus has included the timber-work, ornamentation, &c., in his measurement, while that of the Mishna is the entrance alone. Moreover, that Josephus at any rate knew something of some double doors in the Temple, that they were those of the Hechal, and are here referred to by him, seems at least extremely probable (*cp. Anm.*, 48.)

As for (2), the difference in the statements of the breadth of the Hechal, or rather the projection of the Ullam wall, may be more apparent than real; for the Mishna includes the 5 cubit thick outermost northern and southern wall of the Hechal and of the Holy of Holies, but Josephus does not; which seems the more plausible, according to the view maintained by some who take this כותל המסבה to have been a solid and hence useless, whilst the Slaughter-Knife Cell [בית החליפות] in these projections of the Ullam was certainly made use of. Hence the breadth of the Hechal would be diminished on each side by 5 cubits, and of course the projection of the Ullam would be increased by the same amount.

The explanation of (3), (4), and (5) might well be that Josephus, in order to obtain the highest possible round numbers, includes woodworks and ornamentation, like that of the 5 cubits above the lower storey; for we have found him capable of much more serious deviations (*cp.* on 1); but even then there would still be a difference of no less than 9 cubits. Now, of course, $2\frac{1}{2}$ cubits may be accounted for by the difference between the Greek and the Mosaic cubit, but even then the balance of $6\frac{1}{2}$ cubits appears excessive. This may be removed by a closer scrutiny of the *foundation* (אומס). Among commentators of equal authority there is a difference of opinion as to whether this part, which takes up 6 cubits of the height, was underground (Maim., R. Obadia), or was like a threshold above ground (see R. Shemaja, *a*; also ת"ו"ט on iv, 6). Josephus also makes mention of the foundation, which he traces back to King Solomon (Ant., XV, xi, 3; Wars, V, v, 1). Now let us take it that Josephus (in accordance with the latter of the two theories) considers all the constituent parts of the Temple *above* grounds, but reckons in the necessary 6 cubits of underground foundation to complete his large, round numbers; then the two statements are still closer (nay, almost identical),

as here again to the 6 Mosaic cubits—according to the above solution—as compared with the Greek measure of Josephus, O. 31 cubits, must be added. His omission of the greater part of the superstructure (the golden pikes for scaring birds are all he mentions) does not necessarily *contradict* the Mishna's statement: he puts down his round 100 as the height of the top of the upper nave, but is not thereby of necessity in opposition, *e silentio*, to the other.

Once more must we return to the oft-mentioned subject of the different scales of measures, in order to meet an objection which appears to contradict all our argument, viz., that Josephus gives the same dimension for the length of the Temple (Hechal and Holy of Holies) as the Mishna does; but since, for each cubit, he ought to have had 0.913 inches more (*cf.* Ann. 50), he ought to have allotted over 42 for the Hechal and (over) 21 for the Holy of Holies. But surely we need not be surprised at Josephus's inaccuracy, which has been admitted by all later investigators, especially with respect to figures and measurements, and indeed I do not see any other explanation of the (accordance of the) figure 100 in the Ullam wall; but, as far as the length is concerned, the differences may be adjusted, especially as regards the omission of one cubit in the Holy of Holies; for Josephus only mentions one curtain, a view which has also its supporters from the Mishna. One explanation is that this curtain hung immediately behind the end of the Hechal, and the 20 cubits of the Holy of Holies took their beginning from it; as for the 2 cubits in the Hechal, we must bear in mind that according to all the critics the number 50 for the length of the Ullam is impossible, and must in any case be corrected, so that we may as well have space for the 2 cubits lacking, as for the 11 cubits behind the Holy of Holies.

In conclusion, a few words respecting the way in which the two sources supplement one another, now that the contradictions and errors have been discussed (see note 39). We have—

- (a) The information from Josephus (Wars, V, v, 5), that the upper storey had no connected apartments (תאים) like those mentioned vi, 3, and that the ornaments at the upper windows reached over them confirms the very probable conjecture in that direction.
- (b) Size of the vine hanging over the Hechal portal (see note 47).
- (c) The covering of the roof and the sides with golden plates or white marble.
- (d) Confirmation of the explanation of בליא ערב by pikes (or spits) of gold.
- (e) A new explanation of the epithet "great" applied to the Hechal Gate (*cf.* notes 32, 47).

According to the Antiquities (as last cited), the building of the Temple was performed by 10,000 *priests*, an exclusiveness almost inexplicable, which may perhaps be explained on the grounds of a Boraitha, and may not be without weight in an old controversial question.

APPENDIX I.

Hecataeus on Jerusalem and the Zerubabel Temple.

We have already mentioned the information quoted by Josephus from the book on the Jews by Hecataeus, a philosopher and historian who flourished under Alexander, and had relations with Ptolomæus I. This quotation contains such interesting matter, besides that which immediately concerns our subject, that it is worth a more thorough perusal. The passage runs thus : The Jews possess many strongholds and cities scattered throughout the whole country, and one fortified town named Jerusalem, 50 stadia in circumference, and inhabited by more than 120,000 people. In the middle of the city is a stone wall (500 cubits long and 100 broad), having double gates. Within this is a four-cornered altar of unhewn white stones joined together : its sides are each 20 cubits, its height is 10 ; moreover, there is a great Temple, in which are an altar and a candelabrum, both made of gold, and weighing two talents : on the latter a light burns, which is never allowed to be extinguished. No consecrated offering, nor statue, nor grove, nor plantation, nor aught of that kind, exists here. The priests are there unceasingly day and night, performing certain expiatory rites, and they are not allowed to drink wine in the Temple.

APPENDIX II.

Dr. Graetz has published an essay which touches our subject in many ways ; it is called "The Courts and the Gates of the Second Temple." The tendency of this archæological inquiry is in the main critical, whereas ours chiefly seeks to harmonise the authentic sources, and for this reason we have not referred to it before. We will now cursorily review the results of his inquiry, limiting ourselves to those remarks which appear worthy of notice, and leaving out of consideration mere prejudices, *e.g.*, his lordly scorn for the Mishna, and the usual unproven assertion of some passages as "suspicious, improbable, getting results *per fas et per nefas*."

He decides in favour of Josephus as regards the material of the Soreg (*i.e.*, stone, as against the Mishna commentators who pronounce it to have been wood), because (he says) certain expressions used in connection with it (ii, 3) as פּרֵצוֹת and גְּדָר are applied *only* to stone walls.

But this use of גְּדָר is certainly not *exclusively* applied to stone walls (though it frequently is so used ; *cf.* Rashi Erubin 49*b*), see Talmud Sabbath 6*a* and Rashi *ibid.* ; it is, moreover, well known that in the enclosure out of which a קְרֵפִיף ר"ה"י consists, as indeed for all boundaries brought about by a גְּדָר, the material is quite irrelevant. Indeed the verb formed from it is applied to all materials, even to furniture (*cf.* Mikwaoth v, end), and to this its antithesis פְּרִץ naturally corresponds, of which a direct proof may be obtained (*cf.* Levy, Chal. Dic. s.v). Graetz settles the question of the fourteen and the five steps (according to an emendation

of the text which he has put forward) in such a way that the former were at the entry to the Chêl, the latter—not even mentioned by the Mishna—on the other side at its exit. On this point, however, it is worth observing that in this case the Mishna not only does not mention these five steps, but cannot even have known of them, because according to the exact account it gives of the total ascent (see ii, 4, and Joma 16*a*) these five steps cannot have existed at all. But, moreover, the placing the fourteen steps towards the east side of the Chêl is quite inadmissible according to Graetz's emendation, because then the steps would be not before the "second sanctuary" (Temple Court), but before the Chêl. It is incorrect to say that owing to the four corner-halls of the Women's Court of the area of 135 cubits, only 35 cubits square remained free: for each hall only measured 40 cubits (ii, 5), thus in between there was left a free space 55 cubits long and 40 broad. When Graetz accuses Maim. (and thus indirectly all the commentators who follow him) of "wonderful confusion," because they identify the שַׁעַר הָעֵלְיוֹן with the Nikanor Gate, though one was at the entry and the other at the exit of the Women's Gate, he himself overlooks that this Nikanor Gate, according to i, 4 (and from that according to all commentators) was situated on the west side of the Women's Court, which (as we have seen above) Josephus also adheres to. Hence the account (Jerus. v) confirming this appears to be not "so erroneous" as Graetz thinks.

ZOAR AND THE DOOMED "CITIES OF THE PLAIN."

I HAVE previously had occasion to object to the validity of certain identifications, in making which the authors ignored the plain requirements of Holy Scripture, and preferred the statements of Josephus or other secular writers.

The publication in your columns of the paper contributed by Mons. Clermont-Gameau to the "Revue Critique" (*Quarterly Statement*, p. 19), following on the more moderate remarks of Mr. Guy le Strange in the July *Quarterly Statement* of 1885, impels me to protest against the acceptance of the views expressed therein, which seem to me to embody the same principle of setting aside the statements of the Bible, in favour of those of profane authors.

In so doing, I wish to point out that every passage in the Book of Genesis, in which the five cities are referred to, implies that they were situated at the *northern* end of the Dead Sea.

Besides the numerous passages in which they are spoken of as being in the "*ciccar*" of *Jordan* (an expression of itself quite incompatible with a position south of the Dead Sea), we have the assertion that "Lot journeyed east," an incidental allusion in perfect accordance with the opposite view, but a direction by pursuing which he could never have reached the lower end of the lake,

Then we have further confirmation of this in the narrative of the raid of the Four Kings, who, on reaching El Paran, turn and go to Kadesh, after which they smite "the Amorites that dwelt in Hazezon Tamar" = Engedi = Ain Jidy, about midway up the western side of the Dead Sea.

It is not till after passing Hazezon Tamar, on their northward march, that they reach the Vale of Siddim and join battle with the Kings of the Five Cities who have *gone out* thither against them.

The course of the narrative thus implies that the Vale of Siddim occupied a position between Hazezon Tamar and the Cities of the Plain, which must *à fortiori* be placed north of Ain Jidy.

If I understand his argument, M. Ganneau seems to imply that Zoar received its name from one of Lot's daughters, whereas we are expressly told (Gen. xix, 20-22) that Bela was renamed (the Little one) in regard to Lot's appeal for permission to lodge in it, and it was not till after leaving Zoar that the *elder* daughter (*not* the younger by the bye) became the ancestress of the Moabites.

Hence, even if the name Segor, or Zoghar, be derived in the manner suggested by Mons. Ganneau, proof is quite wanting that Zoghar of the Arabs was identical with the Biblical Zoar.

Further, in claiming the authority of the Onomasticon on his side, M. Ganneau identifies Nimrim, which is there said to be north of Zoar, with N'meira, in the region south-east of the Dead Sea, and exclaims, "Here, then, is a first *solid bench mark*." However, on examination, it will, I think, be found that this bench mark is by no means so immovable as he fancies, for Captain Conder identifies Nimrim with the locality of the present ruin Nimrin east of Jericho, on the opposite side of the Jordan, in which direction also Lasha has been placed (by some writers), which is mentioned in Genesis x, 19, along with the first four cities of the group. As to the Gomorrah twenty leagues south of the Dead Sea, Abraham and Lot must have possessed much more than modern Arab acuteness of vision, to be able to see the *circle of Jordan* extending so far!

I may be allowed to repeat that what I wish to contend against is the *necessary identity* of the city Segor, mentioned by Arab and other geographers, with the Biblical Zoar—in such close proximity with Sodom that Lot had time to reach it in the short twilight of an eastern morning, and whose position along with the other four cities in the *ciccar* of the *Jordan* renders it needful (in accepting such identity) to set aside the plain statements of Holy Writ.

H. B. S. W.

YOMA, OR THE DAY OF ATONEMENT—*continued*.

CHAPTER VIII.

1. On the day of atonement it is forbidden to eat and to drink,¹ and to wash, and to anoint, and to put on the shoes, and *ministrare lectum*. But the king² and the bride³ may wash their faces, and the *puerpera*⁴ put on shoes.⁵ The words of Rabbi Eliezer:⁶ and the wise men forbid.

2. Whoso eats as much as a thick date,⁷ together with its kernel, and drinks as much as a cheekful⁸ is guilty. All things eaten are added together to make up as much as a date, and all things drunk added together to make up as much as a cheekful. What is eaten and what is drunk are not added together.

3. Whoso ignorantly eats and drinks once is liable for only one sin-

¹ Notwithstanding that eating and drinking are punishable by cutting off, the mishna teaches that they are *asoor*, forbidden [which does not necessarily imply any penalty], because it brings forward also other afflictions, the neglect of which is not punishable by cutting off. And these five afflictions correspond to the five afflictions written in the Law, namely, "a Sabbath of rest" in the section "speak to the priests" [Levit. xxiii, 32], and "a Sabbath of rest" in the section "after the death" [Levit. xvi, 31], and in "on the tenth of the month" in the book of Numbers [xxix, 7], and in "on the tenth day of the month" in the section "speak to the priests" [Levit. xxiii, 27], and in "this shall be a statute for ever unto you" in the section "after the death" [Levit. xvi, 29]. In all of these it is written "you shall afflict." There are also only five afflictions mentioned in the mishna, because eating and drinking are reckoned as one thing.

² It is necessary that the king should look beautiful, as it is written (Isaiah xxxiii, 17), "thine eyes shall see the king in his beauty."

³ She must be beautiful, in order to be agreeable to her husband, and during the whole of thirty days she is called a bride.

⁴ *היה*, a woman in childbed.

⁵ On account of the cold.

⁶ Refer to all of these, namely, the king, the bride, and the woman in childbed. The decision was according to Rabbi Eliezer.

⁷ A large date, which is less than an egg. And notwithstanding that all the measures of eating are "as much as an olive," this is because it is written in reference to it, *אכילה* = eating. But here, where it is not written except in reference to [a soul who is] not afflicted, it is explained, that less than as much as a date he does not take notice of, and that he is afflicted. And nevertheless it is established to us that half a measure is forbidden by the law, but that they do not incur cutting off, or beating, except for [a whole] measure.

⁸ All that can be put into one side of the mouth so as to make that side visibly prominent is called *כפלה לונמיו*, a cheekful, and its measure in a man of medium size is less than a quartern.

offering.⁹ Whoso eats and does work,¹⁰ is liable for two sin-offerings. Whoso eats food not fit to be eaten, and drinks fluids not fit to be drunk, and who drinks brine, or the oil which exudes from salted fish, is free.

4. They do not afflict boys¹¹ on the day of atonement, but instruct them,¹² a year before,¹³ or two years before, in order that they may become accustomed to the commandments.

5. If a pregnant woman perceives an odour,¹⁴ they give her food until her soul returns to her. To a sick person they give food at the command of two skilled persons,¹⁵ and if there are no skilled persons there,¹⁶ they give food at his own command, until he says "enough."

6. A person seized with an insatiable hunger [בולמוס = *bulimia*]¹⁷ they feed, even with unclean things, until his eyes become enlightened. To a person bitten by a mad dog¹⁸ they do not give to eat of the net of its liver,¹⁹ but Rabbi Matthia ben Kharash permitted.²⁰ And Rabbi Matthia ben Kharash said further, they put medicine²¹ into the mouth of a person who

⁹ Because eating and drinking proceed from one scripture, and are regarded as one thing.

¹⁰ Eating and doing work proceed from two scriptures, and are regarded as two things.

¹¹ They are not bound to restrain them from food.

¹² With respect of hours: if he is accustomed to eat at four, they give him food at five or six, according to the strength of the boy.

¹³ One year before the time when he ought to begin to fast, if the boy be sickly and weak and cannot sustain fasting, and two years before if the boy be strong. And the period fixed for a girl to begin to fast is when she is twelve years and a day old, because it is not usual to show the signs of maturity before that time, and then she is old enough to be punished. And the time fixed for a boy is when he is thirteen years and a day old, and before that he is not old enough to be punished.

¹⁴ A pregnant woman who smells the smell of cooked food and desires it, and if she does not eat, both she and the child are brought into danger.

¹⁵ Physicians skilled in their art.

¹⁶ This mishna is thus explained in the Gamara: they rely upon the words of the skilled persons when the sick person says food is not necessary or remains silent; but if he says it is necessary there is no need of skilled persons; that is to say, their skill is made no account of, but they give food to the sick person at his own request, and even although the skilled persons should say it is not necessary.

¹⁷ A disease which comes on from hunger and is accompanied by danger of death; when his sight returns it is known that he is healed.

¹⁸ An evil spirit dwells in it, and the signs of it are, its mouth open, its saliva dribbling, its ears drooping, its tail put between its thighs, and it walks at the side of the road. And some say it barks, but its voice is not heard.

¹⁹ Notwithstanding that physicians may be in the habit of using the medicines, it is not so perfect a remedy that it can make lawful an unlawful unclean beast.

²⁰ Because he thought it a perfect remedy. The decision was not according to R. Matthia ben Kharash.

²¹ The root of an herb used as a remedy.

suffers in his throat,²² on the Sabbath, because his life is in danger, and every danger to life annuls the Sabbath.²³

7. If a wall fall upon a person and there is a doubt whether he be there or not there, doubt whether he be alive or dead, doubt whether he be an idolator or an Israelite, they open to him the heap,²⁴ and if they find him alive they open to him,²⁵ if dead they leave him.²⁶

8. A sin-offering and trespass-offering certainly make atonement.²⁷ Death and the day of atonement make atonement with repentance. Repentance atones for smaller transgressions, whether of affirmative or prohibitive precepts,²⁸ and the graver transgressions it suspends until the day of atonement comes and atones.

²² Who suffers in the teeth so that the gums begin to be consumed, and thence the disease proceeds to the palate and throat.

²³ It is said "every" to show that if we are certain that he will not die on that Sabbath, yet there is danger that if it is not done to him on that day he may die on the following Sabbath; and that if it is considered that he ought to drink that medicine for eight days, and the first day is a Sabbath, we might think it right to delay until the evening, so as not to profane two Sabbaths on his account.

²⁴ They dig into the heap and seek for him, and if they examine him as far as the nostrils, whether from above downwards, or from below upwards, and do not find breath in him; they know that he is dead, and open no farther upon him, as it is written (Gen. vii, 22) "all in whose nostrils was the breath of life."

²⁵ It is only necessary to say this, because they may see that it is not possible for him to live but for a short time, and then suddenly die, and it teaches that they open to him for the sake of that short period of life.

²⁶ If dead they do not open upon him. This is to teach us that notwithstanding the words of him who said they may rescue a dead body in case of a conflagration, here it is admitted that they do not open upon him. For in the case of a conflagration they made it lawful to move the dead and carry him out, because if thou dost not permit that, the fire may come and extinguish him, for a man becomes confused in his mind on account of his dead. But here if thou dost not permit him to open the heap, what is there for him to do? For it would be forbidden by the law that one thing should be permitted lest he should do another.

²⁷ They make atonement with repentance, but the doctor does not mention this because it is certain when a man brings his sin-offering or trespass-offering that he has before repented, for if he is not penitent he would not bring an offering. "A trespass-offering," as the trespass of thefts or the trespass of unfaithfulness in sacred things.

²⁸ Those negative precepts which can be reduced to affirmative ones are atoned for by penitence; but negative precepts which are punishable by stripes penitence suspends, and the day of atonement expiates them. The conclusion of the matter in the Gamara is, that if from pride he transgress an affirmative Precept or a negative precept which can be reduced to an affirmative one, or by inadvertence a negative precept punishable with stripes, and performs repentance, he does not move thence until they forgive him. And if from pride he transgress a negative precept punishable with stripes, repentance suspends and

9. He who says "I will sin and repent, I will sin and repent,"²⁹ to him will not be afforded opportunity of repentance.³⁰ *If he say* "I will sin, and the day of atonement shall expiate," *for him* the day of atonement does not expiate. Transgressions which are between a man and the place [God] the day of atonement expiates. Transgressions which are between a man and his neighbour, the day of atonement does not expiate until he be reconciled to his neighbour. This expounded Rabbi Eleazer ben Azariah (Levit. xvi, 30) "that ye may be clean from all your sins before the Lord." Transgressions which are between a man and God, the day of atonement expiates, transgressions which are between a man and his neighbour the day of atonement does not expiate until he be reconciled to his neighbour." Rabbi Akibah said "blessed be you Israel! Before whom will you be clean? Who cleanses you? Your Father who is in heaven;" as is said (Ezek. xxxvi, 25), "then will I sprinkle clean water upon you, and ye shall be clean," and it says (Jer. xiv, 8) 'מְרוּחַ יִשְׂרָאֵל. As מְרוּחַ cleanses the unclean, also the Holy One, blessed be He, cleanses Israel.

the day of atonement expiates. And if by inadvertence he is guilty of a transgression punishable with cutting off, or by death at the hand of the *beth din* the sin-offering atones with repentance; and if he has transgressed in these from pride, repentance and the day of atonement suspend, and scourgings wipe them away. These words are to be understood of one who has not profaned the Name [of God], that is to say, who has not sinned and caused others to sin, but if he has profaned the Name of God, his atonement is not completed till he die. And all this refers to the time when there is no scapegoat; but at the time when there is a scapegoat, the scapegoat atones for all transgressions small and great except transgressions between a man and his neighbour, which are not atoned for until he become reconciled to his neighbour.

²⁹ Who does this twice.

³⁰ Inasmuch as he has committed a sin and repeated it, he cannot again separate himself from it, for that would be to him as if it were sanctioned.

TAMID, OR THE CONTINUAL SERVICE.

WITH THE COMMENTARY OF RABBI OBADIAH OF BARTENORA.

CHAPTER I.

1. THE priests guarded the Sanctuary in three places,¹ in the house Abtinas, in the house Nitzus, and in the house Moked. The house Abtinas and the house Nitzus were upper rooms,² and the boys³ watched there. The house Moked was vaulted,⁴ and it was a large room surrounded by stone benches, and there the elders of the house or the fathers⁵ slept, the keys of the court being in their hands. And the young priests⁶ *slept* each with his cushion⁷ upon the ground.⁸ They did not sleep in the sacred garments, but took them off, folded them up, and placed them under their heads,⁹ and covered themselves with their own cloaks.¹⁰ If an

¹ This was because of the honour and magnificence of the house, that it should not be without guards. And "three places" were taught from what is written (Numb. iii, 38). "Those that encamp before the tabernacle towards the east," &c. "Keeping the charge . . . for the charge," points to three guards in three places; and as we find that in the tabernacle the priests Aaron and his two sons kept the charge of it in three places, so also the Temple [מקדש].

² Built beside gates of the court.

³ ילדים=רובין, *children, boys*. The translation of ילר, *yeled*, is רביא, *rabea*. Another explanation is that רובין, *robin*, were archers, from the phrase קשת רובה, *an archer* (Gen. xxi, 20).

⁴ The house Moked was not an upper room,¹ but vaulted, "ארקוולטו," in the barbarian tongue. [Ital. *archivalto* or *arcuato*.] It was built upon the ground and surrounded by רובדים, *pavements* of stone, benches or seats of hewn stones sunk in the wall, and projecting from the wall into the house Moked next to the floor, and over these other shorter stones, which also projected from the wall; and they were like steps one above the other.

⁵ The watch was divided into seven houses of fathers, according to the number of the days of the week, each one its day, and the elders of the house of the father for that day slept there upon those stone benches.

⁶ Young men, the hair of whose beards was beginning to grow; and it was they who watched.

⁷ כסת, *kaeseth*, has the signification of כר [a mattress, a cushion on which a person lies, Aruch.], and כסתות [cushions for the head, Aruch.; cf. Ezek. xiii, 18].

⁸ Because they might not lie there upon beds, but upon the ground, like guards in the courts of kings.

⁹ Near to their heads, and properly not under them, because they were of the garments of the priesthood, in which there were diverse kinds of stuff, as in the girdle [cf. Levit. xix, 19, and Exod. xxxix, 29], and it was not permitted to make use of them except at the time of the service.

¹⁰ With profane or ordinary garments.

impurity happened to one of them, he went out and passed by the passage¹¹ that went under the Sanctuary, lamps burning on either side,¹² until he reached the bathing place. And a large fire was there¹³ and a privy of honour. And this was its honour,¹⁴ that if he found it shut¹⁵ he knew that some one was there, if open, he knew that no one was there. He descended and bathed, came up and wiped himself,¹⁶ and warmed himself before the fire, and came and sat by his brethren the priests¹⁷ until the gates were opened, when he went out¹⁸ and went his way.

2. Whoever of the priests desired to cleanse the altar¹⁹ rose early and bathed²⁰ before the prefect came. And at what time did the prefect come?²¹ Not always at the same time. Sometimes he came at cock-crow,²² or near it, either before or after. The overseer came and knocked to them, and they opened to him. He said to them "let him who has bathed come and cast lots.²³ They cast lots, and he to whom the lot fell performed the duty [*lit.*, he was considered worthy who was found worthy].

¹¹ By the cavern which went under the *birah*, for there was a cavern under the Sanctuary, and all the Sanctuary was called *birah*, as it is written (2 Chron. xxix, 19), "the palace (*birah*) for the which I have made provision," and because he was impure (שהיה בעל קרי) he did not go by way of the court but by way of the caverns, because it is a statute with us that the caverns were not sanctified.

¹² In the cavern on either side.

¹³ That the priest might warm himself by it after he had bathed.

¹⁴ That one might never enter whilst another person was there.

¹⁵ That was a sign that some one was there, and he did not enter.

¹⁶ Wiped away the water that was upon his flesh.

¹⁷ In the house Moked.

¹⁸ Because a *tibbul yom* (i.e., a person who had bathed in order to be cleansed from an impurity, and whose cleansing was not complete because the sun had not yet gone down, cf. Levit. xxii, 67) was sent out of the court, as we are told in Pesachim 67 b, כל זב לרבות בעל קרי, *omnis seminifluens includit eum cui casus nocturnus accesserit*.

¹⁹ To take away the ashes.

²⁰ Because no one, even though clean, might enter the court to perform the service until he had bathed.

²¹ That is, what was the time fixed for the coming of the prefect? since it is said *the priest* rose early and bathed before his coming. But evidently there was no time fixed for his coming, because the times when he *dā* come were not always the same, for "sometimes he came at cock-crow," &c., and therefore he who desired to cleanse the altar rose as early as possible. And afterwards the prefect came and knocked to them who were in the house Moked, and they opened to him.

²² Some explain cock-crow to be the crowing of a cock, others a priest who was accustomed to call every day near daybreak.

²³ All those who had set their hearts upon cleansing the altar bathed before the prefect came, and afterwards they cast lots amongst themselves, and he to whom the lot fell went and cleansed the altar. The manner of casting lots is described in the second chapter of "Yoma."

3. He took the key, and opened the little door,²⁴ and went from the house Moked into the court, and they went in after him with two lighted torches in their hands, and they were divided into parties, these going by the porch²⁵ towards the east,²⁶ and those going by the porch towards the west. They searched and went on until they reached the place (house) of the pancake maker. When both parties reached it they asked "peace?" and they answered "all is peace." They placed the maker of the pancakes to make the pancakes.

4. He to whom the lot fell to cleanse the altar, cleansed the altar. And they said to him "take care that thou touch not the vessel²⁷ until thou hast hallowed thy hands and feet at the laver." And lo, the censer was placed in the corner,²⁸ between the incline and the altar on the west of the incline. No one entered with him, and there was no lamp in his hand; but he went by the light of the fire on the altar. They did not see him, and did not hear his voice until they heard the sound of the wood, which Ben Katan²⁹ made a machine for the laver, and *then* they said "the time is come; he is hallowing his hands and feet at the laver." He took the silver censer and went up to the top of the altar, moved away the coals

²⁴ A little door which was in the middle of the body of the great door, and through it they went, from the house Moked into the court.

²⁵ Which was in the court.

²⁶ Because there were porches surrounding the court within, pillars projecting from the walls of the court, and from the pillars to the walls of the court was a covering above them, and such a construction is called portikin in the barbarian tongue, and from the pillars outwards [*i.e.*, towards the court] there was no covering, and the altar was in the uncovered place. They separated into two parties, in order that they might examine and see that all the vessels of service were in their places in peace. And they went along by the porches which were erected by the side of the northern space, these going in the eastern half and the others going in the western half, until they met at the place where they made the offering of pancakes of the high priest, which was brought every day, one half in the morning, and one half in the evening [Levit. vi, 20]. It was near the gate Nicanor. And there they said one to another, "is it peace?" "All is peace." That is to say, we have found all the vessels in their places [*lit.*, in peace], and not one of them is missing.

²⁷ The censer, which was a vessel (Numb. iv, 12, "instruments of ministry") of service, because no one was permitted to approach the altar or to undertake any part of the service until he had hallowed [washed] his hands and his feet.

²⁸ In the angle.

²⁹ This was the name of a high priest who made a machine for the laver, a revolving wheel, גלגל הסובב, by means of which they immersed the laver in the cistern, in order that the water in it might not become profaned by remaining all night. For everything that had been hallowed by a vessel of service became profaned by remaining all night, and when the laver was immersed in the cistern its water did not become profaned [the cistern not being a vessel of service]. Rambam says that the machine was a vessel surrounding the laver, that was not hallowed by a vessel of service, and there the water was left at night, in order that it should not become hallowed and *then* profaned by remaining all night.

to either side, took from the inner consumed portions,³⁰ and descended. Having reached the pavement he turned his face towards the north, and advanced about ten cubits along the east side of the incline. He heaped up the coals upon the pavement³¹ three handbreadths from the incline, *in* the place where they put the crops of the birds, and the ashes of the inner altar and of the candlestick.

CHAPTER II.

1. WHEN his brethren saw that he¹ came down² they ran and came quickly and sanctified their hands and their feet at the laver,³ took the shovels and the hooks and went up to the top of the altar. The parts *of the sacrifice* and the fat which were not consumed from the evening they removed⁴ to the sides of the altar, *and* if the sides could not hold them they arranged them by the circuit on the incline.⁵

2. They commenced putting the ashes⁶ upon the apple-shaped heap (תפוח). This was in the middle of the altar, *and* sometimes there were upon it as much as 300 *chor*,⁷ and at the feasts they did not remove the ashes from it,⁸ because it was an ornament to the altar.⁹ Never did a priest neglect to take away the ashes.¹⁰

³⁰ The coals which were in the middle of the fire and well consumed, so as to be almost reduced to ashes.

³¹ Because it is written וישמו, "and he shall put them" (Levit. vi, 3-10). And it is explained that this means all of them, that they might not be scattered.

¹ He who has removed the ashes from the altar.

² From the altar, and put the coals upon the eastern side.

³ In order to perform the service.

⁴ They put them aside. The word has the signification of moving rapidly or tossing, and thus like a goat they removed them, a goat tiring itself by rapid movements and fighting with its horns. As *goats* push one another with their horns, so here they put aside and moved and turned the pieces with the hooks to the sides of the altar.

⁵ That is to say upon the incline which was opposite the circuit. [Namely the small incline which ran off on the right of the large one, and by which the priests went to the circuit. It seems more probable that the passage על הכבש בסוכב should be understood as indicating that these partially consumed portions of the sacrifices were placed not upon the incline, but on the circuit.]

⁶ After they had removed to the sides or to the circuit the pieces and fat which were not consumed they drew the ashes with the shovels which were in their hands and put them up on the תפוח, a great heap of ashes which was in the middle of the altar heaped up and made like an apple.

⁷ This is taught in the way of hyperbole, for never were there left upon it three hundred *chor*.

⁸ They did not take the ashes out even though there was a great quantity upon the altar.

⁹ Because it might be seen that many offerings were upon the altar.

¹⁰ That is to say, whatever might be the quantity of ashes, it was certainly not from neglect on the part of the priests, but as an ornament to show that a great many offerings had been offered upon the altar.

3. They *now* began to carry up the pieces of wood (גִּירֵיךָ)¹¹ to arrange the pile for the fire. And were all kinds of wood lawful for the pile?¹² Yes, all kinds of wood were lawful for the pile, except the wood of the olive and the vine; but these were ordinarily used, namely, branches¹³ of the fig and the walnut, and the oil-tree.¹⁴

4. He arranged the great pile¹⁵ on the east, and its front¹⁶ was eastward and the inner ends of the pieces of wood touched the תְּפוּחַ, or central heap of ashes. And between the pieces of wood there was a space in which they set fire to the small wood.¹⁷

5. They picked out thence¹⁸ nice pieces of fig-wood, to make the second pile for the incense, opposite the south-western corner, distant from the corner four cubits towards the north. It had about¹⁹ five seahs of coals and on the Sabbath about eight seahs of coals,²⁰ because they put there two dishes of frankincense belonging to the shewbread. The pieces and the fat

¹¹ Two long smooth pieces of wood were put in the middle of the length of the pile, for the text (Levit. vi, 12) "and the priest shall burn wood on it every morning" teaches that two pieces of wood were necessary.

¹² Because it is taught simply that they commenced taking the logs up, and is not explained of what kind of wood the logs were. And it is taught "Yes," that is to say, all are lawful except the wood of the olive and of the vine, which are unlawful on account of the inhabitants of the land of Israel because they bear fruit; and some say the reason is because they quickly become ashes.

¹³ Branches of the fig-tree, and only of bad fig-trees which do not produce fruit.

¹⁴ That which produces balsam oil. I have heard that it is the tree called in the Latin tongue *pino*, and in Arabic *Sanawbar* (صنوبر), and although this is a tree yielding food [the seeds are extensively used in Palestine] it is not necessary like the vine and olive. For this reason they did not pronounce it unlawful on account of the inhabitants of the land of Israel as they did the vine and the olive.

¹⁵ Because there was also another pile this one was called the great pile. There were three piles there every day; one, the great pile upon which was burned the daily sacrifice; the second pile smaller than it was called the pile of the incense, because from it they took coals in the censer for the incense, which was burned in the morning and evening; and the third had no other use than to keep up the fire, according to the text (Levit., vi, 12) "and the fire upon the altar shall be burning in it," this third pile was to keep up the fire.

¹⁶ The direction of its face, which was the opening and hollow of the pile, was towards the eastern side of the altar, and the inner ends of the pieces of wood were long enough to touch the central heap of ashes.

¹⁷ Branches and small pieces placed between the larger ones in order to light the fire. אֵלִיתָא has the meaning of אֵלִיָּה and is connected with the phrase זִנְבוֹת הָאוֹרֵם, "smoking firebrands" (Isaiah vii, 4).

¹⁸ From the place of the wood.

¹⁹ There were in that "pile of the incense" as much as five seahs of coals, because from it they took what was necessary for the incense.

²⁰ Because more coals were necessary for the two dishes of frankincense of the shewbread [Levit. xxiv, 7] which were burned from Sabbath to Sabbath.

which had not been consumed from the evening they replaced²¹ on the pile, set the two piles on fire, and went down and came to the chamber Gazith.²²

CHAPTER III.

1. THE prefect said to them "come and cast lots¹ who shall slaughter,² who shall throw³ *the blood*, who shall take away the ashes from the inner altar,⁴ who shall take away the ashes from the candlestick, who shall take up the pieces *of the sacrifice* to the incline, the head and the leg, and the two fore-legs, and the end of the spine,⁵ and the leg, the breast⁶ and the throat,⁷ the sides, the inwards, and the fine flour, and the pancakes, and the wine." They cast lots, and each performed the duty which fell to him.⁸

²¹ To be burned there at the side of the great pile.

²² To cast lots.

¹ The manner of casting lots is explained in the second chapter of *Yoma*.

² Notwithstanding that the slaughtering was lawful *even* by a stranger, they appointed for it a lot, because it was the beginning of the service, of the continual sacrifice, and it being a favourite office, if they did not draw lots for it they might fall to quarrelling over it, and come into danger.

³ The priest who received the blood threw it, and because the essential part of the offering was the throwing of the blood, *therefore* the author of the Mishna mentions it.

⁴ The priest who took away the ashes also burnt the incense, and because taking away the ashes was the beginning of the service of incense, the author of the Mishna mentions it. And also the taking the ashes from the candlestick was the beginning of the lighting, and the taking the ashes from the inner altar and from the candlestick was before the slaughtering of the continual *sacrifice*. And in mentioning the order of the lots, the slaughtering, and throwing *of the blood* were first because they were by far the most essential part of the service.

⁵ The fat tail, אֵלֶּיךָ.

⁶ All (the fat) which looked towards the ground.

⁷ The place where the eud is chewed: it is the neck, and with it were joined the windpipe with the liver and the heart.

⁸ He to whom the lot fell threw the blood, and the next to him slaughtered, notwithstanding that the slaughtering preceded the receiving of the blood, yet in consequence of the throwing *of the blood* being of more importance than the slaughtering, because the slaughtering was lawful *if done by* a stranger, which was not the case with the throwing *of the blood*, therefore he to whom the first lot fell was privileged to throw *the blood*, and the second next to him to slaughter: and the third took away the ashes from the inner altar and burned the incense, and the fourth took away the ashes from the candlestick and lit the lamps, and the fifth carried up the head and the leg to the incline, and the sixth the two forelegs, and the seventh the extremity of the spine, which was the fat tail, and the other leg, and the eighth the breast and the throat, and

2. The prefect said to them "go out⁹ and see whether the time for slaughtering¹⁰ has arrived." If it had arrived the observer said "it lightens."¹¹ Mattai, son of Samuel, said "is the whole eastern side become light¹² as far as Hebron?¹³ And he answered "yes."

3. He said to them "go out and bring the lamb from the chamber of the lambs."¹⁴ And lo the chamber of the lambs was in the north-western corner. And four chambers were there, one the chamber of the lambs, one the chamber of the seals,¹⁵ one the chamber of the house Moked,¹⁶ and one the chamber in which they made the shewbread.

4. They went into the chamber of the vessels, and brought out thence ninety-three silver and golden vessels.¹⁷ They gave the lamb to drink¹⁸

the ninth the two sides, and the tenth the inwards, and the eleventh the fine flour of the meat and drink-offerings which was offered with the continual sacrifice, and the twelfth the pancakes of the high priest, and the thirteenth the wine of the drink-offerings. All these thirteen priests had their functions assigned to them by the one lot, as explained in the second chapter of "Yoma."

To a high place which they had in the Sanctuary.

¹⁰ Because the slaughtering was unlawful by night, as is said (Levit. xix, 6) "The day ye offer it."

¹¹ It becomes light and the morning shines.

¹² That he did not say anything until the eastern side was lightened, because it was not sufficient that the morning had appeared in one point only. The decision is according to Mattai ben Samuel.

¹³ Those who stood below asked him, "does the light appear as far as Hebron?" and he answered "Yes;" and they said so to bring to mind the worth of the fathers buried in Hebron.

¹⁴ The chamber in which were the lambs for the continual sacrifices.

¹⁵ For those taking fine flour for the meat-offering and wine for the drink-offerings. They went to the overseer of the seals and gave him money according to the quantity of drink-offerings required, and he gave to him a seal which he took to the overseer of the drink-offerings and received from him the drink-offerings, and that chamber in which the overseer of the seals sat was called the chamber of the seals. And in the treatise "Shekalim" it is explained that there were four seals in the Sanctuary, and upon them written הוֹטָא גְדִי, זָכָר גְדִי, עֵגֶל. If he brought the seal upon which was written עֵגֶל, *egel*, the overseer knew that he had paid the money for a drink-offering for a bull; if that with זָכָר, *zachar*, he knew that he had paid the price for a drink-offering for a ram, because the translation of אֵיל, a ram, is דַּחְרָא; if that with גְדִי, *g'di*, he knew that he had paid the money for a drink-offering for a lamb; if הוֹטָא, *chota*, he knew that he had paid the money for a drink-offering for a leper.

¹⁶ "The chamber of the house of the burning." It was so called because of the large fire which was constantly burning in it.

¹⁷ It is not explained why this number of vessels was necessary. In the Jerusalem Talmud, treatise "Chagigah," they are said to correspond to the ninety-three times the Divine name is mentioned in the prophecies of Haggai, Zechariah, and Malachi.

¹⁸ Near the time of slaughtering, in order that the skin might come off easily.

out of a golden bowl.¹⁹ And although it had been examined in the evening²⁰ they examined it *again* by the light of the torches.

5. He to whom the lot fell to slaughter the lamb, drew it, and went to the place of slaughterers, and they whose lot it was to take up the pieces to the incline followed him. The place of the slaughterers was to the north²¹ of the altar, and upon it were eight little pillars²² with square pieces of cedar *wood* over them,²³ and iron hooks²⁴ were fixed to them,²⁵ three rows²⁶ to each, by which they suspended *the sacrifices* and skinned them upon the marble tables which were between the pillars.²⁷

6. They to whom the lot fell to remove the ashes from the inner altar and the candlestick, went before with four vessels in their hands—the basket,²⁸ the can,²⁹ and two keys.³⁰ The basket resembled a large golden *tarkab*,³¹ and held two cabs and a half, and the can resembled a large golden *kithon*. With one of the two keys the *priest* put *his arm through a hole in the door or wall* as far as the armpit,³² to open the little door, and with the other opened³³ immediately before him.

¹⁹ Some say that this is hyperbole, that it was not in a golden bowl, but in a brass one beautiful as gold. As some say that it was really in a golden bowl, because there could be nothing poor in the place of the rich.

²⁰ Because it was obligatory to examine the lamb for blemishes four days before it was slaughtered, as in the case of the Passover lamb.

²¹ Because the continual sacrifice was a burnt-offering, and a burnt-offering must be on the north.

²² Low pillars of stone.

²³ Square pieces of cedar *wood* were upon the pillars.

²⁴ A kind of hooks called *uncinus* in the barbarian tongue.

²⁵ To those pieces of cedar wood, and by them they suspended the beast.

²⁶ Of hooks one above the other on each piece of wood, to suspend a large or a small beast.

²⁷ Upon which they washed the inwards. They might be made of gold, because what is poor should not be in the place of the rich, but they made them only of marble, because gold becomes heated and might cause *the flesh* to smell, and the marble was always cold and preserved *the flesh* from smelling.

²⁸ As in Deuteronomy xxvi, 2. The *בַּקֵּי*, or basket, was like a *sal* or basket with a broad mouth.

²⁹ A kithon, in the Arabic language called *kās*.

³⁰ To open the two locks which were in the little northern door.

³¹ A vessel containing three cabs. The meaning of the word is *תרי וקב*, two cabs and a cab=three cabs. But though the basket resembled a *tarkab* it contained only two cabs and a half. It was of gold.

³² The northern little door respecting which we are taught below, "he came to the northern little door," had two locks, one of which was low down inside at the lower part of the door, and the priest desiring to enter put in his arm as far as his armpit through a hole which was in the wall and opened with his hand from inside, and the other he opened at once with the key without trouble like other doors.

³³ *בְּיָדוֹ*. As they made it in the mould and fixed it, *בְּיָדוֹ*, that is, quickly without trouble [Pesach. 37a].

7. He came to the northern little door, for there were two little doors to the great gate,³¹ one on the north and one on the south. By that on the south no man ever entered, and respecting this it is explained by Ezekiel (xliv, 2), "then said the Lord unto me; this gate shall be shut, it shall not be opened, and no man shall enter by it; because the Lord the God of Israel hath entered by it, therefore it shall be shut." He took the key and opened the little door, went into the chamber,³⁵ and from the chamber into the Temple,³⁶ **הַיְהוֹדָה**, until he reached the great gate: having reached the great gate, he drew aside the bar³⁷ and the bolts,³⁸ and opened it. The slaughterer did not slaughter until he heard the sound of the great gate being opened.

8. From Jericho they could hear the sound of the great gate when it was opened;³⁹ from Jericho they could hear the sound of the Magrefah;⁴⁰ from Jericho they could hear the sound of the wood which Ben Katan⁴¹ made a machine for the laver; from Jericho they could hear the voice of Gabinus the crier;⁴² from Jericho they could hear the sound of the

³¹ This was the gate of the Temple. It had doors at the commencement of the thickness of the wall (which thickness was six cubits), and other doors at the end of the thickness of the wall on the inner side. And these two little doors were two small doorways, one on the right of the great gate, and one on its left, **רְחוֹק קָצַת**, somewhat distant from the gate. In reference to that on the south the text "it shall be shut, it shall not be opened," refers to the Temple of the future, and doubtless it was so in the "eternal house" [*i.e.*, the second temple]. But the little door in the north he opened by means of the hole which was beside it, putting in his hand as far as the armpit and curving his hand within, and by means of the other lock which was in it which was opened at once without difficulty.

³⁵ This was a chamber which opened to the Temple.

³⁶ And went in the interior of the Temple as far as the great gate which was at the end of the thickness of the wall within, and opened it. Then he came to the second gate and stood inside and opened it.

³⁷ A bar which passed from one end of the door to the other. Another explanation is that it was a bolt which was fixed behind the door in a hole of the door post.

³⁸ The locks and fastenings.

³⁹ From Jerusalem to Jericho was ten *parsaoth*.

⁴⁰ A kind of musical instrument that was in the Sanctuary. It had ten holes [perhaps pipes], from each of which issued a hundred kinds of sounds, and its sound could be heard at a great distance.

⁴¹ The name of a man. He was a high priest and made a wheel for the laver to sink it in the cistern that its waters should not become profaned from remaining all night. For whatever had been sanctified in a vessel of service became profaned by remaining all night, and by going out, and by tibbul youm, and when they raised this from the cistern to sanctify [wash] at it their hands and their feet, the sound of the wheel was heard as far as Jericho.

⁴² A priest whose name was Gabinus, who called out every morning in the Sanctuary, "rise up oh priests to your service!"

pipe;⁴³ from Jericho they could hear the sound of the cymbal;⁴⁴ from Jericho they could hear the sound of the song; from Jericho they could hear the sound of the trumpet; and some say also the voice of the high priest when he mentioned the Name on the day of atonement. From Jericho they could smell the odour of the mixture for the incense. Rabbi Eleazar ben Diglai said the family of Aba had some goats on Mount Mikvor,⁴⁵ and they were set sneezing by the smell of the mixture for the incense.

9. He to whom the lot fell to remove the ashes from the inner altar, entered and took the basket and placed it before him, removed *the ashes* by handfuls and put them into it, and at last⁴⁶ swept the remainder into it, put it down,⁴⁷ and went out.⁴⁸ He to whom the lot fell to remove the ashes from the candlestick, entered, and if he found the two eastern lamps burning,⁴⁹ he removed the ashes from the others,⁵⁰ and left those burning in

⁴³ Tsilmitslis [Psalmus?] in the barbarian tongue, and in Arabic *mazmūr*, a psalm. The sound of it could be heard at a great distance. Some say it was what was called פִּיפֵרִי, *piperi*, in the barbarian tongue.

⁴⁴ Cymbal in the barbarian tongue.

⁴⁵ The name of a place.

⁴⁶ When only a small quantity of ashes was left, and he could not take them in his hand, he swept the remainder of the ashes into the basket.

⁴⁷ The basket.

⁴⁸ But he did not take out the basket immediately, for since it was necessary to put the ashes near the altar on the east, as well as the ashes of the candlestick, they delayed until after the throwing of the blood of the continual sacrifice, when they performed the trimming of the two lamps, and finished removing the ashes of the candlestick, and then they took out, the one the basket, and the other the can, and poured out the ashes in a certain place near the altar; and they were consumed there in their place.

⁴⁹ This doctor thought that the candlestick was placed east and west, and that sometimes the other lamps also were found burning, and understood that the two eastern ones were left burning on account of the others, and that if [the others] were burning they extinguished them and removed their ashes, but if they found these two [eastern] lamps burning, they did not extinguish them. And further, from what is taught at the end [we learn] that if they found those eastern lamps extinguished they lit them again, but if they found the others extinguished they did not light them until the evening.

⁵⁰ The five lamps that were on the western side [of the two left burning]. They removed from them the old oil and the old wick and the ashes, and put them all in the can, and supplied fresh oil and a fresh wick; and after the slaughter of the sacrifice and the sprinkling of its blood, they removed the ashes of the two eastern [lamps] and supplied them with fresh oil and wicks; so that the trimming of *the lamps* was made to pause by the slaughtering of the sacrifice and the sprinkling of its blood. And they did not trim them all at once because of the Scripture (Exod. xxx, 7) בְּבֹקֶר בְּבֹקֶר, "every morning when he dressed the lamps." The law says the trimming was divided to two mornings: and the work of trimming five lamps was done first, and subsequently the trimming of the other two, because it is right that the great

their place. If he found those eastern lamps extinguished,⁵¹ he removed the ashes from them and lit them from those that were burning, and afterwards removed the ashes from the remainder.⁵² There was a stone in front

portion of the work should be done first. And why were not six first trimmed and afterwards one? Because of the Scripture "when he dressed the lamps" [in the plural]. There can be no trimming of lamps if they are less than two. And these words refer to the time when there was no miracle, as after the death of Simeon the Just; but before Simeon the Just died the western lamp burned continually by miracle, as is taught in the *Bereitha*, "outside the veil of the testimony;" testimony, that is, that the *Shechinah* dwelt with Israel. In this western lamp the priest put as much oil as in its fellows, and from it he began and with it he ended. When he came to trim the two eastern lamps, he did not remove the ashes except from the first only, and he trimmed it and left the second lamp which was next to it burning until the evening when he lighted the lamps, and from it he lighted all the other lamps, and after lighting the other lamps he trimmed and removed the ashes from this lamp in the evening and lit it, and this, notwithstanding the Scripture "when he dressed the lamps," and that there was no trimming of less than two. It was very good so: not to trim more than one of the two eastern lamps, and to leave the second one burning, and not to trim it until the evening, in order to make evident the miracle that it remained burning continually. And that he trimmed the five lamps on the western side first and not the five on the eastern side, and at last the two on the west, and from them lit *the remainder* was for this reason, that it is written [Levit. xxiv, 2, 3], "to cause the lamps to burn continually, without the veil of the testimony shall Aaron order it . . . before the Lord." The law says that a lamp was fixed from which to light the remainder of the lamps. And which was that lamp? The second lamp on the eastern side, and this was called the western lamp, because a person entering the Temple would come to that lamp first, and they did not transgress the commandment. And some say that it was at this lamp the miracle occurred, and that it was fixed to light the others from, which could not be with the first lamp, because the Scripture says "before the Lord," *i.e.*, from that lamp which was on the side of the *Shechinah*, which was on the western side, and the first lamp is not called "before the Lord."

⁵¹ The two eastern lamps, as after the death of Simeon the Just. He removed the ashes from them and lit them from those that were found burning. Not that he put fresh wicks and fresh oil, in the ordinary way of dressing the lamps, for never did they dress the two eastern lamps until after the slaying of the lamb, in order that there might be a pause between the dressing of the five and the dressing of the two. But this removal of the ashes was only that he took away the ash from the top of the old wick, pulled it up, and lit it, in order that the interval between the dressing of the five lamps and of the two should be well marked. And if none of the lamps were found burning he lit them from the altar of burnt offering.

⁵² This was the dressing of the five lamps, that he put fresh wicks and fresh oil and left them extinguished until the evening, when he came and lit them. And this removal of the ashes was not like the removal of the ashes from the two eastern lamps above spoken of, for after the slaying of the lamb and the

of the candlestick,⁵³ with three steps in it,⁵⁴ upon which the priest stood and trimmed the lamps. He then left the can on the second step, and went out.⁵⁵

sprinkling of its blood he returned and took the ashes from those eastern lamps and supplied them with oil and fresh wicks and left them extinguished until the evening. And from the second lamp which was called "western" he in like manner removed the ashes, and took away the old oil and wick, adding fresh oil and lighting it from the altar of burnt offering in order to light from it in the evening the other lamps, for the "western" lamp was appointed for the other lamps to be lit from it, and therefore they lit it (if they found it extinguished) before the slaying of the lamb, since it was necessary to light from when he came to dress *the lamps* after the sacrifice Thus I find this Mishna explained in the commentaries of our master Baruch bar Isaak, which is the most perspicuous of all the explanations. And the words of Rambam upon this Mishna surprise me extremely, and especially his opinion that the dressing, טבת, of the lamps was the same as the lighting of them, and that they lit all the lamps of the candlestick in the morning as they did in the evening. To me this seems strangely incomprehensible, and I never heard or understood that any of my masters thought so.

⁵³ Because the candlestick was eighteen hand-breadths in height, and it was necessary to ascend a high place in order to dress the lamps.

⁵⁴ Corresponding to the three עלאות which are written of the candlestick, viz., בהעלותך את הנרות [Numbers viii, 2], העלה את נרותיה [Exodus xxv, 37], and להעלות נר התמיד [Levit. xxiv, 2].

⁵⁵ Until after the sprinkling of the blood of the lamb, when he performed the trimming of the lamps and took it out; and also his companion took out the basket, and as they went out they did obeisance at the completion of this service, but not now, because they had not yet completed their service.

(To be continued.)

THE
PALESTINE EXPLORATION FUND

NOTES AND NEWS.

THE present number of the *Quarterly Statement* is restricted to a few pages of letters, and is issued a fortnight before the usual time. This is (1) because it is necessary to announce the public meeting of the 22nd, and (2) because the number will be supplemented by the addition of a paper long promised on the whole of the work of the Society from its commencement in 1865 to the present time, and the Biblical gains resulting from that work. A copy of this memoir, which is uniform in size with the books of Conder and Schumacher, and can be bound like them, will be presented to every subscriber who writes for it—free by post. It will contain (1) a *résumé* of the Society's history at home during the last twenty-one years; (2) an Account of the Excavations; (3) the Exploration of the Desert of the Exodus; (4) the Great Survey; (5) the Archæological Mission of M. Clermont-Ganneau; (6) the Interrupted Survey of Eastern Palestine; (7) the Geological Survey; (8) various Small Expeditions; (9) an Obituary Notice of former Members; and lastly, a clear statement of the Future Work open to the Society. The whole will be illustrated by woodcuts chiefly taken from the "Survey of Western Palestine." The writer of this history has had in view throughout the Biblical aspect of the work, and the gains to the student of the Bible.

On June 22nd, 1865, the first public meeting was held at which the Society was formally established. The Chairman on that occasion was the Archbishop of York. On the 22nd of June this year the Society will therefore attain to its twenty-first year. *Another meeting will be held under the same Presidency on the same day.* The meeting will be at the Theatre of the Royal Institution at 3 p.m. Admission will be by ticket only, which can be had of the Secretary; but early application is earnestly requested, as the Theatre will only hold eight hundred people.

The meeting will be addressed by the Archbishop, as President; by Mr. James Glaisher, as Chairman of the Executive Committee; by Sir Charles Wilson, Sir Charles Warren, and Captain Conder, as the Society's Exploring Officers; by Sir George Grove, Canon Tristram, Mr. Walter Morrison, Mr. John MacGregor, as original members; and by Professor Hayter Lewis, who will

describe the new discovery in Jerusalem. H.R.H. Prince Albert Victor has signified his intention of being present.

It is proposed to make this the occasion for raising such a sum of money as is wanted for the accomplishment of three objects, all of which urgently press, and should be carried through without delay.

These are, first, the Recovery of the Second Wall of Jerusalem. Professor Hayter Lewis, who has just returned from the Holy City, brings with him the news that the wall, whose discovery was reported in the January number, is a very ancient wall, 10 feet in thickness; that it is built of stones dressed in the way which is regarded as Jewish or Phœnician, namely, with the marginal draft. Such are the stones found by Warren on the lower courses of the Temple Wall; and such are those on the more ancient parts of "David's Tower." Further, there exists, outside the wall, a rock scarp which has been followed to the depth of 15 feet. The wall was laid open for 120 feet.

If, as now seems more than probable, this is none other than the Second Wall, its course, when ascertained, will either at once and irrevocably abolish the present so-called Holy Sites, with the Church of the Holy Sepulchre and the Tomb, or it will lend a new and most formidable argument to those who stand by the traditional sites. It may be stated that Herr Schick's opinion of its course places the Holy Sepulchre *without* the wall. There are many other considerations of great, though none of equal importance, connected with the Second Wall, which began at the Gate Gennath, "encircled the northern quarter of the city, and reached as far as Antonia," and probably contained the "Valley Gate," the "Corner Gate," the "turning of the wall," fortified with towers by Uzziah (2 Chron. xxvi, 9), and the "broad wall" (Neh. iii, 8; xii, 35). The course is now covered with houses, and tentative excavations will have to be made step by step.

The second object is the carrying out of the Inquiry into the Manners and Customs of the People now residing in and about the Bible Land.

The Questions have been drawn up for the Special Committee of Inquiry by Captain Conder. They are separated into classes, not only of subjects, but also of peoples, because there are many questions which may be put concerning the Bedawin, for instance, which would be absurd to put concerning Greeks or Druses. Among the races and religions of Syria which will be subjected to this inquiry are the Greek Christians, Latin Christians, ordinary Moslems, Metawileh, Druses, Maronites, Armenians, Bedawin, Fellahin, Ansariyeh, &c. The Questions are framed in accordance with the scientific classification prepared ten years ago by Mr. Francis Galton and others for the British Association. A separate set of questions has been drawn up by the Folk-Lore Society for the Committee. As a good many questions are suggested by subscribers, Captain Conder, who has had all these placed in his hands, and has put together the Questions for the Committee in their present shape, desires it to be known that in some form or other all these suggestions have been acted upon, though in most cases the form has been quite changed and the inquiry made to lurk in another so as to avoid any appearance of a leading question.

Copies of these Questions may be seen at the office.

The remaining object is the publication of the materials now in the hands of the Committee. They would like to publish them for all members, but the cost is too great unless very substantial assistance is given them. The materials and plans consist of—

- (1) Captain Conder's Survey of Eastern Palestine, with all his drawings and plans.
- (2) Le Comte's Drawings, made for M. C. Clermont-Ganneau's Archæological Mission.
- (3) Hart's Natural History Memoir.
- (4) Schumacher's Second Survey (not yet received).

Professor Hayter Lewis has completed his second visit to Jerusalem. He employed himself in investigating especially the architecture of the Dome of the Rock. A few notes from him as to other points will be found further on. It is hoped that he will, before long, give the results of his study to the world. Mr. Laurence Oliphant will return to Syria in the autumn.

Captain Conder's new work will be out in October, published by Bentley & Son. Its title will be "Syrian Stone Lore." It will contain an account of Palestine and its people taken from the monuments, and will show us all that can be learned from them alone without the aid of the Bible. This is an entirely novel subject, and one which no one probably, except Captain Conder himself, is qualified to treat. As in previous cases, a considerable allowance in the price will be made for subscribers.

Captain Conder's article in the *Expositor* of May on Professor Socin's criticism of his work entirely bears out Mr. Walter Besant's notes on the subject in the *Quarterly Statement*. A few extracts from it are here reproduced, principally in order to show that the methods pursued by the officers of the Expedition were *exactly those which the German critic complained had not been adopted*.

Mr. Guy le Strange is compiling for the Committee a Gazetteer of Palestine from the early Arabic geographers. He expects to have this ready by the end of the year.

The Palestine Pilgrims' Text Society has issued its "Procopius," long promised. It is not published for the general public, but sent out to subscribers only. The Council's Report for the year 1885 is also ready, and can be had on application. Mr. Le Strange's translation of Mukadessy is in the press, and will now be ready in a few days. Mr. Walter Besant's translation of the Norman French Description of the City is also in the press, and will be ready very shortly for Captain Conder's notes.

As regards the copies which remain of the "Survey of Western Palestine," the friends of the Society are urged to get them placed in public libraries. The

work will not be reprinted, and will never be sold by the Committee at a lower price; and as it becomes known for the *only* scientific account of Western Palestine, it will certainly acquire a yearly increasing value. Five hundred were printed, and the type is now distributed.

The income of the Society, from March 17th, 1886, to May 31st, 1886, inclusive, was—from subscriptions and donations, £261 10s. 6d.; from all sources, £392 3s. 2d. The expenditure during the same period was £319 18s. 2d. On June 1st the balance in the Banks was £239 13s. 11d.

It is suggested to subscribers that the safest and most convenient manner of paying subscriptions is through a Bank. Many subscribers have adopted this method, which removes the danger of loss or misarrriage, and renders unnecessary the acknowledgment by official receipt and letter.

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.

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) The Rev. Henry Geary, Vicar of St. Thomas's, Portman Square. His lectures are on the following subjects:—
 - The Survey of Western Palestine, as illustrating Bible History.
 - Palestine East of the Jordan.
 - The Jerusalem Excavations.
 - A Restoration of Ancient Jerusalem. Illustrated by original photographs shown as "dissolving views."
- (2) 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.
- (3) The Rev. James Neil, formerly Incumbent of Christ Church, Jerusalem.
- (4) The Rev. George St. Clair, Bristol Road, Birmingham, has resumed his Lectures for the Society.

NOTES FROM JERUSALEM.

WE are quite out of the world here, even the letters being cholera-bound, and when this will reach you I have no very clear notion ; but I thought it better to take the chance of getting a report to you of my doings. Dr. Merrill and Mr. Schick have been very kind, and given up much time to me, and Mr. Moore has rendered great service by securing for me a visit to the Hauran area without being limited as to time or any particular place.

1st. I wanted to secure an accurate account of the newly discovered piece of wall near here. I will mark out the exact position on your map. Meanwhile, I send a memorandum which I drew out and read over to Dr. Merrill, who quite approves of it. I think it is clear.

2nd. I have seen Mr. Schick, and marked out for him the precise places in which Sir C. Wilson and Mr. Birch wish to have excavations made.

Mr. Schick thinks that he may be able to get the fellahin to do this, and will try. But this is Easter, when no one is working, so he will have to wait a little. Mr. Schick has also undertaken to trace further, if he can, the course of the newly discovered branch of the aqueduct at the suggestion of Sir Charles Wilson.

3rd. Russian excavations east of Holy Sepulchre. Of these I have made sketches with dimensions. I cannot explain them without.

4th. I have made a sketch plan of the very curious underground church to which Sir C. Wilson alluded.

5th. I have been able to examine carefully the Sakhrâh and Aksa twice. I had made abstracts of all the chief points of dissension, and ranged them in columns so that I had everything clear, and Mr. Schick went with me and gave me some valuable information as to newly found details.

6th. The remains of St. Stephen's Church are well preserved, but the figures of saints have almost faded away.

Near the church some extensive excavations have laid open some fine Mosaic pavements, showing that a large Roman mansion had been there. I will get drawings if I can, but I doubt having the time.

The environs are being rapidly built upon, and many beautiful points of interest are being spoilt by ugly houses ; but the building has had one curious result, viz., to clear away the great heaps of rubbish near the Damascus Gate. These are rapidly being removed and laying the walls bare.

In respect of the masonry of this gate I noticed a curious fact which has no doubt been previously remarked, viz., that several courses of the flank wall east of the gate which appear at first sight to be formed of the same small stones as are used in the Arabic portion adjoining, are really

formed of such massive stones as were used in the old wall work, but tooled down and chiselled across with fictitious joints so as to assimilate with the Arabic.

The outside of the newly discovered wall (opposite to Frutiger's bank) was to the west, viz., next to the "open field" as shown on the ordnance map, and is now being built upon to form one wall of a new hotel.

If continued, this outside line would strike the Tower of David at about three-sevenths of its width from the west front, and, so far as can be seen, at right angles.

The wall was composed of large stones not less than 6 to 8 feet long, and about the same height as the lower courses of David's Tower, and drafted like them; and the masonry, altogether, resembled that of the Tower in every particular. The wall was partly uncovered for a length of 120 feet, and was found to be one, two, or three courses in height, the lowest being directly on the rock.

Dr. Merrill saw the wall for a thickness of only 3 or 4 feet, but Mr. Schick happened to pass when it was uncovered for its whole width. He did not measure it at the time, and it was covered up when he returned, but it was certainly 8 to 10 feet thick.

The interior face of the stones was worked smooth.

Beyond the wall, externally, was a scarp in the face of the rock which was exposed for a depth of about 15 feet.

The new east wall of the hotel was required, owing to the street being widened, to stand partly outside of the old wall.

T. HAYTER LEWIS.

Mediterranean Hotel, Jerusalem,

26th April, 1886.

CAPTAIN CONDER'S REPLY TO PROFESSOR SOCIN.

(From the "Expositor" of May, 1886.)

THERE are three questions in Professor Socin's paper which have perhaps hardly been sufficiently distinguished. First, that of the permanent Map and Memoirs by which the Society must be judged. Second, their more ephemeral or speculative publications, the *Quarterly Statement*, and the Old Testament and New Testament Maps, with their popular books. Third, works not published by the Society at all, such as my Handbook and Primer, and Mr. Henderson's Handbook, for which the Society are in nowise responsible.

It is only fair to the Committee of the Society to remember that library scholars and the conductors of exploration parties are not made always of the same stuff. The Committee choose the commander; they ask him for a professional report, whereby he must be judged; and if he choose to add the results of his own literary studies, and if they publish these always with the caution that for such suggestions the author is responsible, it is, I think, clear that they have fulfilled at once their duty to the public and to the explorer. This is what the Society have always done. It is a question then: 1st, as to the professional report; 2nd, as to the explorer's opinions; but in both cases a question between the explorer and the critic, not between the Committee and the critic. I think that within the limits at his disposal, Professor Socin might have said more than he has about the professional reports—as to the physical description of the country, the minute accounts with plans and photographic drawings of the ruins, the legends and notes as to population, the inscriptions, and other details tending to establish date or historical sequence, the accounts of masonry dressing and other distinguishing peculiarities. Professor Socin has, however, preferred to confine his notice to picking holes in the results which have been published outside this professional report on Palestine, which forms the main material of the Memoirs, and the most solid basis of the reputation which the Palestine Exploration Fund enjoys, at all events in England.

I am not aware that the permanent publications of the Palestine Exploration Fund can justly be said to have, what he calls, an "apologetic tendency." Survey and the description of ruins have no tendency at all; they represent the collection of facts on which the reader may put any construction he pleases. The strength of the Society lies in the fact that officially it recognises no *views*, but only deals with ascertained facts. It is clear, from Professor Socin's misconstruction of my views on Biblical criticism, that there can have been nothing in the Survey Memoirs to allow of his knowing what those views are.

As regards the identification of the Akkadians with Mongols, I am not sure what Professor Socin's objection can be. Perhaps I should have written Finns or Uralo-Altaiic races, but this is a very slight alteration.

I can hardly believe that Professor Socin is ignorant of the results of philology in this case. The labours of Lenormant have proved beyond doubt that the old non-Semitic speech of Mesopotamia of the Akkadians, Sumerians, early Elamites and Cosseans, was closely akin to the Finnic language, and (according to the ordinary use of the word) was therefore Turanian.¹ Again, as regards the Amorites, Professor Socin says, "It is the name in a particular document for the Canaanites in general." I presume he is referring to one of the hypothetical documents into which some German scholars divide the Pentateuch; but considering how various are the views as to these components, no ordinary student is as yet bound to accept any one among them in particular as belonging to the category of ascertained fact. Professor Socin is presumably aware that the Amur are mentioned in Egyptian inscriptions, and I may remark in the known instances that they always appear as inhabiting the "high lands."

Professor Socin again seems to fail in making a point as regards the worship of the Makams, "a worship," he says, "as different from the old idolatry as is the Catholic image worship." Has he, I would ask, reflected on the mass of evidence which shows that Catholic image worship is directly founded on paganism, and that throughout Europe pagan deities of the Kelts or Gaul or Germans are still adored as Christian saints? The parallel is at least an unfortunate one for the critic.

As to the acceptability of Talmudic tradition in topography, there may be differences of opinion. My own belief is, that the earlier works of the second and third centuries, included under this general title with others of later date, are of very high value, as representing indigenous tradition. Like all other evidence, it cannot of course be accepted unquestioned. The question of identification is again one of opinion, but the rules of the interchange of certain letters which I have always attempted to follow are recognised by every student. Why Professor Socin should prefer Talluza (طَلُوْزَة) to Teiasir (تِيَاعِير) as representing Tirzah (תִּרְצַח) I cannot see; the former word has not a single letter in common with the Hebrew.²

¹ If this "makes a very painful impression on a serious German student," I can only suppose that the student in question knows very little of Assyriology. As to the Phœnicians coming from Mesopotamia, the evidence is not only that of Strabo or Herodotus, but includes philological considerations which seem to me of great weight, such as the name Akharu, the worship of Nergal and Tannus, and other indications of a like kind. I am aware that this migration is doubted by some, but it is accepted by good authorities.

² As regards the cases (four out of more than 150) to which Professor Socin takes exception—

Hosah = Ezzîyah is suggested for topographical reasons.

Hannathon = Kefr 'Anân is also chiefly on account of geographical position. The Talmudic Caphar Hananiah seems, however, to give an intermediate stage.

Niel has the article in the Hebrew, which Professor Socin seems to neglect.

As regards the Tomb of Rachel, I can only say that I have no confidence in Mr. Schick's supposed discovery. I investigated the matter carefully on the spot and found no basis for his assertion, nor has any one since confirmed the supposed existence of the name at Mr. Schick's site. Nor do the passages mentioned by Professor Socin (1 Sam. x, 2; Jer. xxxi, 15) prove that Rachel's Tomb was ever north of Jerusalem, while Gen. xxxv, 19, not mentioned by Professor Socin, distinctly states that this tomb was near Bethlehem (see 16).

Professor Socin does not believe that the Cities of the Plain were north of the Dead Sea. Josephus said they were under it, and the Biblical account may mean the same, but I can hardly think that any one who has visited the southern shores of the Dead Sea could believe it had ever been a district capable of supporting a settled population, whereas the plains of Jericho still are so capable. This, however, is not a matter in any way affecting the credit of the survey of Palestine.¹

As regards my identifications of Neby Namân with Micah, and of Neby Mashûk with Melkarth, Professor Socin has omitted all reference to the historical evidence on which alone they rest. Perhaps he has not been able to find it in the Memoir, but I assure him that it is there awaiting his perusal. I am perhaps to blame for not giving cross references, but must beg for indulgence, as I was again exploring in Palestine while the memoirs of my first survey were being published in England.

I now come to the question of the Arabic name lists, where I am more in accord with the critic. I cannot, however, think that Professor Socin can have read my account in the first volume of the Memoirs of the Method of Execution of the Survey. It is hardly possible that he can mean flatly to contradict—without any personal knowledge of the survey operations—my direct statement to the effect that the names were *never* repeated by the surveyors to the scribe. Each surveyor had with him invariably a local guide. Every name was taken down from the mouth of that guide in my presence, and in that of the surveyor, by the scribe. The error, if any, must have been that of the native guide. I do not, however, note any instances of such error mentioned by Professor Socin, and I have no doubt that my assurance will induce him not again to repeat his hasty assertion, which is contrary to fact.²

Tell en Nahl is quite out of the question, but I am not responsible for this rather wild shot of Mr. T. Saunders.

Chephar Haamonai is also supported by topographical requirements as to situation.

¹ The suggestion that Kasim was Cadmus was made by Professor Palmer. It certainly seems unfounded. As to Jisr Mujâmîa' there is a legend attached to the bridge, of a great gathering which once occurred there.

² There is one instance in the north where the name Tireh is spelt تيرد, yet translated "fortress," by Professor Palmer. I was, I believe, the first to show how this Aramaic word طيرد (تيرد) survives in Palestine, though its

The grammatical points raised by Professor Socin do not show, as he supposes, our ignorance of Arab grammar. They evince clearly to any one who has for six years¹ been living among the Fellahin, writing down their words, inquiring into the peculiarities of their dialect, and with the aid of experienced natives and residents examining the question of nomenclature, that Professor Socin has himself very little knowledge of these dialectic peculiarities. Had he possessed such knowledge he would not have prepared a vocabulary of "townsman's Arabic" only, for his travellers, and he might even be puzzled to understand a fellah of the outlying districts when he spoke. Thus, for instance, Burák is no doubt not the proper plural of Birkeh, but it is certainly a form used by the peasantry, as is Buwáb instead of Abwáb for gates. The correct form was constantly suggested to me by our scribe, but I always insisted on the fellah form being that written down. The various sounds of the feminine ending faithfully reproduce the fellah intonation. Surely Professor Socin does not suppose that Professor Palmer was capable of ignorance on such an elementary point as that of the *status constructus*, and I may tell the critic, that the list of abbreviations and explanations for those who could not read Arabic, was prepared, not by me, but by Professor Palmer. The question of transliteration is one of very secondary importance. Robinson's earlier method was adopted by the Committee because it was familiar in England. It is not in itself a good system; but no student would rely on the English lettering when he could find the original Arabic in the name lists.

The critic again objects to the translation of Shem (שֵׁם) as meaning "brown." It is not, however, my ignorance which is thus shown. The careful note on this question by Professor Sayce in the "Proceedings of the Biblical Archaeological Society" seems to me to leave no doubt on this subject. This is one of several instances in which I think Professor Socin hastily condemns statements as to the foundation for which he knows nothing.

As regards other writers, it is not my business either to defend or to condemn. The contributors to the *Quarterly Statements* of the Society are of various calibre. It is not I think undesirable that, in an ephemeral production of this kind, all who wish should find room to write, but the value of their contributions is matter of opinion. Personally, I should prefer not to see its columns filled with endless discussions on unimportant points which can probably never be settled. I should prefer not again to read therein bad jokes, or personal details of ordinary travellers' mishaps; but these are rare and unimportant details, and no doubt much very

meaning is lost to the natives. They translate it "bird" (طير), and in the same way Rámeh ("the hill") they translate "the tank."

¹ I spent the years 1872, 1873, 1874, 1875, 1881, 1882, among Fellahin and Arabs. I do not know how many years Professor Socin includes under the term "a considerable time," nor do I know if he actually lived among the peasantry and conversed with them daily in their own language.

valuable information has been obtained from outsiders through the columns of the *Quarterly Statement*.

I would make an exception in the case of the Rev. A. Henderson to the criticisms of Professor Socin. This writer has always been remarkable for moderation, modesty, and freedom from prejudices. We may not always agree with his views, and I hear, in corresponding with him, that there are a few slips and printer's errors in his Handbook, which he expects to amend in a future edition. I think, however, that this work—which has, by the bye, nothing to do with the Palestine Exploration Fund—is generally so sound and useful that it cannot fail to be acceptable in the class for which it is intended.

We have come thus to the end of the Professor's criticisms. We must thank him for his expressions of approval, and also for a good many really valuable suggestions and objections, but at the same time we may fairly expect him to withdraw many others which are hasty and ill-formed. We may also be allowed to suggest to his consideration, that no work—not even his own—undertaken by mortal man is perfect, and that it is necessary to look at the general character in pronouncing a verdict. The task of exploring 6,000 square miles, and then preparing and publishing the results, is not a small task. It has fallen mainly on the shoulders of Mr. Walter Besant and of myself, though there have been many distinguished contributors. I have no doubt Mr. Besant feels as I do, that we have learned as we went on. The task of final assimilation of the huge mass of material is not yet complete. It will probably not be complete for many years. I hope soon to offer a contribution to such assimilation in a work on which I am still engaged; but I fully expect to see, even in Professor Socin's future editions of his Handbook, the influence of the work that has been already done. Professor Socin's time is, no doubt, mainly occupied by original research rather than by criticism, and we may hope to obtain some results which may be more valuable even than his critical comments on the Palestine Exploration Fund, from the labours of the German Palestine Society. As yet we have had nothing very striking from them either in the way of exploration or of literature. The papers by Herr Schick and his plans are welcomed as the work of an old and zealous workman, but they are open to criticism far more severe than that levelled against the English Society. After all, we have given the public a solid mass of information, vouched for by professional men, and accepted by students of a very high class in England.

The critical school is fast being superseded by the historical in England. The study of monuments and inscriptions, coins, statues, and buildings, gives us more certain results regarding the vexed questions of Oriental antiquity than any amount of exegetical criticism can be expected to give. If Professor Socin doubts the existence of non-Semitic races in Syria, his doubt is not shared by those who have studied the records of Egyptian and Akkadian monuments, and I for one believe that more is to be learned from such comparative study than from any amount of theorising on "documents," "editors," "first and second Elohist," and

the rest ; at the same time it does not follow that because our line of research leads away from these bitter controversies to the safer path of contemporary monumental evidence, we are therefore ignorant of what has been written in these matters. I have studied the works of Kuenen, Ewald, Colenso, Robertson Smith, and other critics, and have become generally acquainted with the views of Hitzig, Wellhausen, and other German critical writers, and I have read Renan's great work, as well as numerous books of Lenormant ; but there are many other branches of study which must yield their contributions to the study of Syrian antiquity, and to which Professor Socin does not refer. Such are the publications of the Biblical Archæological Society, the "Records of the Past," the Sacred Books of the East, the works of Smith, Layard, Rawlinson, Boscawen, Taylor, Sayce, Chabas, Brugsch, Birch, Mariette, De Rougè, and many more. There is so much to do in collating all that these great scholars have written respecting Syria, that the study might well fill a lifetime without leaving time for exegetical works. I think Professor Socin will agree, that time is better spent in trying to learn than in trying to pick holes in other men's work. As regards the word already spoken—that is past. If there has been error or shortcoming, all that can be done is to amend in the future, and to strive through the aid of one's critics to avoid the perpetuation of error. In the end, the true lives, the false dies away. All we have a right to require of every writer is, that he should be honest, well-informed, and open to conviction, conscientious in doing his best, and conscious of his own fallibility.

STONE DOORS.

I.

WE have been long familiar with the Stone Doors of Bashan, but Mr. Oliphant's discovery of a couple of these old portals, built into the house of a Jew at Tiberias, gives a new interest to the subject. In Palestine stone doors belong to the past, but I write to state that while lately accompanying the Afghan Boundary Commission through Persia I saw doors of that kind still in use at the present day. The necessity for them in that country may, perhaps, throw light on the conditions which required such protection in Palestine in times gone by. For centuries back, and up till only about two or three years ago, Persia has been liable on its north-eastern frontier to incessant inroads from Turkoman raiders ; these raiders came at times in small bodies, at times in large numbers ; their plan of action was necessarily hurried, they swooped down on villages and carried off whatever they could pounce upon. Men, women, and children, as well as houses, cattle, and sheep, were all prey to the Turkomans. The human spoil in such cases were carried off and sold as slaves in the

bazaars of Khiva and Bokhara, where almost all chance of escape was cut off from the great desert of Central Asia being thus placed between the victims and their own country. The Persians had to protect themselves from such inroads as best they could, and with this object every village was walled, towers of refuge were erected in the fields: these had a narrow passage to creep up through, so that if a raider tried to follow, the refugee could batter his head as he emerged upwards. On similar towers watchmen were placed on the look-out, and when an "Alaman," as such forays were called, was seen approaching, guns were fired and every one rushed, either to seek protection within the walls of the village, or, if that was too distant, to find safety in the nearest tower of refuge. These raids were sudden, and rapidity was the essential part of the tactics. If the rush on a village failed, there was no delay to make an attempt by other means; the party darted off at once to try their luck at the next village before news of the foray could reach it. Such being the case elaborate defences were unnecessary; shelter for the moment was all that was required. It would not have taken long to burn a wooden door, and thus gain an entrance where there were few defenders. The villages could defend their gates from being burned, for they had loop-holes so placed as to protect them; but in some of the larger towns there were houses with gardens outside the walls. The walls in such cases were high, and the only entrance was by means of a small stone door. There was a defensive strength even in smallness, and they were often of most diminutive size, some being less than 3 feet in height. I only saw one village which had a stone door. This place is called Lasgird, about 100 miles due east of Tehran. It is a very curious spot; the outer wall is a circle, but it is a thick mass, being wide enough to contain the houses of the villagers in it; these are in the upper part, about 30 feet from the ground, where the people are out of danger from attack. There are rude balconies all round, by means of which the people can communicate from house to house; the central space within the circle has houses for the storage of grain and for the horses, cattle, &c., and there is only one small gate to this place, with a massive stone door, the dimensions of which are 45 by 37 inches and $7\frac{1}{2}$ inches in thickness. The village is supposed to be very old, and the tradition is that the circle, or "gird," which forms its plan, was originally traced on the ground by *Las*, or *Last*, the son of Noah. This character will no doubt be new to most readers of the *Quarterly Statement*,—he was so to myself; in all my travels in the East I never heard of such a personage. Most probably there may be other legends regarding him, and I for one would feel obliged if any person can throw light on this fourth son of Noah.

This stone door of Lasgird is a very rough piece of workmanship; I have put the thickness at $7\frac{1}{2}$ inches: this was about its greatest depth, but it was so rudely made that this varied considerably. It wrought on pivots, the same as the doors of Bashan; the smaller doors I have described did the same. It will be noticed that the stone doors of Bashan, as well as the pair of doors found at Tiberias, have been copied from

models which had been beautifully fashioned in wood: the panels on them are clear evidence of this; they had also been ornamented with metal bosses. The stone doors of Persia speak for themselves, and tell of danger from sudden attacks. This suggests that the transformation on the east of the Jordan from wood to stone implies a change which had taken place at some former date in the condition of the country, that a peaceful state had been succeeded by an unsettled period, during which the use of stone for doors became, as we find in Persia, a necessary precaution. The substantial form of the original wooden, as well as the elaborate reduplication of them in the lithic material, is not consistent with the idea of a hasty or momentary adoption, but points, in both cases, to a considerable duration of time when each of them had been in use. We may thus derive a hint from these peculiar portals which may be of some historical significance.

WILLIAM SIMPSON.

II.

THE STONE DOORS OF TIBERIAS.

THE stone door at Tiberias figured and described on page 79 of the last *Quarterly Statement* is the same that I saw in 1880, and which I described in my "Sacred Palmlands" in the following words:—"Tiberias, March, 31 I long to know the date of a pair of massive old stone doors which we saw inserted into the gateway of a modern Jewish house as we passed through the town this morning. No sooner had we stopped to notice them than the Jewish proprietor, accompanied by a number of his relatives and friends (belonging to the Askenazim and Polish Jews), came out and gathered in a group around us. They told us that the doors had lately been discovered buried under the present edifice. They are carved in imitation of wood, the design on them being bosses arranged quincunx fashion, alternating with panels. In the upper inside panel is a projection hollowed out apparently for the reception of the bolt which kept their massive folding doors securely fastened. I observed a block of stone also with bosses carved upon it, built into a house further on, and other remains of this sort are to be found here. I fancy by the style of workmanship they belong to the same period as the giant cities of Bashan." The sketch of the stone door made on the spot by my mother (who was travelling with me) is identical with the engraving on page 79 illustrating Mr. Oliphant's paper.

A. G. WELD.

DID THE WATERS OF THE JORDAN ORIGINALLY FLOW INTO THE GULF OF AKABAH?

A REJOINDER TO THE WRITER IN THE "SATURDAY REVIEW."

By PROFESSOR HULL, F.R.S.

THE mode of formation of the Jordan-Arabah Valley has been a subject of investigation, or of speculation, for a long period of time. The idea, first, I believe, suggested by Burkhardt, that the river Jordan originally flowed down the whole course of the depression from the Lebanon to the Gulf of Akabah, has been deliberately rejected by Lartet, and more recently by myself, after an examination of the line of depression from the Gulf of Akabah to the plains of Jericho and the Jordan Valley. This hypothesis has, however, been revived by a writer in the *Saturday Review*,¹ who it may be presumed has not had the same opportunities of personal examination of the ground, and who takes the author somewhat to task for presumably not giving this view sufficient examination in a recent memoir on the geology of this region.² The Reviewer objects that I leave unexplained "the peculiar and distinctive contours of the Jordan-Arabah Valley, especially the gradual descent on both sides to the greatest depth in the bed of the Dead Sea, as well as the singular flattened watershed in the Wády Arabah." The writer proceeds: "The physical features of the region appear to accord far better with the view that the valley as a whole marks the course (originated no doubt by a line of flexure and faults) of a river which once poured its waters into the sea on the site of the present Gulf of Akabah, and that this valley was afterwards affected by a new series of flexures running east and west, the result being to raise the parts to the north of the Gulf, and to lower the whole of the upper region, the maximum depression being now indicated by the Dead Sea. This hypothesis, the more natural, as it appears to us, does not appear to have been duly considered by Professor Hull."

It is perfectly true I have not devoted much space to the attempt to confute an hypothesis which I believed to have been universally abandoned, and which, as I hope to be able to show, the more it is examined in detail the less does it appear to be capable of support. The enormous difference of level between the floor of the Dead Sea and the summit of the Arabah watershed, amounting to over 3,270 feet, seems to me an insuperable objection to the view that the Jordan-Arabah Valley could ever have been a continuous river-valley.

There is undoubtedly, at first sight, a great temptation to infer the existence of a continuous river-valley, when one looks at a physical map

¹ *Saturday Review*, 17th April, 1886, p. 552.

² "The Survey of Western Palestine: Memoir on the Physical Geology and Geography of Arabia Petrea, Palestine, and Adjoining Districts." Published by the Palestine Exploration Fund (1886).

of the entire region. At the northern extremity, where are situated the sources of the Jordan, we behold the highlands of Syria; at the other an arm of the sea, and each connected by a nearly continuous valley. I say *nearly* continuous, because at the saddle (or watershed) near the centre of the Arabah, the valley is mainly represented by the highlands of Edom on the east side; while, on the west, it is divided into two by a very low ridge of limestone called Er Rishy. Indeed, at this critical point it is somewhat difficult to determine where the real valley lies, as the western arm opens out upon the great plain of Badiet-et-Tih, and the eastern forms a terrace covered by gravel stretching across from the limestone ridge to the base of the Hills of Edom.¹ It seems to me that any one who studies the features of the watershed, as they are represented on the topographical map of Major Kitchener and his assistant, Mr. J. Armstrong, will come to the conclusion that they are very unlike those to be expected in the case of a large river-valley near the termination of its course. In fact, the distinctive contours, which are so remarkable in the Jordan depression to the north, and also in the southern portion of the Arabah Valley, here almost disappear.

Now, I come to inquire, what are these "peculiar and distinctive contours" which are so much relied upon by the Reviewer for indications of a continuous river-valley? I presume they are only applicable to the western margin, because those of the eastern are clearly and undoubtedly due to the elevation of the strata along the line of the great Jordan-Arabah fault, which was traced by us from the shores of the Gulf of Akabah to those of the Dead Sea, a distance of about 120 miles. To the east of this fault the different rocks crop out, and the sedimentary strata, having a general dip towards the east, break off in cliffs and escarpments such as are generally observable in similar cases.

I must therefore assume that it is in the scarped cliffs of limestone along the western side of the Jordan-Arabah Valley that we have the supposed indications of a river-valley margin. These cliffs are undoubtedly often very imposing, lofty, and precipitous. Taking the portion of the valley called *The Ghôr*, in which lies the Dead Sea and the Lower Jordan, if I am asked how do I account for these cliffs on the one hand, and for the deep hollow of the lake basin on the other, I have to reply, that the cliffs were formed in the first instance by wave action along strata fissured and fractured by faults, and subsequently by meteoric abrasion. It must be recollected that, owing to the manner in which the stratification is concealed along the sides and bottom of the valley by lacustrine deposits, it is seldom possible to make observations on the Cretaceous limestones; but, judging from the manner in which the beds are in some places flexured and highly tilted towards the western margin of the Ghôr, it is a fair inference that there are, besides the main fault which generally runs at the eastern margin, numerous other faults or fissures, by which the beds have been dislocated and displaced. When referring to the line of the

¹ Geological Memoir, p. 20.

Jordan-Arabah fault as an axis of disturbance, I have observed, "it is sufficiently clear that this line was an axis of disturbance for the whole region now under consideration. Along this line the strata are either displaced by secondary faults, or contorted and tilted at various angles; while, as we recede from the line of the displacement, the beds generally begin to assume a position approaching the horizontal."¹

Again, as regards the deep hollow of the Dead Sea basin, I have stated that as the land area was gradually rising from beneath the Miocene ocean, and as the table-lands of Judæa and Arabia were being more and more elevated, the crust fell in along the western side of the Jordan-Arabah fault, and that the bed of the trough, owing to continued subsidence, became more deep over the area now occupied by the waters of the Salt Sea itself, and that into this gulf all the waters flowing from the bordering lands naturally emptied themselves. In a word, my explanation of the existence of the deep hollow of the Dead Sea is:—unequal subsidence along the line of the main fault, and the presence of parallel and transverse fractures along the western side of the Ghôr; and if we recollect that this valley was filled by the waters of an inland lake, 200 miles in length and 8 or 10 miles in breadth, we shall have no difficulty in accounting for the presence of an aqueous agent, powerful enough to undermine, and in undermining to shape the lofty cliffs which abound the valley in some places.

With reference to the fine cliffs, often in the form of a double scarp, which bound the western side of the Arabah Valley for about 30 miles to the north of the Gulf of Akabah, I may observe, that they are essentially similar in character to those along which the Cretaceo-Nummulitic limestone of the Plateau of the Tih terminates towards the south and west, where the idea of river action is out of the question. During the period when the land was rising out of the sea, and again during the period of subsequent depression, when the sea rose from 220 to 300 feet, these cliffs must have assumed *in the main* their present outline. This has subsequently been modified by rain, frost, and water action; but I can see no sufficient reason for inferring the action of a great river in the tract of the Arabah south of the Dead Sea, nor do we find the remains of river terraces in the Arabah Valley, such as we might have expected if that valley had been the bed of a large river, which had afterwards dried up owing to subsequent physical changes.

Lastly, turning to the hypothesis of the *Saturday Review*, that after the formation of the main line of depression along the great north and south fault there occurred transverse movements, producing east and west flexures, I am quite unable to accept such a proposition. The general displacements of the strata were produced during the Miocene epoch, and except the subsequent gentle lowering of the whole region in the succeeding Pliocene, to the extent of 200–300 feet, which was unaccompanied by flexing of the strata, I hold that all the great disturbances are referable to the one epoch, namely, the Miocene.

¹ Memoir, p. 107.

The lowering of the deep trough of the Ghôr to a depth of 3,000 feet along an east and west synclinal axis could not have taken place without affecting the levels of the table-land of Southern and Central Palestine to a very appreciable extent. But, as a matter of fact, the central table-land is as a rule quite as elevated, or somewhat more elevated, to the west of the Ghôr as it is either to the north or south of that position. Nor does the existence of the saddle or watershed of the Arabah, which is 700 feet above the sea, seem in the least to affect the general levels of the table-land of the Badiet-et-Tih, for, as already stated, this saddle seems to merge into the general surface of the country along the west.

One other point remains. Had the streams on each side of the Arabah entered a river flowing southwards it may be assumed that their channels would have pointed, more or less, in the same direction, at least along that part lying north of the watershed. It is only necessary to refer to the map of the Arabah to see that such is not the case. The valleys of the Jeib and its tributaries, together with those on the Edomite side, will be seen in the great majority of cases to point more or less to the northwards, indicating an original northward flow.

Having thus given the hypothesis of the Reviewer as full a consideration as appears necessary, I trust I have made it sufficiently clear, from considerations based on the physical features and geological phenomena of the region in question, that this hypothesis cannot be sustained.

"THE VALLEY OF ZEPHATHAH AT MARESHAH."

CAPTAIN CONDER in his April notes on the *Quarterly Statements* of last January referred to my article of the above title, and said, "The ingenious suggestion of Mr. Flecker does not seem to me necessary." The reason he assigned for this opinion was that he had some time ago proposed what he thought to be a satisfactory identification, viz., Wady Safieh, which I confess I have neither seen nor heard of before. As, however, readers of his remarks might think that I had invented a pretty theory, and rushed into print to overthrow better suggestions for the sake of my own, I begin with—

I. Some explanations of my suggestion. It pretends to no ingenuity, for I have invented nothing. I have only given the reading which I found in the LXX. I may have been the first discoverer of the cause of the variation, for Schleusnor does not give it. But that discovery is so simple that it is merely for want of attention that others did not see it before me. The only thing that might be blamed or objected to in my suggestion is the proposing a Septuagint reading instead of the Masoretic Hebrew. To this I can say that I have not done it because I like to correct the Authorised Hebrew by the Greek Version, but because, in

spite of my disinclination to do so, and in spite of my firm conviction that the Hebrew Scriptures have been preserved with an exactness and freedom from error and corruption which are unparalleled in any work of literature of any antiquity, I could not help being struck with the smallness of the change and yet greatness of the improvements which that change introduces into our passage of 2 Chron. xiv, 10. The two readings as seen in the Hebrew letters **צפתה** and **צפונה** differ from one another by a space of the size of a point which divides one of the letters and makes it into two. Now, however low you may estimate the difficulties of the Masoretic reading, which gives the one undivided letter, does it not seem strange, if that little space in the Alexandrine reading is an error, that it alone and nothing else should be able to smooth away all these difficulties, and introduce improvements which satisfy completely the requirements both of the language of the text and of the locality of the history? If this error or slip of the pen could really be proved, then the least we can say is that it is a very interesting error, and therefore even then it would not be unworthy of notice.

It is remarkable that another most obscure passage of several verses in Zech. xi is also most beautifully cleared up by a similar but reverse mistake (if the mistake is indeed on the LXX side); viz., the annulment of a space between two words making them into one. As that passage now stands in the Hebrew, no commentator has yet been able to make good sense of it that is not forced. Take especially the word **לבן** of verse 7. Commentators have invented various theories about it, not one of which has been generally accepted as satisfactory. The Revised Version, following Pagninus' *profecto*, translates it "verily," which can only be justified by the supposition that **לבן** stands for **אבן**. But what says the LXX? It only abolishes the space between this and the following word, reading **לבן עניי** (or strictly speaking **לבנען**) instead of **לבן עניי**, as also in Verse 11, **בנעניי** (or **בנענים**) instead of **בן עניי**.¹ Yet this slight external alteration has an immense effect internally. It removes the disappointing anti-climax, "verily the poor of the sheep," and such like renderings; it gives a new complexion to the whole passage; and it introduces good sense instead of confusion, a connected account instead of broken and abrupt sentences. When we further consider that the Greek Translators themselves did not see the improvement, nor understood the passage at all, which shows that that small but important alteration we are speaking of, was not an intentional correction, but a rendering according to their reading; can we reject this also as an error not worth proposing? Now the meaning of that passage thus corrected I take to be this. Just as Isaiah and other prophets were sometimes commanded by God to act

¹ It should be remembered that there was no final Nun in those days. See my "Scripture Onomatology," p. 25, and "Smith's Dictionary of the Bible," p. 1206.

their prophesies before they spoke and explained them (see Isa. xx; Jer. xiii; Ezek. iv, v, xii, &c.); so here.

Zech. xi, 4, 5, Zech. is first asked to act, viz., to shepherd butchers' sheep, or "sheep for slaughter whose buyers kill them and are not condemned, and whose sellers," as well as shepherds, do not pity them, the former rejoicing in the money they have obtained for them.

V. 6. This is explained at once to mean that God will not spare the inhabitants of the land, even as men do not spare such cattle.

V. 7, 8. Then the prophet obeyed the command, shepherding sheep for some sheep merchants (לְבַנְעֵי הַצֹּאן, not *εις την χαναανιτιν*—LXX).

He also took two staves for the purpose, and wandered away (lit. cut himself off) with three other shepherds for one month, when he became sick of his companions, and they also detested him.

V. 9, 10. Then he said, "I will not be shepherd with you; let the dying die, and let the wandering wander away," &c. He also broke one of the staves as a sign that he had broken every covenant that he had made with any one.

V. 11, 12. Then those merchants (בְּנֵי־צֹאן) who kept him or hired him "knew that it was the word" or commandment of Jehovah. Therefore, when the prophet asked whether they would give him his hire; though he neither did nor could insist by right upon it, because his covenant with them was broken, yet they gave him 30 pieces of silver.

II. To return to our subject of 2 Chron. xiv, 10; as regards Captain Corder's new identification, if I am not mistaken, it seems but to describe by a different name the same valley to which the LXX also points. He calls it Wâdy Safieh which "passes quite close to Mareshah," and "up which runs one of the high roads to Hebron;" and the LXX calls it the valley north of Mareshah. If this name is correct, it stands in opposition to that of the southern valley which now bears the title Wâdy el Arab, but was most likely in olden times termed the valley south of Mareshah. But why does the Captain call the northern valley Wâdy Safieh? The map does not give it. It shows a broad strip of low country branching out into W. el Judeiyideh with a road running straight north, W. esh Sherkiyeh with the Jerusalem and Hebron road, and W. Fedeil which seems to be a shorter cut to Hebron. I can only think that he applies the name Wady Safieh to the beginning of W. esh Sherkiyeh up to or a little beyond where it passes Kh. Safieh. But do the natives also call it so? And if they do, may it not be a modern name, even as W. el Arab is in the south?

Further, the Hebrew too, points, in my opinion, clearly to the same spot, viz., the valley or valleys above described. For the valley had to be north on the way to Jerusalem and near to Mareshah (לְמַרְשָׁה). Yet the large armies which were engaged in that historical battle may have filled miles of those valleys. If, then, identifiers do not find a name resembling Zephathah on that spot, it is out of the question to look for it on any other. Now, it so happens that there is Khurbet Safieh. But the

Bible speaks of a valley, therefore we want a Wady, not Khurbet. This, we have seen, Captain Conder professes to have found too. Still I hold that an identification in order in any degree to accomplish the aim of his identification, viz., to render that remarkable LXX reading unnecessary, ought to have some stronger certainty about it than the unmapped Wady Safieh has; and the affinity or kinship of its name ought to be more real and substantial than that which exists between (עַתְּרוֹ) and (עַתְּרוֹ). For though in the history of names these and greater changes may in some unaccountable way happen to take place, yet it is not a usual thing at least that a ת should turn into a ו.

But, finally, when we also consider that no identification can smooth the language of the text, then we see that the Hebrew cannot by such means be satisfactorily established, nor the Greek really proved to be in error. The question, therefore, resolves itself of necessity into one between the two readings. Perhaps another visit to the place itself will do much to clear up matters concerning the valley. But, with regard to the two readings, I do not wish to be positive in my opinion about them, but am content to say that there will probably be no assurance upon the question between them until the day when this time of uncertainty shall have passed away, and we shall know even as we are known.

E. FLECKER.

Durham, May, 1886.

ZION, THE CITY OF DAVID, OR ACRA, SOUTH OF THE TEMPLE—*continued.*

I OBSERVE that Sir Charles Warren makes no attempt to defend his site for Zion. Perhaps he is too busy, or rather, too wary to reply to my arguments.

He claimed the *link* in support of his site, and in the last statement Captain Conder has appealed to the *chain* in opposition to mine. Our rival theories can be submitted to no better test. Accordingly, though it may seem presumption in me to contend against these professional surveyors, I venture to try their theories by the *link and chain*.

Sir Charles Warren (Temple or Tomb, 22) admits that Zion = the city of David = the Macedonian Akra = the Akra of Josephus, and observes, "Therefore we have a connecting link throughout." Precisely so. But I have proved (*supra* 26) that the Acra of Josephus was south and not west of the temple. Therefore the *link* gives its support to my theory, not to his.

On the other hand, Captain Conder appeals to the *chain*, and after

measuring up my plan, says (p. 82), "Mr. Birch's 'City of David' now occupies an area of 200×600 feet, or $2\frac{3}{4}$ acres. I do not consider this large enough for a city, or even for a country house and grounds."

I stated (p. 34) that I had made the area at least three acres, but it seems that my reduced plan is a twelfth of an inch too narrow, representing about 25 feet on the ground. It must therefore, to remove the discrepancy, be made a *line* wider, or *three* altered to $2\frac{3}{4}$ acres. The error no doubt arose from my being neither a draughtsman nor a surveyor.

As Captain Conder observes that my city of David *now* occupies this small area, I must remind him that this is the only estimate I have given. When I mentioned 10 or 15 acres (1884, 78) I was quoting *his* estimate of the area of Ophel (1883, 195), which he pronounced absurdly insufficient for the City of David; but I never intended to trench on his generosity to any such extent.

In thinking 200×600 acres too little for the castle of Zion, Captain Conder must have forgotten that in the "Memoirs" (Vol. I., 130) his plan represents the castle of Belfort (Kulat es Shukif) as still smaller. Sir Charles Warren's measurement of it was 400×230 feet at the most. That castle held out against Saladin for a whole year. Why should the Jebusites want more room than the Crusaders? It may, however, be that Captain Conder means that a castle less than three acres in extent, would never have been entitled "the City of David." There is little to guide one on this point, but in 2 Kings x, 25, "the city of the house of Baal" has been taken to describe merely the place where Baal's priests lived in or near Samaria; and Patrick (2 Samuel v, 9) observes, "The fort (*i.e.*, of Zion) was not wide enough to contain the whole court and all his guards and others that had occasion to come hither, and therefore David built round about it." I assert as a fact that Zion was solely on Ophel (so called), but its area is at present purely a matter of conjecture. I think 3 acres, or even $2\frac{3}{4}$ acres, sufficient; still there would be some advantages in its having reached nearer to the pool of Siloam.

In the *chain* Captain Conder has provided me with an effective weapon for destroying his own Acra theory.

A. He identifies ("Handbook," p. 333) "the Acra of Josephus with the knoll of the present Sepulchre Church," and (p. 354) says, "In the Lower City also, not far above Siloam, was the palace of the royal family of Adiabene (5 "Wars," 6, 1; 6 "Wars," 6, 3)." It will be seen on reference that Josephus says this palace was *in the midst of Akra*. As therefore Captain Conder admits that Akra was a hill and places "not far above Siloam" a palace situated in the midst of Akra, it necessarily follows that Ophel (so called) must be Akra, for the Upper City certainly was not Akra (being distinguished from it by Josephus. "Wars," V, iv, 1), and the only other hill within Jerusalem "not far above Siloam" was Ophel (so called), south of the Temple. Therefore Captain Conder himself becomes a witness to Akra being south of the Temple. If he still claims that his site for Akra, west of the Temple, is correct, I reply that it can hardly be described as "not far above Siloam," being according to his plan (p. 235)

not the twelfth of an inch, but *three inches* distant from Siloam ; representing on his scale not merely 25 feet, but 2,500 feet.

I have already pointed out (p. 29) that the levelling of the Acra mentioned by Josephus is unsupported by and contrary to 1 Maccabees.

When Prof. Olshausen placed Acra south of the Temple, Dr. Robinson rejected this site because

- (a) One of the western gates of the Temple ("Ant.," XV, xi, 5) led to the *other city*, which he took to be Acra.
- (b) Acra was over against the Temple ("Wars," V, iv, 1).
- (c) Acra was naturally higher than the Temple hill, and Ophel could not have been so (*id.*).
- (d) Acra used to be separated from the Temple by a broad valley which the Asmonæans filled up, but no valley apparently ever separated Ophel from the Temple.

And (e) Thrupp afterwards added that the space on Ophel was too small to have contained the Lower City or Acra.

The Doctor ("Biblical Researches") deemed his objections unanswerable, and gathered that the Professor had resigned the game. Yet the Professor might have checkmated the Doctor in four moves, by replying thus :

- (a) The *other city* was the Upper City.
- (b) Ophel so called was over against the Temple, just as the tower ("Wars," IV, ix, 12) near the south-west corner of the Temple was over against the Lower City.
- (c, d) The tale of Josephus about levelling the Acra is simply nonsense, and contrary to 1 Maccabees (p. 29), and so too with the valley.

As to (e) Josephus says nothing whatever about the area of Acra, while Thrupp and Lewin admitted that the part south of the Temple was "at the time of the siege the most important part of the Lower City." They allowed that Acra took in this southern part, but did not perceive that Acra was confined to it.

Some, however, are so fascinated with Josephus' story about Akra being levelled that they seem blind to its absurdity. Let me then by means of the *chain test* show the *impossibility* of Captain Conder's site for Acra.

B (1.) According to Josephus, Akra (the fortress) was razed, and the hill on which it stood reduced to a lower elevation than the Temple. Yet notwithstanding this, Captain Conder gives the level of the rock near the Sepulchre Church at about 2,480 feet, and puts the Sakhrāh (the highest part of the Temple hill) at 2,440 feet, or 40 feet *lower* (!) instead of higher. No doubt his figures are correct, but his theory is obviously wrong.

(2.) Captain Conder considered 10 or 15 acres insufficient for my city of David, which was the Akra of the Maccabees and of Josephus. Therefore I grant to him *one acre* more, hoping he will consider 16 acres sufficient for his own Acra.

(3.) He says (1880, 81), "The amount of the hill lowered is about 30 feet on the average . . . and if, as seems not improbable . . . yet greater."

Multiplying 16 acres by 30 feet (I hope some R.E. or C.E. will check my figures), one learns, with no little amazement, that the Jews must have removed $16 \times 43,560 \times 30$ or 20,908,800 cubic feet of rock in carrying out Josephus' fancy.

A cubic inch of Jerusalem rock weighs (I believe) slightly more than one ounce, which gives quite 1 cwt. per cubic foot. Therefore, in leveling the Acra hill, more than 1,000,000 tons of rock (not to count the old material of the Acra Fort) must have been moved from its bed. Josephus states that the Jews were busy at the work day and night, for three years, but allowing them rest on some Sabbaths and feast days, we will reckon that they worked only for 1,000 days, so that the daily output would be 1,000 tons.

Cui bono? Was the game worth the candle? Captain Conder ("Hand-book," 347) says, "The object was to make it impossible for any fortress built on Akra again to command a view of the interior of the Temple courts."

What! A Jew persuading his countryman to lift 1,000 tons daily for 1,000 days and earning gratitude thereby, and all only to prevent a view of the Temple being gained from the west, which any day might be gained from the north or east! Impossible. Gentile eloquence has cajoled many into foolish acts, but nothing like this. Why not without any fuss have raised the wall on the western side of the Temple? Or, if an eighth wonder of the world was indispensable, without more rock being quarried, a gigantic dry ditch might have been hewn out (as a northern defence to this troublesome Acra and Jerusalem), 2,000 feet in length and 100 feet in breadth and depth. And, as to fame, Simon would then have gone down to posterity, not as "a remover of mountains," but as "the Father of the Abyss." *Dulce est desipere in loco.* I have trifled enough. Let me now thank Captain Conder for the help of the *chain* in unmasking the outrageous absurdity of Josephus' most popular fiction.

In the anonymous paper on the Herodian Temple (p. 96), the writer seems to me to have forgotten that the excavations of Sir C. Warren amply confirmed Josephus' statements about the depth of the Tyropœan Valley.

That writer also falls into another error when he says "Josephus *incorrectly* assigned the position of the Acra." He indeed located it quite correctly, but his interpreters misunderstand him (p. 26). Again the "two gates" (Ant. XV., xi., 5) on the western side of the Temple did not lead into the Acra at all, but into the suburb, while two gates (and not one only) led to the Upper City, for one led to the royal palace in the Upper City and the other to the *other city*—*i.e.*, the *upper city*, as rightly observed by that writer on p. 96.

If any one still remains eager to emulate the prowess of Joab, let him attack Zion on Ophel (so called).

THE NEWLY DISCOVERED ROCK-CUT TOMBS CLOSE
TO THE JEREMIAH GROTTO NEAR JERUSALEM.

By CONRAD SCHICK.

(From the Zeitschrift of the German Society.)

For some years the "Battlefield" with the neighbouring ground west and north of the Jeremiah Grotto has been the property of the Dominican Order; houses have been built there, the ground examined, and a high division wall erected on the road by the side of the hill of the Jeremiah Grotto.

When the foundations of this latter were dug, some tombs were discovered in the rock which had to be more closely examined and cleared, as the line of the proposed wall was to go straight across them. Their size was so great that it seemed desirable to preserve them in their entirety, and as they subsequently turned out from their hewn crosses to be Christian tombs, the Order regarded their preservation as a duty, and proposed to build a Sanctuary for them later on. The tombs were cleared out, and the bones carefully collected and interred in a suitable place. The place itself was covered by a protecting building.

The exact position of these tombs outside of Jerusalem is as follows:—

You go northwards for 245 metres through the Damascus Gate on to the road leading to Nablous, and then turn east to the right into a small bye-way. After 40 metres you come to an old cistern, and perceive on the left side (north) a low gate which leads through the northern boundary wall of the road into a garden. Continuing for 50 metres in a northerly direction you reach the entrance of these vaults. It lies in the second bend of the above-named bye-road, where it again diverges from a north-easterly into an easterly course.

The tombs are entirely hewn out of the rock, and only in a few places, obviously at a later period, has masonry been added. Undoubtedly the tombs originally were of much greater extent, but have been destroyed by excavations carried on in the west. On closer inspection one easily recognises that their origin dates from the Jewish era, and they do not in any way differ from the Jewish rock-tombs so frequently found in Palestine, and especially in the country surrounding Jerusalem.

After their partial destruction and possibly complete desecration they were used by Christians as places of interment, and were considerably enlarged. I arrive at this from the fact that these enlargements have been carried out in a different style, and exhibit not only crosses cut into the rock, but also in high relief hewn out of the rock. The former might have been cut into the already standing wall surface; the latter could only have been added if the rock was newly manipulated or new vaults built. Also

in several places the doors have been subsequently made larger and notably higher.

The great vault with its side chambers is genuinely Jewish. It is 5·30 m. long, 4·30 m. broad, and 3·60 m. high. The walls are smooth, the ceilings horizontal, and the doors much higher than usual, being, namely, 1·80 m. The antechamber, going west, is 2·50 m. long, 2·30 m. broad, and, like the other side chambers, 2·30 m. high. It had suffered from the above-mentioned destruction, but was later restored with masonry and filled with tombs sunk into the ground. The side chambers, which lean to the west, have been preserved in their entirety, each having three stone benches for the reception of the corpses. The place for the dead was marked by a cushion-like elevation, formed out of the rock, into which a half-round hollow was hewn. The longer benches had this on both sides. Whether they were meant to serve for two corpses, or whether one could have the choice upon which side to lay the head, cannot be determined. The benches were 1 m. high, with the upper surface slightly hollowed and furnished in front with a low edge to prevent anything rolling off. Under the dividing wall and the contiguous stone benches of the side chambers there is an apartment hewn in the rock, which serves as a common grave. Towards the east there are likewise two side chambers, of which the southern, however, is only a passage to a third, and which has one sepulchre only.

In the eastern side chamber three sarcophagi have later been hewn out of the ground, and a new chamber constructed towards the east, obviously for the definite object of serving as a common grave. Of the western side chamber only the partition wall, together with the door, has preserved its original form; towards the west and south the place has been considerably enlarged, and a quantity of tombs have been hewn on an entirely different system, besides which the missing rock is replaced by masonry. At the same time the proper entrance to the vault on the south side has been restored. In three places close together, from west to east, we find in the ground in twos (in the western row in triplet), sarcophagi of an extraordinary length, the lower being 0·50 m. high, and only 0·50 m. wide, whilst the upper is 0·51 m. wide. On both walls there was therefore a broad ledge of 0·15 m. broad, upon which stone slabs could be placed so that when the lower grave was filled with corpses it could be closed up. The tombs in the western row have the greatest linear measure, viz., 2·70 m., with a depth of from 1 m. to 1·20 m. Some of the sarcophagi are rounded in a sort of apse at one end.

On the north side of the western row, as well as on the southern side of all three rows, vault-like excavations are to be found 2·50 m. long, 1·10 m. broad, and 1·90 m. high, which served as common graves; crosses are carved on most of them. On the above-mentioned ledge, in the middle division of the western row, two fragments of a sarcophagus still rest. Is the explanation of the extraordinary length of the tombs perhaps that they were primarily intended for the reception of stone or wooden coffins?

Every sarcophagus was immediately covered with stone slabs as soon

as the corpses were laid inside, and most of them are to be found existing to this day. The rock walls on the long sides (north and south) of these three rows overlap the sunken graves 1·65 m. The whole enclosure of this peculiar group of graves appears to have been restored by means of small planks or laths. On the long sides hewn in the rock there are small furrows or rabbets running horizontally, by means of which one plank after another was let into the hewn groove in the side, and then finished up sideways into the rabbet opposite, till a closely built plank covering was formed.

As the curve was only 0·20 m. broad, wooden and not stone slabs must have been used, as stone slabs of this insignificant breadth opposed to a length of 2·80 m. is inconceivable, and no remains of such are discoverable.

Whenever a burying took place, the requisite number of small beams were removed, and at the conclusion again inserted. A little staircase in the vicinity of the entrance led down from the sarcophagi to these vaults.

It is surely not by accident that the plan of these tombs, which are proved by the hewn crosses to be Christian, provides that the dead are much more closely united than is the case in Jewish tombs. Probably they wished to keep in view the idea of the close brotherhood of the Christian community.

In the rock covering of the principal chamber there is an opening which was no doubt originally intended to let in light and air, but appears at a later period to have been used for conveying the corpses through; at any rate, exactly underneath, a large number of bones are to be found. In a deepening of the ground was discovered, we were told, a small metal box, which could only be opened by force, and which contained different bones of animals, and particularly birds. I did not myself see it.

In the sunken graves, which were first restored in the Christian era and closed with stone slabs, a plate was found bearing in Greek letters the word "Ephthemios."

In the vicinity of this grave chamber several hewn stones and broken shafts of columns were found, one of which was 4·30 m. long and 0·90 m. in diameter, and another shorter one 1·10 m. in diameter. Possibly further exploration of this and other remarkable wall remains at this place will yield still correcter conclusions.

THE
PALESTINE EXPLORATION FUND

NOTES AND NEWS.

WE have once more, and for the third time, to announce that Her Majesty the QUEEN, our Patron, has made a donation to the Palestine Exploration Fund. His Royal Highness the Duke of Connaught has also become a donor to the Society.

We have the pleasure of communicating to our subscribers another paper by Herr Schumacher, giving the results of his recent visit to Southern Palestine. The map published with the paper shows the extent of his survey. It begins immediately south of Gaza, where our own map ends, Captain Conder's southern boundary being marked by the Wâdy Ghuzzeh. The extent of country surveyed includes a length along the coast of 26 miles, with an average breadth of 5 miles. The map includes 63 places, as against 7 in Smith's Atlas. There are also 40 drawings accompanying the MS., which are here reproduced.

The most interesting part of the paper is that describing the very singular brick building excavated at Askalan. In the present unfinished condition of the excavation it would be premature to make any guess at all as to the purpose and date of this building. The drawings and plans show that it is a building unlike any other in the country. Another brick building was also discovered by Schumacher at Tell esh Sheikh (at the southern end of his map). The Government have forbidden any further excavation; it is hoped, however, that destruction will be also forbidden.

A paper by Herr Schick describes the finding of the second aqueduct to the Pool of Siloam, whose existence was already suspected by Sir Charles Wilson. Herr Schick has hit upon the aqueduct in three places. It remains to be further examined and, if possible, cleared out.

The Report of the Public Meeting, held on Tuesday, June 28th, at the Royal Institution, was printed for this number of the *Quarterly Statement*, but owing to the absence of some of the speakers the addresses have not all been corrected. The Report, therefore, must stand over until January.

Readers of Captain Conder's books will be pleased to hear that another will be produced by the Committee immediately. It is already printed and will be issued early in November, in the same form as his preceding works. A general account of its contents will be found on p. 164.

Another paper has just been received from Herr Schumacher on researches and antiquarian discoveries made in and about Haifa and Akka. This will appear in January.

The paper by Mr. H. G. Tomkins approaches the question of the site of Gath from an entirely new point of view. In the modern name Tell es Safi he finds preserved the name of one of the heroes of Gath.

The French Dominican monks at Jerusalem have made some remarkable excavations on some land which they have lately acquired, about a furlong and a half outside the gate of Damascus. Six metres below the present level of the ground the workmen came on some arches of considerable extent, the walls of which had been very carefully built. At a short distance they found the basement of a chapel, before the entrance of which there was a tombstone covered with a long inscription, which, however, was stolen before any one thought of copying the inscription. About the middle of their property they found a large well-preserved mosaic, and upon the space all around being cleared the bases and other remains of great pillars were discovered. This is supposed to be the site of the great basilica built in the fifth century in honour of St. Stephen, by Eudoxia, the wife of Arcadius, the first of the long line of Eastern Emperors. A still more remarkable discovery was made while digging the trench for the foundations of the boundary wall which the Dominicans wished to build; the ground gave way and one of the workmen disappeared. On clearing out the place they came upon a large and beautiful hall which had been cut out of the rock; where the rock failed the gap was filled by admirable masonry. From two of the sides two large doorways led into two vaulted tombs, all of equal size. On each side of the vault there was a resting place for one coffin, and at the end opposite the entrance places for two. At the farthest end of the great hall a passage led to another excavated vault, in which stood three great covered sarcophagi. It is suggested that these sarcophagi contain the remains of Helena Queen of Adiabene and her sons. The quantity of bones found in these chambers was very great. In the middle of the great hall, in a hollow specially prepared, a sort of long metal box was found. It was adorned with representations of children holding garlands up on high. Unfortunately there was no inscription, nor anything which could furnish a clue to the period or the process of these sepulchral chambers.—*Globe*, August 23rd, 1886.

Another book on the City of David. This work is by the Rev. A. Bernstein, B.D. (Nisbet & Co.), and consists of information chiefly derived from Talmudic sources.

Herr Hanauer wishes the following corrections to be made in his letter on Khurbet Orma which appeared in the *Quarterly Statement* of January, 1886 :—

1. ערמק page 24, third line from bottom, should be ערמה.
2. קרם page 24, fifth line from bottom, should be הרם.
3. "rain-heap," page 25, third line from bottom, should be "ruin-heap."

At the moment of going to press there has arrived at the office of the Fund a capital of white marble, an account of which will be prepared for the Society by Professor Hayter Lewis. At present all that can be said is that it is of the highest architectural interest. It can be seen at Adam Street, by any one who calls between 10 and 5, except on Saturday, when the office closes at 2 P.M.

The following new members have joined the General Committee :—

- Bishop of Salisbury.
- Rev. W. Allen, Vicar of St. James's, Bermondsey.
- Rev. Dr. Cunningham Geikie, Author of the "Life of Christ," "Hours with the Bible," &c.
- Mr. J. W. Pease, M.P.
- Mr. Francis Galton, F.R.S., President of the Anthropological Society.
- Mr. Lawrence Gomme, Hon. Sec. of the Folk-Lore Society.
- Mr. Guy le Strange.

The "Memoir of Twenty-one Years' Work" has quite run through its first edition of 1,500 copies, of which about 1,000 were asked for by subscribers, a hundred sent to the Press, and the rest were sold by the publishers. The new edition is now ready, with the correction of certain press errors. Those subscribers who have not yet asked for the book are reminded that it is ready for them.

Subscribers are requested to note that the financial year ends on December 31st, and are earnestly invited to forward their subscriptions for the current year before that date, and without waiting to be reminded. The Clerical Staff of the Society is kept as small as possible, and subscribers will bear in mind that they themselves can help to keep down expenses by sending their subscriptions without being called upon to do so.

The Palestine Pilgrims' Text Society has recently issued the "Mukadessy," translated and annotated by Mr. Guy Le Strange. The tracts already issued by the Society are—

1. Antoninus. } Translated by Aubrey Stewart, and annotated by Sir
2. Sancta Paula. } Charles Wilson.
3. Procopius. Translated by Aubrey Stewart, and annotated by Sir Charles Wilson and Professor Hayter Lewis.
4. El Mukadessy. Translated by Guy Le Strange, and annotated by Sir Charles Wilson and the translator.

In the Press are—

5. The Bordeaux Pilgrim.
6. The Norman French Description of Jerusalem. By Captain Conder and Walter Besant.
7. The Journey of the Abbot Daniel. Translation revised by Herr Khitrovo, of the St. Petersburg Exploration Society.

The subscription to the Society is One Guinea. The Palestine Fund lends its offices, and the management expenses are nothing but postage and a little clerk's work. As many publications are annually issued as the funds will allow. The Director is Sir CHARLES WILSON, and the Hon. Sec. is Mr. WALTER BESANT. The present number of members is only 75.

The Committee for conducting the Inquiry have not made any progress during the summer, but a report will be ready for next number of the *Quarterly Statement*.

The income of the Society, from May 31st, 1886, to October 8th, 1886, inclusive, was—from subscriptions and donations, £406 9s. 7d.; from all sources, £470 6s. 7d. The expenditure during the same period was £318 17s. 1d. On October 8th the balance in the Banks was £270 12s. 10d.

It is suggested to subscribers that the safest and most convenient manner of paying subscriptions is through their Bank. Many subscribers have adopted this method, which removes the danger of loss or miscarriage, and renders unnecessary the acknowledgment by official receipt and letter.

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.

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) The Rev. Henry Geary, Vicar of St. Thomas's, Portman Square. His lectures are on the following subjects :—
 - The Survey of Western Palestine, as illustrating Bible History.
 - Palestine East of the Jordan.
 - The Jerusalem Excavations.
 - A Restoration of Ancient Jerusalem. Illustrated by original photographs shown as "dissolving views."
- (2) 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.
- (3) The Rev. James Neil, formerly Incumbent of Christ Church, Jerusalem.
- (4) The Rev. George St. Clair, Bristol Road, Birmingham, has resumed his Lectures for the Society.

SYRIAN STONE LORE.

THE title of this work is intended to indicate its character. It is an attempt to build of stone rather than of paper, to restore ancient Palestine from the monuments rather than from ancient literature, to show what we should know of Syria had the Bible been lost, and also how such knowledge illustrates the Hebrew Scriptures. The inquiry is, however, carried down to later times, with the object of tracing the survival of ancient conditions to modern times, and in the later chapters contemporary literature has been allowed to assist in forming an estimate of the various ages.

The subjects under consideration are social and ethnographic rather than geographical, so that the danger of repetition of the author's previous books is small, though many scattered monographs have been used up. The authorities read and abstracted for the volume amount to some one hundred and twenty or more. In each age the questions of race, language, religion, literature, art, architecture, social status, trade, arms, costume, and manners are illustrated. The following is an abstract of the chapters composing the book :—

1. *The Canaanites*.—Turanians, including Hittites. Semitic tribes, including Amour, Egyptians, and Philistines. The religions of Syria. The prosperity of the country in 1600 B.C. Spoils and tribute. Names of deities worshipped. The Hamathite hieroglyphs. Rude stone monuments, &c.

2. *The Phœnicians*.—Their origin, alphabet, colonies, religion, temples, dress, tombs, dances, architecture, arts, ships, commerce.

3. *The Hebrews*.—Evidence of their condition before the Captivity. The Siloam Text. The wealth of Hezekiah. Early Hebrew literature. Tribal sanctuaries. Tombs and beliefs as to the dead. Art, science, civilisation.

4. *Jews and Samaritans*.—Condition of Western Asia sixth to fourth century B.C. Invention of coins. Condition of Persia. Reason of the Captivity. Samaritans. The ten tribes and Gog and Magog. The Aramean alphabet. "Speech of Ashdod." Usury. The Pharisees. The condition of Jerusalem.

5. *The Greek Age*.—Early trade with India. Jewish coins. Greek influence on the Jews. Early Hebrew inscriptions. The palace of Hyrcanus. Jewish architecture.

6. *The Herodian Age*.—Pharisees, Sadducees, and Essenes. Languages. Syrian trade. Coins. Herod's temples and cities. Herodian architecture. The Roman policy before Nero.

7. *The Roman Age*.—Trade of the age. Condition of the Jews. Roman coins of Jerusalem. The Syrian Emperors. The Nabatheans. The South Arab immigration. Buildings of the Antonines roads, Palmyra. The Gnostics. Jewish remains and inscriptions.

8. *The Byzantine Period.*—Survival of paganism. Chrysostom's and Cyril's description of Syria. The Eastern rites, baptism, &c. The heresies of the age. Superstitions. Byzantine trade. The alphabets employed. Luxury and poverty. Architecture of churches.

9. *The Arab Conquest.*—Early monumental history of the Arabs. The Persians in Syria. The rise of Islam. The sources of the Koran. Arab civilisation, architecture, literature, trade. The Dome of the Rock. Kufic and Neshki alphabets. Coins of the Khalifs. Toleration of the Christians.

10. *The Crusaders.*—Sketch of Crusading history. The origin and character of the Crusades. The Latins and the Eastern churches in Syria. Architecture. Government, trades, dress, and armour. Civil and ecclesiastical division of the country. The great castles. Literature, art, coins, seals, pictures. Decay of the Franks. Richard and St. Louis. The military orders. Assassins, &c.

In order to make the narrative as continuous as possible, details and *excursi* are confined to foot-notes, where authorities are quoted. The book is illustrated with three maps, taken from non-Biblical sources, representing Syria in 1300 B.C., in 500 A.D., and in 1300 A.D. There are besides about thirty illustrations, chiefly the author's own drawings from the original objects, including plans, inscriptions, statues, rude stone monuments, views, &c.

The book is dedicated by permission to H.R.H. Prince Albert Victor C. Edward of Wales, K.G., in memory of his interest in Palestine during his visit to the Holy Land in 1882. A good index is to be added, with description of illustrations and list of principal authorities. The author has striven to avoid controversy, and to render the work as completely as the limits allow a picture of Syrian civilisation in the various periods under notice.

NOTES BY CAPTAIN CONDER.

I.—BRONZE VASE FROM NABLUS.

THIS curious jug, now in the office of the Fund, I purchased in Nablus. The three heads represent some Pagan triad, but there is nothing to show date.

I observe, however, a representation on an engraved gem from King's Gnostic collection (Plate IV, Fig. 5, p. 209, King's "Gnostics"), very like my vase. Mr. King calls this a Bacchic vase.

II.—“TWENTY-ONE YEARS’ WORK.”

I MAY perhaps be allowed a few remarks on this excellent summary just published by the Palestine Exploration Fund Committee.

The map, p. 49, will be very useful. The “Pool of Bethesda” is shown in the present traditional site. In the fourth century it was shown at the “Twin Pools” at the north-west angle of the Haram. I believe Robinson’s site at En Rogel to be the true one. It will be noted that the newly discovered wall is within some 30 yards of my proposed second wall. As to the course of the first wall on the south, I have shown it in my later maps rather further south than the line attributed to me on this plain. Warren’s Ophel wall ought to be shown at the south-east angle of the Haram.

Page 64. The identification of Zephath and Sebeita is unsatisfactory. The two words have no letter in common. The Arabic for Zephath would be Safa.

Page 65. Hazeroth is not likely to have been as far north as Prof. Palmer thought. The true site is probably Burckhardt’s ‘Ain Hadhrah. I may note here that I have read carefully Dr. Trumbull’s work and Mr. Baker Greene’s “Hebrew Migrations,” but do not agree with the topographical views of either. The latter especially is open to severe criticism, and ignores much that has now been made quite certain. For instance, Engedi is moved to the south of the Dead Sea.

Page 70. Shutneh is not the proper Arabic equivalent of Sitnah, which is spelt with Samech. Still the identification is not impossible.

Page 90. I feel great difficulty in accepting the “Rock altar” of Zorah, though Dr. Chaplin tells me he thinks it is one. Flat rocks were used as altars in all countries, but I know no instance of a hewn rock altar, and the picture recalls some of the quarry cuttings commonly found in Palestine.

Page 117. There appears to me to be no reason at all to identify Wâdy Suweinit with the rock Rimmon.

Page 129. Salam Isim should be Salem Tsion. The tombs found by M. Clermont-Ganneau, north of Jerusalem, are probably crusading. That of Simon the Just here figured is not one of them. It is further north.

Page 175. The large survey made under my direction of Gezer does not seem to bear out the theory as to the Levitical limits of the city. Careful search was made on all the rocks for further inscriptions, but none were found. These texts are the most puzzling of the antiquities of Palestine.

Page 189. The discovery of other tombs renders the proposed fixing of the Holy Sepulchre at the one here drawn less certain. It will be noted that I never more than suggested a possibility in this case.

Page 196. My description of the stone over Jacob’s well will be found in the “Memoirs,” Vol. II. This stone is certainly not older than the twelfth century A.D.

Page 203. Not only is Smith's "Bible Dictionary" rendered antiquated by its Jerusalem and other topographical articles, but the progress of archæology leaves it far behind in many other respects—*e.g.*, the article on the Phœnicians is now quite out of date. A more compendious dictionary is much needed, and nearly every article would probably have to be re-written. The hasty critical articles in the new edition of the "Encyclopædia Britannica" do not supply this want. The best work of the kind, the "Variorum Bible," is too slight for the purpose of a scholar. There is indeed at present no really modern Bible Dictionary.

III.—KOKABA.

THIS place, mentioned by Julius Africanus (see Eusebius, H. E. I., viii, 14), and in the Onomasticon, *s.v.* Choba, and again by Epiphanius, Hæres xviii 1, xix 1-2, xxix 7, xxx 2-18, xl 1, liii 1, was beyond Jordan in Bataned, near Edrei and Ashtaroth Karnaim. It has been vainly sought on former maps, being a town of the Ebionites or early Christians of Bashan. On the new survey of the district I find a Kaukab marked seven miles west of Tell 'Ashtarah. It is said in the memoir to be a large ruin with ancient masonry. This seems to me the best find in the limits of the piece of Bashan surveyed.

LIST OF IDENTIFICATIONS, BY CAPTAIN CONDER, R.E., INSERTED ON BIBLE SOCIETY'S NEW MAPS.

- | | |
|--------------------|---------------------|
| 1. Luz. | 17. Naarath. |
| 2. Migdol el. | 18. Jazer. |
| 3. Ummah. | 19. Gibeah. |
| 4. Dabbasheth. | 20. Kirjath Jearim. |
| 5. Beth Dagon. | 21. Hareth. |
| 6. Lasharon. | 22. Kanaan. |
| 7. Adami. | 23. Debir. |
| 8. Remeth. | 24. Hezron. |
| 9. Rabbith. | 25. Bamoth Baal. |
| 10. Tirzah. | 26. Beth Peor. |
| 11. Abel Meholah. | 27. Beth Jeshimoth. |
| 12. Ramoth Gilead. | 28. Beth Gamul. |
| 13. Rakkon. | 29. Hill Hachilah. |
| 14. Timnath Serah. | 30. Mejarkon. |
| 15. Bezek. | 31. Archi. |
| 16. Bezek. | 32. Seneh. |

- | | |
|-----------------------|------------------------|
| 33. Bozez. | 39. Irpeel. |
| 34. Nephthoah. | 40. Archi. |
| 35. Galem. | 41. Caphar Hananiah. |
| 36. Beth Haccerem. | 42. Archelais. |
| 37. Hazor (Benjamin). | 43. Beth Laban. |
| 38. Gederah (do.). | 44. Kadesh on Orontes. |

The boundaries of the tribes, and those of Judea, Samaria, Galilee, &c., are also as laid down by Captain Conder, R.E. The scale of the maps does not admit of introducing many names of minor importance which are, nevertheless, now well fixed.

ACROSS THE JORDAN.

A REPLY TO C. R. C.'S NOTES THEREON.

In the April *Quarterly Statement* (1886) I find some "Notes on Across the Jordan," by Captain Conder. The remarks made are very useful, and I am thankful for the author's thorough critique and review, but I find it necessary to reply to a few remarks, and to correct some errors made in the press.

1. *'Ain es Sfêra* (or es Sfeira), pp. 259, 262, of Mr. Oliphant's account, proposed to be rendered "the yellowish spring" by Captain Conder, is correct and has to be written *عين الصفيرا*, according to information gathered on the spot.

2. *El 'Araj* written *الأعرج*, p. 244, of Mr. Oliphant's account would doubtless render "the lane," but never "the ascent" as Captain Conder proposes, which had to be spelled without an aleif *العرج*; there is no reason to call the place an ascent, while it is situate on a dead level plain, the Buteiha. I have also mapped and explored the site, and would maintain with Mr. Oliphant the original spelling and meaning.

3. *Tulâl Kana'an* *تلول كنعان*, p. 199. *Tulâl* must be written with one l in the middle, not "Tullûl" as adopted in the "Map and Memoirs of Western Palestine." The singular *Tel* *تل* has a sheddi ^ت but the plural *Tulûl* *تلول* no more. The same mistake must be altered in "Tullûl el Hesh," p. 231. *Kana'an* is the carefully gathered original correct spelling.

4. *Et Tireh* was originally spelt *الطييرة* by me, but was altered in the press into the false *التديرة*.

5. *Wâdy 'Ulleika* *وادي عُلَيْقَة*, p. 101, can also be written *عُلَيْقِي*, but is omitted in the map. It is the Wâdy running close east to 'Arâk el Heitaliyeh into the Yarmûk, and must be trans-written with two l's, not

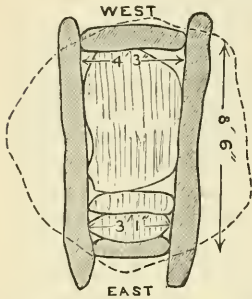
“Uleika.” This very common name of a valley or spring can hardly be rendered “the overhanging,” but means rather the valley of the bramble (blackberry), a shrub growing luxuriously at any place in Palestine where there is abundance of water, and with predilection in wâdies.

6. *Feddâns* (Yôkes), p. 22. Captain Conder doubts my statement that a Haurân Feddân is half the Feddân of Western Palestine. A Feddân in general is a very indefinite signification; literally it means the ploughing work of a pair of oxen done in a season, and villages are valued according to the number of feddâns they occupy; but as the villages situated on a hilly part of country would naturally do but half the work of those on the plain, they silently adopted two pairs of oxen, working alternatively six to eight hours a day, to make the meaning equal. This alteration to suit the circumstances of the case was by-and-by erroneously adopted by a good part of the Fellâhîn of the plains of Western Palestine, while the Fellâhîn of the Transjordan plateau kept their one pair of oxen by. It is therefore usual to ask during any inquiry made at a village about its Feddâns or land property: “Kam feddân bitshiddu (how many feddâns do you drive)?” and after the question is answered, to ask again: “el Feddân kam râs (how many heads to a feddân)?” The difference is so great in Western Palestine that the surface of a feddân varies between 100, 120, 150, and even 200 dunums, a dunum being 1,600 square dra' or 900 square metres, and that therefore, in mentioning the number of feddâns of a village, the meaning of its feddâns should irremissably be explained.

7. *Medany* (مدينة) is a very common word used in this form in vulgar Arabic, but must be written *مَدْنَة* Ma'adne in correct Arabic, deriving from *أَذَن* “addin,” to call to prayer, and represents the minaret of a mosque.

8. *Dolmens*. The explanation given by Captain Conder as to these monuments is interesting; but in spite of “the old idea,” I am still not yet fully convinced to the contrary of my views expressed in “Across the Jordan,” considering dolmens to be ancient burial places, all the more as I had opportunity to explore in 'Ajlûn, near Irbid, hundreds of dolmens with more leisure and exactitude than I was able to do in Jaulân. I opened several specimens and found in the interior of the dolmen, after lifting away 14 inches of common earth (humus) a mass consisting of ashes mixed with small pieces of burned coal, undoubted remains of *crumbling bones* nearly fallen to dust, and several *brass rings* 3 inches in diameter. These brass rings showed a very primitive ornamentation carved round a part of their outside. Below this mass I found a *stone slab* of different size, to which sometimes smaller stones were added to fill out the space of the dolmen-interior, and below this slab I generally found the bare rock. The dolmens were without exception conical, with an average interior length of 8 feet 6 inches, and a width of the western part of 4 feet 3 inches, and in the east of 3 feet 1 inch; some specimens were of larger size still. Each

size of the dolmen was built up with one single slab, and the whole covered as a rule with one single slab. They were built on a circular foundation raised 3 feet and more above earth. In my account of 'Ajlûn, I will re-



produce these discoveries more thoroughly. I now beg to ask: What was the object of a foot slab in the interior? Whence came ornaments and bones? Why were *also these specimens*, as a rule, exactly oriented to the rising sun? Why long and narrow, broader in the west than in the east, and thereby of the clear shape of a sarcophagus? Why were small openings pierced in the end slab (Jaulân)—was it not to dispense libations to the beloved dead? The specimens of 'Ajlûn were, as those found in Jaulân, entirely covered above

and all round, and the idea was therefore not "so foolish" as to leave the corpse to rot above ground, and liable to attacks of wild animals. Finally, it is possible to admit that these dolmens, numbering hundreds, erected close to each other, were altar shrines? I should think they formed a graveyard.

I should be glad to listen to the discussion of this question by a third person.

9. *Tell el Ash'ary* ("Across the Jordan," p. 208). A careful re-study of the passages of the Bible mentioning Ashtaroth and Ashtaroth Karnaim has convinced me that I have been wrong in stating that there was another Ashtaroth mentioned in the Bible distinct from Ashtaroth Karnaim. As to the predicate "Karnaim," Ritter ("Erdkimde," xv b, ii b, p. 822), also states that it is derived from a mythological character, and is supported in this by Winer ("Bibl. Realw.," i, p. 109).

10. Captain Conder asks, "Why are the Ahseinûjeh rendered foxes?" On my described visit to et Tîreh (p. 220) in Haurân I shot a wild animal living in the ruins, and took the skin home. This animal is not only in Haurân, but throughout Western Palestine, very common, and is called *Ahseiny* or *Abu Ahseiny*; by the Bedouins curiously enough also Ahseinûjeh. I sent the skin to a friend in Germany to define the genus of the animal, and he replied: "Your Ahseiny represents a Syrian specimen of our common Reinecke, a *Canis vulpes*;" therefore I rendered Abu Ahseiny, a Syrian fox. The proper significations Abu'l Ahsein and Tha'lib for foxes are also known in vulgar Arabic, but up to now I never came across an animal thus called by the natives. The number of foxes shot annually in the vineyards of the Colony at Haifa are invariably called Abu Ahseiny by the Arabs.

The Greek inscription of er Rumsanîyeh, given on p. 81 of the April *Quarterly Statement*, was discovered by me in 1884, long before the Jews settled at that place. (See "Der Djôlan," von G. Schumacher, 1884-1885.) I then found and cleansed this stone and other inscriptions and ornaments of the Constantine era hidden among the rubbish of an old Khân

Both inscription and design seem not to be reproduced carefully by the Jews.

In addition to the account of the sites of the eastern shore of Lake Tiberias, mentioned on the same and the foregoing pages, I would (according to my explorations made in 1884—see “Der Djôlan”) like to add, that the suggestion of Mr. Oliphant as to *el Lâwiyeh* and its Jewish character would be confirmed by showing that *el Lâwiyeh* اللّوية renders “the Levite.”

I should here like to give a Postscriptum relative to my “Researches in Southern Palestine.” I there mentioned *Tell en Keiz* as the place where the Jupiter Statue was found, and added, that if not, according to Pliny, Anthedon was to be looked for north of Gaza, I should not hesitate to identify *Tell en Keiz* with that old site. I now find in “*Zeitschrift des Deutschen Palästina Vereins*,” vol. vii, p. 5 ff, that G. Gatt of Gaza discovered in 1884 an ancient site one hour and a half north of the Mineh of Gaza, on the beach, called *Teda*, which represents the Greek form of *Anthedon*, and in the same account Professor Guthe states, that in the *Annales of Euty chius a Tadân* (633) of the vicinity of Gaza is mentioned, and also by Stark (“*Gaza u. die Phil. Küste*,” p. 565). According to these results, the question as to the true situation of *Anthedon* may be considered as settled.

HAIFA, August 4th, 1886.

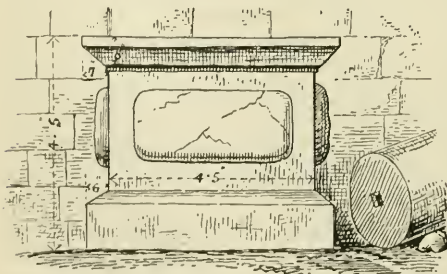
G. SCHUMACHER.

RESEARCHES IN SOUTHERN PALESTINE.

BY G. SCHUMACHER.

In obedience to the Arabic proverb, “*Erkab'al' Fejer, tiksab nahâr*” (Mount in the dawn, you gain a day), we started at midnight of June 11th, 1886, from Jaffa and took our way southwards towards Gaza, accompanied by a bright moon—this time of the year and in this country preferable to the sunbeams of the day. Our guide, Mustapha, who pretended to be familiar with every sand-dune between the two cities, accompanied us barefooted, and merely clothed in his shirt, with his wide pantaloons thrown over his shoulders, swinging a mighty dabbûs, or cane, in his hands, and playing tumbling tricks as if he had never made acquaintance with fatigue. The sand-dunes which border Jaffa to the south were soon passed, and we took our course to the sandy beach, where a gentle breeze from the west refreshed us. The first signs of the day appeared after a three hours' ride, when crossing the small *Nahr Rûbîn*; our horses were watered, and we began to arrange our toilette, while Mustapha realized this short pause for a sound sleep on the moist sand. The sun threw its first rays over the monotonous country when the white-washed cupola of *Nebi Yûnis* appeared; and near the shores of *Nahr Sukereir* we made a second rest. The horses

were fed, some of the dry shrubs were gathered and kindled, and a small coffee kettle soon furnished us with that useful beverage with which Europeans soon become familiar, and which in heat, wet, or cold always renders itself indispensable. Mustapha, in spite of religion and Ramadân (the Mohammedan Lent), preferred a cup and a cigarette to a second rest, and then off we started on the shore. The track in the sand now turns somewhat inland, several wells were passed, dug in the sand, where Bedouins watered their camels and carried off water for drinking purposes in buckskins (Kirbe's) to the waterless desert; the ruins of the ancient port of Asdûd (Minet el Kula'h) with its round-cornered towers were shortly visited, and about two in the afternoon we climbed up to the wely of the Sheikh' Awed (the Moslem Saint, so greatly venerated by the Bedouin tribes of the vicinity), and thence through cactus hedges and *débris* to the ruins of *Askelon*, now 'Askalân. We entered the old site from the north, where the fallen remains of the city wall show large granite columns built into it, and along a road, which to the right and left was undermined by natives excavating marble slabs and other antiques, we enter one of the gardens planted with figs, legumes, water-melons, and the highly-appreciated onions (shallots) of 'Askalân. Here we were informed that the Government had forbidden further excavations, but that nevertheless every suitable marble piece is transported as it is, or, in case of considerable weight, sawn into portable slabs and sold to Gaza and Jaffa, to be placed over the entrances of private buildings. Our inquiry whether any ancient brick building (of which I had intelligence) was discovered, was unexpectedly answered in the negative, and we were therefore obliged to confine ourselves to good luck and our own research. In struggling through the ancient site, thoroughly grubbed into, the noise of a saw struck our ears, and on approaching we found several natives at work cutting a slab of beautiful white marble into pieces. The slab was originally about 16 feet below the surface of the earth and measured 4 feet 5 inches in every direction; it had an unfinished cornice on its upper part, which was to be worked all round the block, as well as other uncompleted ornaments in the middle, in its central, and lower part. It was placed close to a well-masoned southern wall of sandstones; and several

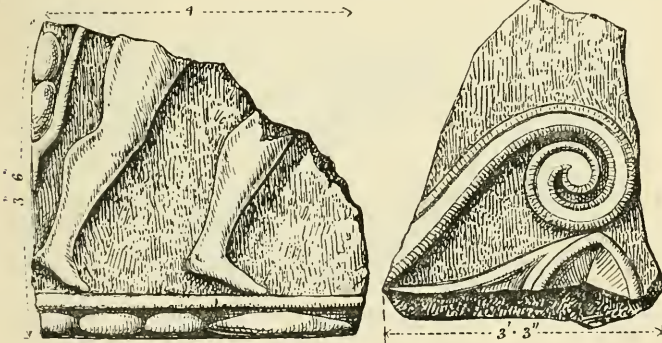
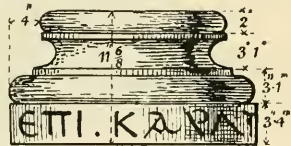


ANCIENT MARBLE SLAB AT 'ASKALÂN.

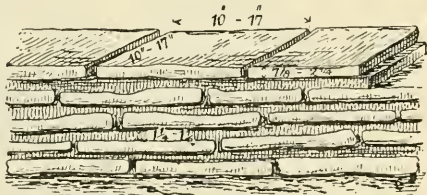
large granite columns of 14 and 18 feet in length, and 1 foot 10 inches in diameter at the base, were lying about the marble block. It may have been a pagan altar, which, like other parts of architecture of classical age, were brought crudely worked to their place of destination, and there finished with all the ornamental

details. The unmerciful saw, guided by three apathetic natives, two of which were pulling and one pouring sand and water into the cut, forced its way deeper and deeper into this valuable antiquity, and on my return homewards I found the slab cut into pieces of 1 foot thickness and partly carried away. *O tempora, O mores!*

We wandered further south-west, examined here and there the deep pits, but could not discover anything else but ancient sandstone walls, fragments of granite columns, tolerably well-carved Corinthian capitals, and attic bases of marble, one of which carried the following inscription: Small ornaments, parts with mouldings of human bodies, &c., and finally also the remains, of which we were in search, of brick buildings. These were excavated to a depth of 18 feet, and presented a wall facing west, with

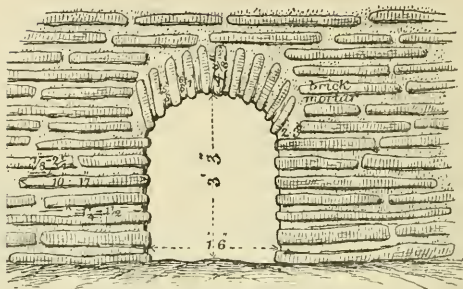


two vaulted small openings of 3 feet 3 inches in height and 1 foot 6 inches in width; several others of indistinct character were found between, but were shut by masonry. The wall consisted of burned bricks of a dark reddish-brown colour, each brick, being generally $\frac{7}{8}$ to $1\frac{1}{4}$ and some even $2\frac{1}{4}$ inches thick, and from 11 to 12 inches (some 1 foot 5 inches) long and wide; they were unevenly worked, and combined by a white good mortar mixed with chalk, ashes, and rough sea-sand, the joints being uncommonly thick, from $1\frac{1}{4}$ to $1\frac{1}{2}$ inches.



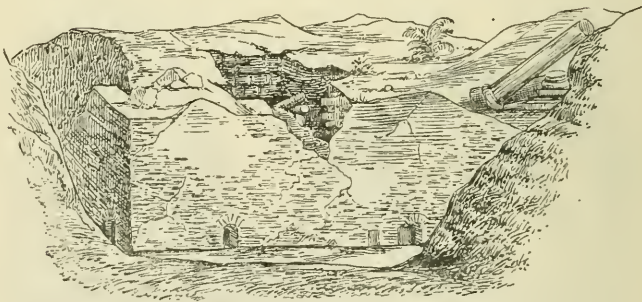
BRICKWORK AT 'ASKALÂN.

The arched vaults were constructed of small arch bricks $4\frac{3}{4}$ inches high and 1 inch thick, with joints of $\frac{5}{8}$ in. to $\frac{3}{4}$ in. between; they were not worked in a conic shape, nor do they run radially to the central point of the arch;

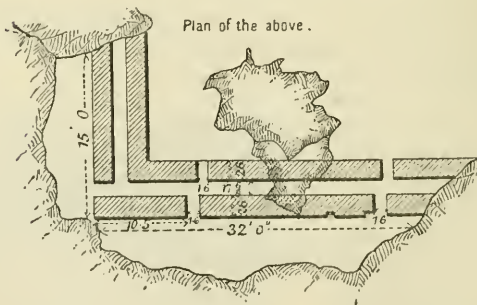


VAULTED OPENING IN THE BRICK WALL.

they stand steeper near the springer. The horizontal brick layers were joined very arbitrarily to the vaults—as seen from the sketch below.

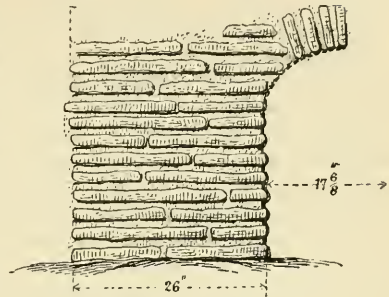


BRICK BUILDING AT 'ASKALÂN.



In passing through the described openings, we find the breadth of the wall to be 26 inches, and a small vaulted but fallen passage, called “ed Dakkakîn” (the stores) by the natives, of $17\frac{3}{4}$ inches wide separates it from a second wall of same construction as the exterior one, with same vaulted openings which finally led into a large room filled up with *débris*,

but which, without further excavation, could not be examined. It is evident that the wall first described was the exterior one of the building, and that the passage between it and the second wall was merely arranged to save masonry work. The total length of the excavated exterior wall is 32 feet; at its northern end it turns in a right angle eastwards and is excavated to a length of 15 feet, with a vaulted opening in correspondence with the passage. The exterior wall was formerly plastered, but the plaster is now totally demolished.



SECTION OF PASSAGE.

At this place (so we were told by the natives) several marble statues were found—human figures “of the double size of a man,” a male person with a beard embracing a child, and a female person aside of them, all cut out of one piece of marble; but as the Government had strictly forbidden to excavate, they immediately filled the pits up again, fearing that Europeans might come and take the “tasaivir” of the “Asnâm” (the pictures of the idols) and show them to the Government, which would be a confiscation of their property.

I had no excavation materials on hand, nor would the natives lend me their primitive instruments, and I cannot therefore verify the above statements; all I can state is, that at the place above described, more excavation work was done than anywhere else within the ruins—a sign that the excavation proved valuable. On my return home, a renowned native antiquarian at Acca told me secretly that at 'Askalân marble statues were discovered, and that he had the intention of looking after them shortly.

But the sunbeams became more and more oblique, and we were obliged to leave; in the shadow of the eastern city wall, near the place where, owing to tradition, a “bint melek” (Lady Stanhope evidently) once made large excavations, we took our dinner, on the summit of high sand-dunes which cover rapidly the great interesting remains of 'Askalân, from which the best view over the rummaged old site is obtained, and thence we rode along a sandy road to Barbâra (Bûrberah on the map), through the badly reputed *Wâdy et Takra*, and the olive groves and cactus hedges, into the city of Gaza, which we reached at sunset.

Gaza has, according to information obtained from reliable sources, now a population of over 20,000 souls, one-hundredth of them being Christians. Its trade with an excellent quality of barley to Egypt flourishes, and wealth increases; but the population, being twenty years behind the time, and still in a very low state of civilization, still adhere firmly to the old way: they live poorly; even the rich have as a daily meal “fûl” (beans), with an onion and a piece of roughly ground barley bread; meat is not wanted, and the stores of the wide Sûk, although numerous, contain but such

articles as may be asked for by the poorest fellâhin class of inhabitants of Northern Palestine. The population, with the exception of the above-mentioned 200 Christians, consist of fanatic moslems, who now prevent every European from visiting the Jâma' el Kebîr or St. John's Church (see "Memoirs of Palestine Exploration Fund," vol. iii, p. 240, 242, ff), and are supported in this by the Kaimakam of the place, who only allows a short visit to the church in company of Zaptiehs, and these are ordered to prevent any sketching or writing. The interior of the city was not so bad as expected; the streets are tolerably wide, and though there is want of water, they are clean; the houses of the Hâret ed Darej are well built with sandstones; they are high and generally vaulted, small wooden covered and closed balconies project from either side of the house, or are replaced by a wooden porch—an architecture generally adopted in Egypt, but unknown in Galilee. A great contrast to this quarter is the Hâret es Seijjûje, a clump of mud huts with a degenerate fanatic population who greet the stranger with stones, and, as the latter are not very abundant, with sand. A general view of the city, which lies on a flat little elevated portion of land between extensive and fine olive groves and cactus hedges, can be obtained from the summit of the only hill near, the Tell el Muntâr (tomb of Samson).

Corinthian marble capitals and columns lie about in the yards, and many a slab of fine marble with fragments of mouldings are built into the walls; but it seems difficult to state whether they were excavated at Gaza or brought hither from 'Askalân. The following Greek inscription, with raised letters, was brought to me as being recently found a little outside of the city.



GREEK INSCRIPTION ON MARBLE.

Drinking water of a brackish taste is obtained from wells of remarkable depth; I measured one which had a depth of 124 feet.

The "Mîneh" or port of Gaza, can be reached after a two miles' ride through deep sand. Nothing of interest to be found there, with the exception of the "Traquair," a fine English mercantile steamer, which was wrecked and thrown ashore just below the Quarantine; efforts have been made to float her again, but the work has already cost six human lives, and is aggravated by a permanent high sea.

Early on the morning of June 14th we left Gaza for the Philistine desert; a dew and breezeless night proved to proceed a hot day, and we had scarcely reached Tell el'Ajûl (or rather el 'Ujûl ^{تَلِّ الْعُجُولِ}, but not

“Tell el’Ajjûl,” ^{تل العجول} as written on Map, Sheet XIX, and “Memoirs,” III, page 253, ff), on the borders of Wâdy Ghuzzeh, when a blazing heat, of 124° Fahr. in the shade, combined by a south-eastern wind of the desert, nearly rendered a further advancing impossible. We climbed up the famous Tell el’Ajûl, and stood on the spot where the famous phantom yellow calf is wont to stand, indicating a hidden treasure. Our guide Haj’Aly, a learned highwayman and government officer, *ex-officio*, recounted the fame (also mentioned in “Memoirs,” III, p. 255): “On every eve a yellow calf appeared on the summit of the hill, and passed the night on the same spot; but it was in nobody’s power to seize it, therefore the old people held it to be sacred, and worshipped at the Tell.” In “Memoirs,” III, p. 255, we find a note subject to this fame and the discovery of the “Jupiter statue” there; but, according to information obtained, the Tell el’Ajûl is not the same where in 1879 this great marble statue (“Memoirs,” III, p. 254) was discovered; that hill is called *Tell en Keiz* (or in better Arabic, probably, Tell el ne Keiz), and is situate opposite Tell el’Ajûl, a mile nearly due west, nearer to the sea, and on the other bank of the Wâdy Ghuzzeh (probably “Tell Nujeid,” on Sheet XIX). It is an isolated round hill, elevated but 40 feet above the ground, smaller than Tell el’Ajûl, and covered with pottery and building stones, and widely excavated on its summit. Our guide pretended to have been present when the statue was found, and the neighbouring Bedouins, ’Arab el Mallâha, confirmed this statement to me, which also corresponds with the statements given in “Zeitschrift des Deutschen Palästina Vereins,” vol. ii, p. 183; “Bericht über die Statue, von Gaza,” von Lic. Guthe: Leipzig, 1879. On Tell el’Ajûl I discovered no excavations, but merely natural fissures of water on its southern slopes towards the wâdy, and some caves which, according to tradition, contain hidden treasures, watched by a black chicken, followed by seven young chickens, who from time to time appear at the entrance of the caves, but disappear as soon as people approach.

From Tell en Keiz (this is the exact Bedouin pronunciation) we rode down to the beach, climbed up the sandy hill of Tell esh Shûbâni, at the mouth of Wâdy Ghuzzeh, but could not discover any remains worth mentioning. Our object was to discover the ancient site of the “maritime city *Anthedon*,” mentioned by Josephus (“Wars,” Book I, xx, 3; I, viii, 4; I, iv, 2, &c.), which Van de Verde, Sepp and others, place somewhere near the Wâdy Ghuzzeh, but no similar name could be discovered. I should not hesitate to identify Anthedon, or Agrippias as it was afterwards called by King Herod (“Wars,” I, iv, 2), with Tell en Keiz, which proved to be a remarkable place by the statue discovered, the building stones excavated, and the large extension of the ancient remains found round the Tell, and the distance of 20 stadiums from Gaza (Sepp, “Jerusalem und das Heilige Land,” ii, p. 628), would be near enough, but Professor Guthe in his mentioned article (“Zeitschrift,” D.P.V., ii, p. 183), places Anthedon, according to Pliny, north of Gaza. (See note in letter dated August, 1886, p. 171.)

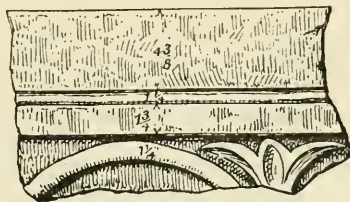
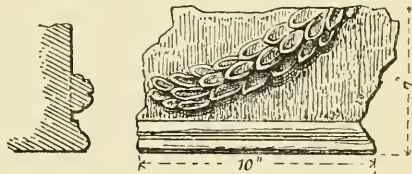
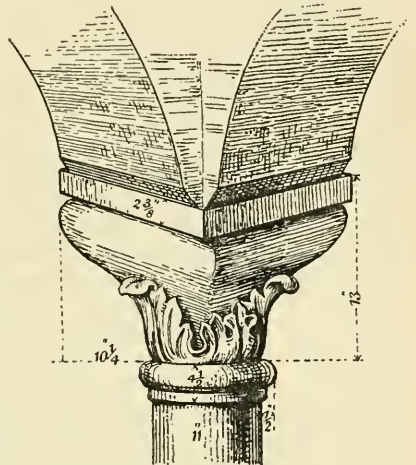
Little south of the Tell en Keiz, lies the sacred tree *Shejarat Umm 'Amir*; it strikes one's mind how many Mohammedan tombs and wells, all carefully whitewashed, are found along this coast from Jaffa to the boundary of Egypt, and on expressing my surprise about this fact to a learned Mohammedan, he exclaimed: "Eh! Ma t'arif innhu hal' shutt wâd en Nebi?"—(Do you not know that this coast represents the valley of the Prophet?) Leaving Shej. Umm 'Amir we gain the road again, passing through miserable camps of the 'Arab el Mallâha and a depression called Halfa, covered with rush beds, used by the Bedouins for matting, and reach the *Shejarat Behrâria*, a fine "sidri" (lotus tree سدري) to the right, and a "jummêzi" (sycamore) to the left of the road, where we ventured to find a shelter from the burning sun. This *Shejarat Behrâria*, a name very commonly known in the vicinity, may be identified with the "Shejarat Ghanâim" of Sheet XIX, although "Ghanâim" did not prove to be the correct vulgar designation, according to my researches. *Shejarat Behrâria* is remarkable for the great numbers of migratory pigeons who build their nests during the winter on this tree, and are hunted by the Gazlots. The blazing heat soon removed us from this place, and we went ahead again; to our right, two fig-tree gardens, *Krum abu ma'ali*, and several others covered with drift-sand up to their crowns were passed, and at ten in the morning we reached the first palms of Deir el Belah, the watered gardens *Biarât Abu Sitti*; westwards, and close to them, a depression some acres wide, called *el Mallâha*, is used for collecting cooking-salt. This sandy depression is separated from the sea and enclosed by sand-dunes all round; during the winter it is filled by rain-water about a foot deep, which is gathered from the slopes of the dunes covered with salty sea-sand, and when the sun becomes more intense the water evaporates, and a salt precipitate remains; in summer, wells are dug near the beach and the brackish water carried in jars from there to the Mallâha for the same purpose. Water of the sea is never used. A similar manipulation for getting cooking-salt is in use on the coast round Haifa. A hundred yards east of *Biarât abu Sitti*, rises the (*Tell*) *el Hadab*, a broad, long stretched hill, with Bedouin huts on its northern slopes, and artificial small caves, excavated by the fellahin for the purpose of storing grain. The huts are here covered with rush, of which there is abundance; aside of the huts some pottery was dug out, traces of masoned walls, and a demolished marble capital. "Hadab" حدب and "Kôz" قوز are local Bedouin expressions for Tell or hill. Taking from el Hadab our direction towards the town, we leave a small hill to our right near the sea-shore called *Tell Khuzk ekweid'a* by the Bedouins. *Deir el Belah* was reached at eleven in the morning, and the heat became so sultry that we hurried to find shelter in the Mohammedan tomb *Khudr Abu Abbâs*, which, being vaulted, offered us a cooler retreat than the shade of a tree. First of all we had to remove a dozen of lazy fellahin who, during the month of Ramadân, spent the nights eating and the day

sleeping in the Weli, while the crops on their fields ripen and over-ripen and become wasted ; after that work was done a second class of inhabitants, smaller in size, but more obstinate in their perseverance, were to be removed by using a new rush broom ; the field now seemed to be somehow suitable for a rest, and after taking a cup of Mocha and driving the fellahin outside of the Khudr, the interior could quietly be explored. I fully agree with the statements made relative to this building in the "Memoirs," III, p. 247 ; the disposition of the three apses in the eastern wall of the underground chamber prove its origin as a Christian chapel. I have also compared the two Greek inscriptions given in the "Memoirs" with the originals. They are getting rapidly defaced. A defaced Kor'an inscription was also found on the floor of the chapel. Of the others, remains, capitals and bits of marble ornaments, I here add some specimens.

Above the door of a modern mosque in the western part of the village I found an old Arabic inscription carved on a small marble piece, of which I took a squeeze and photograph.

The huts of Deir el Belah are built partly of stones, partly of mud, and number in all 125 ; the population may not exceed 500 souls, it being next to Kkân Yûnis, the most populous town between Gaza and the Egyptian borders. The population is Mohammedan, with

the exception of one Christian family which arrived a couple of days before us from Es Salt, and who confirmed to us that recently Deir el Belah was inhabited by numerous Christians. Ed Deir (generally called) was recently the scene of a bloody event : a Government soldier stationed at the round modern tower of the town, was ordered to collect the tithes from



the Bedouins near ; on such an occasion he ill-treated a Bedouin of the Hanâjereh tribe, who subsequently struck the soldier, mounted on his horse and hurried off ; the soldier followed, and on approaching he fired his rifle at the Bedouin, who fell off his horse and died on the spot in the middle of the village. The Fellahîn population of Ed Deir, fearing the blood-revenge of the Bedouin tribe, seized the soldier in his "fortress" and brought him to the Head Sheikh of the Hanâjereh, who took him, dragged him up to a hill close by and cut him there into pieces. The Mutasarrif Pasha of Jerusalem immediately ordered 300 soldiers to persecute the tribe, who meanwhile had taken refuge in the desert called Wâdy Zâmil, and as they could not be followed there the soldiers cut down their grain fields, destroyed their large water-melon plantations, and camped on their main camping field in a hamlet called Sheikh Hamûda (see map), where they were still stationed during our trip. The case has not yet been settled, and as the Bedouins of the district of Gaza are in no way fully subjected, it may lead to troubles of some extent.

We could not leave Ed Deir on account of the still lasting heat until 4.40 in the afternoon. This village being the last mapped on Sheet XIX of the Map of the Palestine Exploration Fund, I hence took a sketch of the country to be explored south and east of it, using a compass for measuring the angles, a barometer for approximate heights, and a regulated watch, and the distance Deir el Belah (Médanet)—Khân Yûnis as a base line measured by the paces of my steady walking horse compared with time. The photographic apparatus used failed for the greater part, as the gelatine dissolved from the plates by the tropical heat. The little map, scale $\frac{3}{8}$ of an inch to a mile, annexed to this report, may, therefore, only be considered the result of a flying survey of part of Southern Palestine.

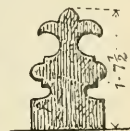
Eight hundred yards south of the town an ancient well, *Bîr Umm Maiju* (or "ammanju" as given by some Bedouins), was opened. It is well built up with sandstone masonry, the stones being of large size and of circular shape, and measures 23 feet in diameter ; its present depth is 31 feet, has no water, and was some years ago partly filled up by Bedouins who had a dispute about it with the Fellahîn of ed Deir. Starting from this well at 5.10 we took a southern course across sand-dunes, passed after 600 yards the *Tell Umm Ibrîk*, then crossed the dry Wâdy es Selka, leaving to our right the mound *Kôz Umm ed Daheir*, covered with brushwood, and then joined the direct road of Deir el Belah. The country is level, sandy, and without trees ; but in spring an abundant growth of grass appears for a short time, and the 'Arab el Inseirât, together with the mentioned 'Arab el Hanâjereh, sow grain and graze their herds here between ed Deir and Khân Yûnis ; in summer they plant water-melons of an excellent kind. At 5.40 we cross a strip of sand extending eastwards into the fields ; it is the boundary between the lands of ed Deir and Khân Yûnis ; at the same time, the electric telegraph joins the road—a strange appearance of civilization in this deserted country—and also the great Sultâni (road) coming directly from Gaza to Egypt, leaving ed Deir to the west. Some isolated poor jummeiz trees now and then appear, and deep ditches accompanying the

road on both sides (they have been dug by the proprietors of the water-melon plantations), and the sand thrown up in heaps along their boundaries, the easiest way to secure a fence in this country absolutely deprived of stones. At 6.11 we cross the small and dry *Wâdy el Halîb*, and half-an-hour later we enter the gardens of *Khan Yânis*, planted along a low range of hills. The main road is left sufficiently wide—prickly pears, sidri bushes, and heaps of sand with ditches border the road; and gardens planted with figs, apricots, mulberries, water-melons, jummeiz, legumes, and now and then also with a tall palm tree. The road leads in a straight line through these gardens, sometimes up to 45 feet wide, and joined by rectangular side-ways of less width; at 8 o'clock we reach the huts, *Khân* and Mosque of *Yânis*. Here we made up our mind to pass the night. The elders of the village were just at table; they invited us with the usual oriental hospitality, and as kindly as a hungry person—being all day without any sort of meal, deprived even of water and tobacco, can possibly be expected to respond, we, for good reasons, did not hesitate to join them in their scanty meal, being composed of beans, leban (sour milk), and bread. The *Khân* itself is a modern small rectangular building, merely a sort of porch (*livân* with open arcades) on which mats for guests are spread; opposite on the road we find a stable for the horses, a dark and smoky room without windows and but one door, but nevertheless a much wanted shelter for persons travelling in winter. Close by, to the east, rises the fine minaret and mosque, together with the ancient *Khân* building erected by Sultân *Barkûk*, built in the Arabic style of architecture, of sandstone and marble, with fair architectural details. The whole building has a length of 237 feet, and a width of 38 feet at the gate, and was flanked on each of its four corners by a round tower; a large wing added to the southern end is fallen. The “*Khân*” had two stories, the lower being the *Khân* itself, the upper evidently rooms for guests with the *Jâma'*. The main entrance facing west is spanned by a pointed arch, and in its bay a second gate with a segmental arch was constructed. The entrance is ornamented with lion figures, Kor'an citations and arabesques, above which on each side of the gate the name of “Sultan *Barkûk*” and a dedication to him is engraved. The entablature of the second story ended in a sort of ridge flower.

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INSCRIPTION A.



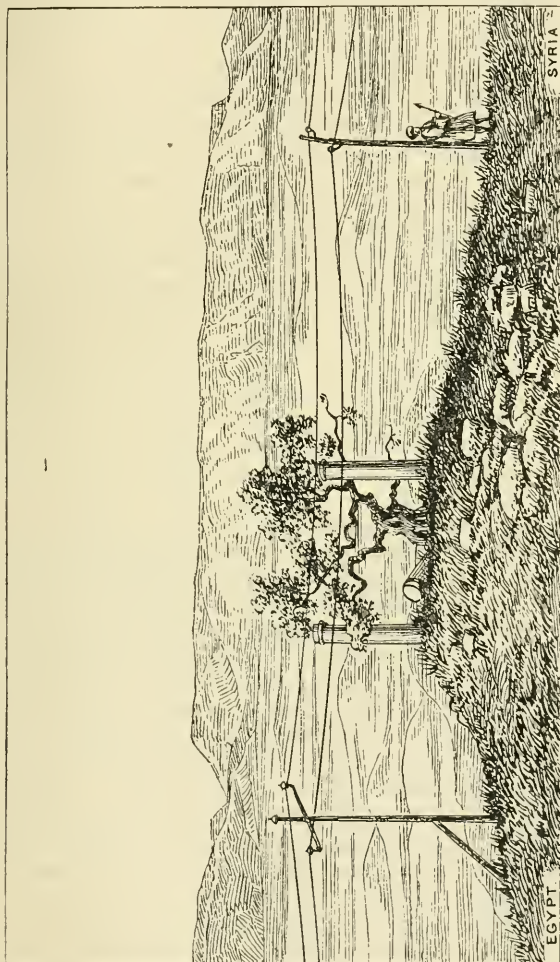
To the right of the entrance a stairway leads to the Minaret, an octagon with an upper panel of later date, and to the left some passage must have led to the beautiful cupola spanned over the *Jâma'*. It was rather hard work to climb up the fallen walls to the second story in order to explore the *Jâma'*, all the more as a

part of the building is in possession of the Harîm of the Sheikh of Khân Yûnis, who followed us with all sorts of cursings, and would not allow a sketch to be made. The cupola has a height of 24 feet, and is spanned over a room of 17 feet square; its layers run in concentrical rows, the stones being exactly worked; just the eastern half of this fine cupola is fallen. In the eastern wall a neat little pulpit of pure white marble and moresque work, with marble stairs leading up to it, is yet preserved. The whole building is in a state of decay, and in a short time those splendid remains will be covered with drifting sand. A hundred yards west of the Jâma', and close to the road, we found remains of a circular tower; its building area dates anyhow earlier than that of the Khân. To the south of the Khân a camel is employed at a Hannâni to wind up water from a deep well with an adjacent water basin, in which ancient marble remains are built. The drinking water is of a brackish taste. The village built round the Khân contains 150 huts or about 700 souls, and is built up with small sandstones found near the beach, parts of the Jâma,' Tower, and mud; they are covered with rush-mats and mud, overhanging the vertical walls. A good market, containing dry goods, provisions, and legumes occupies the southern part of the town, which is laid out with surprising care and accuracy, the streets in general running rectangular to each other, being wide and clean.

Khân Yânis is supposed (Sepp, "Jerusalem und das Heilige Land," ii, p. 630) to represent *Jenyosos* ("Herodot.," III, 5) or *Cannunis* of Makrizi. All I can state is, that the granite and marble columns, as well as the Corinthian and Doric capitals scattered about the Khân and well, are of a greater age than the present building of Sultân Barkûk.

After coffee was roasted and ground—for here, south of Gaza, where marble mortars are rare, coffee is not pounded as in Northern Palestine, but ground with a long and heavy piece of nicely-worked wood in a wooden mortar—we expected to have a few hours of rest, all the more as a cool western breeze began to refresh us; but were disappointed. Our Khân proved to be at the same time the court-house of the place, where questions and disputes not settled during the hot day were absolved and common rights discussed. Midnight was over when the elders finally disappeared, and an hour's rest was allowed to us. Then sounds the call of the "Muëddin," from the height of the minaret, away into the silent moon night; it is the "Shûr" of Ramadân, the call after midnight, who gathers the true believers to prayer and allows them to take their last meal, for as soon as a white hair can be distinguished from the black, the commandment of the Lent must be observed. "Allah, hú akbar!" he recites from the minaret, and "la illah illa allah," cries a second Muëddin, and then both: "wa Muhammed rasûl Allah," and the duet continues to admonish the Musilmin with an admirable harmony of voice, sympathetic not only to those whom it concern, but also to every impartial listener. Again our elders gather, the Khatîb (scribe) leading, they perform their prayers with loud voice, and we rise and take a walk

in the moonshine. At 3 in the morning we saddle our horses, and taking a south-western course along the large road through the monotonous sand-dunes, we pass at 4.12, 300 yards to the left, *Khurbet Umsabbah*, a hill ruin, the remains of which are covered with sand, with the exception of a few



KHURBET REFAH. TELL REFAH IN THE DISTANCE.
The Boundary between Egypt and Syria.

square stones cropping up here and there. At 4.50, we reach *Bîr Refah*, a draw-well containing good water, situate in a hollow. Six granite columns of 10 feet and 12 feet length lie about the well, two of which are placed across the opening to facilitate the work. The well is circular, has a depth of 60 feet, and is built up carefully with ancient masonry. All over this

hollow remains of marble, attic bases, columns, and mosaic, and brick remains are scattered. Six hundred yards south of the Bîr, close to the road, we find two upright and one fallen granite column, 13 feet high, 16 inches in diameter at its base, placed 18 feet apart below a poor-looking sidri tree: this is *Khurbet Refah*, and the two columns represent at the same time the *present boundary between Syria and Egypt*; the boundary runs from here westwards to the sea and eastwards south of Khurbet abu 'Amad. (See map.) No building, custom-house, or watch tower, is to be seen; they are placed at el' Arish, the ancient boundary of Egypt.

Half a mile to the west rises *Tell Refah*, a hill 160 feet above the sea, and about 100 feet above the surrounding country, with artificial slopes and a plateau measuring 300 paces from north to south, and 260 paces from east to west; the undulating plateau is covered with brushwood; remains of building stones and pottery project out of the sand. It was doubtless an ancient site, probably a sort of Acropolis to Khurbet Refah, the remains of which extend to the foot of the Tell, and which represents *Raphia*, mentioned by Josephus ("Wars," I, iv, 2; I, viii, 4) as being conquered by Alexander Janneus, and being rebuilt and reinhabited by Gabinius. Sepp ("Jerus.," &c., vol. ii, p. 630) states further that Raphia is called the first Syrian city coming from Egypt to Syria, that it is the place where Cleopatra was married, and that it became later the seat of a Bishop; it was a place of worship for Artemis and Apollo; and Irby (1817) yet discovered near the Tell the ruins of a large temple.

At 5.17 in the morning we leave the boundary, which next to the columns, can be known by the telegraph posts—the Egyptian ones having a square arm fastened to the post to carry the line, while the Syrians are deprived of the arm—and hence we ride along a sandy road through an unfertile and uncultivated country, leaving sand-dunes right and left, passing now and then a road used by the Bedouins to transport drinking-water from wells near the sea to their encampments. Seldom a wanderer crosses our way, and, if so, he wrapped himself up in his mantle to mitigate the burning rays of the sun, or he rushes by on his quick hajin (a camel used for riding), hardly answering our morning greetings, which are the same in Haurân—namely, "Kauwak" (God strengthen thee). Every living creature seems apathetic in this desert, and the European especially relaxes by this monotony in an enhanced manner; only the young Bedouin shepherd girls, who drive their flocks to the wells, stand and glance at us with an air of undoubted interest—these poor creatures, who grow up as wild as their flocks, who seldom see any other tent but that of the blue sky underneath which they live, sleep, and die. The Bedouins in Southern Palestine in general are much more degraded than those of Northern and Eastern Palestine; their tents are generally composed of mats; and only a few months, during the rainy season, the better class use a goat's-hair tent; their meals are poor, and their morals savage. As to wedding ceremonies, for instance, it suffices for a young man to go to the father of his choice, to hand him a piece of the lower end or thick

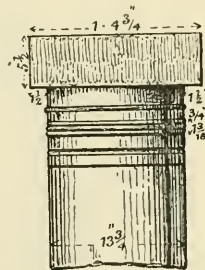
part of a straw or any 'aûd (branch), and to say: "Hât (or Khôd) ya Ahmed Kasalat¹ Bintak"—literally,

هات (خوذ) يا احمد قصلة بنتك

Give (take) Oh! Ahmed, the purity of thy daughter, whereupon the father either rejects it or in case of convenience takes the straw and sticks it into his "kaffiye" (head-cloth), whereupon the young man can call the girl his own. The better class now shout and dance, cook a lamb or a goat, and prepare a meal; but the poor shepherd hands his father-in-law any sort of a small present, and then he goes out looking for his bride, for she, knowing the intentions of the young wooer, flees away into the sand-dunes, and it is now his agreeable duty to run after her, to seize her, and to pass the honeymoon under the blue sky of the Philistine desert. No sort of "Khatib" or scribe is wanted at the wedding ceremony.

Here, therefore, as well as among the Bedouins of Palestine and the transjordanic countries, the 'aûd عود is the symbol of a holy oath. The women here, as well as at Gaza, are clothed with a long blue shirt, their face carefully hidden by a black veil, and along the nose an ornament similar to that of the modern Egyptians; they are shy and unpleasant and hate foreigners, declining absolutely to give information as to roads or localities, and if they are hard pressed to do so, they flee away like gazelles. The men are lazy, mendacious, curious and stupid.

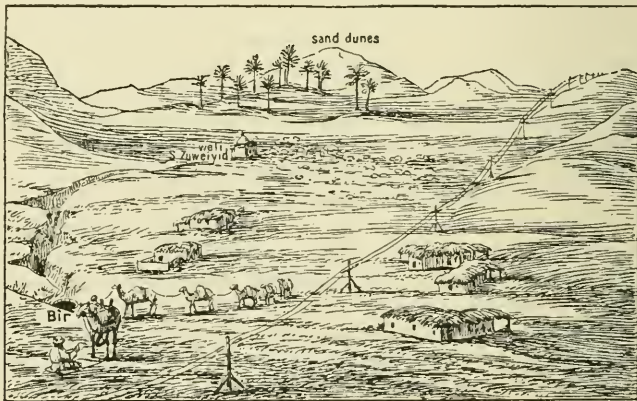
At 6 o'clock, a few hundred yards to our left we find the *Makrunât Umm el'A'raï's*, two sidri trees on a hill rising 184 feet above the sea, at the end of a fertile plain, *Sâhel es Sueirka*, with remains of several small marble columns, evidently the grave of a Mohammedan Saint, unto whom the Bedouin wives have consecrated glass pearls and other common finery. From here we rode through a sort of wâdy, and arrived at 7 o'clock at the *Krâm el Bakri*, also called *Krâm Matallat esh Sheikh Zuweiyid*, situate little to the left of the road, and containing some figs, pomegranates, and an old vine. Little after 9 in the morning we arrive at *Sheikh Zuweiyid*. This oasis in the desert, 30 feet above sea, shows a dozen of fine palm trees, planted north of the Wely of Sheikh Zuweiyid, a Mohammedan tomb 16 feet square, with a cupola, and a cemetery surrounding it. On the graves fragments of marble columns, of defaced ornaments, parts of the drapery of a marble statue, now used for an inscription, and characteristic sandstone capitals are found. South of the wely a few stores are built up of dried mud bricks, next to an 18 feet deep circular well of ancient masonry containing brackish water. The stores contain a few dry goods and provisions. An Egyptian



SANDSTONE CAPITAL AT SHEIKH ZUWEIYID.

¹ The word "Kasalat," which means the lower part of a straw, between root and ear, can hardly be translated literally; it signifies the purity, the maidenliness of his daughter.

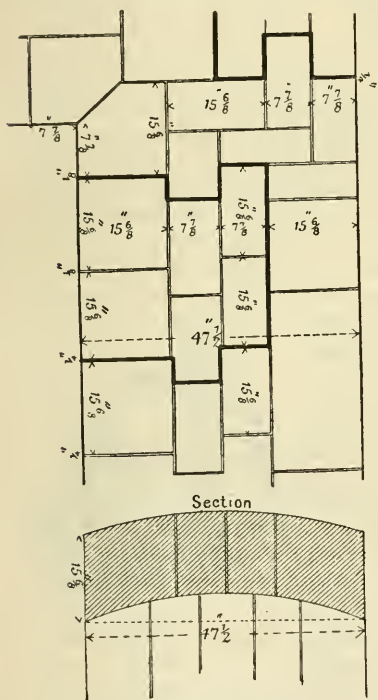
Telegraph warden has also erected a hut close by, and invited us most kindly to take a meal with him, which we accepted with thankful hearts. Bedouins soon approached, and we were lucky enough to find a reliable guide; he counted up the ruins he knew east, west, and south of us, and we found that southwards there was but little to be explored, while the east promised more; and as we heard from the Egyptian warden, that we, respectively, our horses, had to pass a five days' quarantine at el 'Arish, and that the Mudîr or Hâfiz would not allow any foreigner any more to sketch about his castle or vicinity, we concluded not to proceed to el 'Arish (which was yet 14 miles off), but to start north-eastwards, to pass the night at Sheikh Zuweiyid, and to use the afternoon for a trip down to the sea-shore, where ancient remains have been discovered by the Bedouins. Our road took us westwards over a range of sand hills, 50 feet and more in height, to the elevated site of an old city, called *Tell el Ekneiyin*. This hill



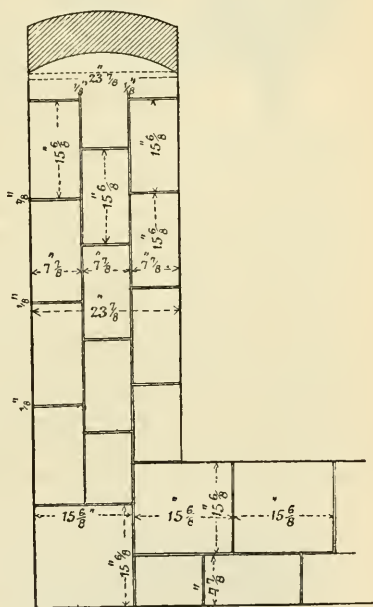
SHEIKH ZUWEIYID AND NEIGHBOURHOOD.

amidst quicksand dunes is covered with pottery, remains of bricks and stones, to the extent of about 40 acres, but no antiquity of interest was found; from here we proceeded one and a half miles more westwards over continuous sand-dunes to our actual point of object, the *Tell esh Sheikh*, a hill of 56 feet above and close to the sea. The old name of this place is evidently dropped, as *Tell esh Sheikh* merely alludes to the Mohammedan Saint, the Sheikh Zuweiyid. The Egyptian warden assured us that its original name, now and then mentioned to him by an old Bedouin, was "*Khurbet el Melek Iskander*," but I beg to receive this signification, to which I have little faith, with the necessary care. The isolated hill itself has a length of 200 yards from east to west, and a width of 40 to 50 yards from south to north, and falls in its western end abruptly off into the beach, leaving a shore of about 30 yards, and is composed of marl. On its summit the stem of an old palm is erected since the time of 'Arâbi Pasha, when

the Turkish Government held a guard to prevent the landing of the agents of that insurgent. Heaps of pottery, especially parts of white burned tiles and jar remains, of small iron and brass ornaments, parts of lachrymatories, of marble and granite fragments and excavated sandstones, are found not only on the Tell itself but to the extent of 800 yards northwards and eastwards on an undulating country, proving that it was an inhabited place of considerable importance. On the hill plateau and its slopes I discovered walls projecting a few inches out of the surface, built up with dry (unburned) bricks of clay ; this material is now weather-worn and



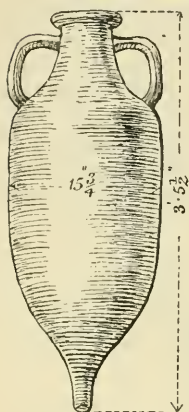
PLAN OF A BROAD DRY BRICK WALL AT TELL ESH SHEIKH.



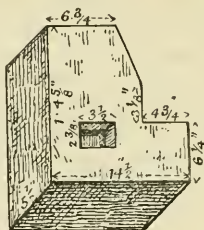
PLAN OF A THIN DRY BRICK WALL AT TELL ESH SHEIKH.

crumbles as soon as touched ; each brick measures exactly $15\frac{3}{4}$ inches cube, with joints of $\frac{1}{8}$ inch between ; the width of the walls varies between $23\frac{7}{8}$ inches and $47\frac{1}{2}$ inches, and surround rectangular rooms of 7 by 14 feet, 14 by 20 feet and more. Some of these walls show on every alternative stone joints filled out with white mortar mixed with sea-sand ; these joints have a width of $\frac{1}{4}$ inch. The corners show a peculiar juncture, as seen from the annexed sketch. The surfaces of these walls are all chamfered, raised 4 inches higher in the middle than on the ends ; they run parallel to each other, with a direction of north 74° east.

A worked sandstone and bits of mosaic work were found on the summit,

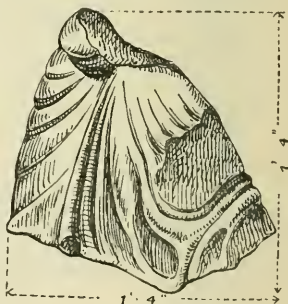


JAR OF LIGHT COLOUR.



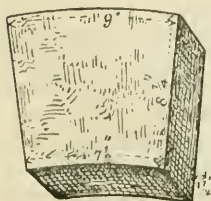
also a jar of light colour. The mosaic is composed of neat small pieces of black and white stones of $\frac{1}{5}$ and $\frac{1}{4}$ inch square, laid in white plaster $\frac{1}{4}$ inch thick, which again is laid in white mortar $\frac{3}{4}$ inch thick. Boats land here at the Tell and take water-melons to Jaffa, Gaza, and Egypt. Looking southwards down the coast we perceive in the distance, about $3\frac{1}{2}$ miles off, the *Minet el Ahsein*, a wide and well-sheltered bay—that Syro-Egyptian corner of the Mediterranean often used by boatmen as a shelter in stormy weather. A *Khurbet Minet el Ahsein* covered with sand is said to be found there.

Extensive excavations have taken place at the Tell esh Sheikh ; and “many an old piece of gold was found there,” I have been assured. Also marble statues were found, but, owing to religion, immediately demolished. I found near the Tell the sketched shank-part of a statue, very carefully worked, of pure white marble, which together with what we saw on the graves near the Wely esh Sheikh Zuweiyid, would confirm the assertions of our guide ; but nobody wants to know where the head was left. About 250 yards north-east of the Tell we find traces of a large square building of sandstones and mortar. Three hundred yards further on, a fallen circular building of 8 feet 4 inches in diameter was discovered, built up with stones and mortar, around which heaps of coal-dross were laid. The interior of the building was carefully plastered, containing



PORTION OF STATUE AT TELL ESH SHEIKH.

9 thin layers of mortar, measuring $3\frac{5}{8}$ inches thick. The depth of the interior part is yet 6 feet, but was originally deeper. Immediately north a round mound 30 feet in diameter shows heaps of building stones and any amount of jar pieces, pottery, &c. I presume that it represents an ancient bath.



BRICK.

Two miles further up the coast, another circular building next to a small mound, the *Tell el Aheimer* (a Bedouin signification for Ahmer, red), is met with. This building is carefully masoned with conical bricks of the size sketched, and has a diameter of 8 feet 4 inches. The bricks, $1\frac{9}{16}$ inches

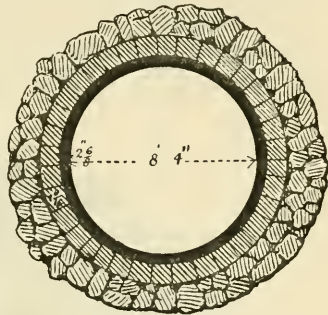
thick, are of a light red colour and very hard; they are laid in a good white mortar, mixed with ashes and sea-sand, having joints $\frac{3}{8}$ of an inch thick between; the interior, now but 3 feet deep, and projecting 2 feet out of the sand, was carefully plastered, containing different layers of mortar measuring $2\frac{3}{8}$ inches thick; there were also bricks of half of the above size used. The brick building was surrounded with a masoned wall.

The *Tell el Aheimer* itself is 15 feet high, about 50 feet in diameter, covered with jar pieces and pottery; between it and the beach, close to the sea, we find remains of small circular vaultings scattered about, well masoned with sandstones and a very good white mortar, and the interior plastered; evidently a bath. One mile north of Tell el Aheimer another hill ruin, close to the sea, with few ancient remains was found, but I could not learn any name for this site.

From there we returned back to Sheikh Zuweiyid and passed the night in an uncovered hut, exposed to dew and moonshine, using the sand as a mattress and the overcoat as a cover, and now and then disturbed by a busy dung-fly.

The inhabitants of the seven huts of Sheikh Zuweiyid are not of a very sympathetic reputation; they, with the exception of two, were obliged to flee from Khân Yûnis and 'Abasân (see map) on account of blood crimes, and were, therefore, never to be had as guides to those places; but they feel themselves quite safe at Sheikh Zuweiyid—first, because they are beyond the boundary of Syria; and second, because this place is considered as a sort of “city of refuge.”

In spite of the 'Arabic proverb, “Gharrib Sini wa la sharrik yôm” (Go westwards a year, but not a day to the east), we took from Sheikh Zuweiyid a north-eastern course back to Krûm el Bahri again, and from there struck eastwards over poor tobacco and durra plantations to the *Krâm 'Eid ibn 'Abed*, a grove of sixty and some fig trees and pomegranates, carefully planted in rows, situate in a fertile depression, and cultivated by the 'Arab es Sueirka. The pottery and building stone fragments found here would signify an old site. The poor-looking huts of these Bedouins

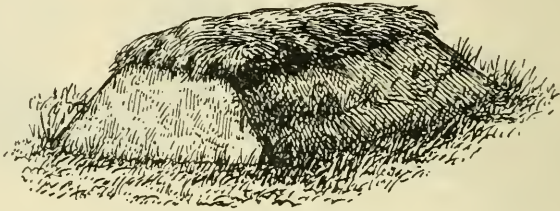


BRICK BUILDING.



BEDOUIN HUT.

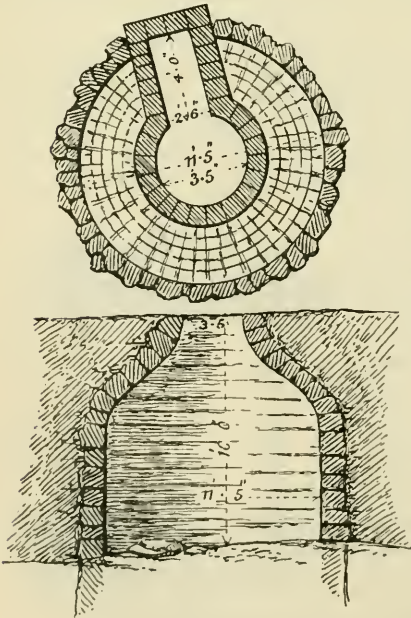
are built of two vertical pieces of wood, covered with grass, throwing just sufficient shade for one person; the children playing about were naked, and seemed to enjoy the burning sunbeams and the sand very much. We still ride eastwards over abandoned Bedouin camping fields, water-melon gardens, which were much injured by mice (lemings), and now and then pass a Kimr *كمر* or sort of grain magazine of the Bedouins, being a hole



A KIMR, OR GRAIN MAGAZINE.

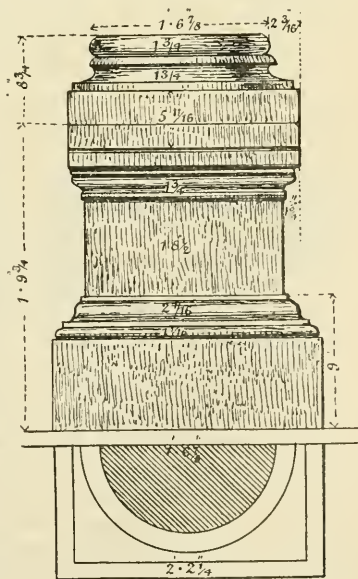
of 12 × 8 feet dug into the sand, laid out with straw, and after the grain was put in, covered with straw and a sand mound projecting 6 feet above the earth; these Kimr's replace the Bir's of the Fellahin of Northern Palestine. Then along an uncomfortable undulating country

to *Khurbet Abu 'Amad*, an ancient site, with building fragments and a prostrate column, and from here northwards to *Khurbet Umm de 'Adas*, 257 feet above the sea, hill ruin of great extent, but overblown with sand, representing nothing but scattered pottery. At noon we reach *Umm el Keláb*, lying a mile east of the latter, an old site extending 800 paces from east to west, and 600 from north to south, 215 feet above sea, covered with worked sandstones, pottery, and cisterns. The seven cisterns explored are circular, have an average of 11 feet 5 inches in diameter, and vaulted, leaving an opening of 3 feet to 5 feet above; a small basin to gather the rain-water, 4 feet long and 2 feet 3 inches wide, is found built to most of



CISTERN AT KHURBET UMM EL KELAB.

them. The masonry work circumfering the cistern is composed of small rough sandstones, combined by white mortar and rough sea-sand; the interior was plastered. They are now filled up with rubbish; some are prepared to be used as grain magazines and have a depth of 10 feet and more. From Umm el Kelâb we take a north-eastern direction over a hilly country partly cultivated by the 'Arab *et Tarabîn*, and then descend into the water-and-treeless desert-plain called *Wâdy Zâmil*. This wide deserted plain extends far east and south without any cultivation or water; the Tarabîn Bedouins camping there get their water supply from near the sea; they are a poor tribe, at least their mat huts and flocks would manifest this, and stand as to customs and manners on a lower degree than the Bedouins of Northern Palestine; on the western border of *Wâdy Zâmil* lies *Khurbet Darmas*, 260 feet above sea—a ruin the extension of which is difficult to determine, being covered with the drifting sand, showing cisterns of the same description as those of Umm el Kelâb, and heaps of pottery. The name does not sound Arabic. About $2\frac{1}{2}$ miles due east from Darmas, Weli and *Khurbet Nurân* was pointed out to us, a little north-east, and $1\frac{3}{4}$ miles off we found the small *Khurbet Abu Hanna*, little east to it *Khurbet Khazâ'a* or *Abu Sneime*, both showing cisterns and any amount of pottery. From here we turn to the west and come to *Khurbet el Fukkâri*, a small mound, covered with pottery, and then to *Khurbet el Emkêmen* where the 'Arab el Hanâjireh planted water-melons and tobacco, and had a threshing floor, which proved that the vicinity must be fertile. On the ruin itself we found several cisterns of the same construction as in Umm el Kelâb, used as fruit magazines, and covered with mounds of sand, small building stones and pottery. The place is quite extensive. We now ride along the sandy road to Khân Yûnis and reach *Kharâba*, a mile from Emkêmen. *Kharâba* lies on a flat parcel of land, and shows nothing but pottery. Instead of following still the road to Khân Yûnis we strike across the field planted with wheat, barley, and *Zafarân*, north-eastwards to 'Abasân, leaving *Khurbet Ma'in*, a ruin and weli of Sheikh Muhammed with a few huts and gardens, next to those of Khân Yûnis to our left. 'Abasân *el Kebîre* is a small flourishing village of thirty huts, built of stone and scattered about on an ancient site on a fertile elevated plain. Next to

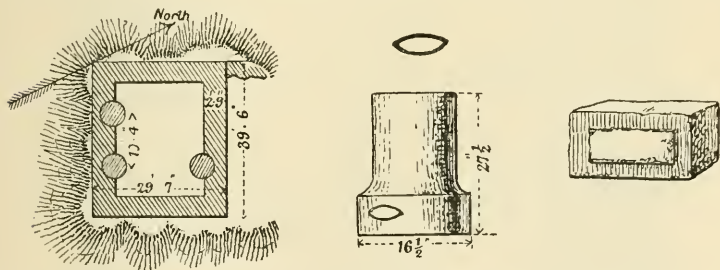


MARBLE PEDESTAL AT ABASAN EL KEBIRE.

three large sidri trees, three pedestals of white marble were excavated by the natives. The attic base of the column, 1 foot $6\frac{7}{8}$ inches in diameter, is worked to the pedestal, the mouldings are tolerably well carved, but not of a pure classical character, as seen from the annexed sketch. They were originally four, one was carried away with the four columns. The reason why these three yet remain, depends on the legend: that the man who sold the others was killed on the spot, because "they formerly belonged to a Jâma'"—a history often met with in Palestine, which prevents the superstitious fellahîn now and then from demolishing interesting antiquities. Besides these remains, prostrate marble and small granite columns, large building stones, and broken mouldings are built into the houses and the eastern cemetery. A little less than a mile north of 'Abasân el Kebîre, a second small village, 'Abasân es Saghîre, numbering ten huts, with old building stones and fragments of mouldings, was found. Both are considered by the natives to be originally one old site, and although the connection of the remains of both cannot be distinctly asserted, it is beyond doubt that 'Abasân el Kebîre was a site of extent and importance. As sun was down, and no suitable hut or tent was found in which to pass the night, we turn westwards to Khân Yûnis again, and pass on our way the large village *Beni Sela*, counting one hundred and twenty huts, partly built of stone, partly of mud, and surrounded by gardens of water-melons, figs, palms, jummêz, apricots and legumes. In the north a good but deep well, worked by a camel, supplies the town with drinking water. In and near the town of *Sheikh Yusuf* several ancient remains, as small twisted marble columns and building stones, were found. Again, at supper time, we arrive at Khân Yûnis, and again we spent a restless night as before.

Our last day's work was limited to the exploration of the country east of Deir el Belah. To this effect we rode from Khân Yûnis to the *Shejarat Sheikh el 'Umeri*, a small weli, and from there to *Sheikh Hamûda*, but owing to the mentioned difficulties which took place between the government and the Henâjire tribe, we found the place occupied by three hundred soldiers, whose outposts forbade us to enter the camp; all we perceived was, that the place contained a modern Mohammedan weli and a few fruit magazines built of stone. We now followed the range of hills which begin on the west at Khân Yûnis, and surround a fertile plain to the east and north extending to Deir el Belah, and on which are situate, besides the Khân, Beni Sêla, Sheikh el 'Umeri, Sheikh Hamûda, and our next object, *Shejarat et Taiyâra*. The hills are fissured by the water, and covered with low shrubs. Sheikh et Taiyâra is a wild acacias ('ambar), shading a former Mohammedan tomb; it is elevated 412 feet above the sea, on a narrow shoulder sloping rapidly eastwards down into the wide *Wâdy es Selka*, which rises a little north-east of Sheikh Hamûda. On the other side of the wâdy, about 1,200 yards eastwards, we find *Khurbet Abu Hajâj*, an old site with remains of pottery and trees, and a little south of it *Khurbet Inseirât*, of the same character, with small cultivated patches of tobacco. The *Khurbet Inseirât*, marked on Sheet XIX of the "Palestine Exploration Fund Map," is two miles north of this one.

At 8 in the morning we left Sheikh et Taiyâra, and descending to the plain again we found an ancient ruin called *Khurbet Abu el A'jin* (which corresponds with the position of "Shejarat umm Kadhein" of Sheet XIX—a name which I could not learn from the natives). It is a ruined building of very strong character, built up with large sandstones and white mortar, having a square basin and fine circular well on the south and north sides. The basin was plastered with a coating of reddish mortar. It may have been a small fortress to protect the well. Eighty yards northwards we discovered several cisterns and a lot of pottery. Taking still a northern direction along the cultivated plain, we soon pass the dry but wide *Wâdy es Selka*, and arrive at 8.40 at the *Shejarat el Maghazâ*, situate on the *Khurbet ed Dmeita*. The Shejarat is the finest sidri tree I ever came across; its crown measures forty yards in diameter, and its branches run down from the height and root in the earth, so that the tree has the appearance of a banian fig-tree of East India. It shades the well-attended tomb of Sheikh el Maghazâ. *Khurbet ed Dmeita* is a very extensive ruin; a number of cisterns like those of Umm el Kelâb and heaps of fine building stones, fragments of rustic mouldings and columns were found. Close to the sidri tree, on an elevated spot, is a square building of 39 feet 6 inches in length from east to west, and 29 feet 7 inches from south to north, with two columns of limestone 20 inches in diameter in the southern wall, 10 feet 4 inches apart, and one column of the same construction in the northern wall. The surrounding wall had a width of 29 inches, and was built up with unhewn sandstones and mortar. Each of the columns showed a square dowel hole 2 inches wide and $3\frac{1}{2}$ inches deep on the top.



Near this building a small marble column, $27\frac{1}{2}$ inches long, by $16\frac{1}{2}$ inches diameter, was found, showing an engraving on its base worked to the shaft. In the fences around the water-melon gardens I discovered large bossed sandstones, the only ones seen on this trip with the exception of those at Askalon. After less than a mile's ride westwards, we reached Deir el Belah, took a short rest at the Khudr, and entered Gaza before sundown.

In conclusion, I may add that a trip to Philistia ought not to be undertaken in the season involuntarily chosen by me, but rather in March, when there is a little green about the monotonous country, and

now and then a natural basin of rain-water, to the welcome of both rider and horse; and as to safety, I would state, as already mentioned by Mr. Guy le Strange, on the occasion of his "ride through the Belka" ("Across the Jordan," p. 323), that if with little baggage the explorer contents himself with Bedouin tents, comfort and costumes, and accompanied by a native guide, well known to the tribes, may travel even in these ill-renowned regions and still farther east without fear; and if he has any knowledge of Arabic, then I would recommend dress as an Arabian, and to adopt a Mohammedan name, as done by myself.

G. SCHUMACHER.

HAIFA, *July*, 1886.

ARABIC NAMES OCCURRING IN THE MAP AND REPORT ON
SOUTHERN PALESTINE.

BY G. SCHUMACHER.

TRANSCRIPTION.	ARABIC.
Ghazze	غَزَّة
Wâdy et Tahra	وَادِ الطَّهْرَدِ
Tell el 'Ujûl ('Ajjûl)	تَلِّ الْعَجْبُولِ
Tell en-Keiz	تَلِّ الذَّقِيزِ?
Tell esh Shubâni	تَلِّ الشُّوبَانِي
Umm 'Âmir	أُمِّ عَامِرِ
Halfa	حَلْفَا
El Mallâha ('Arab)	عَرَبِ الْمَلَّاحَةِ
Shejarât Behrâria	شَجَرَاتِ بَهْرَارِيَا
Krûm Abu Ma'ali	كُرُومِ أَبُو مَعَالِي
Biarât Abu Sitti	بِيَارَاتِ أَبُو سِتَّةِ

TRANSCRIPTION.	ARABIC.
(Tell) el Hadab	(تل) الحدب
Tell Khuzk ekweia'a	تل خزق القويعة
Deir el Belah	دير البلح
'Arab el Henâjire	عرب الحناجرة
Bir Umm Mauju	بير ام موج ?
Tell Umm Ibrîk	تل ام بريق
Wâdy es Selka	واد السلقة
Kôz Umm ed Daheir	قوز ام الظهير
'Arab el Inseirât	عرب الانسيرات
Wâdy el Halib	واد الحليب
Shej. esh Sheikh 'Umeri	شجرة الشيخ عميري
Beni Sêla	بني سيلا
Khân Yûnis	خان يونس
Khurbet Emsabbah	خربة مصعب
Bîr, Kh., Tell Refah	بير (تل) خربة رفح
Makrûnât Umm el 'Araïs	عقرونات ام العيرائس
'Arab et Tarâbîn	عرب الترابين
Krûm el Bahri	كروم البحري
Matallat esh Sheikh Zuweiyid	مطلّة الشيخ زويد
(Tell) Sheikh Zuweiyid	(تل) شيخ زويد
Mînet el Ahsein	مدينة الحصين
Tell el Ekneiyin	تل القنئين

TRANSCRIPTION.	ARABIC.
Tell el Aheimer	تل الاحمر
Krûm 'eid ibn 'Âbed	كروم عيد ابن عابد
'Arab es Sueirka } Sâhel „ „ }	عرب السويركى سهل
Khurbet Umm el 'Amad	خربة ام العمدة
„ Umm el 'Adas	„ ام العدس
„ Umm el Kelâb	„ ام الكلاب
Wâdy Zâmil	وادي زامل
Khurbet Darmas	خربة درمس
„ el Fukkhâri	„ الفخاري
„ Nûrân	„ نوران
„ Abu Hanna	„ ابو حنا
„ Khazâ'a	„ خزاعة
Abu Sneime	ابو سمنة
El Emkêmen	المكامن
Kharâba	خرابة (خرابا)
Khurbet Ma'in	خربة معن
'Abasân el Kebîre	عبسان الكبيرة
„ es Saghîri	„ الصغيرة
Sheikh Hamûda	شيخ حمود
Shej. et Taiyâra	شجرة الطيارة
Khurbet Abu Hajjaj	خربة ابو حجاج

TRANSCRIPTION.	ARABIC.
Khurbet Inseirât	خربة انسيرات
Shejarat el Maghazâ	شجرة المغزا ?
Ed Dmeita	الدمية
	الدمائة ?
Khurbet Abu el 'Ajîn	خربة ابو العجين

SECOND AQUEDUCT TO THE POOL OF SILOAM.

DURING the stay here of Professor Hayter Lewis, he suggested that I should, at a proper time and opportunity, make some excavations at Siloah on purpose to find traces of the old or first water conduit from the Virgin's Fountain, as I suggested in a former paper, published in *Quarterly Statement*, April, 1886, page 88. This work I completed last month, and it is now my privilege to report upon it. I have prepared the accompanying drawings, based on the printed plan he gave me, and on which he marked in red the exact sites where the excavations should be made.

The first shaft *A* was made in the very line, but about 40 feet south of the selected point, as the ground was there about 6 feet lower and waste, whereas at the selected spot cauliflower were planted, and the proprietor was not willing to allow excavations. Of course there was no great difference in regard of the expected result.

As the surface of the ground, where the shaft was made, is marked on the Ordnance Map, 2,099, and the bottom of Virgin's Well 2,087 feet, I hoped at the depth of about 12 to 15 feet to find the conduit. We found the following:—

At 9 feet deep, met on the east side a wall which enabled us to go down deep, without wooden frames; but the hewn stones (only two layers) soon ended, and beneath them were unhewn rubble stones. I wished to know the depth at which the rock lies, and to ascertain its slope, so as to find the real valley.

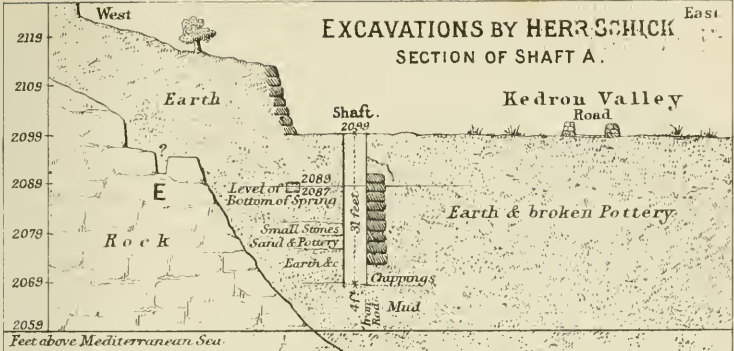
At 14 feet deep the earth ended and a layer of small stones came and after it a thick layer of sand, with many small pieces of pottery, as if it had once been the watercourse of the valley. At about 20 feet, or 2,079 above the sea, when this layer ended, there was no rock, but stones and

earth: but the greater part was broken pottery. The wall now ended and proved to stand on a layer of chippings, $2\frac{1}{2}$ feet thick; then 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. Working down a few feet, the work became dangerous, and required frames, so I drove in an iron rod 4 feet long, but it struck no rock. Thus at a height of 2,064 feet above the sea there is no rock. Has the valley really been so deep here, or have I come into an old pool? I cannot tell. Then the shaft was filled up as high as the wall, and a short gallery made over it, to learn its thickness; it proved to be only 2 feet thick. I imagine now the rock-hewn channel will be found about 40 feet or more to the west, as I have shown at *E* (?).

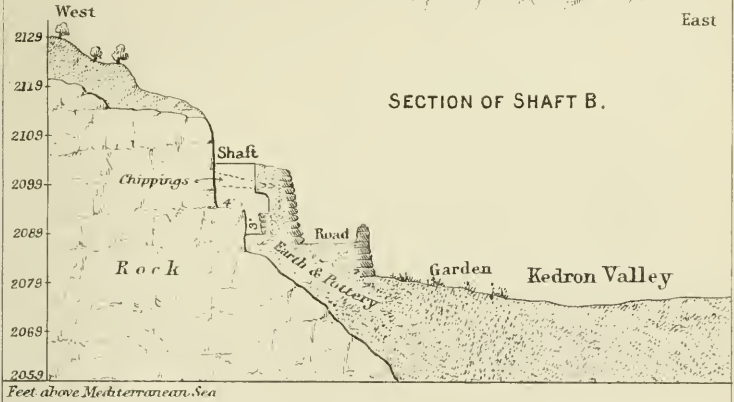
The second shaft I made at the exact spot he marked at *B*. (See printed plan.) There is, as section of shaft *B* will show, between the high scarp of the rock and the road, only made ground, sustained by a rubble wall, 15 feet wide, so the shaft was made at the side of the scarp. After 3 feet we struck a layer of chippings, which ran like water, but as it proved only 2 feet thick, we were able to continue the work. At 10 feet we struck the rock, a smooth surface, shelving a little to east, but ending after 4 feet and going perpendicularly down again; in front of it earth; in clearing some feet deep it was observed that there was a wall of rubble, forming a conduit or channel at the desired height. No cementing was observed, except on the top of the wall, which slopes eastwards. As I feared going down much deeper, the iron rod was driven down, and it came on hard ground—whether a large stone, or the rock, I cannot say.

Here we have, therefore, the ancient aqueduct, but in a damaged condition; the level answers pretty well—and as it is somewhat deeper than necessary, I suppose that the water always stood there, so that people might fetch it; or poured over eastwards to the gardens below. Having found the aqueduct, but in such a condition that some might doubt its existence, I wished to find it further north, and to continue the work, although the money at my disposal was at an end; yet, as the work had commenced, I thought it better to go on, and selected a place for a third shaft (see section of shaft marked *C*). As the famous Siloah conduit is so very narrow (only $1\frac{1}{2}$ feet) in its middle course, it could not have been tunnelled by men. They would have been obliged to lie down, and then they could not have cut through the hard rock. They must have done it in some other way—either making it so high that a man could stand upright and then filling it up again to its present height, which no man of common sense would do, or, as I suggest, they worked from above, making an open channel, which they afterwards covered with flat stones, so exactly that hardly a joint is visible. And even if visible at the beginning, the sediment from the water has in course of time so filled the joints up that the roof appears like rock. The conduit is only cut from above where the height is not too great; and this is the case along the eastern brow of the Ophel hill. In places where they have not cut down from above, the conduit is so high that a man kneeling could work in it. To strike the

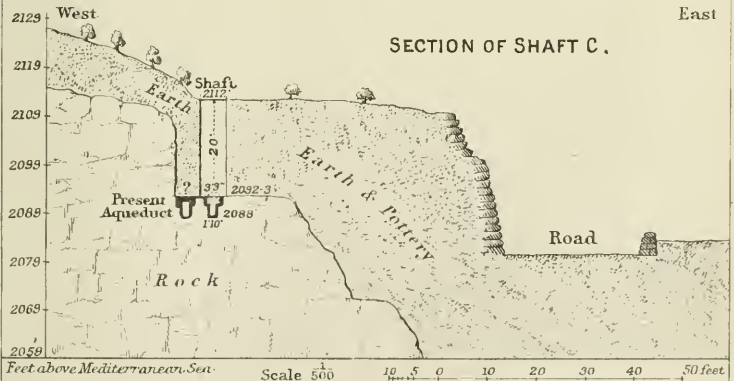
EXCAVATIONS BY HERRSCHICK
SECTION OF SHAFT A.



SECTION OF SHAFT B.



SECTION OF SHAFT C.

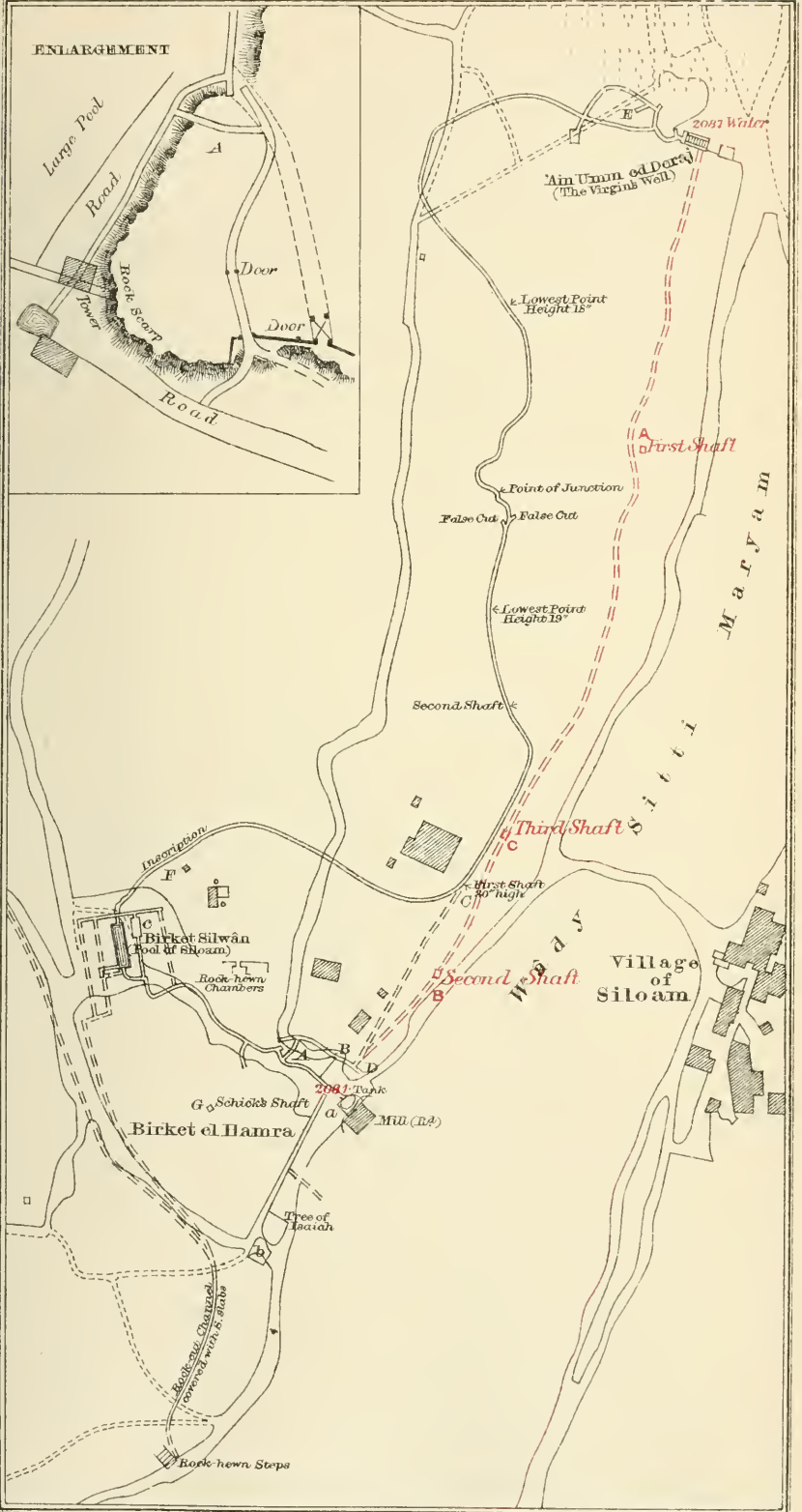


Feet above Mediterranean Sea. Scale 500 10 5 0 10 20 30 40 50 feet

1875
1876

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

Stanford's Geogr. Establ.

100 Feet 0 100 200 300 400 500

celebrated conduit I measured 60 feet westwards from the road, just opposite the road, going across the valley to the village (see printed plan). This 60 feet I took from the plan of the Ordnance Survey, hoping to strike the aqueduct, although I knew the shaft must be some depth. There was only earth, with a few small stones. At 20 feet the rock was found, and, to our joy, the rock-hewn channel also. 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 above the sea.¹ On the top of the sides there were grooves 7 inches deep and $8\frac{1}{2}$ inches broad, to take the covering slab, which was no more in its place, and hence the conduit was full of earth. The fact that there was such an aqueduct (as suggested by the Rev. W. T. Birch in his letter dated March 19th, 1886) is now fully proved.

As I did not find the one in which the water now runs at the same level, I presume it must be more to the west, but not very far, perhaps, as I have shown it in section of shaft *C*.

I got the impression that a road ran northwards, on a rock-hewn terrace, from the dam of the large Pool of Siloam to the Virgin's Fountain, and that the old conduit ran beneath the pavement of the road as I have shown in the sketches.

Then arose the question—whether the conduit (from shaft *C*), northwards and southwards, should be cleared out or not? It only wanted strong boards to put on the edges, so that a man could work without danger; but as I had no funds nor directions in the matter, I ended the work by filling up the shaft. When desired, it can be easily opened again, or others made north or south; and I would suggest also that excavations be made to come upon the first shaft of the present water conduit. Its proper place must be ascertained from the revised plans of the conduit, to which I have no access, for since the Ordnance Map was made in 1864-5, the conduit has been re-examined by Warren, Conder, and others, and drawn on a large scale in Warren's large maps of Jerusalem.

Southwards at *D* (printed plan), I excavated (several years ago) this conduit, where it goes westwards to the large pool, and found, about 20 feet from its mouth in the scarp, a place where a door was formerly fixed, so that no one could come into the town by way of the aqueduct when it was locked. A little northwards from the mouth of the conduit there is an artificial cleft in the scarp, several feet wide, which was a regular entrance into the town for foot passengers; it had of course a small door, that could be locked, as I have shown on the (printed) plan. This explains what appears to be a western branch of the aqueduct; but the level is about 1 foot or more higher than that of the aqueduct.

When one entered the town there was a similar road, or rock terrace, going westwards to the neighbourhood of the present Pool of Siloah, and, when that pool and the new conduit were made, an aqueduct, in which

¹ I levelled from 2,081 at the ruined building in east of large pool, and also from street going over to the village from the contour 2,079, and found it by a few inches, both levelling agreeing.

the water runs now, was hewn in this rock terrace, towards the wall of the rock or scarp.

Captain Conder makes the remark, that my second aqueduct cannot have been such an one, as the levels will not agree. Now the Ordnance Map shows the level 2,081 feet (a tank in printed map) at the top of the bridge or dam of a large pool near (west) the ruin of a building. I found the outlet of my aqueduct (if I may call it so), or the "second," to be 5 feet higher; hence 2,086 feet above the sea. The bottom of the Virgin's Well is 2,087 feet; the difference is, therefore, only 1 foot. But even at present, the sole of the canal itself is 2 feet 6 inches above the bottom, hence 2,089 feet 6 inches at Virgin's Well; and where it comes out, on western or upper side of the pool, 2,087 feet; therefore the whole fall is 2 feet 6 inches, for 1,650 feet in length, or 1 inch for 55 feet. The second aqueduct is shorter, only about 1,150 feet long; at the same rate there would be a fall of 1 foot 9 inches, and hence the outlet would be 2,087 feet 9 inches high, a difference of 3 inches; but as at shaft *C* I found the bottom of the second aqueduct more inclined, I think the head at Virgin's Well was at that time about 1 foot 6 inches, or even more higher, and that at that remote time the water came out from a cleft between the layers of the rock or some other fissure, and ran originally in the bottom of the valley. In order to shut it up, and hide the spring from an invading enemy, King Hezekiah worked out the basin, and so made the outlet at a little lower level. This explains why the water now comes out from under the lowest step of the lower stairs, as the real source is more to the east.

C. SCHICK.

JERUSALEM, *Sept. 7th*, 1886.

GATH AND ITS WORTHIES.

BY THE REV. HENRY GEORGE TOMKINS.

TELL ES SÂFI: "Memoirs," II, p. 440; "Name Lists," p. 275; Sheet XVI;
"Tent Work," II, p. 153; Murray, p. 263.

PERHAPS I can help a little towards settling the position of Gath, which has been placed at Tell es Sâfi.

The Arabic name means "the clear or bright mound, here called *Alba Specula*," the *Blanche Garde* of the Crusaders. Close by we find *Wâdy es Sâfi* and *Khurbet es Sâfi*, the Valley and Ruin of Sâfi; and I think that, as in so many instances, this is really a proper name, and, if so, one of great interest, for then we have the very name of a great worthy of Gath still sprouting from the soil.

In the *Quarterly Statement*, 1885, p. 112, I wrote thus of "Lakhmi, the brother of Goliath the Gittite" [man of Gath]: "This devotee of Lakhmu would well match the son of Anak devoted to Saph (Saphi) 'of the sons of Rapha' in the verse before (1 Chron. xx, 4). See my paper on 'Biblical Proper Names,' *Trans. Vict. Inst.*, 1882." And I may refer to my "Studies on the Times of Abraham," pp. 86, 102, where I have referred the origin of Anakim to Chaldæa, and stated my impression that they were a ruling clan of the Amorites, and that the Arba' of Kiriath-Arba' was a god whose numerical symbol was 4 (compare Ba'al Shalisha, 3). Now all that comes to light confirms this Chaldæan origin, as I have shown with regard to Lakhmu. But by-the-bye I would point out that the name of Goliath, גִּלְיָת, may be connected with the goddess Gula, and also that the name Rapha (of the father of these gigantic brethren) actually remains in their Philistine land, for Khurbet Râfa is to be found in the great map, Sheet XX, J. V. ; "Name Lists," p. 374, about two miles north-east of Beit Jibrîn, and close to another Khurbet Sâfiéh.

Now this name Saphi, סַפִּי, is found in Chaldæa, as, for instance, in a Babylonian tablet of dynasties as Sappai, $\text{𐎶} \text{𐎶} \text{𐎶} \text{𐎶} \text{𐎶}$ (Boscawen :
Sap - pa - ai

"On Fragments of an Inscription," &c., p. 14), and Mr. Boscawen thinks the king, who was the son of Sappai, reigned probably about B.C. 1100-1050—namely, about the time of David of which we are writing.

The story is this (2 Sam. xxi, 18, R.V.): "And it came to pass after this that there was again war with the Philistines at Gob : then Sibbecai the Hushathite slew Saph (סַף) which was of the sons of the giant (*margin*, Heb., Raphah)." 2 Chron. xx, 4, gives Gezer for Gob, and Saphi (סַפִּי) for Saph.

As to the scene, we have a very instructive set of variants : In Samuel, Gob ; in Chronicles, Gezer ; but in Samuel we find Thenius and Ewald reading Gezer ; and the LXX, the Peshito-Syriac, and Grätz, following them, read Gath. In Chronicles the Peshito gives Gaza, and Dr. Grätz reads Gath. (See the very useful "Variorum Bible.")

Now here we find that the war arose at Gob, Gath, Gezer, or Gaza, but anyhow in the Philistine land.

There is, in reality, nothing but coherent variation here, for there was doubtless fighting over much ground, and Gezer is only about eleven miles north (a little east) from Tell es Sâfi. If Gob be the true reading it may yet be discovered. Indeed this Gób (גֹּב, cave or pit) may survive in the name Sheikh Jôbas, some half-mile south of Gezer, where there is a cave (Map of Gezer, "Memoirs," II, p. 428).

If, however, Gath be the true reading in verse 18, then it would seem that Saphi was killed at his own city of Gath (verse 22), which is now known by his name, perhaps for that very reason, being not only the place of his birth but also of his death in battle.

Saphi was one of the four born to Raphah in Gath. The other three worthies of this house came to a like end.

2. Ishbi-benob, whose name has been a sad stumbling-block to the critics, **ישבי בְּנוֹב**.

The LXX in one reading has *Ἰεσβι ἐν Νοβ*, and the Vulgate gives equally Jesbibenob; and I think we may as well, with the Revised Version, stick to this.

The form as a proper name seems to be found in Babylonia, for Isbi-Bar-ra is given as one of the early kings of Karrak, and Isbi-Zikar is an early Chaldæan king ("Babelon. Hist.," List at the end). So we need not suspect anything amiss in the form of the name, especially as we find in 1 Chron. iv, 22, Ishbi Lekhem, of whom I have something to say presently. And I am very loth to fall back on **בְּנוֹב** as the likely reading, and make it Gob instead of Nob. It is surely best to stick patiently to Nob till we know more.

Now it was Ishbi-benob who was the occasion of a terrible but well-meant mistake on the part of David's generals. For the enterprising Ishbi-benob, seeing David spent with battle, "thought to have slain" the king, and (as I believe) with a weapon familiar in the hands of kings. For he was girded with something that has been the despair of the interpreters.

What it was that had so nearly been the death of David perhaps we can make out. In our Hebrew Bible it is **חֶדֶשׁ**, "a new" something (Revised Version, "a new *sword*," margin, "new *armour*").


In the excellent Variorum edition by my friend Professor Cheyne and others there is a very sensible note which may well be commended as an example: "The adjective has nothing agreeing with it in the Hebrew, and can scarcely therefore be right; probably it is a corruption of the name of some rare implement—*Thenius, Ewald, Wellhausen, Keil*."

I believe the supposed adjective is itself the name of a weapon little known to the Hebrews, and very naturally misunderstood and altered by scribes into a common Hebrew adjective, to the confusion of all readers since the time of the first writer, perhaps.

The LXX has *κοπίνη*, which means a very usual weapon in those days, a battle-mace.

But I think a very slight alteration in the form of a Hebrew letter of the earliest style will give us the true name of the weapon.

If for **ך** Phœnician and Hebrew we read **ך** Phœnician (see alphabets in Gesenius, *Lex. or Gr.*), then instead of **חֶדֶשׁ** we have **חֶפֶשׁ**, an Egyptian name for a very deadly weapon, generally seen in the hands of Pharaohs on the temple-walls, but also as a common arm of Egyptian soldiers, and of their auxiliaries and mercenaries of other races. (See Wilkinson, "Ancient Egyptians," I, pp. 347, 369, 338.)

It is the  **חֶפֶשׁ** in Hebrew letters, and in English letters we have KH—P—SH instead of KH—D—SH—"girded with a falchion, or glaive," instead of—"girded with a new ———."

I may add, that if I am right, a scribe in copying would almost

inevitably avoid the right word unless he were familiar with the Egyptian, for חֶפֶשׁ in Hebrew is "a bed, a couch" (Ges.). "Girded with a bed" would be sad nonsense, and might well drive the copyist to חָרֵט, "girded with a new ——" something. In the hand of a mighty *sabreur* of the Philistines an Egyptian *khopesh* would be a most fit and fearful weapon, for the Philistines were first rate auxiliaries of the Egyptians. But Abishai came to David's help and slew the Philistine.

The next brother was Lakhmi, of whom I have written something before (*Quarterly Statement*, 1885, p. 112). We learn his name from 1 Chron. xx, 5, and hence we know that he was a brother of Goliath of Gath, which brings the number of the sons of the giant (Raphah) altogether to five. Lakhmi was killed by Elkhanan in a later battle in Gob (*Peshito*, Gath).

It is worth notice that among the few names in the Old Testament beginning with Ishbi is Ishbi Lekhem (1 Chron. iv, 22), one of the descendants of Judah, "who dwelt in Neta'im and Gederal" (ישבי נטעים וגדרה). Now this Gederal is "mentioned in the Onomasticon, *s.v.* "Gedor" as ten miles from Eleutheropolis on the road to Diospolis—the important ruin of Jedireh." (Sheet XVI. See "Twenty-one Years' Work," &c., p. 225.)

This brings us within two miles of Tell es Sâfi northwards. So Ishbi Lekhem lived hard by the home of the giants. But where is Neta'im (נטעים)? Five miles east (a little south) of Tell es Sâfi, and thirteen miles south of Gezer, is a ruined place called Khurbet Nuweitêh (plural of Nattâh, "Name Lists," p. 270), with traces of an ancient road and cisterns. ("Memoirs," II, p. 425.)

May not this be Neta'im? For the Arabic will correspond to the Hebrew in Nattâh ("Name Lists," p. 94); for we have the equivalent of נ, and for ע we have ح equivalent of ה; "sometimes ע appears as ح," says Professor Palmer (Preface to "Name Lists"). I venture to think, then, that we have found in the trivial Nuweitêh ("those that butt with their horns") the real old Neta'im of the book of Chronicles in its right place.

Did not Ishbi Lekhem derive his name from the place of his abode Lakhmam, or Lakhmas, now el Lahm (LXX, one reading Λαμας; Vulg., Leheman), three miles south of Beit Jibrîn? This, as well as Mareshah (Mer'ash), mentioned with it, is quite within the same district dominated at that time by the Philistines.

The connection of David with the Philistines, and the personal and local names of this region, are very tempting matters, and very interesting, for we are emphatically told by the scribe of the Chronicles, "these are ancient things;" or rather, with the Revised Version, "the records are ancient," and we may depend on it that they were, and authentic too.

To return to the sons of Raphah. The remaining brother was the most prodigious of all, for he "had on every hand six fingers, and on every foot six toes, four and twenty in all." But, for all that, David's nephew, Jonathan, slew him, and his fingers and toes have eclipsed his name.

Now Gath was the hearth that reared these sons of the giant, and it

seems to me, as I have explained, that the one among them who was slain by Sibbekaï the Hushathite has left his name at the Tell, and Khurbet, and Wâdy of Sâfi, and that this is an additional reason to believe that Gath was there.

Captain Conder wrote in 1880 (*Quarterly Statement*, p. 220): "Gath cannot be identified until the name Jett is recovered, and as the name of the city drops out of the enumerations of Philistine places in the later books of the Old Testament, so also it seems to have dropped out of the nomenclature of Philistia." May not this be accounted for because it was known by the name of one of its lords?

TAMMUZ, LAKHMU, ASHËRA, SUTEKH.

In the *Quarterly Statement* for April, 1885, I ventured to suggest that Bethlehem originally owed its name to a sanctuary of the primordial god Lakhmu, of whom we read in the tablet of cosmogony, now so famous through the labours of George Smith, Sayce, Lenormant, Friedrich Delitzsch, and Boscawen. I am happy in having the approval of my friends Professor Sayce and Captain Conder. In pointing out that the northern Bethlehem in Zebulun was built in an oak-grove (and it is on high ground with ruined edifices: "Memoirs," I, pp. 270, 301), I omitted to mention that the sacred Bethlehem Ephratah had, as Jerome says, a shady grove of Thammuz, and in the cave of the nativity of our Lord the spouse of Ishtar used to be bewailed. (Lenormant: "Sur le nom de Tammouz." *Cong. des Orient.* Paris, 1873, p. 150.) Now we are informed in an explanatory tablet that Lakhmu was Anu (heaven), and his consort Lakhamu Anat (earth). (Lenormant, "Les Origines," I, p. 494.) This brings us very near to the mystic characters of Tammuz and Istar.

With regard to the name of the god of fertility being given to the food itself, it reminds us of Ceres in the sense of corn, and the like; and the wailing devotees of the lost Tammuz in the late pagan times at Harran were wont to eat only dried fruits, and to abstain from corn-meal. In the absence of the god they were to withhold themselves from his gift. (Lenormant, "Tammouz," p. 154.)

The myth of Tammuz seems still preserved at Neby Mashûk, where "in the middle of July the Tyrians celebrate the feast of Sheikh Mashûk, whose tomb lies near that of his wife on the hillock." ("Memoirs," I, p. 69; "Name Lists," p. 10.)

On the connection between this myth and that of Osiris, much interesting lore is given by M. Colonna Ceccaldi in his paper, "Sur le Monument de Sarba." But I think also that even the name of Tammuz is still spoken at Deir Tamneis on the Nahr el Kelb. ("Jerusalem," p. 524.)

And the name of the old abomination Ashera also seems to linger at Deir el Ashayir on the Hermon range (*ibid.*, p. 497). In the Bible we find it written with, as well as without, the letter *yod*.

Also the words Beth Ba'al were found at Siloam by M. Clermont-Ganneau in a fragment of a Phœnician inscription (*ibid.*, p. 423). And the name of Sutekh, the Ba'al of the Hykshôs and Hittites, is appropriately stigmatized in the Jordan Valley, south of the Lake of Gennesaret, as "Sat-h the Dæmon." ("Memoirs," II, p. 248.)

These strange "restitutions of decayed intelligence" are illuminations unknown to Milton of his magnificent "Ode on the Nativity," and the grand parallel passage in the "Paradise Lost."

HENRY GEORGE TOMKINS.

FELLAH DIALECT IN PALESTINE.

(*Quarterly Statement, January, 1886, p. 17; April No., p. 84.*)

CAPTAIN CONDER emphasizes the Aramaic character of the dialect spoken by the fellahs, as distinct from Arabic. I believe, and have often felt convinced, that a great many names are misunderstood in the light of Arabic, and that in reading the "Memoirs" and "Name Lists" many ancient clues are lost, through forgetfulness of this, and modern trivialities are substituted for important historic and mythological links with the past. Of course the first thing of all was to take down phonetically in the most trusty fashion the names on the lips of the inhabitants, especially of the most unsophisticated "oldest inhabitant." This was necessarily done in Arabic, but then comes the deeply interesting task of seeing the old name through its mask, as the true portrait-painter,

"Divinely, through all hindrance, sees the man."

"The Bully-ruffian" was a capital name for a man-of-war in the ears of a jack-tar of the old pig-tailed breed, but after all the true name was "Bellerophon," which to him meant nothing; and the good ship "Wheel-em-along," was really christened "Ville de Milan."

HENRY GEORGE TOMKINS.

THE SECOND WALL OF JERUSALEM.

MY husband and I, when living in Jerusalem, used to consider the place where the recent discovery has been made as a likely position for the line of the second wall.

The shop, and patriarchs' house above it, were altered and finished between 1848-1853. There were indications that the site was of importance. But no deep foundations were then dug. We could only guess as to there being more below ground.

The space *west* of the wall now discovered looked, when I left Jerusalem, like a rough field raised above the street level. But on our first arrival it was occupied by a pool (tank), lying nearly north and south. This was called the Pool of Bathsheba, there being a tradition that she was seen here by King David from his palace on Zion above.

The pool was shallow and waterless. It was filled up at the time above mentioned with earth and rubbish to make the place more wholesome. As to the second wall, and the possibility that it was built by King David, there is an important passage in Josephus. (Ant. VII, ch. iv, 2.) "David made buildings round about the lower [*? northern*] city. He also joined the citadel [on Zion] to it and made it one body, and when he had encompassed all with walls he appointed Joab to take care of them." To this agree the allusions in the Psalms.

Ps. li, 18. Here David asks God's help in building the walls of Jerusalem. And in Ps. cxxii, 2, Jerusalem is described as being now "buidled" and "compacted together," united in close connection. The verb **חבר** is very definite as meaning united; no longer consisting of separate bits, an open defenceless lower city (on the north) and the fortress of Zion with its walls, but now joined and compacted into one Jerusalem all walled round. 2 Sam. v, 9, says: David "buidled round about"—the Hebrew distinctly means "to encompass" (as Josephus above)—"from the Millo." The Millo may thus find its explanation. If David joined the northern second encompassing wall to the old wall of the Zion citadel, there was a difficulty to be overcome in the small valley that runs east from the Jaffa Gate, having the Zion citadel on the south. When in Jerusalem we used to suppose that David "filled up" a part of this valley (Hebrew **מלא** "to fill up"), and that hence his work was called "the Millo;" the Hebrew has the article **המלוא**. The Millo would mean "the filled up" place or embankment, on which he carried his fortifications and wall across that valley.

Thus was the northern portion of the city united to the southern, and what had before been only partly conquered by Judah (Josh. xv, 63), was now finally taken in and made an integral part of the capital of Judah.

David then appears as—

1. Builder of the second or north wall.
2. Incorporator of the two parts of the city into one whole.
3. Builder of the Millo which enabled him to connect them within the encompassing wall.

One of the wells mentioned in the account of the discoveries, the one to the south, just outside the English Church enclosure, was always known to be very ancient and well supplied with water, and deep.

I may add that we were so fortunate, in 1848, as to see the foundations of a part of the first wall, along the northern face of Zion. A house was being pulled down and rebuilt by the London Jews' Society as residence for their physician, and just within the line of the north wall of Zion. During the progress of this work, and on removal of walls and rubbish to a considerable depth in search of safe foundation, a magnificent portion of old wall was partly laid bare. We could see as we stood above and looked down upon it that the stones were massive and had the chisel-draft. They were similar in style and character to those forming the base of the Citadel and Tower of David. Though now partly built over and covered in, it would, I suppose, still be possible to examine this portion of the old first wall, and even perhaps more on each side, east and west, than was then visible.

E. A. FINN.

MEETING OF THE GENERAL COMMITTEE.

THE Annual Meeting of the General Committee was held in the great room of the Social Science Association, on July 26th. Chairman, Mr. JAMES GLAISHER.

After the SECRETARY had read letters from various gentlemen regretting their inability to attend the meeting, the Report of the Executive Committee for the year was read as follows :—

“MY LORDS AND GENTLEMEN,—

“Your Committee at the last General Meeting of June 24th, 1885, have, on resigning office, to render an account of their administration during the past year.

“I. The Committee have held twenty-three meetings during the year.

“II. It has still been found impossible to carry on the survey of Eastern Palestine by means of Royal Engineers for want of the Sultan's Firman.

“III. The work of exploration, however, has been conducted for the Society during the last year by Herr Gottlieb Schumacher. On the last meeting of the General Committee the Executive Committee were able to report that they had received a large and important contribution to the survey of Eastern Palestine in the shape of a map of two hundred square miles, with memoirs giving a list of Arabic names, a general description of the country, with its perennial streams, cascades, forests, villages, roads, and people, and an account, with plans and drawings, of the villages and ruins in the district surveyed by Herr Schumacher.

“The work has since been printed and published in a separate volume, called ‘Across the Jordan,’ a copy of which has been presented to every subscriber who asked for it; the number of copies so distributed amounts to 1,100. This most valuable memoir is a contribution to our knowledge of the country of the greatest importance. We have now the pleasure of announcing that Herr Schumacher has successfully carried out another survey for the Society, this time in Northern Ajlûn. The portion surveyed is five hundred square miles in that piece of country bordered on the north by the Sharî'at el Menâdireh, on the west by the Ghor or Jordan Valley, on the south by Tibneh, and on the east by Irbid Beit Râs and the Wâdy Semar, which joins the Sharî'at el Menâdireh near Arâk el Heitaleiyeh. A greater number of ancient and modern sites was collected here than in the previous survey by the same explorer. Special plans have been made of M'keis (Gadara) and Beit Râs (believed by Herr Schumacher to be Capitolias). Another great field of dolmens was found near Irbid.

“Herr Schumacher has crossed the Jaulan and Hamran once more, and was able to add more names to the map. At Abdûn he found a Greek inscription.

“The maps and memoirs of this survey will arrive, it is expected, in

September. The Committee have not yet decided upon the form and method of publication.

“Little by little we are rescuing the unknown parts of the country from obscurity, and bringing them, with their ruins, under the surveyor’s hands, if not by the rapid methods by which the survey of Western Palestine was accomplished, yet by safe and scientific methods, and at much less cost.

“Herr Schumacher has also visited the south of Palestine, and has made a discovery, which he considers important, at Ascalon. Its nature is not yet accurately known.

“As regards the long-promised map of the country showing both sides of the Jordan, this must still be deferred until Schumacher’s work can be laid down upon it.

“We are indebted to Dr. Selah Merrill, the American Consul at Jerusalem, for keeping us acquainted with certain discoveries at the Holy City of the greatest interest. Recent excavations for building purposes laid bare the lower courses of a great wall which, to judge by the masonry—this presented the familiar marginal draft associated with Jewish work—and by a rock scarp on the outside, seem to be those of the second wall. We are now taking steps to follow up this discovery, and hope to report, before long, on the actual course of the wall. It is needless to point out that, should it prove to be the second wall, the authenticity of the so-called Holy Places will either be absolutely disproved or will be very greatly advanced if not placed quite beyond dispute.

“We are also indebted to Dr. Merrill for an account of other discoveries, consisting chiefly of rock-cut tombs near Jerusalem; to Professor Hayter Lewis for his notes on Jerusalem; to Herr Conrad Schick for papers on the newly discovered tombs and on the aqueduct of Siloam; to Mr. Laurence Oliphant for his papers on excavations at Carmel, and on the eastern coasts of the Sea of Galilee; to Captain Conder for his notes; to Mr. Greville Chester for his papers on Phœnician Gems; and to other writers who have made the *Quarterly Statement* interesting and valuable. We have also published during the year Mr. Chichester Hart’s ‘Journey of a Naturalist in Sinai and South Palestine.’ This paper appeared in the *Quarterly Statement*. We have in hand his fuller memoir on the same subject, which we hope to bring out early next year. We have also published Professor Hull’s Geological Memoir. This important work is issued uniform with the ‘Survey of Western Palestine,’ and will be included in the Index, which is now nearly ready. As regards the remaining copies of the ‘Survey of Western Palestine,’ they are in the hands of Mr. Alexander P. Watt, 34, Paternoster Row, who has been appointed the agent for their sale. Subscribers and those who already possess the work are requested to note that no reduction will be made, either now or at any other time, in the price of this great work. On the other hand the Committee reserve to themselves the right of raising the price of the last copies.

“IV. A Committee has been appointed for the purpose of making an inquiry into the manners and customs of the various peoples and tribes in

Syria and the East. We have now an opportunity of carrying this out by means of intelligent and educated agents over the whole of Syria, Asia Minor, Cyprus, Armenia, Egypt, and the country as far as the Euphrates. This most important investigation will be carried on during the next twelve months, and will perhaps last several years. The results, as they come home and can be classified, will be given to the world in the Society's Journal. The Committee now consists of Captain Conder, Rev. Dr. Ginsburg, Mr. James Glaisher, Professor Hayter Lewis, Mr. John MacGregor, Mr. Simpson, Sir Charles Warren, Sir Charles Wilson, Dr. Aldis Wright, and the Rev. Dr. William Wright, all members of the General or Executive Committee.

"Mr. Francis Galton, the President of the Anthropological Institute, has also joined this Committee, and Mr. Lawrence Gomme, Secretary of the Folk-Lore Society. The Institute of Architects has promised assistance, and may be considered represented by Professor Hayter Lewis, while the Bible Society is represented by Dr. William Wright. The questions are nearly ready, and are now passing through the hands of the printer. They will be supplemented by a set of questions on Folk-Lore, which a Committee of the Folk-Lore Society has in preparation.

"V. The Society has this year arrived at the twenty-first year of its age. It was felt that the anniversary should be marked by a public meeting, and by a Summary or Memoir of the work accomplished during the twenty-one years of its existence. The meeting was held in the Theatre of the Royal Institution, on the 22nd day of June, under the same President, the Archbishop of York, who took the chair at the first meeting of June 22nd, 1865. It was addressed by Mr. Glaisher, Sir George Grove, Sir Charles Wilson, Captain Conder, Mr. MacGregor, Canon Tristram, and Professor Hayter Lewis, as well as by His Grace the Archbishop.

"A copy of the Memoir, written for the Committee by the Secretary, will be sent round to every subscriber who asks for it. It contains a brief account of all that the Society has done, and a statement of what it hopes to do.

"The expenses of exploration might be indefinitely increased, but in the present condition of the Society's finances, and the prospects of next year's income, the Committee regret that they are not justified in proposing to spend more than about £1,000 next year on research. About an equal sum should be expended in publishing the memoirs, &c., which are in the office awaiting publication. The expenses of management amount every year to the same sum, namely, about £600, including salaries, rent, and general expenses of the office.

"The Balance Sheet for the year 1885 was published in the April *Quarterly Statement*. The Society received during the year 1885 the sum of £2,904 from all sources, and has expended £2,822, viz.: in exploration, maps and memoirs, £1,560; in printing and books, £688; in management, £573. Since the beginning of the year the sum of £1,456 has been received; exploration has cost £410; maps and memoirs, £720; printers, £150; and management, £321.

"The debt on the maps and memoirs has been entirely paid off. The Society has no other debts than the current printers' bills, and the loan of £850, which it is hoped will be paid off before the next meeting of the General Committee.

"The Committee have to deplore the death, since their last meeting, of three of their oldest friends. These are—(1) Mr. James Fergusson, to whom, with Sir George Grove, belongs the honour of founding the Society. His views on the 'Topography of Jerusalem,' published in the year 1847, and stoutly defended by him to the last, have been the means of awakening and sustaining an unflagging interest in the sacred sites. (2) The Venerable Dean of Chester, Dr. Howson, who died in April last, was a member of the Committee from the beginning. (3) Mr. W. S. W. Vaux, F.R.S., formerly of the British Museum, Secretary of the Royal Asiatic Society and of the Royal Society of Literature, was a member of the Executive Committee from the beginning.

"The Committee have to express their best thanks to the Local Hon. Secretaries, and to all who have helped to spread a knowledge of their work, which, as will be seen from the preceding Report, is actively going on, and will continue to do so, as long as any part of our original prospectus remains to be filled up."

The CHAIRMAN, on the Report having been read, invited any members present to speak upon it.

Captain CONDER called attention to the site of Kaukab found by Herr Schumacher as the capital of the Ebionite Christians in the second century, and suggested that the discovery might be followed up.

Professor LÖWY urged upon the Committee the necessity of studying the dialects of Palestine. Many of those dialects, he said, are now dying out. Of the Samaritans scarcely a hundred are left. Especially in the north there are tribes whose dialects have never yet been properly examined. He undertook to draw up a set of questions which might be used for this purpose.

Mr. HENRY MAUDSLAY strongly urged upon the Committee the work of excavation.

Dr. CHAPLIN spoke of the language, the proverbs, and the ordinary locutions used by the women in household talk as containing much that might be used for the illustration of the Bible. He mentioned one case. There is a phrase used once in the Bible applied to Jacob, "Lift up thy feet," meaning "Go quickly." He had heard the same phrase used by a woman of the present day.

It was proposed by Lord SIDMOUTH, and seconded by Dr. CHAPLIN, that the Report be adopted.

It was proposed by Mr. MAUDSLAY, and seconded by Dr. LÖWY, that the present members of Executive Committee be re-elected.

It was proposed by the CHAIRMAN, and seconded by Captain CONDER,

that the following be proposed as new members of the General Committee :—

The Bishop of Salisbury.

Rev. Dr. Cunningham Geikie (Author of "The Life of Christ," and "Home with the Bible," &c.).

Rev. William Allen.

Mr. Francis Galton, F.R.S. (President of the Anthropological Institute).

Mr. Lawrence Gomme (Hon. Sec. of the Folk-Lore Society).

Mr. J. W. Pease, M.P.

Mr. Arthur Pease, M.P.

Mr. Charles Kennion.

Mr. Guy le Strange.

It was proposed by Mr. MAUDSLAY, and seconded by Professor HAYTER LEWIS, that the thanks of the Committee be given to Mr. GLAISHER, the Chairman of Executive Committee.

It was proposed by Sir W. McARTHUR, and seconded by Professor HUDLESTON, that the thanks of the Committee be given to Mr. WALTER BESANT, the Secretary.

The meeting then adjourned.

TAMID, OR THE CONTINUAL SERVICE—*continued*.

CHAPTER IV.

1. THEY did not tie the two fore-legs of the lamb to each other, or the two hind-legs to each other,¹ but tied the fore-leg and the hind-leg together. They to whom the lot fell to take up the pieces to the incline held it. And thus it was bound: its head to the south, and its face to the west,² and the slaughtering priest stood on the east with his face to the west. The morning lamb was slain at the north-western corner³ at the second ring. The slayer of the lamb slew it, and the receiver of the blood received it, and came to the north-western horn⁴ and put the blood east and north;⁵ to the south-western horn and put the blood west and south, and the remainder of the blood he poured out upon the southern foundation.

2. He did not break the leg of the lamb,⁶ but pierced it through the

¹ They did not tie the lamb with its two fore-legs to each other or its two hind-legs to each other, in order not to do according to the customs of other nations [strangers] who did this when performing idolatrous sacrifices; but they tied the lamb fore-leg and hind-leg together as Isaak was tied.

² It was slain on the side of the altar northward according to the law of the burnt offering [Levit. i, 11]. They turned his head to the south, and his face to the west in order that if he should drop his dung, it might not be near the altar.

³ The continual morning offering was slain at the north-western corner because in the morning the sun being in the east, its beams radiate towards the west, and the Scripture says "two lambs day by day" [Exod. xxix, 38] לַיּוֹם שְׁנַיִם, which is like כַּנְגֵד הַיּוֹם, *opposite the day*, that is to say, opposite the sun, because the sun is called day. And that of the evening, when the sun was in the west, and shone towards the east, was slain at the north-eastern corner.

⁴ Distant from the altar, because the altar was high and overshadows everything [if near the altar, the place of slaying would come into shade as the sun moved south]. Johanan, the high priest, caused six rows of rings to be put there, in each row four rings, for the twenty-four courses of the priesthood. They were fixed in the pavement, and made like a kind of bow, and because the sacrifice was not tied [as is taught at the beginning of the chapter], they put the neck of the beast in those rings at the time of slaughtering, and fixed the end of the ring in the ground.

⁵ At first. After slaying the morning lamb at the north-western corner, he went to the eastern side and stood on the ground and threw the blood from the vessel, בְּכַל, below the red line, and made two sprinklings which are four: one, which was like two, on the north-eastern corner, and then giving to the south-west one, which was like two, on the south-western corner.

⁶ As butchers do who cut off the leg with the skin upon it, but they pierced under the knee which is sold with the head, and suspended the carcase by it and skinned the leg, with the rest of the animal, and hence we learn that the feet were included in the skinning.

knee,⁷ and hung it up by that. He skinned downwards, until he reached the breast; having reached the breast, he cut off the head and gave it to him to whom the lot fell to take it. He cut off the feet, כרעים, and gave them to him to whom the lot fell to take them. Having finished the skinning,⁸ he tore the heart and put out its blood. He cut off the forelegs and gave them to him to whom the lot fell to take them. He went up to the right leg and cut it off, and gave it to him to whom the lot fell to take it, and the two testicles with it. He slipt up *the animal* and finding all open before him took the fat⁹ of *the inwards* and put it upon the cut surface¹⁰ of the head, took the inwards and gave it to him to whom the lot fell to wash them. And the stomach they washed¹¹ in the house of the washings,¹² as much as was required, but the inwards they washed three times¹³ at least¹⁴ upon the marble tables which were between the pillars.

3. He took the knife and separated the lung from the liver, and the finger of the liver from the liver, but did not remove it from its place;¹⁵ he then opened the chest, and gave it to him to whom the lot fell to take it. He ascended to the right side and cut it and descended as far as the spine, but he did not touch the spine until he came to the two soft ribs. He cut it off¹⁶ and gave it to him to whom the lot fell to take it with the liver hanging to it. He came to the throat, and left attached to it two ribs on this side and two on that side. He cut it off and gave it to him to whom the lot fell to take it, with the windpipe, the heart and the lung hanging to it. He came to the left side and left attached to it, two soft ribs above and two soft ribs below, and the same to that of the opposite side, so that there were left attached to each of them two above and two below. He cut it off¹⁶ and gave it to him to whom the lot fell to take it, and with it the spine with the spleen hanging to it. And this was the larger portion, but that of the right side was called the larger, because the liver was left hanging to it. He came to the end of the spine, cut it off and gave it to him to whom the

⁷ ערכובו = ארכובו, knee.

⁸ For he skinned no farther than the breast, on which the skin was still left.

⁹ חלב = פֶּרֶךְ.

¹⁰ And this in the way of honour to the Highest, that the blood of the slaying should not be seen as a defilement.

¹¹ They washed it by itself from the dung which was in it.

¹² In a chamber which was in the Sanctuary. They did not wash it with the rest of the inwards in order that they should not be polluted.

¹³ Because the dirt would not go out without pressure as *the intestines* are narrow.

¹⁴ At the very least, and if they desired to wash them more than three times they did so.

¹⁵ Because it was offered with the end of the spine and the fat tail; and the liver with the right side; and the lung with the throat and two ribs with it, as is explained immediately.

¹⁶ He cut it off near to the spine, but left two ribs above attached to the spine and two below.

lot fell to take it, with the fat of the tail and the finger of the liver, and the two kidneys with it. He took the left leg and gave it to him to whom the lot fell to take it. They were now all standing in a row with the pieces in their hands. The first with the head and the leg, the head in his right hand, with its nose towards his arm and its horns between his fingers and the cut surface upwards, with the fat [of the inwards] placed upon it, and the right leg in his left hand,¹⁷ with the skin surface [that part from which the skin had been taken] outwards.¹⁸ The second with the two fore-legs, the right in his right hand, and the left in his left hand with the skin surface outwards. The third with the end of the spine and the leg, the end of the spine in his right hand and the fat of the tail hanging down between his fingers, and the finger of the liver and the two kidneys with it, the left leg in his left hand with the skin surface outwards. The fourth with the breast and throat, the breast in his right hand, and the throat in his left hand, and the ribs which were attached to it between his fingers. The fifth with the two sides, the right in his right hand and the left in his left hand, with the skin surface outwards. The sixth with the inwards placed in a bowl¹⁹ and the feet upon them. The seventh with the fine flour.²⁰ The eighth with the pancakes.²¹ The ninth with the wine. They went and put them by the middle of the incline below on its west,²² and salted them. Then they went down to the chamber Gazith to read the *shin'a*.²³

¹⁷ Notwithstanding that the carrying the pieces to the incline was part of the service, and service performed with the left hand was unlawful; for that which did not delay the atonement was lawful even with the left hand as is adduced in Yoma [48 b].

¹⁸ The place [surface] from which the skin had been removed was next the ends of the fingers.

¹⁹ In the Targum כף אהת is rendered כזיבה חרנא [Numb. vii, 14], [one spoon A. V.].

²⁰ For the drink-offerings which were offered with the lamb.

²¹ The offering baked in a pan of the high priest, half of which was offered in the morning and half in the evening every day. [Levit. vi, 26, 21.] And the reason why the offering of pancakes was placed between the fine flour and the drink-offerings which were necessary always, was that the fine flour and the pancakes had both the name of *minchah* or meat-offering, and therefore they offered them one at a time.

²² And not at its middle and above, in order that the going with them to the altar after they returned from saying the *shin'a* might be evident. And only on common days were the pieces of the continual sacrifice put on the west, the side of the Shekinah; but on Sabbaths those additions which the day required were on the west, and the daily sacrifice on the east, as is argued in the treatise "Succah," ch. 5.

²³ And the other benedictions, as appears from the next chapter.

CHAPTER V.

1. THE prefect said to them "pronounce a blessing,"¹ and they pronounced it. Then they read the ten commandments,² then *shin'a v'haiak im sham'oa* and *vayomer*. They pronounced three blessings with the people,³ viz. : *emeth v'yatzib*, *'abodah*, and the blessing of the priests, and on Sabbath they added a blessing for the watch which was going off duty.⁴

2. He said to them "those who are new to the incense,⁵ come and cast lots." They cast lots and he to whom the lot fell performed the duty. He said to them "new and old,⁶ come and cast lots who shall take up the pieces from the incline to the altar," Rabbi Eliezer the son of Jacob said "he who took up the pieces to the incline took them up to the top of the altar."⁷

3. They handed them over to the wardens,⁸ who stripped them of their

¹ In the first chapter of "Berachoth" it is explained that this was *ahabah rabah*. And after the day dawned and the sun began to shine they pronounced the blessing *botze roor*. The observance of the order of the blessings was not essential.

² Because they were the foundation, עקר, of the law. And by right they ought to be read every day even in the country places [בבולאים], towns out of Jerusalem], but this was stopped, because of the complaints of the heretics, who said that they only were given from Sinai, and not the rest of the Law.

³ These were *emeth v'yatzib 'abodah*, and the blessing of the priests. They read the passages only and did not lift up the hands, because the priests did not lift up their hands until after the offering of the lamb and the incense, as is said in the next chapter. They only pronounced these blessings now in order that the lamb might be graciously accepted. And they were not by this exempted from saying the eighteen prayers.

⁴ The watch going out said to the watch entering, "May He who has caused His name to dwell in this house cause to dwell between you, love and brotherhood, peace and friendship:" for on every Sabbath one watch entered for the service, and the watch who had served went out.

⁵ Ye to whom the lot never yet fell to offer the incense come and cast lots. They never allowed one to whom the lot had once fallen to offer the incense to do it a second time because he became rich, for it is written [Deut. xxxiii, 10. 11] "they shall put incense before thee, &c. . . . bless, Lord, his substance." On this account they did not let any priest offer it a second time, in order that all should be made rich and be blessed by it.

⁶ As he had said in reference to the incense, "priests new to the office only," he said now, "new with old," that is to say those to whom the lot has fallen on other occasions, and those to whom it has not fallen, come and cast lots.

⁷ The lot was not so, and the decision was not in accordance with the view of Rabbi Eliezer ben Jacob.

⁸ Those priests who had made themselves ready, and to whom no lot had fallen, and who were dressed in the garments of the priesthood, they handed over to the wardens who were deacons employed in the necessary duties of the Sanctuary, in order that they might strip them of the sacred garments that were upon them.

clothes, leaving upon them their small clothes⁹ only. And there were niches there upon which were written the uses of the garments.¹⁰

4. He to whom the lot fell to offer the incense, took the *kaf* [A.V. *spoon*, Numb. vii, 20]. The *kaf* resembled a large golden *tirkab* containing three *cabs*, and the *bazik*¹¹ [or censer] was in it, full and heaped up with the incense.¹² There was a lid to it¹³ and a kind of *metotaclath* over it.¹⁴

5. He to whom the lot fell to take the censer,¹⁵ took the silver censer and went up to the top of the altar, turned the coals this way and that way, and took a portion of them.¹⁶ He then descended and poured them into the golden *censer*,¹⁷ about a *cab* of the coals being spilled,¹⁸ which they swept into the cesspool,¹⁹ but on the Sabbath²⁰ covered with the *p'sachtar*.

⁹ And putting on profane garments, after which they took off their small clothes and leaving all the priestly garments, went their way.

¹⁰ The niches in which were the breeches had "breeches" written over them, and those in which were the shirts, "shirts," and the same with the turban and the girdle. And in the order of putting on the garments, the breeches were before all the other sacred garments, for it is written (Levit. vi, 10) "and his linen breeches shall be put upon his flesh," that there should be nothing before the breeches, and then the shirt, then he bound on the girdle, and then wound round the turban.

¹¹ A little *kaf*.

¹² It was placed in the middle of the large *kaf*, because when the small one was heaped up the incense would have been spilled upon the ground when it was carried. And it was not possible to use the great *kaf* only, for it was due to the honour of the Most High to empty out of the heaped up *kaf* upon the coals at the time of burning the incense.

¹³ To the *bazik*.

¹⁴ *מטוטלת*. My masters explained that it was a kind of ring to the above, by means of which they removed the lid and took it away from the *bazik*. In Aruch it is explained to be a piece of clothing, *כנר* (as in Shabbath 54 a), "a camel may not go out with the *מטוטלת*," respecting which it is explained "with which a beast goes out"), which was placed upon the lid of the *bazik* like a kind of small cloth for ornament. [It is a custom in grand oriental houses for the coffee to be brought in covered with a richly embroidered cloth.]

¹⁵ To take the coals to the golden altar. There was no lot cast for this, but he who had obtained by lot the right to offer the incense said to him who was with him come and take the censer with me.

¹⁶ He took from the consumed inner portions. We do not read here of those which were almost converted into ashes, for on the contrary the coals taken were solid and incandescent.

¹⁷ But he did not take them in the golden censer in order that it should not be spoiled. The law is sparing of the goods of Israel.

¹⁸ Because they took the coals in the silver censer, which held four *cabs*, and emptied them into the golden one of three *cabs*, and in order that they might carry it full they emptied the coals into it at last [after descending] that being done as an act of honour to the Highest.

¹⁹ Into the receptacle for water which was in [under] the court; in order that the priests might not be burned by them.

²⁰ Because it was unlawful to extinguish them, a certain large vessel was

The *p'sachtar* was a large vessel holding a *lethech*²¹ [or half homer ; cf. Hosea iii, 2.] There were two chains attached to it,²² one by which he drew it and went down, and the other by which he held it from above, in order that it might not turn over. It served three purposes : they inverted it over the coals or creeping things,²³ on the Sabbath, and brought down in it the ashes from the top of the altar.

6. When they came between the porch and the altar, one of them took the *magrefah*²⁴ and threw it between the porch and the altar. In Jerusalem one could not hear his companion's voice for the noise of the *magrefah*. It served three purposes : the priest who heard its sound, knew that his brethren the priests were entering to worship, and he hastened and came ; the Levite who heard its sound, knew that his brethren the Levites were entering to chant the song, and he hastened and came ; and the captain of the station placed the unclean at the eastern gate.

turned over them. The translation of סִירוֹתֵין, *sirothin* [pots, A. V., Exod. xxxviii, 3], is פִּסְכַּתְרוֹוֹתֵיהָ, *psachtarvotiah*.

²¹ Half a *chor*, or fifteen *seah* ; a *chor* containing thirty *seah*.

²² To the *psachtar*, one on this side and one on that side, because they let down in it the ashes from the top of the altar as we have said elsewhere. And when they let it down full of ashes on the surface of the *kebesh* which was sloping, one priest was in front who drew it by the chain, and another priest was above the *psachtar* who held it by the chain which was in front of him in order that it should not roll over on the declivity of the *kebesh*.

²³ Any creeping thing found in the court on the Sabbath they covered over with the *psachtar* in order that the priests might not be made unclean by it, for it was not lawful to take it out thence on the Sabbath. Such a Sabbath observance they decreed, even in the Sanctuary. This was only in the court, but if it was found in the Temple itself or in the porch, they took it out at once even on the Sabbath.

²⁴ A large instrument, which they threw in order that it might cause a sound to be heard, and the sound proceeding from it served three purposes, which are explained as follows : the priest who heard its sound, if he was not in the court, hastened and came to worship with his brethren the priests ; and the captain of the station who heard the sound of the *magrefah* caused the unclean of the house of the fathers serving that day, who were not fit to serve, to stand at the eastern gates. Some say this was in order to shame them, to make known that it was on account of the uncleanness, קִרְי, that he was prohibited from serving, so that he might be more careful another time ; and some say it was to obviate suspicion, that he might not be suspected of going to his work and leaving the service, but that it might be known that in consequence of some serious uncleanness, as contact with a creeping thing, or something else, he was prohibited from serving. Ramban writes that lepers who were already cleansed from their leprosy were caused to stand at the eastern gate in order to be ready for the sprinkling of the blood of the trespass-offering upon them.

CHAPTER VI.

1. THEY¹ began to ascend the steps of the porch, they to whom the lot fell to remove the ashes from the inner altar and the candlestick going before them. He whose lot it was to remove the ashes from the inner altar entered and took the basket, made his prostration and went out.² He whose lot it was to remove the ashes from the candlestick entered, and *if* he found the two eastern lamps burning, he took the ashes from the eastern one, and left the western one burning, that the candlestick might be lit from it in the evening. If he found it extinguished,³ he removed the ashes from it and lit it from the altar of burnt-offering.⁴ He then took the can from the second step,⁵ and went out.⁶

2. He to whom the lot fell to take the censer, collected the coals⁷ upon the altar,⁸ and spread them out with the bottom of the censer.⁹ Then he made his prostration and went out.

¹ They to whom the lot fell to take the *kaf* and the censer for the coals began to ascend the steps of the porch (for there were twelve steps to the porch), and before them they to whom the lot had fallen to remove the ashes from the inner altar went in order to take out the basket which had been left there, for it was necessary to put the ashes beside the altar on the east, like the ashes of the candlestick. They waited until after the sprinkling of the blood of the daily sacrifice, when he whose lot it was to take the ashes from the candlestick performed the dressing of the two lamps and completed the removal of the ashes from the candlestick, and then the one took out the basket, and the other the can, and poured out the ashes in a certain place near the altar on the east.

² His duty being now finished.

³ As after the death of Simeon the Just, when there was no miracle; whether it was extinguished after the slaying of the sacrifice, or was found extinguished before the slaying of the sacrifice and he lit it, as we have said above in Chapter III. Even if he now found it still burning, since there was no longer a miracle, he extinguished it, and took away its ashes in order to complete the dressing of the two lamps together.

⁴ Because they never lit the western lamp except from the fire of the altar of burnt-offering, for it is written (Levit. vi, 13) "the fire shall ever be burning upon the altar," fire of which it is said "continual," for it is written (*ib.* xxiv, 2) "to cause the lamps to burn continually," from the outer altar it was burning.

⁵ The second of the three steps which were before the candlestick.

⁶ Having now completed his duty.

⁷ Which were in the censer.

⁸ Of incense.

⁹ In order that the incense should not fall off the coals, he spread them out and extended them so that they did not slope on either side. The translation of וירקעו [Exod. xxxix, 3] is ורירו [the word used above in the Mishna]. The incense was burned on the golden altar, not in the censer. But in offering the incense on the day of atonement the coals were left in the censer and upon it the incense was burned. There was no spreading out of the coals on the day of atonement.

3. He to whom the lot fell to offer the incense, took the *bazik* from the middle of the *kaf* and gave it¹⁰ to his friend,¹¹ or relative. If any of the incense in it got spilled into the *kaf*, he gave it to him in his hand. They taught him¹² "take care that thou dost not begin to *put incense on the coals immediately* in front of thee, lest thou be burned."¹³ He began to spread out *the incense* and then went away.¹⁴ He who offered the incense did not offer the incense until the prefect said to him "offer the incense." If it was the high priest, the overseer said "my lord high priest, offer the incense." The people separated,¹⁵ the priest offered the incense, made his obeisance, and went out.

¹⁰ The *kaf*.

¹¹ Who had come with him into the Temple for this purpose. And if any of the incense which was in the *bazik* became spilled into the *kaf* (because the *bazik* was full and heaped up and sometimes some fell from it into the *kaf*) his friend put the incense which was spilled into the *kaf* into the hollow of the hand of him who offered the incense.

¹² Because he had never before offered the incense, as we are taught above "priests who have not before offered the incense, come and cast lots," therefore it was necessary to instruct him.

¹³ He poured out the incense upon the coals on the western side at a distance from himself, and if any were spilled at the side next to him, he heaped it up, as we are told in Yoma (49 *b*), "in order that its smoke might be long in coming," and this was an honour, that there should be no delay in the service. And he gathered it together and made a heap on the western side in order that when he came to draw the incense which was near to him, he might heap it upon the western side at a distance from himself, and not be burned by the heap of burning incense. But if he had made the heap in front of him, when he collected the incense which was spilled outside of it, and brought it near to it, his arm would have been burned by the heap of incense which was burning in front of him. And thus the *Bareitha* teaches in the fifth chapter of Yoma, at the end of page 53 *b*, "he heaped it up on the inner side, which was the other side to him."

¹⁴ That is to say, as soon as he had spread out the incense upon the top of the coals he went out.

¹⁵ All the priests went away from between the porch and the altar at the time of burning the incense, for it is written (Levit. xvi, 17) "and there shall be no man in the tabernacle of the congregation when he goeth in to make an atonement in the holy place." At every atonement that was made in the holy place no man might be in the tabernacle, and hence at the time of offering the incense, and at the time of sprinkling the blood of the bullock of an anointed priest, and the bullock offered for an unknown transgression [Numb. xv, 24] of the congregation, and the kid offered as an atonement for idolatrous worship, the priests went away from between the porch and the altar; but at the time of offering the incense on the day of atonement, they went away from the Temple only, because the incense of the day of atonement was not without in the holy place [היכל] on the golden altar, but within, inside the holy of holies, and therefore it was not necessary for them to go away from between the porch and the altar, but from the holy place, היכל, only.

CHAPTER VII.

1. WHEN the high priest entered to worship,¹ three *priests* held him, one on the right, one on the left, and one by the precious stones.² And when the prefect heard the sound of the feet of the high priest as he was coming out, he raised for him the vail,³ he entered and worshipped and went out, and his brethren the priests entered and worshipped and went out.

2. They came and stood⁴ on the steps of the porch. The first,⁵ stood on the south of their brethren the priests, and five vessels *were* in their hands, the basket in the hand of one, the can in the hand of one, the censer in the hand of one, the *bazik* in the hand of one, and the *kaf* and its cover in the hand of one. They blessed the people with one blessing,⁶ but they who were in the provincial towns said three blessings; and in the Sanctuary one blessing. In the Sanctuary they said the Name as it is written,⁷ and in the provincial towns, by its cognomen.⁸ In the provincial towns the priests lifted up (the palms of) their hands, to a level with their shoulders,⁹ and in the Sanctuary,¹⁰ above their heads, except the high priest, who did not raise his hands above the *golden* plate.¹¹ Rabbi Judah said,¹² also the high priest raised his hands above the *golden* plate, for it is said (Levit. ix, 22), "and Aaron lifted up his hand towards the people and blessed them."

¹ In the holy place—Temple, הֵיכָל. This is not said of an entering which was not necessary.

² Which were on the shoulders of the ephod [Exod. xxviii, 12].

³ The vail which hung at the doorway of the porch, because there were no doors to the doorway of the porch, as there were to the other doorways in the Sanctuary, but a vail only.

⁴ After they had pronounced a blessing, and read, and performed those services mentioned above, they came to the steps of the porch.

⁵ Those five priests in whose hands were the five vessels.

⁶ Three verses of the priests' blessing, *yebakakh*, *yair*, and *yesa*. The author calls it one blessing, because they did not repeat after them Amen between the verses, as was the custom in the provincial towns.

⁷ With *yod he* [יהוה].

⁸ With *Aleph daleth* [אדני]. Because they did not speak [*lit.* record] the Name as it is written except in the Sanctuary only, for it is said [Exod. xx, 24], "in all places where I record my name, I will come unto thee and I will bless thee;" they transpose it and explain it "in every place where I come unto thee and bless thee," *i.e.*, in the Sanctuary, "there I will record my name."

⁹ Because the lifting up of the hands was necessary, for it is written [Levit. ix, 22], "and Aaron lifted up his hand toward the people and blessed them," and it is written [Deut. xviii, 5], "him and his sons for ever." As the lifting up of the hands refers to him, so also the lifting up of the hands refers to his sons for ever.

¹⁰ Because they blessed the people with the *shem hamphorash* [the explained Name, the ineffable Name, of God], and *Shechinah* was above the joints of their fingers they raised their hands above their heads.

¹¹ Because the Name was written upon it.

¹² The decision was not according to Rabbi Judah.

3. When the high priest desired to make the offering,¹³ he went up by the incline, with the *sagan* on his right. When he reached the middle of the incline,¹⁴ the *sagan* took hold of him by the right hand, and led him up. The first *priest* handed to him the head and the leg, and he laid his hands upon them,¹⁵ and threw them¹⁶ upon the altar. The second priest then handed to the first the two fore-legs, and he gave them to the high priest who laid his hands upon them, and threw them upon the altar. The second *priest* was now dismissed and went away.¹⁷ And in this manner they handed to him all the other pieces, and he laid his hands upon them and threw them upon the altar. And when he so desired, he laid his hands upon them, and the others threw them upon the altar. He now made the circuit of the altar.¹⁸ Where did he begin? From the south-eastern corner, the north-eastern, the north-western, the south-western. They gave to him wine for the drink-offering. The *sagan* stood at the corner,¹⁹ with the cloths in his hand,²⁰ and two priests stood by the table for the

¹³ The high priest made the offering whenever he pleased, and took the part he pleased.

¹⁴ And was already somewhat fatigued.

¹⁵ On account of the honour of the high priest that his offering should be regarded as more important than that of other priests.

¹⁶ As it is explained in reference to the passage "and thou shalt offer thy burnt-offerings, the flesh and the blood" (Deut. xii, 27); as the blood was by throwing, זָרַקָה [sprinkling, A. V.], so also the flesh was by throwing.

¹⁷ But the first remained there to receive the pieces from those who handed them up and to give them to the high priest.

¹⁸ The high priest who was at the top of the incline, which was south of the altar, turned towards the right (because "every turn that thou makest must be only to the right" [Yoma 55 a]), therefore he went to the south-east, and thence to the north-east, and so on, until he reached the south-west, the place where were the holes by which the wine and water which were poured out ran down, and passed thence into the *sheteen*, which were the foundations. And there a priest stood and handed to him the wine for the drink-offerings. But the high priest did not carry the wine with him, lest it should be spoiled by the smoke of the fire as he was making the circuit of the altar. And whilst he was making the circuit they turned with the זְנוּרֶת, *tsinoreth*, or fork, the pieces which were not consumed upon the altar. But the other priests when they made the drink-offering of wine went to the left from the incline to the south-west, which was near to the incline, as we are taught in the 6th chapter of Zebachim [Mishna 3], "all who went up to the altar went to the right, except those going up for these three things, a drink-offering of wine, and of water, and a burnt-offering of a fowl;" the wine and the water that they should not become smoked, and the burnt-offering of a fowl also that it should not die from the smoke. And the high priest, who was like a son of the house, might go wherever he pleased, which the other priests were not permitted to do, and also he might turn the pieces with the fork without obtaining the right by lot. And he might go round in order to go to the right.

¹⁹ Beside the high priest who came to pour out the drink-offering.

²⁰ To wave when the priest poured out in order that the Levites might know and chant the song, and that Ben Arza might know and play the cymbal as is said below.

fat,²¹ with two silver trumpets in their hands. They blew, and shouted, and blew, and came and stood beside Ben Arza,²² one on his right, and one on his left. When the *high priest* stooped to *pour out* the drink-offering, the *sagan* waved the cloths, Ben Arza played with the cymbal, and the Levites chanted the song. When they reached the end of a section,²³ they blew *the trumpets*, and the people prostrated themselves. At every section they blew, and every time they blew *the people* prostrated themselves. This was the order of the continual sacrifice for the service of the House of our God. May He will that it be built quickly in our days! Amen.

4. The songs which the Levites chanted in the Sanctuary. On the first day of the week, they chanted "The earth is the Lord's, and the fulness thereof: the world and they that dwell therein"²⁴ [Psalm xxiv]. On the second day they chanted, "Great is the Lord, and greatly to be praised in the city of our God, in the mountain of His holiness"²⁵ [Psalm xlvi]. On the third day they chanted, "God standeth in the congregation of the mighty: He judgeth among the gods"²⁶ [Psalm lxxxii]. On the fourth day they chanted, "O Lord God, to whom vengeance belongeth, O God to whom vengeance belongeth, show Thyself, &c."²⁷ [Psalm xciv]. On the fifth day they chanted, "Sing aloud unto God our strength; make a joyful noise unto the God of Jacob"²⁸ [Psalm lxxxii]. On the sixth day they chanted, "The Lord reigneth, He is clothed with majesty, &c."²⁹ [Psalm xciii]. On the Sabbath they chanted "a psalm or song for the Sabbath day"³⁰ [Psalm xcii]—a psalm or song for the future; for the day which will be all Sabbath and rest; for the life eternal.³⁰

²¹ Two tables were on the west of the incline, one of silver on which they put the vessels of service, and one of marble on which they put the pieces of the sacrifice, and this was called the table of the fat.

²² The name of a man who played on the *tsiltsil* or cymbal.

²³ The end of a *pareshah*, or section of the law for reading.

²⁴ Because it was the first day of the Creation.

²⁵ Because on that day the waters were divided, and there was a firmament between the waters and the waters.

²⁶ Because on that day the dry land appeared, upon which the judges stand to do judgment.

²⁷ Because on that day the sun, moon, and stars were created, upon the worshippers of which the Holy One, blessed be He, would in the future take vengeance.

²⁸ Because on that day were created the living creatures, whoever sees which would sing aloud and praise his Creator.

²⁹ Because on that day the Creation was completed, and man was created who acknowledges the kingdom his Creator.

³⁰ This doctor held with those who say that the world will exist six thousand years, and be desolated one thousand. And because in the seventh thousand there will exist only the Holy One, blessed be He, as is said (Isaiah ii, 11), "and the Lord alone shall be exalted in that day," therefore they chanted on the Sabbath "a psalm or song for the Sabbath day," for the seventh thousand, for the day of the Holy One, blessed be He, is a thousand years.

MIDDOTH, OR THE MEASUREMENTS OF THE TEMPLE.

WITH THE COMMENTARY OF RABBI OBADIAH OF BARTENORA.

CHAPTER I.

1. THE priests kept watch in the Sanctuary in three places:¹ in the house of Abtinus, in the house Nitsus, and in the house Moked.² And the Levites in twenty-one places;³ five at five gates of the mountain of the house, four at its four corners⁴ within,⁵ five at five gates of the court,⁶ four at its four corners without,⁷ and one in the chamber of the offering, and one in the chamber of the veil, and one behind the house of atonement.

2. The man⁸ of the mountain of the house went round from watch

¹ Not for fear of robbers or thieves, but because it was an honour and glory to the house, that it should not be without guards; and this guarding was commanded for the whole night. The three places in which the priests kept watch corresponded to what is written in the law (Numb. iii, 38), "those that encamp before the tabernacle towards the east, &c." "Keeping the charge of the Sanctuary for the charge" indicates three guards in three places, and as in the Tabernacle Aaron and his two sons kept watch in three places, so in the Eternal House [the Temple] likewise.

² The House of Abtinus and the House Nitsus were two upper rooms built beside gates of the court. The house Moked was not an upper room, but a vaulted building, *arqualla* [=arcuatus] in the barbarian tongue, erected upon the ground. Thus it is explained in the beginning of the treatise "Tamid."

³ Because they were bound to guard the Sanctuary in twenty-four places; as it is written in 1 Chronicles xxvi, 17, "eastward six Levites, northward four a day, southward four a day, and toward Asuppim two and two. At Parbar westward, four at the causeway, and two at Parbar." Lo, there were twenty-four watches, three of which were for the priests as we have said above, and twenty-one for the Levites, notwithstanding that the Scripture speaks only of Levites. Priests are also called Levites, for it is written in Ezekiel xlv, 15, "the priests, the Levites, the sons of Zadok."

⁴ There were five watchers at five gates of the mountain of the house, and four others at its four corners.

⁵ Inside the wall of the mountain of the house.

⁶ This doctor thought that there were only five gates to the court, and as to the words of him who afterwards said there were seven gates, it was conceded that there was a watch at only five.

⁷ Because no one might sit in the court except kings of the house of David only, and it was not possible for the watchers to watch standing all night, therefore the watchers were at the corners of the court, and also those who kept watch at the gates of the court watched on the outside in order that they might be allowed to sit. They leaned on the Scripture, for it is written "two at Parbar," towards *bar*, the outside, i.e., outside the wall of the court.

⁸ The prefect over all the guards.

to watch, with torches flaming before him, and to every guard who was not standing, the man of the mountain of the house said, "peace be upon thee:" if it was evident that he slept, he beat him with his staff, and he had authority to set fire to his cloak. And they said, "what is the voice in the court?" "The voice of a Levite being beaten and his garments burned, because he slept on his watch." Rabbi Eliezer, the son of Jacob, said, "once they found my mother's brother sleeping, and they set fire to his cloak."

3. There were five gates to the mountain of the house: the two gates of Huldah on the south served for going in and going out;⁹ Kipunus on the west¹⁰ served for going in and going out; Tadi on the north was not used at all; upon the eastern gate Shushan the palace was portrayed,¹¹ and by it the high priest¹² who burned the heifer¹³ and the heifer and all his assistants went out to the Mount of Olives.¹⁴

4. There were seven gates in the court. Three on the north, and three on the south, and one on the east. Those on the south *were*—the gate of kindling¹⁵ second to it, the gate of the first born,¹⁶ third, the water gate.¹⁷ That on the east *was* the gate Nicanor,¹⁸ and there were two chambers to it, one on the right hand and one on the left. One *was* the chamber of Phinchas, the keeper of the vestments,¹⁹ and one the chamber of the pancake maker.²⁰

⁹ By them they entered and went out from the mountain of the house.

¹⁰ A gate on the western side of the mountain of the house, the name of which was *Kipunus*, and that on the north was named *Tadi*.

¹¹ When they came up from the captivity, the King of Persia commanded them to make a representation of Shushan the palace upon the gates of the house, in order that they might fear their king, and they depicted it on the eastern gate.

¹² This Mishna is according to Rabbi Meyer, who was of opinion that the red heifer could be burned by none other than the high priest. But this is not the decision.

¹³ All the priests who assisted and helped the priest who burned it.

¹⁴ *הר המושחה*, the Mount of Olives, which was on the east of Jerusalem, and there they burned the heifer.

¹⁵ It was called the gate of kindling because through it they carried the wood for the pile which burned upon the altar.

¹⁶ We learn that there they took in the first-born *of beasts*, which were slain on the south *of the altar*.

¹⁷ According to what is written in the book of Ezekiel xlvi, 2, "And, behold, there ran out waters on the right side." And it is the south which is called the right side, for it is written "north" and "on the right." And Ezekiel saw in his prophecy that waters went out from the Holy of Holies in a thin stream like the horns of locusts, and when they reached this gate became a stream as large as the full mouth of a small bottle (כ), and this is what is said of them in the Scripture, *מים מופכים*, "waters ran out."

¹⁸ Explained in the treatise "Yoma."

¹⁹ He was the prefect whose function it was to dress the priests at the time of the service, and to undress them after the service, and take care of the priestly garments.

²⁰ There they made the meat-offering which the high priest offered every

5. And those on the north *were* the gate Nitsus, which was a kind of *exhedra* with an upper²¹ room built over it, that the priests might keep watch above and the Levites below, and it had a door into the rampart²² (*chel*); second to it, the gate of the offering,²³ third, the house Moked.²⁴

6. There were four chambers in the house Moked, like small rooms²⁵ opening into a hall (טרקלין = *triclinium*), two in the holy and two in the profane²⁶ part, and pointed pieces of wood²⁷ distinguished between the holy and the profane. And what were their uses? The south-western was the chamber of (the lambs) for the offering.²⁸ The south-eastern was the chamber (of the maker) of the shewbread.²⁹ In the north-eastern the Asmoneans preserved the stones of the altar which the Greek kings had defiled.³⁰ In the north-western they went down to the bathing room.³¹

7. There were two gates to the house Moked; one opened to the *chel*³² day, half of it in the morning, and half of it in the evening, and because respecting this it is said (Levit. vi, 21) "in a pan it shall be made with oil," they were called pancakes.

²¹ Two walls, one on each side of the gate, projected outwards from the outside of the wall of the court towards the mountain of the house, and a chamber was built above upon these two walls.

²² In one of the walls was a door leading out to the *chel*, for there was a place within the wall of the mountain of the house, outside of the court, which was called *chel* (*rampart*).

²³ There they brought in the most holy sacrifices, which were slaughtered on the north.

²⁴ It was called Beth Hammoked (*locus foeti*) because there were fires burning continually in it by which the priests, who went barefoot, might warm themselves. It was a large room, and in its four corners were four small chambers, as is explained below.

²⁵ Like the small chambers which open into the large room, or triclinium, of kings.

²⁶ Because the house Moked was built part within the court which was hallowed, and part in the profane place.

²⁷ Ends of beams projecting from the wall to the place which was holy, in order to show which was holy and which was profane, and that they might eat the holy things in the holy part.

²⁸ Because there the lambs were examined for the continual sacrifices, as it is taught in the Mishna, "there may not be fewer than six lambs in the chambers of the lambs," Erachin ii, 5.

²⁹ The family of Garmu made the shewbread there.

³⁰ They offered idolatrous sacrifices upon it. In the treatise "Shekalim" and the treatise "Tamid" *this chamber* is called the chamber of the seals.

³¹ By this chamber a priest to whom an uncleanness happened descended and went by the hollow way which was under [or behind, טַחַר, according to some copies] the sanctuary to the bathing room, where was a fire by which the priest warmed himself after bathing and going up and wiping himself. It was called the house Moked, and opened to the large house Moked [*i.e.*, the great central hall].

³² The northern gate of the house Moked opened to the *chel*, and that on the south opened to the court.

and one opened to the court. Rabbi Judah said there was a wicket³³ to the gate which opened to the court by which they entered to examine the court.³⁴

8. The house Moked was a vaulted room,³⁵ large and surrounded by stone benches,³⁶ and the elders of the house of the fathers³⁷ slept there with the keys of the court in their charge [literally, in their hands] and the young priests,³⁸ each with his pillow on the ground.³⁹

9. And a place was there, a cubit by a cubit, and a slab of marble and a ring was fixed in it, and a chain, on which the keys were hung. When the time for locking arrived⁴⁰ he raised the slab by the ring and took the keys from the chain. And the priest locked from inside and the Levite slept⁴¹ outside.⁴² Having finished locking he returned the keys to the chain and the slab to its place, put his cloak upon it, and slept. If an uncleanness happened to one of them he went out and departed by the winding way,⁴³ which ran under the Sanctuary (*birah*). And the lamps

³³ In the middle of the great gate.

³⁴ By this wicket they entered every morning to see that all the vessels of service which were in the court were in their places. Thus it is taught in the first chapter of Tamid, "he took the key and opened the wicket and entered from the house Moked to the court, &c." One party went by the exhedra towards the east, and the other went by the exhedra towards the west; they searched and went until they reached the place where they made the pancakes. Having reached it, each party said "is it peace?" "All is peace;" that is to say, all the vessels of service are in their places in peace. The interpretation of לְבַלְיֹיט is to search and examine.

³⁵ The structure of the house Moked was not that of an upper chamber, but a vaulted room (*arqualta* in the barbarian tongue) erected upon the ground.

³⁶ All round seats (or benches) of hewn stone were sunk in the wall, and projected from the wall into the interior of the house Moked on the floor, and over them were other shorter stones, which also projected from the wall and formed a sort of steps, one above the other.

³⁷ The watch was divided into seven houses of fathers, corresponding to the days of the week, each one doing duty on its day, and the elders of the house of the fathers for that day slept there upon those stone benches.

³⁸ Young men whose beards were beginning to grow; and they were the watchers.

³⁹ Because they were not permitted to sleep there upon beds but upon the ground, as the watchers in the courts of kings do. כִּסְתּוֹ (*his cushion*) is a kind of bolster or pillow [*cf.* Ezek. xiii, 18, 20].

⁴⁰ The time for locking the gates of the court.

⁴¹ Some copies read here יָשָׁב, *sat or remained*, instead of יָשָׁן, *slept*.

⁴² Because the Levites were associated with the priests, as it is said (Numb. xviii, 2) "that they may be joined with thee and minister under thee." On this account in the house Abtinus and the house Nitsus, which were upper rooms, the priests watched above, and the Levites below, and at the house Moked, which was only a vaulted room built upon the ground, the priest was within and the Levite without.

⁴³ In the כְּהֵלֶךְ, cavern, or cavernous passage, which went under the whole Sanctuary (*birah*), for a cavernous passage was under the Sanctuary, and all the

were burning on each side, until he reached the bathing room. Rabbi Eleazer, the son of Jacob, said, he went forth by the winding way, which went under the *chel* and passed out by Tadi.⁴⁴

Sanctuary was called *birah*, as it is written (1 Chron. xxix, 19), "the *birah* (palace, A.V.) for which I have made provision." And because he was unclean (בעל קרי) he did not go by way of the court, but by way of the caverns, it being a statute with us that the caverns were not hallowed.

⁴⁴ He passed out by the winding way which went under the *chel*, and did not return to the house Moked, because he was *tibool youm* (had bathed but would not be clean until the sun went down). The decision was not according to the opinion of R. Eleazer, the son of Jacob, but as it is taught in the beginning of Tamid, "he came and sat by his brethren the priests in the house Moked until the gates were opened, when he went his way." For although it was unlawful for a *tibool youm* to enter the court of the women, which is the camp of Levi, it was made lighter for this one because he had become unclean whilst within.

(To be continued.)

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