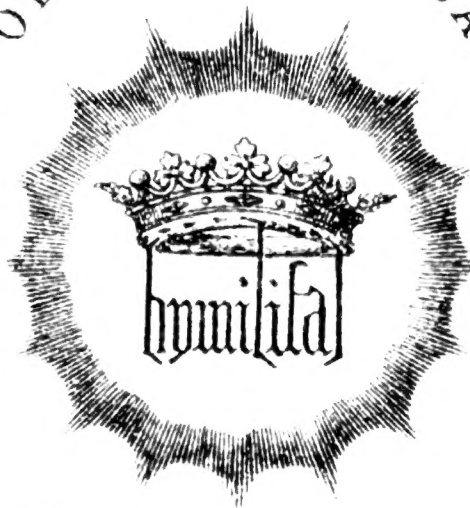


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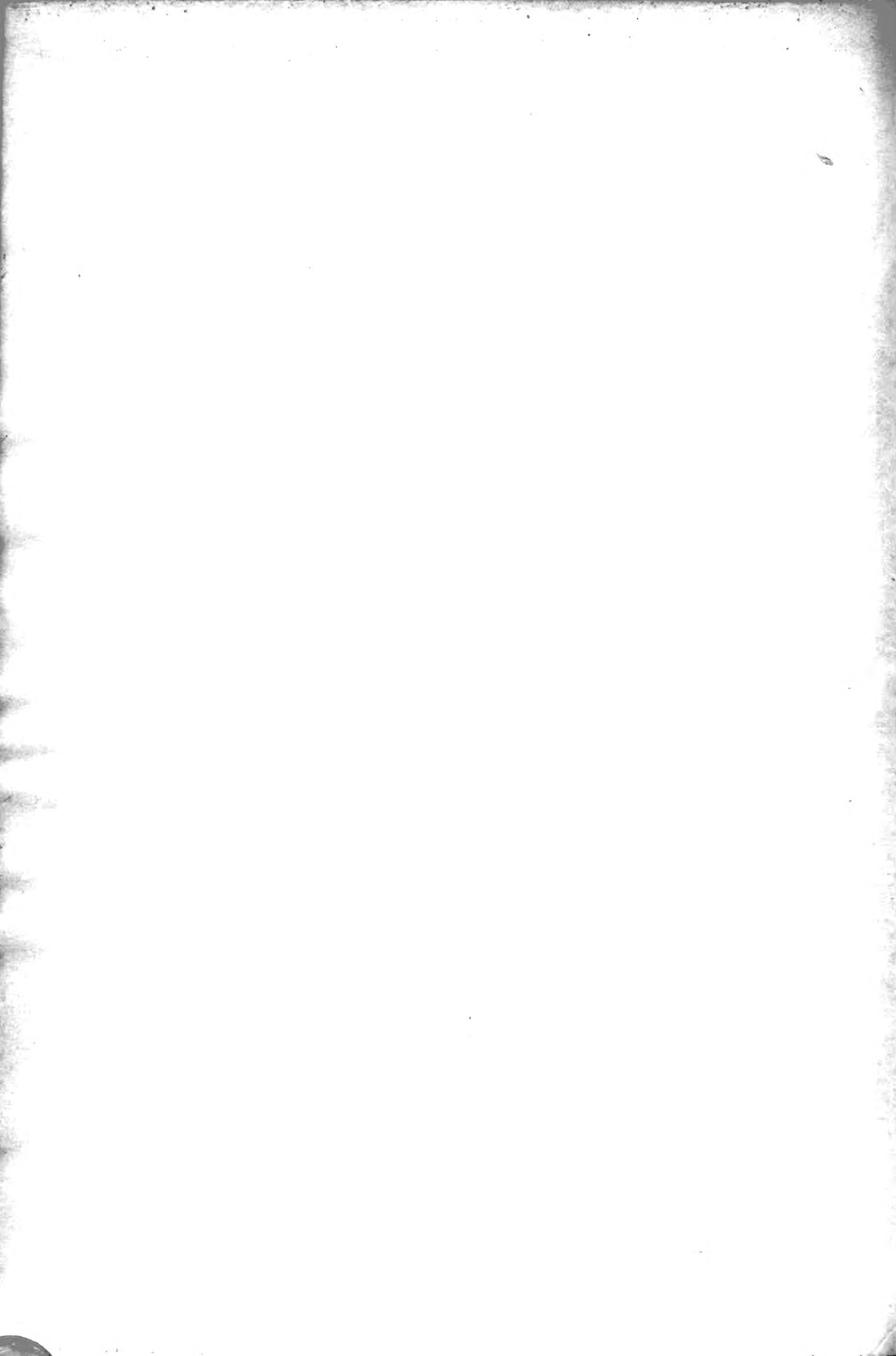
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<i>a</i> Hulme, W., Esq.	0	10	6
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							£	s.	d.
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<i>a</i> Douglas, Thos., Esq.	0	10	6
<i>a</i> Fox, Mrs. J. W.	0	10	6
Fox, J. W., Esq., Don. for excavations	0	10	0
<i>a</i> Townsend, Rev. Dr.	0	10	6
<i>a</i> Waterlow, Mrs.	1	1	0

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<i>a</i> Stokes, Rev. H. P.	£0	10s.	6d.

LECTURES DELIVERED BY REV. CHAS. CHIDLOW.

Sept. 16th.—By cash	£1	19s.	10d.
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Subscription received at Pwllheli lecture.

Behrens, Mrs.	£0	10s.	6d.
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Local Societies	54	12	6
Proceeds of Lectures	1	19	10
Maps and Memoirs	93	17	6
Books and other publications	264	3	11
					<hr/>		
					£516	7	3
					<hr/>		

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FROM SEPTEMBER 22ND, 1890, TO DECEMBER 19TH, 1890, INCLUSIVE.

a denotes Annual Subscriber.

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<i>a</i> Adler, M. N. Esq.	0	10	6	<i>a</i> Bilbrough, Mrs.	0	10	6
<i>a</i> A Friend	10	10	0	<i>a</i> Bittleston, Rev. E.	0	10	6
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<i>a</i> Allan, R. G., Esq.	0	10	6	<i>a</i> Blamire, Rev. W. H... ..	1	1	0
<i>a</i> Andrew, Rev. John	0	10	0	<i>a</i> Bland, Rev. S. K., 10s. 6d. (for			
<i>a</i> Avbuthnot, Mrs., £2 2 0 (for				1891)			
1891)				<i>a</i> Blenkin, Rev. Canon	1	1	0
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<i>a</i> Asquith, Rev. J. H.	0	10	6	<i>a</i> Bond, Miss K... ..	0	10	0
<i>a</i> Atkin, Edwin, Esq.	0	10	6	<i>a</i> Bourne, Rev. Joseph G. ..	1	1	0
<i>a</i> Austin, Miss Gertrude ..	1	1	0	<i>a</i> Bowers, W., Esq.	0	10	6
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aHiles, Rev. R. ..	0	10	6	aLowrey, Miss R. S., £1 0 0			
aHine, Alfred, Esq. ..	0	10	6	(for 1891)			
aHird, H. S., Esq. ..	0	10	6	aLowther, Rev. W. B. ..	0	10	6
aHoare, Rev. Canon ..	0	10	6	aMacArthur, A., Esq., M.P. ..	1	1	6
aHoare, Rev. J. G. ..	1	1	0	aMacDonell, A. W., Esq. ..	1	1	0
aHobbs, R. G., Esq. ..	0	10	6	aMcIndoe, Rev. Wm. ..	1	1	0
aHobbs, William, Esq. ..	1	0	0	aMacInnes, Miss ..	0	10	0
aHobson, Rev. J. P. ..	0	10	6	aMcKinnell, Mrs. ..	1	1	0
aHodge, Messrs. C. and T. ..	2	2	0	aMaitland, General ..	2	2	0
aHopkins, Dr. ..	0	10	6	aMansell, Mrs. B. L. ..	0	10	6
aHopkins, Mrs. Marsland ..	0	10	6	aMansell, Robt., Esq. ..	0	10	6
aHorsley, Col. W. H. ..	1	1	0	aMarriott, Allen, Esq. ..	0	10	6
aHowatt, James, Esq. ..	0	10	6	aMarston, Miss. ..	1	1	0
aHowell, Rev. C. R. ..	1	1	0	aMartin, Miss ..	1	0	0
aHowson, Mrs. H. ..	0	10	6	aMartin, Rev. John ..	1	1	0
aHubbersty, H. A., Esq. ..	1	1	0	aMason, Dr. John ..	0	10	6
aHughes, T., Esq. ..	0	10	6	aMatthews, Thomas, Esq. ..	1	0	0
aHutchison, Mrs. F. H. ..	1	1	0	aMerchant, C. M., Esq. ..	1	1	0
aIrving, B. A., Esq. ..	0	10	6	aMiller, Robt. M., Esq. ..	6	10	6
aJackson, H. Hamilton, Esq. ..	0	10	6	aMitchell, Rev. Harry ..	1	1	0
aJardine, J. L., Esq. ..	0	10	6	aMitchell, Rev. J. ..	6	10	6
" " 10s. 6d.				aMoody, Captain H. ..	0	10	6
(for 1891)				aMoore, J. Murray, M.D. ..	1	1	0
aJarrett, Rev. Canon ..	1	1	0	aMoran, Rev. L. F. ..	1	1	0
aJohnman, Rev. W. A. P. ..	0	10	6	aMorgan, Rev. R. T. ..	0	10	6
aJohnson, Ven. Archdeacon ..	0	10	6	aMorris, John, Esq. ..	1	1	0
aJohnston, James, Esq. ..	1	0	0	aMoule, Rev. H. C. G. ..	1	1	0
aJohnstone, Mrs. Alex. ..	1	0	0	aMoulton, Rev. Dr. ..	1	1	0
aJohnstone, Rev. J. O. ..	0	10	6	aMullholland, Miss ..	0	10	0
aJones, Arthur W., Esq. ..	5	0	0	aMullings, John, Esq. ..	1	1	0
aJones, Frank, Esq. ..	1	0	0	aMummery, R. B., Esq. ..	0	10	0
aJones, Rev. W. Vaughan ..	0	10	6	aNapier, Rev. F. P. ..	1	1	0
aJoynson, Richard J., Esq. ..	1	1	0	aNeele, George P., Esq. ..	0	10	6
aKasteren, J. P. van, Esq. ..	0	10	0	aNevinson, G. H., Esq. ..	1	1	0
aKemble, Miss Marion. ..	1	1	0	aNewell, Rev. C. H. ..	0	10	6

LIST OF SUBSCRIPTIONS.

	£	s.	d.		£	s.	d.
aNewth, F., Esq.	1	1	0	aSamuel, Charles, Esq. ..	1	1	0
aNicholson, E. A., Esq., 10s. 6d. (for 1891)				aSatt, Miss Alice	0	10	6
aNinde, Edward S., Esq. ..	0	10	6	aSaunders, J. A., Esq... ..	0	10	6
aNixon, Mrs., 10s. 6d. (for 1891)				aSaunders, J. J., Esq... ..	1	1	0
aNutter, Mrs.	1	1	0	aSells, E. P., Esq.	1	1	0
aOrmerod, Henry, Esq. ..	10	10	0	aShackleton, Rev. T.	0	10	6
aOsborne, C. T., Esq.	1	0	0	aSharpe, Miss	0	10	6
aOwen, Rev. Thomas	0	10	6	aShort, John, Esq., jun. ..	1	1	0
aParkinson, George, Esq. ..	1	1	0	aSibbald, J. G. E., Esq. ..	0	10	6
aParsons, Rev. Henry	0	10	6	aSims, G. O. T., Esq.	1	1	0
aPaterson, Rev. T. M... ..	1	1	6	aSlaughter, E., Esq.	1	1	0
aPeggs, William J., Esq. ..	1	1	0	aSmyth, Rev. J. G.	2	2	0
aPelham, Rev. A. Thursby ..	0	10	6	aSouthall, Henry, Esq. ..	0	10	6
aPetit, Miss E. G.	1	1	0	aSouthwell, Rev. H. Burrows	1	1	0
aPetty, J. A., Esq.	0	10	6	aSparkes, Alfred, Esq... ..	0	10	6
aPhilip, George, Esq.	1	1	0	aSpielman, Isidore, Esq., F.S.A.	1	1	0
aPhillips, Mrs. E.	1	1	0	aStenning, Rev. J. H.	1	1	0
aPigott, Mrs. B.	0	10	6	aStephen, Miss	0	10	0
aPim, John, Esq.	0	10	6	aStewart, Rev. Jos. A... ..	0	10	6
aPinchin, Hugh, Esq... ..	1	1	0	aStirling, Captain	1	1	0
aPlayer, John, Esq.	0	10	6	aStirrup, Mark, Esq.	0	10	0
aPollock, Rev. J. H.	0	10	6	aStock, Eugene, Esq.	0	10	6
aProut, Rev. Ed. S.	0	10	6	aStrutt, Wm., Esq.	1	0	0
aPuget, Colonel	0	10	6	aSuteliffe, Sugden, Esq, ..	0	10	6
aRailton, C. W. Esq.	0	10	6	aSutton, Alfred, Esq.	1	0	0
aRamsden, H. R., Esq.	0	10	6	aSwayne, Rev. Canon	1	0	0
aRanken, Rev. C. E.	0	10	6	aSykes, Miss	0	10	6
aReed, Rev. S.	0	10	6	" " 10s. 6d. (for 1891)			
aReid, Rev. Alex. H.	0	10	6	aTaylor, J. F., Esq.	0	10	6
aRenton, Miss	0	10	6	aTaylor, J. W., Esq.	0	10	6
aReynolds, Rev. C. L.	0	10	6	aTaylor, Miss S.	1	1	0
aReynolds, Rev. Dr.	0	10	0	aThompson, John, Esq. ..	1	1	0
aRhodes, Rev. H. J.	1	0	0	aThomson, James, Esq. ..	0	10	6
aRichards, Miss E.	0	10	6	aTipple, Rev. F. A.	0	10	6
aRichards, Rev. Dr.	0	10	6	aTrimmer, Rev. H. E... ..	1	1	0
aRichardson, A. T., Esq. ..	1	1	0	aTuckwell, Rev. John	0	10	6
aRichardson, Rev. G.	0	10	6	aTurnbull, R. G., Esq... ..	1	1	0
aRichardson, Henry, Esq. ..	1	1	0	aTyndall, W. H., Esq... ..	1	1	0
aRidoutt, F., Esq.	0	10	6	aTyser, Rev. E. T.	1	1	0
aRobin, Mrs.	1	0	0	aUnderhill, Chas., Esq. ..	1	1	0
aRobin, Rev. Canon	1	1	0	aUniversity St. Joseph, Supe-			
aRobinson, Isaac, Esq... ..	0	10	6	rior of.. ..	0	10	6
aRobson, Mrs.	1	1	0	aUrwick, Rev. W.	0	10	0
aRobson, Rev. George, D.D. ..	0	10	6	aVaizey, J. R., Esq.	0	10	6
aRogers, Miss M. E.	0	10	0	aVavas seur, J., Esq.	1	1	0
aRooke, Alex. B., Esq,	0	10	6	aVincent, Rev. John H. ..	0	10	6
aRoss, Rev. D. M.	0	10	6	aWaddingham, T. J., Esq. ..	1	1	0
aRountree, John, Esq... ..	0	10	6	aWade, E. S., Esq.	1	0	0
aRoundell, C. S., Esq... ..	0	10	6	aWakefield, J., Esq.	1	1	0
aRouth, Miss	0	10	0	aWalker, Rev. Thomas	1	1	0
aRowland, John, Esq., J.P. ..	1	1	0	aWanstall, Rev. E. F... ..	0	10	6
aRuddle, Mrs.	1	1	0	aWard, Colonel B. E... ..	2	2	0
aRumsey, Rev. Lacey H.	0	10	6	aWates, Joseph, Esq.	0	10	6
aRussell, Rev. A. Lloyd	0	10	6	aWatson, D. M., Esq... ..	1	1	0
aRussell, Rev. James A.	0	10	6	aWatson, G., Esq.	0	10	6
aRust Rev. J. C.	0	5	0	aWatson, Rev. Patrick	0	10	6
aSt. Bee's College	1	1	0	aWeld, Mrs. Anne	1	1	0
				aWeldon, Rev. J. H.	1	0	0

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	£	s.	d.
Frome	1	11	6
Horwich	5	19	0
Hudson, Canada	0	10	6
Manchester	11	11	0
Mountain Ash £2 2 0 (for 1891)			
Oxford	0	10	6
Plymouth 10s. 6d. (for 1891)			
Sydney, New South Wales	1	0	0
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	£82	3	0
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LIST OF SUBSCRIPTIONS RECEIVED THROUGH THE HONORARY SECRETARIES.

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MISS MARY FORBES, *Hon. Sec.*

Dec. 10th.—By cash £11 10s. 0d.

	£	s.	d.
<i>a</i> Adams, John, Esq., 349, Great Western Road	0	10	6
<i>a</i> Allan, David, Esq., 122, Union Street	0	10	6
Anderson, Mrs. (two years)	0	5	0
<i>a</i> Bisset, Miss Fenwick, 11, Albyn Terrace	2	0	0
<i>a</i> Davidson, Miss Mary, Inchruarls Cottage	0	10	6
<i>a</i> Doak, Rev. Andrew, 15, Queen's Road.. .. .	0	10	6
<i>a</i> Duthie, Mrs., 20, Albyn Place	0	10	0
<i>a</i> Forbes, Rev. John, D.D., LL.D., 3, Westfield Terrace	0	10	6
<i>a</i> Gordon, Miss, 35, Albyn Place.. .. .	0	5	0
<i>a</i> Hunter, Wm., Adv. LL.D., 80, Union Street	0	10	6
<i>a</i> Hutchison, Thomas, Esq., Ingleside Cults	0	10	6
<i>a</i> Kirby, Colonel, 15, Dee Street	1	1	0
<i>a</i> Milligan, Rev. Wm., D.D., University	0	10	6
<i>a</i> Mitchell, David, Esq., 24, Adelphi	0	10	6
Mitchell, Stodart J., Esq., 24, Adelphi.. .. .	0	2	6
<i>a</i> Nicol, J. B., Esq., Inverdee Cults	0	10	6
<i>a</i> Simpson, Alex., Esq., 8, Golden Square	0	5	0
<i>a</i> Smith, Rev. George, Queen's Cross	0	10	0
<i>a</i> Spence, Miss, 32, Albyn Place	0	10	6
<i>a</i> Stephen, Jas., R.N., 8, Albyn Place	0	10	6
<i>a</i> Webster, Alex., Esq., 40, King Street	0	10	6
M.	0	2	6

LIST OF SUBSCRIPTIONS.

BARNSTAPLE.

WM. ROWE, Esq., *Hon. Sec.*

Dec. 12th.—Collection at Barnstaple .. £1 0s. 0d.

BELFAST.

SIR WM. EWART, BART, *Hon. Sec.*

	£	s.	d.
Nov. 24th.—By cash	31	17	0
Nov. 26th.— „	1	0	0
Dec. 8th.— „	1	1	0
	£	s.	d.
aBell, Elias A., Esq.	1	0	0
aBurns, Sir John, Bart.	1	0	0
aCorry, Sir James P., Bart., M.P.	1	0	0
aCowan, Lady	1	0	0
aCuming, Professor, M.D... .. .	1	0	0
aDunville, R. G., Esq., D.L.	1	0	0
Green, Messrs. Foster and Co., Limited (Don.)	2	0	0
aHamilton, Rev. Thomas, D.D.	0	10	6
aHarland, Lady	1	0	0
Haslett, Sir James H. (Don.)	1	0	0
aHenderson, Robert, Esq... .. .	1	0	0
aJaffe, Alfred, Esq., J.P.	1	1	0
aJaffe, Otto, Esq.	1	1	0
aJohnston, S. A., Esq., J.P.	1	0	0
Joy, R., Esq. (Don.)	1	0	0
aKingan, Samuel, Esq., J.P.	1	0	0
Lemon, A. D., Esq., J.P. (Don.)	1	0	0
aLytle, David, Esq., J.P.	1	1	0
aMcBride, S., Esq... .. .	1	0	0
aMcNeile, H. H., Esq., D.L.	1	1	0
aMulholland, John, Esq., D.L.	1	0	0
aMusgrave, James, Esq., J.P.	1	0	0
Preston, George, Esq., J.P. (Don.)	1	0	0
aReade, R. H., Esq., J.P.	1	0	0
aRichardson, Messrs., Bros. and Co.	1	0	0
aRobinson, W. A., Esq., J.P.	1	0	0
aSinclair, Thomas, Esq., J.P.	1	0	0
aWatson, Wesley, Esq.	1	0	0
Watson, Mrs... .. .	0	2	6
aWilson, Walter H., Esq... .. .	1	1	0
Wolff, G. W., Esq. (Don.)	2	0	0
aWorkman, John, Esq., J.P.	1	0	0
aYoung, Right Hon. John, D.L... .. .	1	0	0

LIST OF SUBSCRIPTIONS,

BRIGHTON.

W. CLARKSON WALLIS, ESQ., *Hon. Sec.*

Dec. 16th.—By cash £1 11s. 6d.

						£	s.	d.
Reid, G. Lowe, Esq.	..	..	..	..	..	0	10	6
<i>a</i> Wallis, Edwin A., Esq.	..	..	..	..	..	0	10	6
<i>a</i> Weekes, Mrs.	..	..	..	..	..	0	10	6

BURNLEY.

ALFRED STRANGE, ESQ., *Hon. Sec.*

Nov. 12th.—By cash £1 10s. 6d.

						£	s.	d.
<i>a</i> Grant, F. J., Esq., J.P.	..	..	..	..	..	0	10	0
<i>a</i> Strange, Alfred, Esq.	..	..	..	..	..	0	10	0
<i>a</i> Ward, J. Langfield, Esq., M.A...	..	..	..	..	..	0	10	6

CAMBRIDGE, MASS, U.S.A.

REV. PROFESSOR WRIGHT *Hon. Sec.*

						£	s.	d.
Sept. 29th.—By cash	..	..	..	..	..	1	10	6
Oct. 9th.—	..	..	..	..	..	1	0	0
Oct. 30th.—	..	..	..	..	..	0	10	6
Nov. 10th.—	..	..	..	..	..	1	1	0
Dec. 4th.—	..	..	..	..	..	1	1	0
Dec. 19th.—	..	..	..	..	..	1	0	6

						£	s.	d.
<i>a</i> Bailey, B. D., Esq.	..	..	..	..	..	1	0	0
<i>a</i> Barnefield, Thomas P., Esq.	..	..	..	..	..	0	10	6
<i>a</i> Beardslee, Professor J. W.	..	..	..	..	..	0	10	0
<i>a</i> Borden, Mrs. Jefferson	..	..	..	..	..	1	0	0
<i>a</i> Ewell, Rev. J. L.	..	..	..	..	..	0	10	6
<i>a</i> Macnary, J. W. Esq.	..	..	..	..	..	0	10	6
<i>a</i> Matthews, Mr. F. M.	..	..	..	..	..	0	10	6
<i>a</i> Moore, Professor W. W., D.D.	..	..	..	..	..	0	10	6
<i>a</i> Reiche, Rev. G.	..	..	..	..	..	0	10	6
<i>a</i> Safford, L. S., Esq.	..	..	..	..	..	0	10	6

LIST OF SUBSCRIPTIONS.

CHELTENHAM.

DR. E. T. WILSON, *Hon. Sec.*

November 4th.—By cash	..	..	..	£2	2s.	0d.
αKay, Sir Brook, Bart. (Don.)	..	..	..	£2	2s.	0d.

DOVER.

E. WOLLASTON KNOCKER, ESQ., *Hon. Sec.*

October 27th.—By cash..	..	..	..	£1	11s.	6d.
				£	s.	d.
Deane, Rev. R. Wallace (Don.)	..	..	..	0	10	6
αKnocker, E. Wollaston, Esq.	..	..	..	1	1	0

DUNLEER.

REV. F. G. McCLINTOCK, *Hon. Sec.*

November 14th.—By cash	..	..	..	£1	1s.	0d.
				£	s.	d.
αMcClintock, Rev. F. G.	..	..	..	0	10	6
αStubbs, Major-General, F. W.	..	..	..	0	10	6

EPSOM.

MISS HISLOP, *Hon. Sec.*

December 13th.—By cash..	..	..	..	12s.	6d.	
				£	s.	d.
αHislop, Miss	..	..	..	0	10	6
Kearsley, Miss (Don.)	..	..	..	0	2	6

LIST OF SUBSCRIPTIONS.

FROME.

REV. R. RAIKES BROMAGE, *Hon. Sec.*

November 10th.—By cash £1 11s. 6d.

						£	s.	d.
aBoodle, Rev. R. G.	..	..	..	..	..	1	1	6
aWiltshire, G. W., Esq.	..	..	..	..	..	0	10	6

HORWICH.

REV. WILLIAM S. F. MAYNARD, B.A., *Hon. Sec.*

December 16th.—By cash £5 19s. 0d.

						£	s.	d.
aAinsworth, C., Esq.	..	..	..	..	..	0	10	6
aLeach, John, Esq.	..	..	..	..	..	1	1	0
aSalt, Rev. F.	..	..	..	..	..	0	10	6
aWhittaker, G. H., M.D.	..	..	..	..	..	0	10	6
Donations	..	..	..	..	..	2	1	0
Lecture at St. Peter's, Halliwell	..	..	..	..	..	1	5	6

HUDSON, CANADA.

REV. L. G. A. ROBERTS, *Hon. Sec.*

November 4th.—By cash £0 10s. 6d.

aRoberts, Rev. L. G. A...	£0	10s.	6d.
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LIST OF SUBSCRIPTIONS.

MANCHESTER.

Rev. W. F. BIRCH, *Hon. Sec.*

	£	s.	d.
October 6th.—By cash	1	1	0
Nov. 4th.— Do.	1	1	0
Dec. 11th.— Do.	9	9	0
	£	s.	d.
αBarlow, J. R., Esq.	0	10	6
αBurwell, Rev. G.	1	1	0
αChippendall, Rev. J.	0	10	6
Chorlton, Thomas, Esq. (Don.)	0	10	6
αConsterdine, Rev. J. W.	0	10	6
αEastwood, J. A., Esq.	0	10	6
αGreenwood, Dr. J. G.	1	1	0
αHaworth, Rev. A.	0	10	6
αKelly, Rev. Canon J. D.	0	10	6
αMoultrie, G. W., Esq.	1	1	0
αRawnsley, Rev. H. D.	0	10	6
Richardson, Mrs. Ryder (Don.)	1	1	0
αRobinson, Rev. A. F... .. .	1	1	0
αRobinson, J. F., Esq.	1	1	0
αRockwood, C. G., Esq.	0	10	6
αSharp, Misses.. .. .	1	1	0
αTonge, Rev. Canon	0	10	6
αWhittenbury, C. W., Esq.	0	10	6

Names per Manchester and Salford Bank, January 1st, 1889, to
December 16th, 1890.

1889.

	£	s.	d.
Oliver Heywood, Esq.	2	2	0
Rev. G. W. Reynolds.. .. .	0	10	6
Rev. Canon Stowell	0	10	6

1890.

Rev. G. W. Reynolds	0	10	6
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LIST OF SUBSCRIPTIONS.

MOUNTAIN ASH (SOUTH WALES).

REV. JOHN HOWELL, *Hon. Sec.*

November 20th.—By cash £2 2s. 0d.

For 1891.

						£	s.	d.
aHowell, Rev. John	..	..	..	..	..	0	10	6
aLloyd, Rev. B.	..	..	..	..	..	0	10	6
aMorgan, Morgan, Esq.	..	..	..	..	..	0	10	6
aWilliams, Dr. Josiah	..	..	..	..	..	0	10	6

OXFORD.

REV. LL. J. M. BEBB, *Hon. Sec.*

October 13th.—By cash £0 10s. 6d.

aBebb, Rev. Ll. J. M. £0 10s. 6d.

PLYMOUTH.

JOHN SHELLY, ESQ., *Hon. Sec.*

December 13th.—By cash £0 10s. 6d.

aParkyn, Miss (for 1891) £0 10s. 6d.

SYDNEY (N. S. W.)

REV. ROBERT STEEL, D.D., *Hon. Sec.*

December 4th.—By cash £1 0s. 0d.

aSteel, Rev. Robert, D.D. £1 0s. 0d.

LIST OF SUBSCRIPTIONS.

LECTURES DELIVERED BY REV. HENRY GEARY, *Lecturer for the Palestine
Exploration Fund.*

November 20th.—Frome £1 15s. 5d.

COLLECTION made by Mr. John Cock at South Molton,
Devon.. .. . £0 15s. 6d.

SUMMARY.

	£	s.	d.
Annual Subscriptions and Donations	344	0	0
Donations for Excavations	29	12	6
Local Societies	82	3	0
Proceeds of Lectures	2	10	11
Maps and Memoirs	89	3	0
Books and other publications	42	10	2
	£589 19 7		

SUPPLEMENTARY LIST.

Received after going to press.

	£	s.	d.
<i>a</i> Andrews, R T., Esq.	1	0	0
<i>a</i> Ashworth, Geo., Esq.	1	1	0
<i>a</i> Browne, Miss Ruddle	0	10	6
<i>a</i> Elwes, Miss E. A. (for 1891)	0	10	6
<i>a</i> Everett, Rev. A. J.	0	10	6
<i>a</i> Lees, William, Esq.	0	10	6
<i>a</i> Ottley, Rev. H., Bickersteth	1	1	0

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- BEACHCROFT, CORNWALL: Samuel Hicks, Esq.
- BELFAST: Sir W. Q. Ewart, Bart., 9, Bedford Street.
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- BLACKBURN, LANCASHIRE: Rev. Dr. A. B. Grosart, Lower Bank, 70, Preston New Road.
- BOLTON AND HORWICH: Rev. S. F. Maynard.
- BOURNEMOUTH: W. McGregor, Esq., M.I.E.E., The Polytechnic.
- BRIGHTON: Joseph Reginald Dowson, Esq., 20, St. Aubyn's, West Brighton.
W. Clarkson Wallis, Esq., Springfield, Withdean.
- BRITON FERRY, GLAMORGAN: Rev. J. L. Thomas, M.A.
- BURNLEY: Alfred Strange, Esq., Craven Lodge.
- CAMBRIDGE, MASS.: Rev. T. F. Wright, 38, Quiney Street.
- CANADA: Toronto.—Subscriptions are received by the Hon. G. W. Allan.
- CARDIFF: Mr. and Mrs. Melville, School for the Deaf and Dumb.
- CHELTENHAM: Dr. E. Wilson, Westal.
- CHISLEHURST: Rev. Francis H. Murray, Rectory.
- CLIFTON and BRISTOL: Rev. C. H. Wallace, 3, Harley Place.
- CROYDON: J. W. Janson, Esq., The Close, Park Lane.
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- DEVONPORT: J. Venning, Esq.
- DOVER: E. Wollaston Knocker, Esq., Castle Hill House.
- DUNDEE: *Hon. Treas.*—Alex. Scott, Esq., Clydesdale Bank.
- DUNFERMLINE: Rev. James Brown, M.A., U.P., Manse.
- DUNLEER, CO. LOUTH: Rev. F. G. McClintock, Drumcar Rectory.

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- EDINBURGH : T. B. Johnston, Esq., F.R.G.S., 16, So. St. Andrew Street.
- EPSOM : Miss Hislop, High Street.
- EXETER : Rev. J. A. Large, 1, Palace Gate.
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THE PALESTINE EXPLORATION FUND.

THE YEAR 1889.

Although no expedition for exploring or excavating has been organised during the past year, a great deal of useful work has been accomplished, and a distinct advance has been made in our knowledge respecting several very interesting topics of enquiry.

1. The clearance work at the Pool of Bethesda having been proceeded with, Herr Schick has been able to supply further important information. The discovery of a fresco on the wall of the crypt of the church over the Pool, representing an angel troubling the water, is of great value as proving conclusively that in crusading times the spot was regarded as the site of Bethesda.

2. Further portions of the ancient wall of Jerusalem have been exposed on the northern side and at the north-western corner.

3. A very large cistern has been discovered near the church of the Holy Sepulchre, apparently under the spot where the mediæval church of Santa Maria Latina stood; and outside the Damascus Gate, between the city wall and the hill in which "Jeremiah's Grotto" is situated, two ancient cisterns, one of which is believed by Herr Schick to be of Canaanite origin, have been found.

4. The remains of a church have been discovered in the street of Sitti Maryam, opposite the barracks, and close to the chapel of the Flagellation.

5. An extremely interesting subterranean rock-hewn church has been found at the village of Silwân. From a Greek inscription in the apse it appears to have been dedicated to the memory of the prophet Isaiah. Indications of another rock-hewn church have been seen and described by Mr. Schumacher near Athlit.

6. Excavations on the Dominican property north of Damascus Gate have brought to light certain remains which are believed to indicate the former existence of a large church near that discovered in this locality a few years ago. Herr Schick suggests that it may be the original church of St. Stephen. It will be remembered that the church built by the Empress Eudocia in the years 439-60, was so large that in 518 A.D. St. Sabbas and his numerous disciples assembled in it, "the cathedral church of the Resurrection being incapable of receiving so vast a multitude." It is said to have been capable of holding 10,000 people. An account by Sir Charles Wilson of the various churches of St. Stephen will be found in an

Appendix to the Pilgrim's Text Society's translation of the Abbot Daniel. In the same neighbourhood tombs with *rolling stone doors* were found, also some Greek inscriptions.

7. Excavations on property belonging to a French gentleman on the eastern slope of Zion have revealed a number of rock-hewn chambers, which appear to have been used in ancient times partly as dwellings and partly as storehouses. In describing them Herr Schick remarks that nearly all the ground covered by the city of Jerusalem is found on examination to be honeycombed with these rock-hewn chambers. It is not improbable that the Jebusites were to some extent troglodytes. In the Apocryphal Acts of the Apostles mention is made of a cave at Cyprus "where the race of the Jebusites formerly dwelt."

8. On the Mount of Olives very interesting discoveries have been made, including a Christian burial place, an extensive series of "catacombs," which had been made use of by Roman soldiers of the tenth legion, a number of Roman tiles, and other antiquities of various periods.

9. In a cave at Saris have been found human figures sculptured on the walls, resembling the "Proto-Phœnician" rock-sculptures near Tyre, and an inscription, believed by Professor Sayce to be evidently old Phœnician. An inscription which had escaped the observation of previous travellers has been noted by Mr. Hanauer at Beit el Khûlîl.

10. From Galilee Herr Schumacher has reported the discovery of a large cave at Nazareth; ancient and elaborate rock tombs at Haifa and Shefa 'Amr; exploration of the caves of Jessâs; discovery of various inscriptions, and of the rock-hewn apse of a church alluded to above.

11. The meteorological observations made under the auspices of the Fund which extend over many years are still being carried on, and the results are being published by Mr. Glaisher in successive numbers of the *Quarterly Statement*.

NOTES AND NEWS.

The Rev. J. Fallscher, of Nâblus, has forwarded drawings of several sculptured capitals and other stones found at Sebüstieh (Samaria) by M. Ali, the Government engineer there. One of these bears a bull's head with horns, and two others have human figures. They are apparently of Christian origin.

Herr Schick reports the discovery of an obelisk at Cæsarea and sends a drawing of it, which is given at p. 23. The top of the obelisk has not been found. It is believed that this is the first obelisk ever discovered in the Holy Land.

The present number contains an account of further observations of the rock levels of the city of Jerusalem confirming the supposition that east of the Church of the Holy Sepulchre there is a rock terrace surrounded, or nearly surrounded, by scarps of considerable height.

A letter from Jerusalem, published in the *Northern Christian Advocate*, Syracuse, New York, November 7th, 1889, has the following:—"There are strange rumours afloat about an inscription found at St. Stephens (north of Damascus Gate). It is said that the Romanists are anxious to hush up the discovery, as it would damage the credit of the Church of the Sepulchre. A person who professes to have seen and read it informs me that its contents are somewhat to the following effect: 'I, Eusebius, have desired to be buried in this spot, which I believe to be close to the place where the body of my Lord lay.'" Herr Schick has been asked to report to the Fund what he knows of this curious story.

The *Figaro* of October 22nd has an interesting and suggestive article headed "The Russians in Palestine." "Russia," it states, "proceeds in a manner peculiar to herself; she labours without noise, but this does not prevent her making great advances. Other nations who desire to extend their influence in Palestine proceed with the sound of the trumpet, and achieve only a minimum of success. Russia labours in silence, and obtains surprising results. It seems that Russians have undertaken to *Russify* Palestine, and they are doing it. Money does not fail her. There exists in Russia a great society bearing the title of "the Orthodox Society of Palestine," which supplies the Russian missionaries with the funds necessary for the creation and support of educational and benevolent establishments. The Panslavist Committees, and rich private individuals, also come to the aid of this politico-religious campaign, and the Russian pilgrims, who stream by thousands every year to Jerusalem, contribute morally and materially to the success of the work."

"At Nazareth there are two Russian schools for boys and one for girls. These schools, although founded only three years ago, already number more than five hundred pupils. At Beyrût a school for girls was established in 1887. Two hundred young women there receive Russian instruction. The schools of Beit Jâla, and many other localities, work to the satisfaction of their founders, and reckon from 80 to 100 pupils each. At Nazareth, and in other towns, there are hospitals and dispensaries. At Jerusalem and in its environs Russian establishments may be counted by the dozen. A million has been expended in the construction of two large hospices, where pilgrims from Russia may be cheaply supplied with all the comforts possible. It is easy to conceive that all this money spent in the country benefits the population and attaches it more and more to the Russian cause."

"We ought to note," the writer continues, "that the instruction given in the schools is absolutely *Russian*. Only Arabic and Russian are taught; every other language is rigorously excluded. Thus in a few years the Arabs will know nothing but what their Russian instructors have taught them, and will be impregnated only with Russian ideas! A congress of Russian professors recently met at Jerusalem 'to discuss and adopt a uniform system of instruction in Russian schools in Palestine, and to suggest measures for promoting and confirming Russian influence in the country.' The Czarewitch was present officially."

“A relation of a voyage to Tadmor begun y^e 29th Sept., 1691,” from the original manuscript in the possession of Albert Hartshorne, Esq., F.S.A., and presented by him to the Fund, will shortly be published.

An important essay by Frederick J. Bliss, Esq., B.A., of Beyrût, on Ma'lula and its dialect, will be published in the *Quarterly Statement* during the year. Ma'lula lies north-east of Damascus. The author of the paper remarks that:—“Its situation and surrounding scenery are unique. Its cave-dwellings and rock-tombs give evidence of an ancient but active existence, while in its dialect is found a certain strange survival of the Aramaic which Christ spoke not 150 miles away.”

Mr. Henry A. Harper's work, on “The Bible and Modern Discoveries” was published in December. It is an endeavour to present in a simple but yet connected form the Biblical results of twenty-two years' work of the Palestine Exploration Fund. The writer has also availed himself of the discoveries made by the American Expeditions and the Egyptian Exploration Fund, as well as discoveries of interest made by independent travellers. The Bible story, from the call of Abraham to the Captivity, is taken, and details given of the light thrown by modern research on the sacred annals. Eastern customs and modes of thought are explained whenever the writer thought they illustrated the text. To the Clergy and Sunday School Teachers, as well as to all those who love the Bible, the writer hopes this work will prove useful. He is personally acquainted with the land, and nearly all the places spoken of he has visited, and most of them he has moreover sketched or painted. The work is in one large, handsome volume of 600 pages. It is illustrated with many plates, and a map showing the route of the Israelites and the sites of the principal places mentioned in the sacred narratives. Price to the public, 16s.; to subscribers to the Palestine Exploration Fund, 10s. 6d., carriage included.

The work has had so far a very gratifying reception. The whole of the First Edition has gone, and a considerable number of the Second Edition were ordered before it could be got ready. This is the more satisfactory as hardly any press notices have yet been received. The number of subscribers to the Palestine Exploration Fund who have taken advantage of the reduced terms has been about 500. It should be noted that the book is admirably adapted for the school or village library.

Mr. Guy le Strange's important work, “Palestine under the Moslems,” which is a description of Palestine according to the mediæval Arab geographers, is also in the press.

The report of Herr Schumacher's Survey of Northern 'Ajlûn will shortly be published in separate form. It contains a map, plans and drawings of the important ruins of Gadara (Umm Keis), Capitolias (Beit Ras), and Arbela (Irbid), none of which had ever before been surveyed, also of the Temple at el-Kabu and numerous tombs, sarcophagi, inscriptions, dolmens, &c. The price to the public will be 3s. 6d., to subscribers to the Fund, 1s. 6d.

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

Considerable progress has also been made with the second volume, which consists of M. Lecomte's beautiful drawings, illustrating the Mission of M. Clermont-Ganneau in 1874. The illustrations for the third volume, Mr. Chichester Hart's "Flora and Fauna" of the Wâdy Arabah, are nearly ready.

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

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

By Major Conder, R.E.—

- (1) "Tent Work in Palestine."—A popular account of the survey of Western Palestine, freely illustrated by drawings made by the author himself. This is not a dry record of the sepulchres, or a descriptive catalogue of

ruins, springs, and valleys, but a continuous narrative full of observations upon the manners and customs of the people, the Biblical associations of the sites, the Holy City and its memories, and is based upon a six years' experience in the country itself. No other modern traveller has enjoyed the same advantages as Major Conder, or has used his opportunities to better purpose.

- (2) "Heth and Moab."—Under this title Major Conder provides a narrative, as bright and as full of interest as "Tent Work," of the expedition for the *Survey of Eastern Palestine*. How the party began by a flying visit to North Syria, in order to discover the Holy City—Kadesh—of the children of Heth; how they fared across the Jordan, and what discoveries they made there, will be found in this volume.
- (3) Major Conder's "Syrian Stone Lore."—This volume, the least known of Major Conder's works, is, perhaps, the most valuable. It attempts a task never before approached—the reconstruction of Palestine from its monuments. It shows what we should know of Syria if there were no Bible, and it illustrates the Bible from the monuments.
- (4) Major Conder's "Altaic Inscriptions."—This book is an attempt to read the Hittite Inscriptions. The author has seen no reason to change his views since the publication of the work.
- (5) Professor Hull's "Mount Seir."—This is a popular account of the Geological Expedition conducted by Professor Hull for the Committee of the Palestine Fund. The part which deals with the Valley of Arabah will be found entirely new and interesting.
- (6) Herr Schumacher's "Across the Jordan."
- (7) Herr Schumacher's "Jaulân."—These two books must be taken in continuation of Major Conder's works issued as instalments of the unpublished "Survey of Eastern Palestine." They are full of drawings, sketches, and plans, and contain many valuable remarks upon manners and customs.
- (8) "The Memoirs of Twenty-one Years' Work."—A copy of this book is presented to every subscriber to the Fund who applies for it. The work is a popular account of the researches conducted by the Society during the past twenty-one years of its existence. It will be found not only valuable in itself as an interesting work, but also as a book of reference, and especially useful in order to show what has been doing, and is still doing, by this Society.
- (9) Herr Schumacher's "Kh. Fahil." The ancient Pella, the first retreat of the Christians; with map and illustrations.
- (10) Names and Places in the Old and New Testament and Apocrypha, with their modern identifications, with reference to Josephus, the Memoirs, and *Quarterly Statements*.
- (11) Besant and Palmer's "History of Jerusalem," already described.

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

The income of the Society, from September 19th to December 19th inclusive, was—from subscriptions and donations, £426 15s. 10d.; from all sources, £653 19s. 4d. The expenditure during the same period was £740 5s. 1d. On December 21st, the balance in the Bank was £369 2s. 1d.

Subscribers are begged to note that the following can be had by application to the office, at 1s. each:—

1. Index to the *Quarterly Statement*, 1869–1880;
 2. Cases for Herr Schumacher's "Jaulân;"
 3. Cases for the *Quarterly Statement*, in green or chocolate.
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Early numbers of the *Quarterly Statement* are very rare. In order to make up complete sets, the Committee will be very glad to receive any of the following numbers:—

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

It having again been reported to the Committee that certain book hawkers are representing themselves as agents of the Society, the Committee have to caution subscribers and the public that they have no book hawkers in their employ, and that none of their works are sold by itinerant agents.

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

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

The only authorised lecturers for the Society are—

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

His subjects are :—

- (1) *The Buried City of Jerusalem, and General Exploration of Palestine.*
- (2) *Discoveries in Assyria, Chaldea, and Palestine.*
- (3) *The Moabite Stone and the Pedigree of the English Alphabet.*
- (4) *Jerusalem of David, Nehemiah, and Christ.*
- (5) *Sight-seeing in Palestine: a Narrative of Personal Experiences.*
- (6) *Israel's Wars and Worship, illustrated by the new Survey.*
- (7) *The Gospel History in the light of Palestine Exploration.*

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

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

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

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

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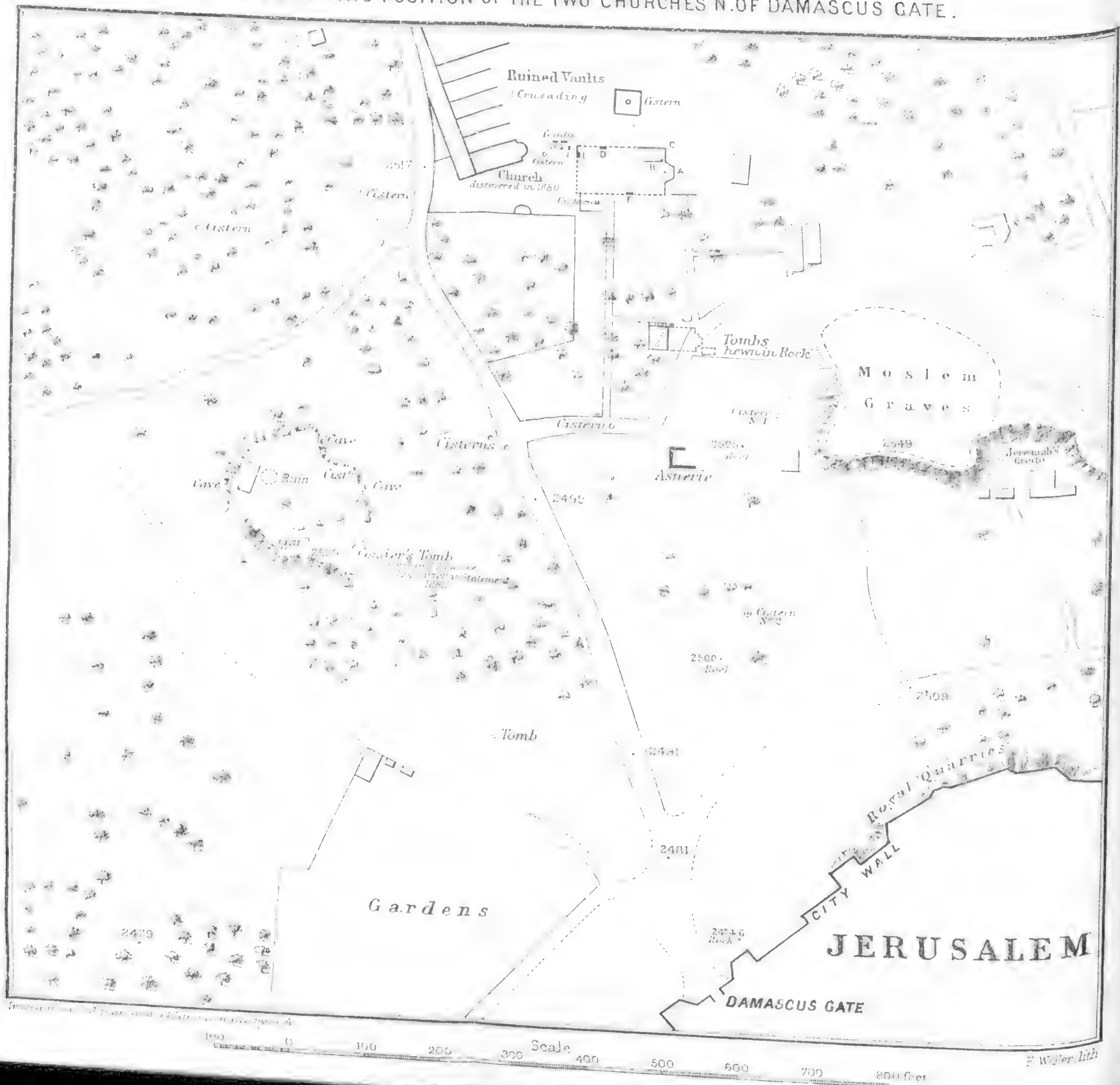
- (4) The Rev. Thomas Harrison, F.R.G.S., Member of the Society of Biblical Archæology, 38, Melrose Gardens, West Kensington Park, W. His subjects are as follows :—

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





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



DISCOVERIES NORTH OF DAMASCUS GATE.

SOME time ago Mr. Schick reported a further examination of the Dominican ground north-west of Jeremiah's Grotto, and believes that indications of a second church—older, and also larger, than that previously known—have been discovered. He wrote: "The diameter of the pieces of the shaft of a column, which were found built into the wall of the pool formerly described (*Quarterly Statement*, 1889, p. 116), is considerably over 4 feet. They may have once stood on the pedestal now standing in the centre of what I consider to be the apse of a former church (*see Plan, A*). This pedestal is formed of one stone of hard 'mizzeh,' roughly dressed, and was certainly intended to be under the flooring of the church and not seen. It is probably *in situ*, as the measurements from its centre in all directions indicate. Round this pedestal, especially towards the east, many good hewn stones were lying; westward, on a higher level, some Crusading masonry was found, especially a strong wall running north and south, resting on the rock of the eastern side of the pool. North of it was a kind of thin wall of polished stones, forming two steps (B); and further to the north, on a lower level, a flooring of well executed mosaic, forming geometrical figures in different colours, but with no inscriptions or figures of plants or animals. The shaft of a pillar of white marble, a foot in diameter, was also found here, and the pedestal of masonry on which it had once stood. Still farther in the same direction, 16 feet from the long steps and parallel with them, is a rock scarp (C). As this scarp is exactly in a line with the Byzantine remains—namely, a pedestal and threshold—shown on the plan (D) it is clear that these once formed part of the northern wall of a large church. Further west, a Byzantine threshold of a door (E) is situated exactly at a right angle to the said wall, and appears to have been a door in the western wall of the church. To the south of the pool, and of a Crusading wall which exists there, a kind of Byzantine threshold (F) was found, situated exactly parallel with the long steps and the northern wall of the church, and this appears to have been a point in the southern wall. As further east there is mosaic in the flooring and a piece of thick plaster standing at right angles to this threshold, and as to the north of it similar plaster, about three-quarters of an inch thick and 4 or 5 feet high, was found standing in the rubbish (the stones on which it had rested having been taken away), and forming a line as shown on the plan (A), it is quite clear we have the *apse of a Byzantine church*. The impression of the stones can still be seen on the plaster, by which it appears that the plaster had been put on the outside of the wall, probably with the object of preventing wet coming through, the ground outside being higher than the flooring of the church. It seems that the walls of this church were only 3 feet thick, so that it must have been covered with a wooden roof, and not arched. Further clearance of the ground may bring more to light. At present we may conclude that there was here a *basilica*, with a

wide nave and narrow side aisles. The monks hope one day to find *the tomb of St. Stephen*, but hitherto nothing of the kind has been discovered.

“It appears to me quite clear that the rock cuttings (*Quarterly Statement*, 1889, p. 116) are the oldest work, and belong to the Jewish period; that in the Byzantine period the pool, &c., were filled up and a church built, about 130 feet long by 73 feet wide, outside measurement, very nearly the same size as the Church of St. Anne; that **this original St. Stephen’s Church** was destroyed by the Mohammedans, and that subsequently, when the Crusaders came into possession of the place, they used the stones for their new buildings, and erected the smaller church which was found some years ago and described in the Jerusalem Volume of the Survey. As there are mosaic pavements in the eastern part of the two side aisles of the church last discovered, and (on the northern side) two steps go up to the nave, it is clear that the flooring of the latter, at least at the eastern end, was on a higher level than the rest of the church. Perhaps under it St. Stephen’s tomb may be found.”

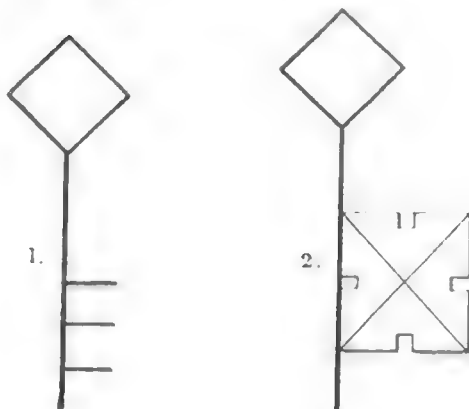
In a subsequent letter Mr. Schick reported that “without entirely clearing the site of the church, the ground had been converted into a garden. In the church they found the places where the pillars had stood, always a large square stone, but nothing else of much interest,” and at a later date he wrote as follows:—

“Having been told that the Dominicans are going on with the work on their property I went there, and they willingly showed me everything. All the earth and remains of Crusading buildings are now removed, and the rock and the flooring of the former Church laid bare. Only in two places one may see that once a pillar stood there—so it seems the church had not many pillars. They found some pieces of hewn stone, and two more rock-hewn tombs, similar to those discovered several years ago. In the pavement was a very large flag-stone, with a Greek inscription. Whilst being raised it fell into many pieces, which they put together again so that the inscription could be copied. I could not myself copy it as they keep the stone in a dark place. They, however, have copied and will soon publish it.

“Under the large slab there were steps, and a perpendicular stone door, which can still be turned on its pivots (*see* Drawing, Tomb No. 2); below, the pivot goes in a hole cut in the rock; on the top it is kept by an iron ring fastened to the rock; it can easily be shut and opened, as it is only 4 inches thick, 3 feet long, and 2 feet 4 inches wide. When opened it can be laid back in a recess cut in the rock, so that the door is flush with the rock-wall of the entrance at the steps. Four high steps lead down to it. The door had formerly an iron lock, cruciform in shape, but this has rusted away, together with the nails by which it was fixed. The keyhole in the stone is well preserved. Just over the door is a Greek inscription, cut in the rock, of which I give a copy. A person entering through the opening (when the door is open and put back into the recess) has to go three steps more downwards, and

MASONS MARKS.
 HALF REAL SIZE.
 Found in the little Church.

AN



1.

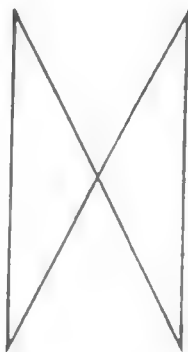
2.

1. On a loose hewn Stone

2. On flooring of Apse of little Church

TION

C. Schuch



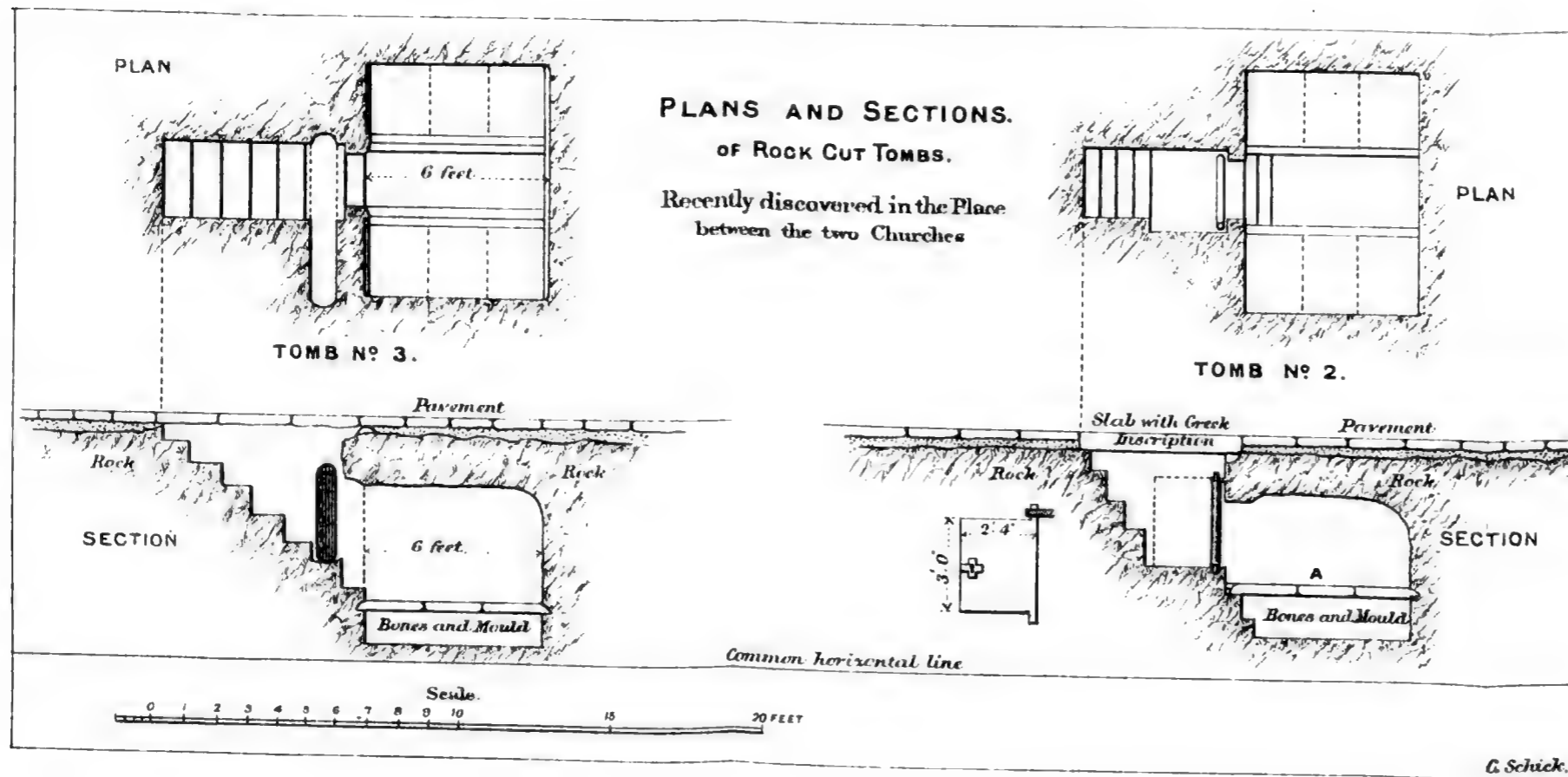
3.

3. On Wall of rooms at little Church.

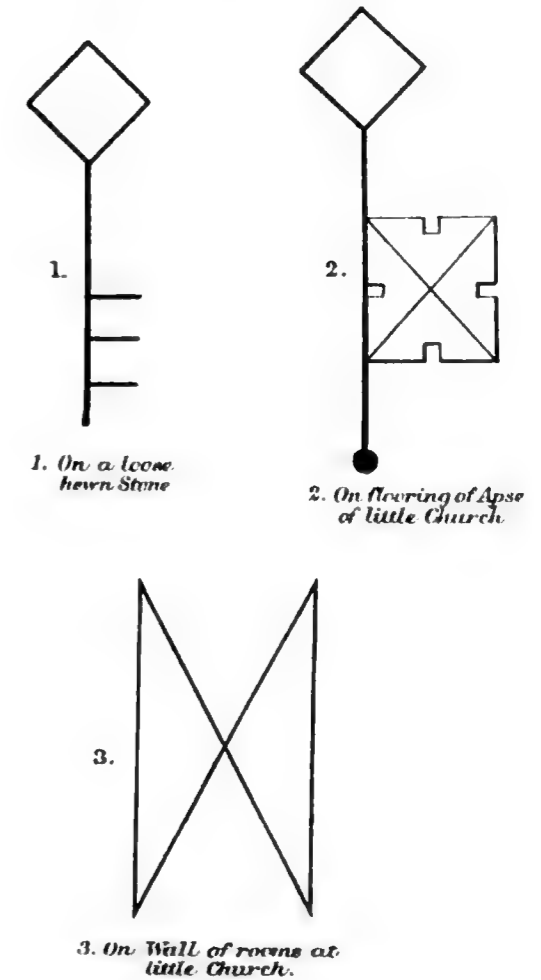
+ ΘΗΥΙΖΙΑΦΕΡΣΑ
 ΕΥΘΥΜΙΣΔΥΚΩΝ
 ΔΓΡΗ + ,

Inscription found in the Caves of the many tombs partly under the road which leads up to the top of the Hill above Jeremiah's Grotto.

1. This Inscription, the Monks told me is already published.



MASONS MARKS.
HALF REAL SIZE
Found in the little Church.



+

ΕΤΙΙCΥΚΞ
ΗΑΤΠΙΨ
ΜΗΚΝΤΥ

*Inscription on one of the
Covering Slabs at A in Tomb No. 2.*

ΟΚΔ✠ΤΟΙΚΨ
CΝΒΟΥΤΟΥ
ΥΥ,

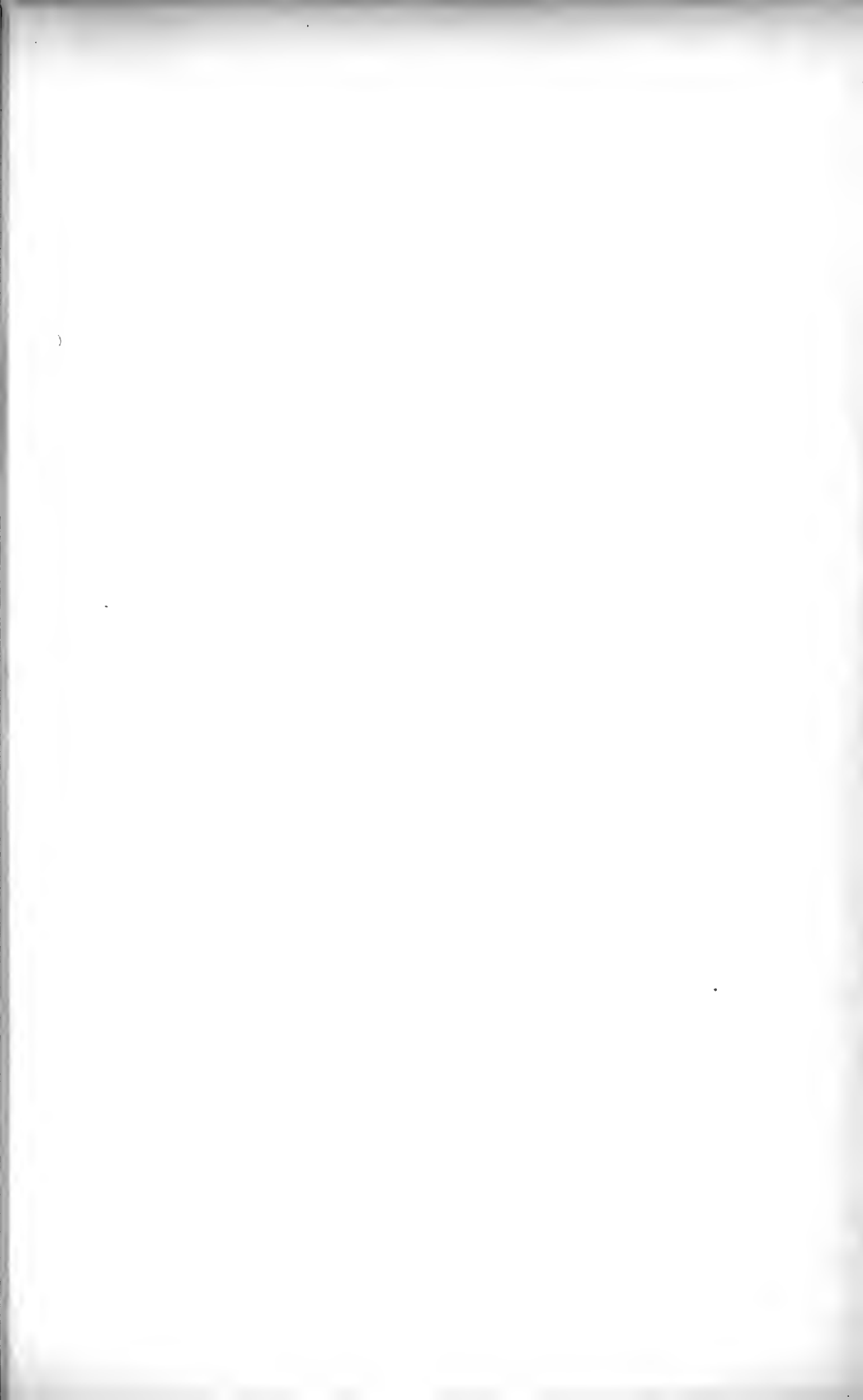
*Inscription on the Rock over the
Entrance to Tomb No. 2 which
has a Stone Door.*

+ΘΗΚΙΛΙΑΦΕΡΘCΑ
ΕΥΘΥΜΙΣΔΥΚΥΠΙΝ
ΔΓΡΗ+

*Inscription found in the Caves of the
many tombs partly under the road which
leads up to the top of the Hill above
Jeremiah's Grotto.*

*N.B. This Inscription, the Monks told me is already
published.*




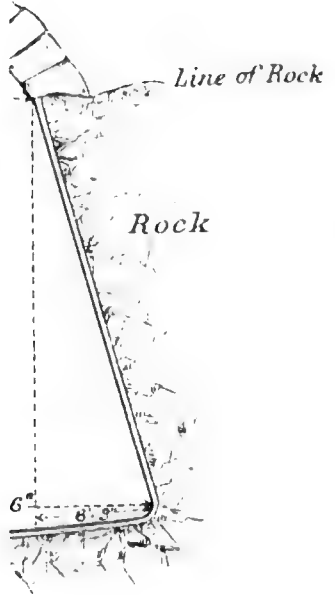


F PLAN.

Present Surface


Earth

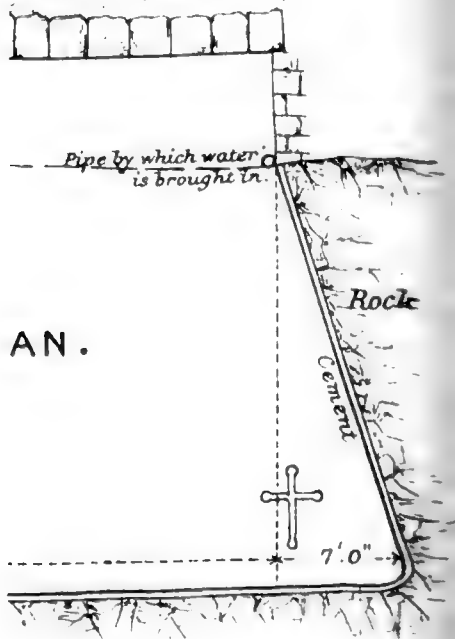
 *The old pavement*



Present Surface

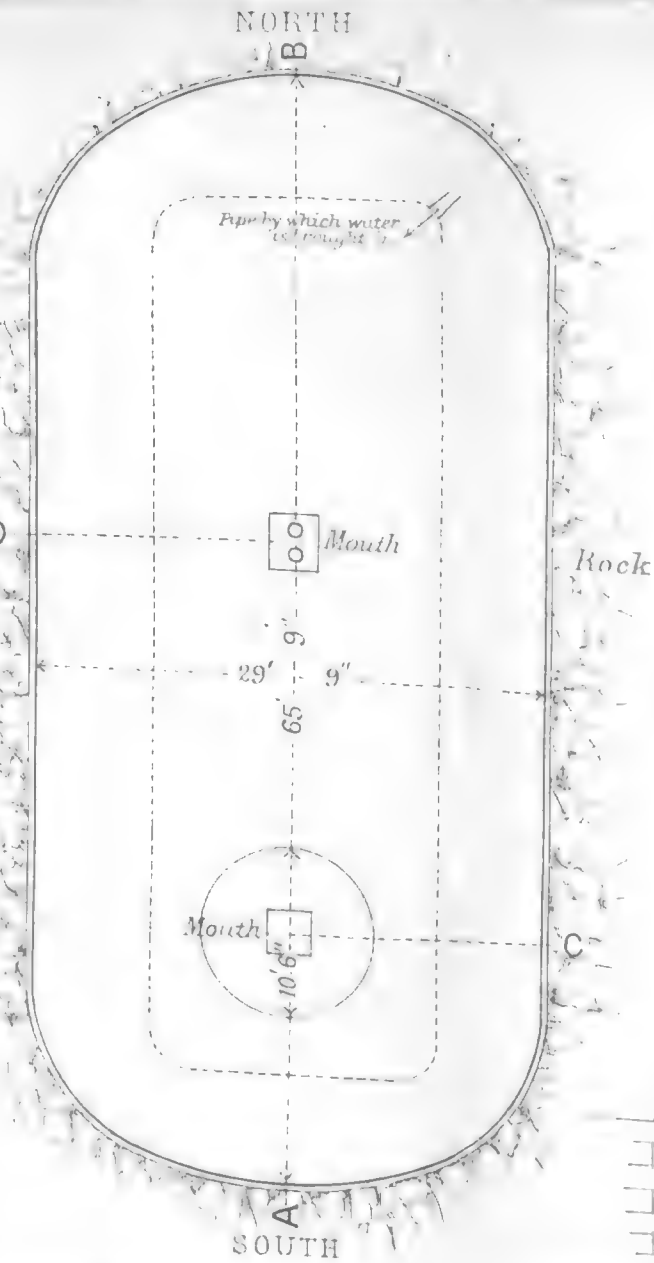
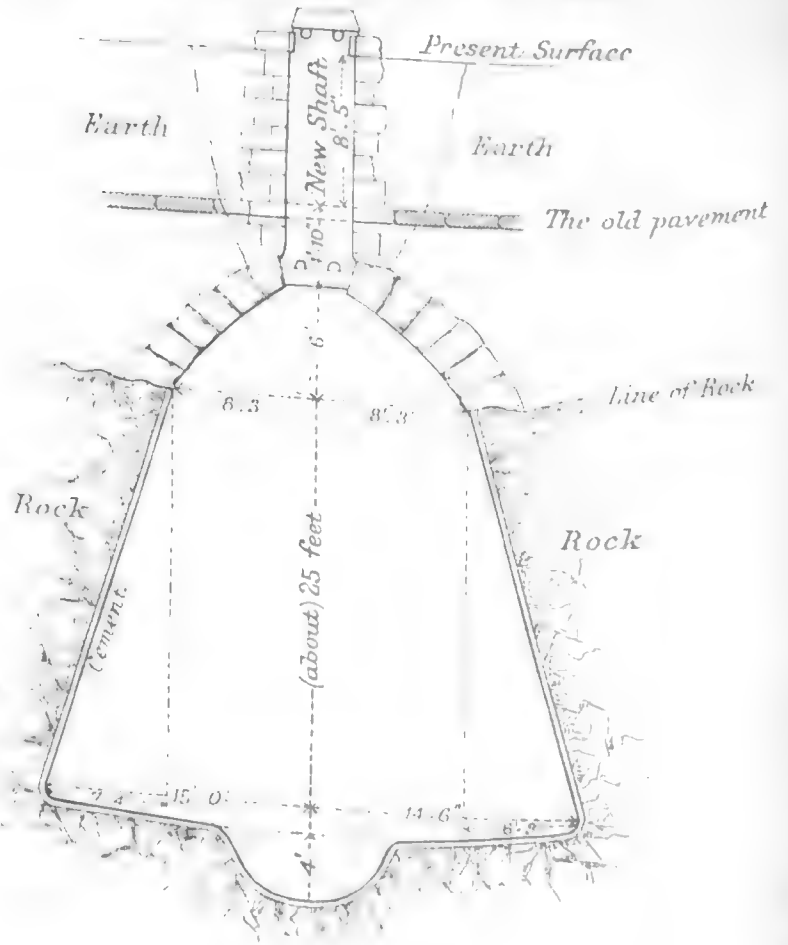
Made Earth

 *The old Surface*



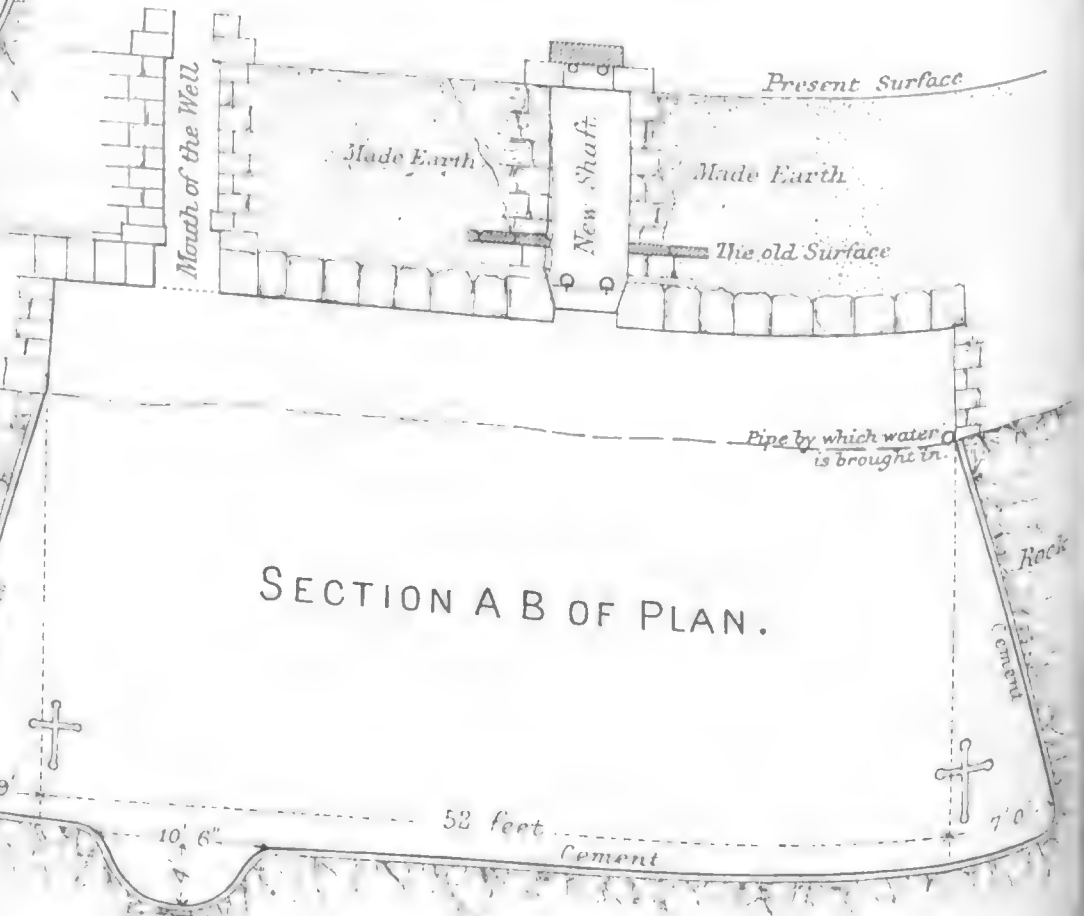
AN.

SECTION C D OF PLAN.

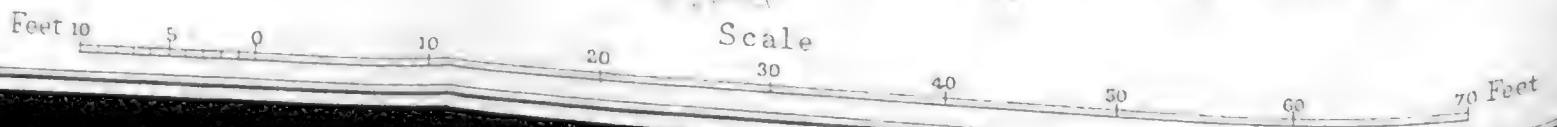


PLAN OF CISTERN on West side of Jeremiah's Grotto.

By Baurath C. Schick.



SECTION A B OF PLAN.



then comes into a kind of passage or empty place less than 6 feet high, to the right and left of which are *loculi*, in which are bones and mould. Each *loculus* was covered with three slabs, nicely smoothed, on one of which is an inscription, which I copied (*see* Drawing), but the Monks removed all the slabs, liking to see the mould and bones.

"A little west of this tomb was found a similar one, but without any inscription, and instead of a door it had *a round stone to be rolled before the opening* (*see* Drawing, Tomb No. 3). It was like that at the Tombs of the Kings, only this stone was somewhat thinner and smaller. The stone was not in its place, but in the rock a narrow and long recess is excavated, into which the stone might be rolled, and so the tomb opened. The adjoining drawings will explain all this; and the exact situation of these newly discovered tombs may be seen on the plan marked 1, 2, 3.

"I give a drawing of three masons' marks, of forms new to me, found at the place.

"The stone forming the well-mouth of the cistern in the yard east of the little church, and south of the recently discovered rock-cut tombs, is octagonal externally, and a curious feature of it is that on four of the eight sides, half-way up, there is a step, on which one might put his foot when drawing water. I think it was originally not intended for a well-mouth, but for a baptismal font. Short people, as boys, might, at this solemn act, have stood on this kind of step. I have never seen anything of the kind before."

C. SCHICK.

TWO CISTERNS NEAR JEREMIAH'S GROTTO.

I HAD the opportunity of examining two cisterns near Jeremiah's Grotto, and found both interesting. The situation of these cisterns is shown on the tracing from the Ordnance Survey Plan of Jerusalem $\frac{1}{2500}$ (p. 9), where they are marked 1 and 2.

No. 1 (*see* Plan) is rather a large cistern, the greater part cut in the rock, with its four sides inclining, not perpendicular, so that the space which had to be arched over is much smaller than the bottom of the cistern. The roof is not rock, but a curious tunnel arching, very much pointed, and with sides nearly straight, made of hewn stones. The present surface of the ground is, according to the Ordnance Survey, about 2,515 feet above the sea. The former surface is shown in the shaft of the mouth of this cistern to be 10 feet lower, or 2,505 feet. As the cistern is about 45 feet deep, its bottom is therefore 2,460 feet above the sea. It is damaged and requires some new cementing. The last repairs were done by Christians, as there are on the eastern side, some feet above the bottom, and near both ends, crosses 4 feet 6 inches high and 3 feet wide, made in plaster, of the form shown in the section. In the bottom there is, just under the mouth, a round bowl-shaped pit, 4 feet deep and 10 feet 6 inches in diameter. The cistern is covered with a pavement of

large flagstones. Fourteen feet north of the mouth is a second one, covered with a large stone, having two iron rings on its upper surface; but this mouth had no shaft up to the present surface of the ground. That represented in the drawing has been made recently. The cistern is 65 feet 9 inches long in the middle at the bottom, and 29 feet 6 inches wide; it has rounded corners. It may take water up to 25 feet, a quantity equal to about 20,000 skins.

Its northern end comes to within a few feet of the rock scarp, in which are rock-cut tombs, thought by General Gordon to be the Sepulchre of Christ. This remarkable cistern is certainly not of Mohammedan or Christian origin, but apparently Canaanitic, its form being like so many made by Canaanites in the rock; but I have never before seen one so large. The arching and the slab with two iron rings is very likely Crusading.

Cistern No. 2 is 250 feet south of the former, towards the Damascus Gate. It is very much smaller than the former, but may contain 3,000 skins of water. It is entirely hewn in the rock, and before it was made into a cistern was rock-cut Jewish tombs. In the rock ceiling is a square, 13 feet by 13 feet, very nicely worked, with a kind of cornice round it, exactly as in the Tombs of the Kings. The floor below this is smooth, but the rest of the flooring is rough, just as it was left when the tombs were broken away to get more room. As it is plastered all round, the door to the former square chamber cannot be ascertained, but it is supposed to have been in the north-western wall. For the same reason it cannot be ascertained whether the pillar or support is of living rock or masonry. Near it the rock at the bottom is left rough, and now forms two long steps. The mouth is over a kind of recess, and goes up through the rock, over which a square shaft is built. The cistern is nearly square, about 24 feet in each direction, and has an average height of 15 feet. The ceiling is very uneven, except that of the former tomb-chamber.

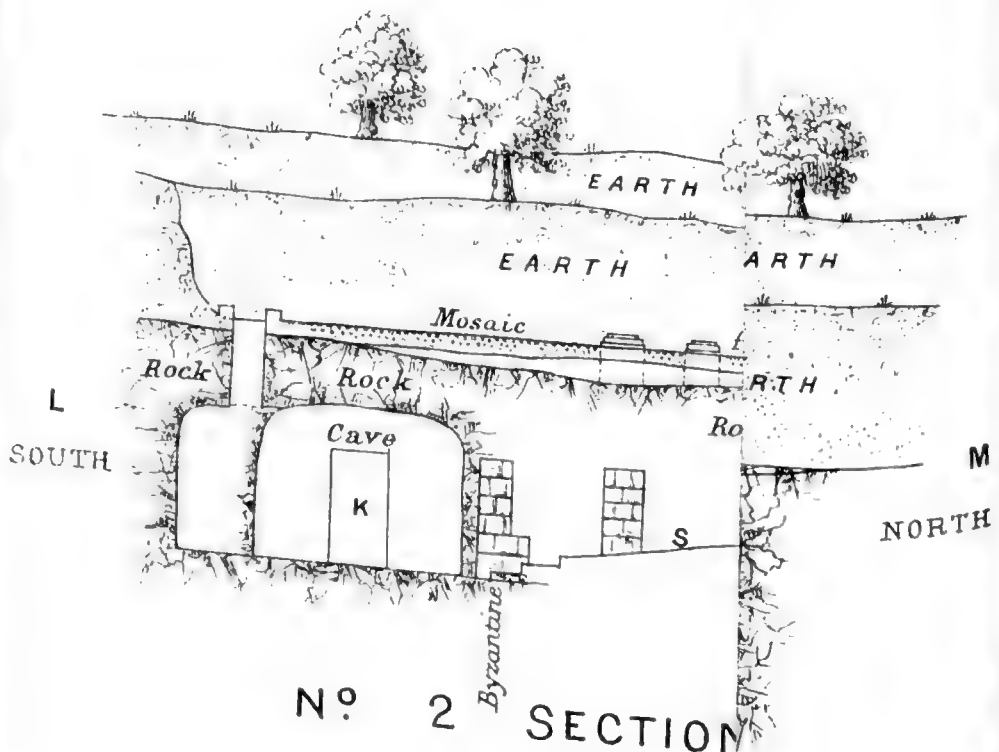
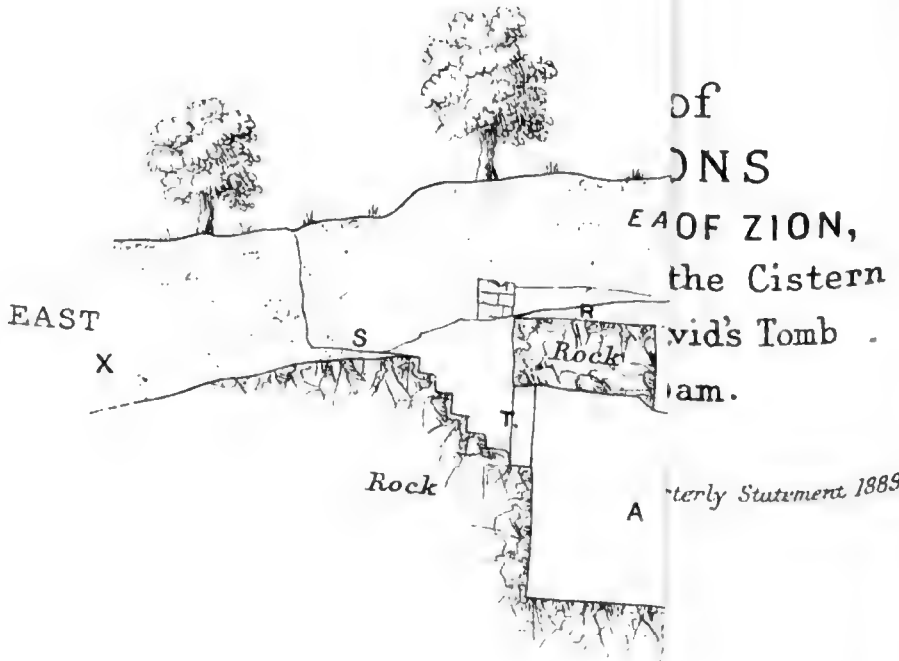
There was an idea that between the present town wall and the scarp of Jeremiah's Grotto on the north, there was nothing else than a quarry; but this cistern proves that there were rock-cut tombs, as in the Jeremiah's Grotto hill itself. In regard to the rock levels I will add that recently in digging outside the Damascus Gate, 26 feet north of the north-east corner of the eastern tower of that gate, the rock was found at a level of 2,474½ feet; 6 feet 2 inches higher than the sill of Damascus Gate.

C. SCHICK.

EXCAVATIONS ON THE EASTERN BROW OF "ZION."

A FEW years ago a French gentleman, Count Piello, bought a piece of ground on the eastern slope of the western hill of Jerusalem, generally called Zion, about half way down between the buildings of Neby Dâūd and the Pool of Siloam. A little watch-house was then built, and a

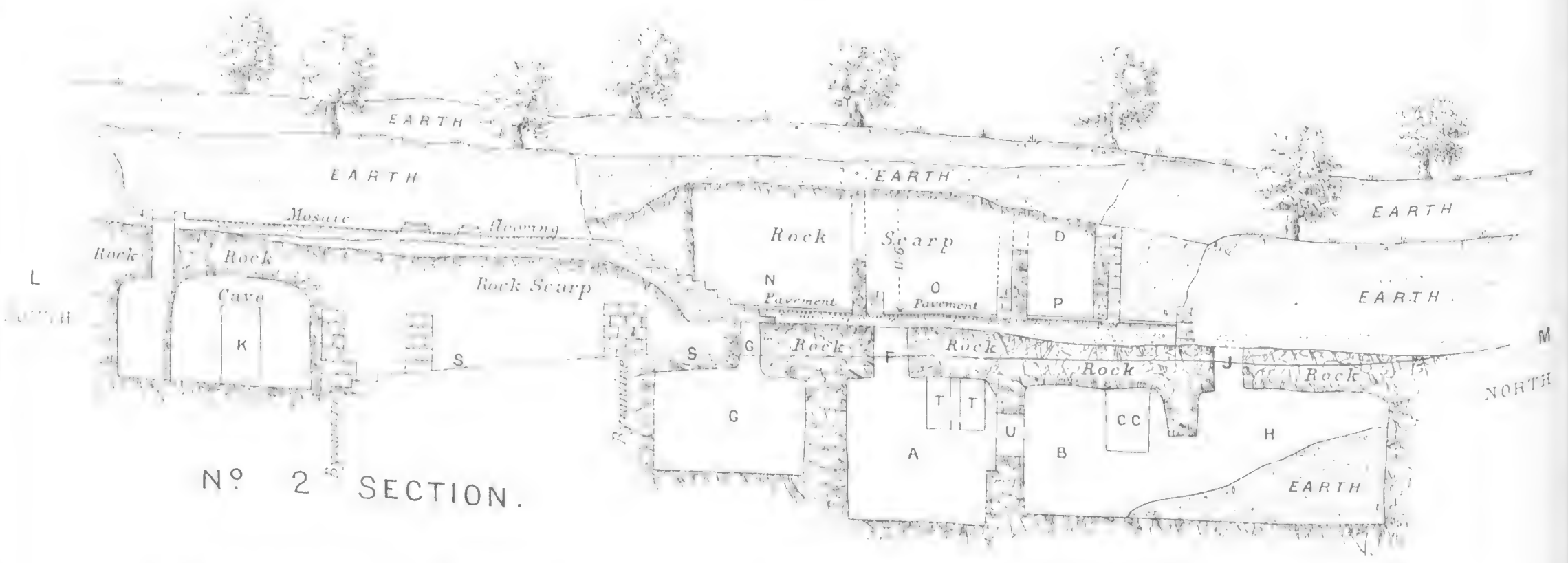
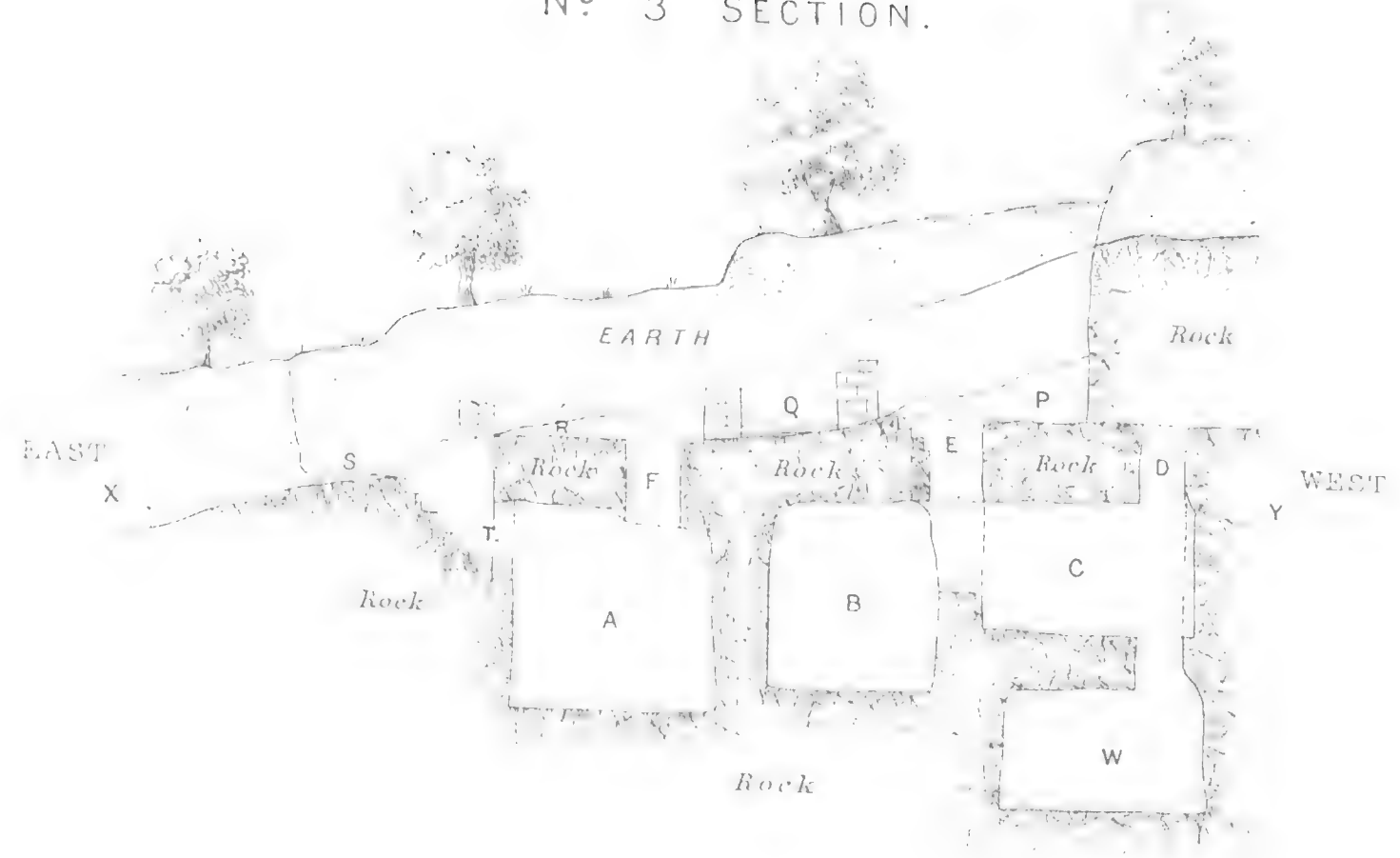
No



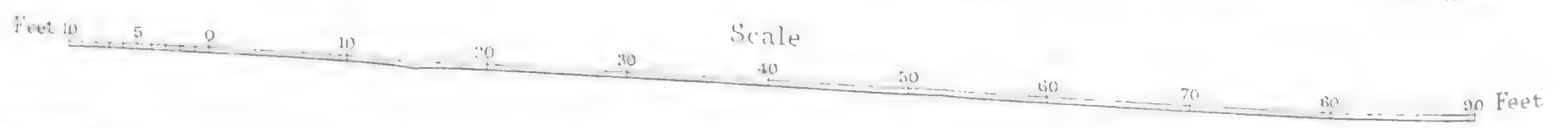
Nº 3 SECTION.

Sections of
EXCAVATIONS
ON EAST SLOPE OF ZION,
immediately North of the Cistern
midway between David's Tomb
and Pool of Siloam.

See Plan of Jerusalem., April Quarterly Statement 1889.



Nº 2 SECTION.



black man put in as guardian. About six months ago a priest came and began to excavate there; the work is going on slowly, and many things have been found, of which I will now report.

The overseer of the work, a Roman Catholic monk, speaks English, and must have been once in England. He showed me everything; the owner of the property required that I should give him a copy of any drawings or plans I might make, which I promised to do.

There is first a layer of earth from 5 to 8 feet thick, on which olive trees are growing, then are appearing masonry, rockscarps, well-mouths, and many hewn and sculptured stones; also pavements, mosaics, &c., were found.

I give a plan of walls, caves, cisterns, rockscarps, holes, earth, trees, &c.; also a Section and elevation from north to south (No. 2), and a Section and elevation from west to east (No. 3). In the drawings the same letter (capitals) shows always the same thing. It is found here, as in so many other places, both inside and outside the city, that *there were in ancient times caves and dwellings excavated in the rock*, which excavations were in later times converted into cisterns. Here, as the sections will show, are nearly throughout two stories of excavations; the upper ones certainly were originally used for human dwellings, or as cellars, magazines, stables, &c. The walls are everywhere cut nearly perpendicular, the floorings horizontal, and the top or covering (of rock) has always a thickness of 4 feet, whereas the walls were sometimes rather thinner, and in the upper storey very thin, only 12 inches as shown in Section No. 2. On Ophel, and in the city, I found such rock partition walls also cut thicker, and sometimes there are windows in them as here (T T). Further, there is nearly always a smaller or larger rounded hole in the roofing as here (D E F G J). In February, 1869, Sir Charles Warren found similar caves 200 feet south of the Triple Gate, and I am fully convinced that wherever one will dig deep enough in the ground formerly occupied by ancient Jerusalem, he will find such excavations. These newly-discovered ones I will now describe more fully.

The monks first made a trench or kind of road from south towards north, and from it branches eastwards towards the hillside, and they found the following:—In the south (or to the left-hand of the Section No. 2, a cave (K) entirely hewn in the rock, with an opening towards the east, 8 feet wide and 9 feet high, so that people could go in from the court (or rather what was at that time the road or street of the city) on level ground. This was a cave to be inhabited, as it is now again. Inside there is a round niche towards the south, with a round opening in the roof; this, I think, had been originally a round cistern, and in later time the thin rock wall between it and the cave was broken away. Opposite this cave (K) are found two similar holes, from which the earth has not been removed. In the large opening is now put a new wall with a door, and the overseer uses the place to keep things; it is also his office and dining-room. If one goes now from the front of the cave northwards, there is a thin wall, of very inferior workmanship, but towards the west the remains are higher and better, and, as it seems to

me, Byzantine. After 5 feet one has to cross another and a stronger wall, which stands at right angles to a wall put up in front of a rock-scarp, going from south towards north, and so covering the rock face for 24 feet, and forming a terrace about 12 feet high. On this terrace, which is horizontal and smooth, is a large piece of mosaic flooring; west of it are three basements of pillars, the largest one *in situ*. Whether the two others are *in situ* or not I cannot speak positively. From this terrace a flight of steps leads northward 7 feet down to a level flooring in which are two round openings (G and F) like well-mouths; the cave (G) is still full of earth, but (A) is cleared out so that I could measure it; but before going down we will first examine what is above. West of this flooring (R, No. 3) a wall runs from south towards north, 1 foot 10 inches thick. This wall had a few doors which led westwards to another flooring a little more elevated (Q), with a good pavement. Toward the west is another and thicker wall. This flooring (Q) is only 6 feet wide, and was once the corridor or passage between rooms on the east and west. On the west two of these rooms are preserved (N and O, No. 2). Their west wall was a rock scarp, which also extended further south, and between them there was originally a thin rock wall, which afterwards was strengthened by adding masonry to it, as shown in Section No. 2.

The flooring is also rock, and in it (in O) is a large oval-shaped hole (E), with some steps in it downward hewn in the rock. North of these two rooms the earth has not been cleared away enough, and I could only see a recess with a hole on the bottom; but eastward, where the place has been more cleared, there are the traces of a room (R) made of masonry, the flooring of which is on a level with the trench or road. A little to the south one comes to a flight of steps hewn in the rock, going down westwards to a couple of windows (TT). The wall between is also rock, and the narrower window to the right hand had evidently been used as a door, as it has a further step which the other has not. A little lower, I think, was once a flooring of wood, and so a habitable room, and under it a magazine; from this supposed flooring a door (U) went northwards into other chambers (BH). A wall of masonry, which is still standing, was very likely put in when the rooms over it were built; also towards the south between the rock walls, there is masonry, and in it a square window (CC) forms an opening to another excavation (C) under the room (O), which has on its further side a hole leading down into a cistern (W) (*see* Section No. 3). From (B) an opening northward, leads to a long cave (H), which is not yet fully cleared out, but has two round holes (J) in the roofing—one the light-and-airhole for the cave, the other, very likely, is over the mouth of a well or cistern situated under the cave (H). All this will be found out later on.

The height of these caves can be seen from the sections; it is from 8 feet to 12 feet 6 inches. If some were originally intended for dwellings, stables, magazines, or cellars, in later times, when walled houses were erected over them, they were converted into cisterns, especially, as it seems, in the period when Jerusalem became a Christian city, as

there are many crosses found. In the hole (F), for instance, are three crosses hewn in the rock—one towards the south, one towards the north, and one towards the west. The latter is a double one, thus †. On the east side there is none. That the chambers were used at this period for cisterns is proved by the cement, which in many places is still firm. If all the rubbish, buildings, &c., could be removed wherever the old city extended, the site would then present a marvellous appearance; all would appear honey-combed, so that one would need great care in walking about not to fall down through a hole or over a scarp.

It is not yet seen what the monks intend to erect here, but certainly some sanctuary in commemoration of some event in the life of our Lord or his Apostles. As far as I understand, they were in hopes of finding the traces of a church once erected over the spot where Peter wept bitterly (Matt. xxvi. 75). When the mosaic and the bases of pillars were discovered, they thought they had found what they looked for, but hitherto no proof of there having once been a church here has been brought to light. To me it seems as if the Crusaders have not done much here, but that the ruins are Jewish, and from the earliest Christian time; the caves and excavations are certainly Jewish. South of the ground on which these remains are, and south of the road, a Moslem has a large piece of ground, where he found the same state of things; and I hope in future to get opportunity to examine and measure there also.

We know that in this neighbourhood was a church of St. Peter called "The Cry of the Cock." Bernard, A.D. 865, tells us that this church was towards the east from the Church of Simeon on Mount Zion, at the place of Peter's denial of Christ.

Fifty years later this was repeated, but the word "church" used perhaps meant simply "sanctuary." In 1450 the place was called Galilee. It had a deep cave in the rock, and was 170 paces east of the house of Caiaphas (Neby Dâûd). If one pace is taken to equal 3 feet, this will be 510 feet east of Neby Dâûd, which brings us to a little building on the Ordnance Survey Plan, which I knew very well, but which was taken away within the last ten years, the stones being used for building new houses near Neby Dâûd, but not to the recently excavated place, which is 350 feet further east.

In 1483 the church had almost totally disappeared, only some walls being visible; but the Pilgrims went to a cave, and in the 16th century a high rock with a deep cistern was said to be the place where Peter denied Christ. It was situated about 150 paces from the tower of the town wall, as one went down from Zion into the Kidron Valley, not far from the Dung Gate and the Bethlehem Aqueduct.

In 1674 we are told that the cave was walled up. In later times the real place was lost, and sought for in this neighbourhood, as is the case now, but hitherto not with the desired result. This ancient church may be found some day in this neighbourhood, and I should think a little higher up the hill, nearer the aqueduct.

DISCOVERY OF ROCK-HEWN CHAPELS AT SILWÂN

HAVING heard that in the village of Silwân a church had been discovered and a very remarkable inscription which no one could read, I went down with my assistants and people who could point out the place. The proprietor of the ground showed us the things, but would not allow me to take copies and measurements until after a long talk, in which I pointed out to him that my measuring and reporting on the matter would be to his interest, he said, "Do what you like, but you must know that I do not want plans or drawings, but wish to sell the place, in order to get money with which to build another home." I hear the Russians offered him 60 Napoleons, but he asks 200.

The village of Silwân is divided into two parts, namely, the "upper" and the "lower" village. The place of which I speak is between the two but belongs to the upper village. It is opposite the Virgin's Well, but somewhat more south, opposite the letter *a* in the word "valley" on the Ordnance Survey Plan of Jerusalem, scale $\frac{1}{2500}$.

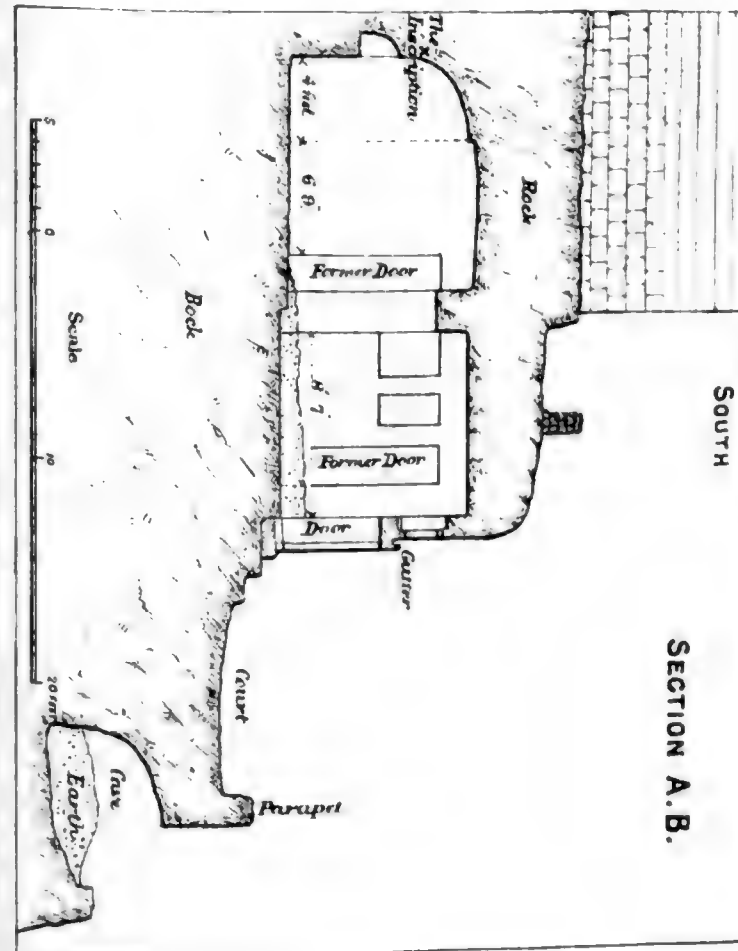
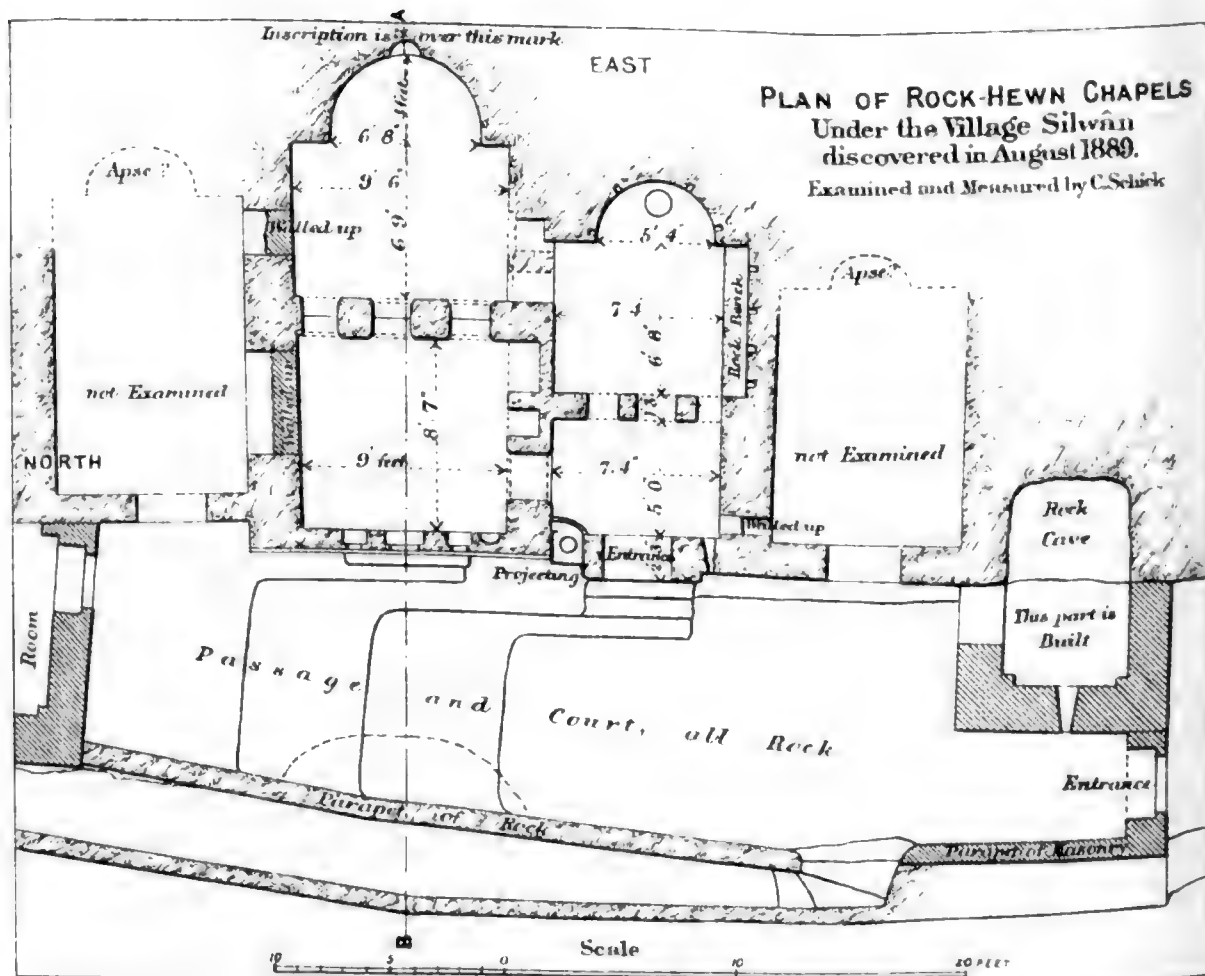
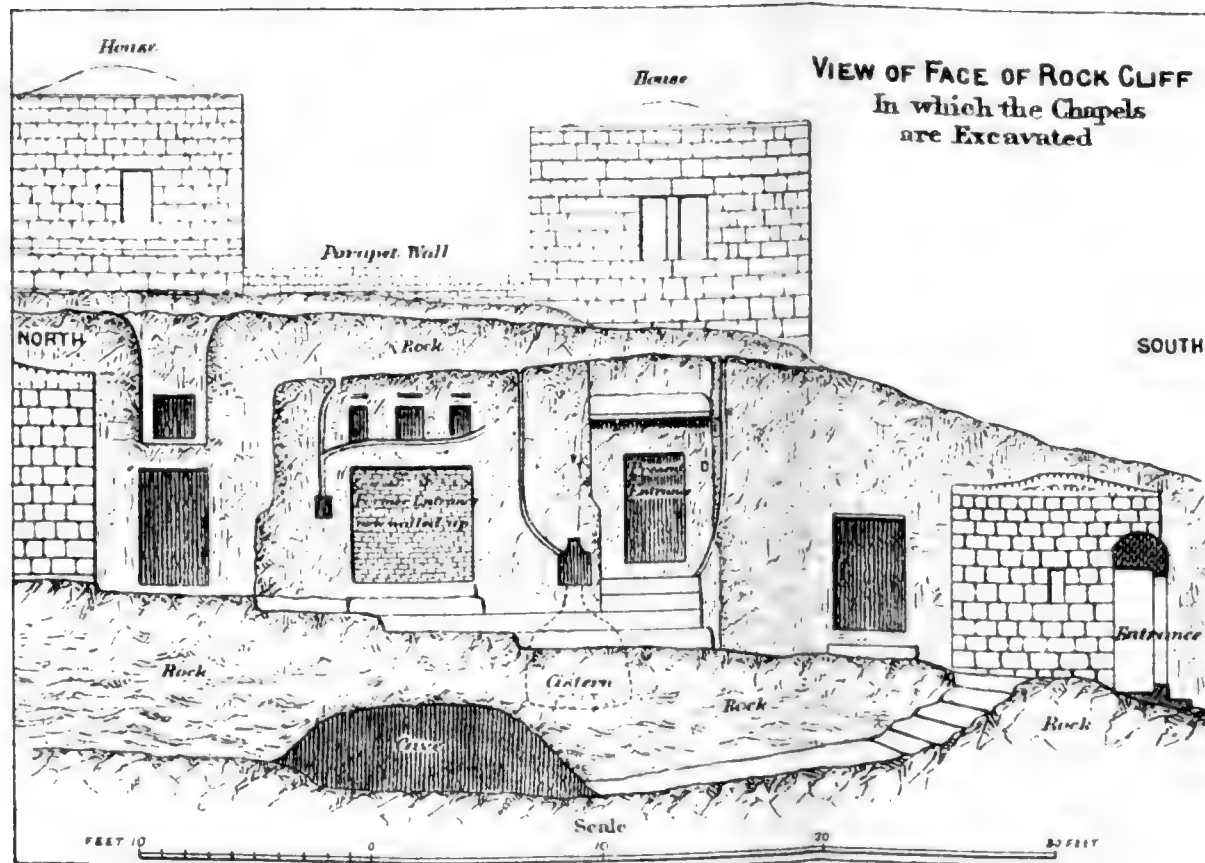
When I visited the place I followed the road in the valley southwards as far as a road which turns at a right angle to the lower village, near the "old pool," and then I had to go northwards up a steep ascent till I came to the spot.

An ordinary door on the south leads into a kind of court, sloping upwards towards the north, formed by a terrace on the rocky side of the hill. The floor, steps, the cliff on the east, and even the parapet on the west are rock. In the face of the cliff are many artificial openings, four doors, and several holes, looking like windows. The large central door is closed by masonry; the northern and southern I found locked up, but that between the central and southern doors was open. Some rock-cut steps lead up to it, and close by there is a round, bottle-shaped cistern cut in the rock. As there was *tibn* in this cistern I could not ascertain its exact size, and accordingly it is shown with dotted lines in the section. On the surface of the cliff I observed several narrow gutters cut in the rock for conducting the rain-water into the cistern.

The present entrance to the chapel is in a projecting part of the cliff as shown in the Plan, and over the door the rock projects 1 foot more forming a kind of roof, over which the rain-water is turned aside, so as not to fall into the doorway.

This door leads into a room, 5 feet deep and 7 feet 4 inches wide very exactly and nicely excavated, with a straight ceiling of rock, the flooring being also rock. The room is nearly 8 feet high. The east wall of this room was originally pierced with three openings, leading into an adjoining room, 7 feet 4 inches wide by 6 feet 8 inches deep, which has along the south wall a rock bench, 1 foot 4 inches high, adapted for sitting on. The north wall was originally pierced by a doorway, the rock sides of which are now broken off. Towards the east there is a regular apse, 5 feet 4 inches wide and 2 feet 8 inches deep, in a half circle, but on the top made like a Mohammedan "mihrab." There are four round







holes in the rock, as if at one time something had been fixed there ; lower down, about 3 feet from the flooring, are again four such holes ; they are round, 2 inches in diameter, and 4 inches deep.

On the south wall, some feet above the stone bench, is a row of similar holes. On the flooring there is a round hole or pit, $13\frac{1}{2}$ inches in diameter, cut down perpendicularly for several feet ; the exact measurement I cannot give, as the hole is filled with earth. I supposed it to be a well-mouth, but the proprietor of the place said that this is not the case. On the top of the apse there had once been a cross made of plaster, but the Moslems have broken it off. This room is also nearly 8 feet high, and the ceiling is exceedingly smooth, exactly hewn, as in the tombs of the Kings.

North of this double room is another and larger double room or chapel. The entrance in the west wall (*see* Drawing), which is now built up, has over it three windows, the middle one somewhat wider than the others ; they are surrounded by rock ledges, so that wooden shutters may exactly close the openings. The outer room is 9 feet wide by 8 feet 7 inches deep. In the south wall were once two cupboard niches, and a door now so much broken away that all is like one room ; on the north was a doorway, 4 feet 8 inches wide, and 5 feet 4 inches high, now closed by masonry. The wall towards the east is pierced by three openings as in the adjoining southern double room. The work is very nicely done, all the edges having a $\frac{1}{2}$ -inch draft all round the openings. These openings never had doors. In the middle of the thickness of the wall there is a step in the flooring, so that the floor of the inner room is about 10 inches higher than that of the outer (*see* Plan). The inner room is 9 feet 6 inches wide, and 6 feet 9 inches deep, or 1 foot 8 inches less than the outer room. In the adjoining southern double room the outer was shorter and the inner longer ; here, on the contrary, the outer is longer and the inner shorter, but within 1 inch exactly as long as the southern inner room. This northern inner room has in the walls on the south and north openings or doorways, but that on the north is blocked up with masonry. On the east there is also an apse, much larger than that in the other room, and somewhat more than the half circle, 6 feet 8 inches wide by 4 feet deep (*see* Plan). This apse has also the form of a mihrab, as will be seen in the section. At the height of 3 feet from the floor there is a recess in the rock wall of the apse, about 1 foot deep, 1 foot 4 inches wide, and 1 foot 4 inches high. At its top begins the bow of the roof of the apse, and just there is engraved the

ΚΤΥΡΗ, ΤΕΡΩΙ ΓΑΙΑ
ΠΡΟΘ, ΤΟΥ

Greek inscription above alluded to. Of this inscription I give an exact facsimile, made by help of a squeeze.

That Isaiah is here mentioned is rather unexpected. The place where the prophet was killed, under Manasseh, is shown more to the south, and on the opposite side of the valley. His tomb for a time was shown in the same neighbourhood; but the ancient pilgrims speak in such a manner that it is difficult to comprehend where they mean; so, after all, Isaiah's tomb may be somewhere in the village of Silwân, and perhaps under this his chapel. As will be seen in the drawings, there is a cave under the rocky court containing much earth. I hope that by digging there an entrance to rock-cut tombs may be found.

The proprietor of the place tells me, that the adjoining rooms, on the north and south of these chapels, have each such an apse, and also that the rooms, &c., are hewn in the rock, like those belonging to him. They belong to neighbours who were not at home, so that I could not measure or examine them.

That these rock-cut chambers were once used by Christians as chapels is beyond all question; and as the rooms are double, I think some anchorite lived in the outer ones, the inner ones forming the chapels, and the wall between them, with its three openings, representing the wall in front of the choir or altar of Greek churches.

Dr. Papadopoulos thinks the form of the letters of the inscription supports the suggestion that it belongs to the eighth century. But one may doubt whether Christians under Mohammedan rule were in a condition to cut out such rock chambers, and I should think they were made before the invasion of the Arabs. Probably they were Jewish rock-cut tombs before the Christian era, which afterwards were modified by the Christians, and used again for their purposes. According to Matthew, xxiii, 29, and Luke, i, 47, the Jews made monumental tombs for the Prophets, who were killed by their fathers. So we may suppose that these rooms were made by the Jews in the time of Christ, and that afterwards the Christians made apses in them, converting them into chapels. However, more learned men may judge on this matter; my duty is simply to report on them.



C. SCHICK.

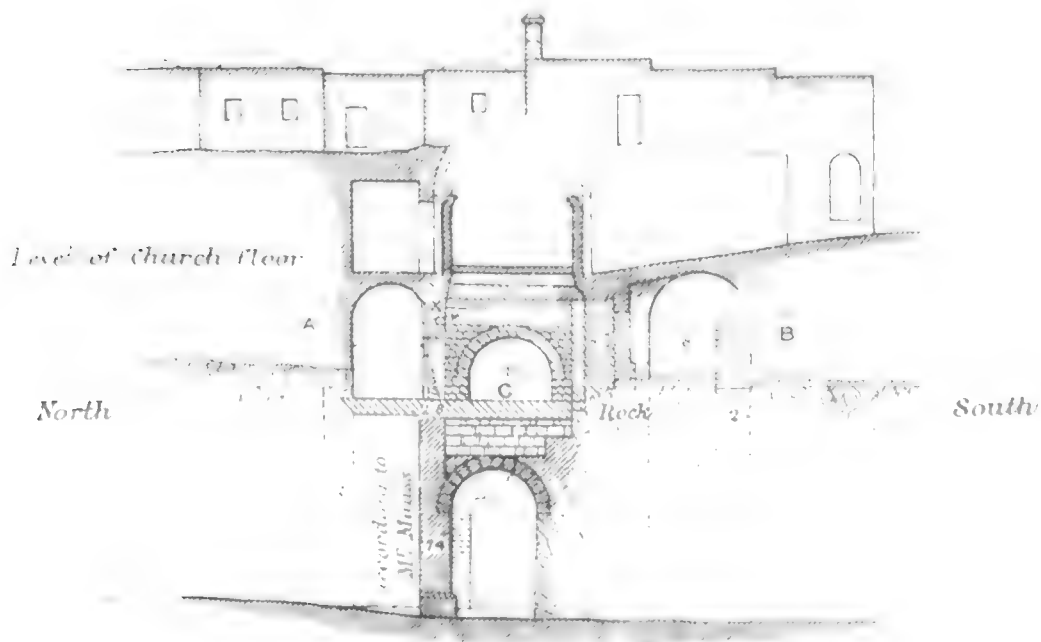
FURTHER REPORT ON THE POOL OF BETHESDA.

THE Reis, or Head, of the Algerian Mission Brethren at St. Anne, has returned from his journey, so I called upon him, and was received very kindly. He showed me everything on the establishment, including their collections for a museum. Besides lamps and other pottery they have not much, but a good number of coins, Roman, Greek, Arabic, and Jewish.

With regard to excavations and clearing the place, I found they have removed all the earth down to the top of the pool, by which it was discovered that the five little rooms, or porches, just over the pool were


SECTION ON LINE A.B OF PLAN

Dark Shading represents old discoveries 
 Light " " " new " " 



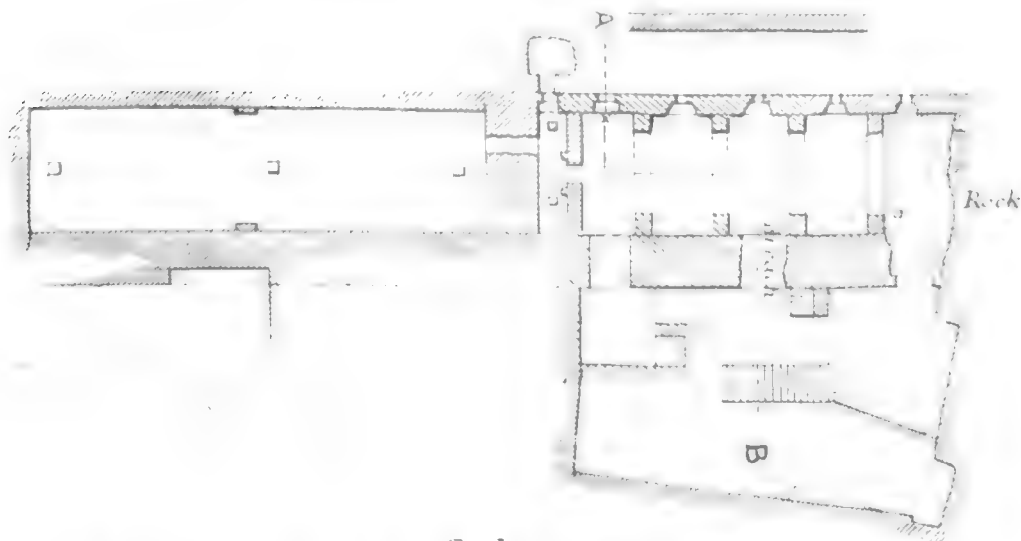
PLAN SHOWING

NEW DISCOVERIES AT THE POOL OF BETHESDA

Dark Shading represents old discoveries 
 Light " " " new " " 

* Place of the fresco

See Quarterly Statement 1888 P 123.



Scale



all connected one with the other by an open arch, as I endeavour to show in the enclosed drawings. It is easy to see that these arches, and the five rooms or porches, did not belong to the original building, but were put in afterwards, and very likely the Reis is quite right in suggesting that as the original five porches were destroyed, the Crusaders, in order again to have some sort of porches, made these five *livans*, or open rooms, as a special storey over the pool, as the accumulation of *debris* was great, and the surface of the ground already at their time at a much higher level.

It is now quite clear that the old (or original) church stood immediately on the pool, *i.e.*, the top of the latter formed the flooring of the church; the northern wall of it still stands to a good height, and has four windows (which I mentioned in a former letter, see *Quarterly Statement*, 1888, p. 119). At the north-west corner is a door, and over it the wall is not pierced by a window, but is flat, and on it was painted the now celebrated *fresco*. The picture I found just as it is described by Professor Harris in the "British Weekly," No. 142, p. 192, very indistinct. One can only recognise parts of the wings, the nimbus round the head, which latter has been expressly destroyed. Of a hand I could see nothing, but round about the figure, which is without legs, or at least with none that are visible, the waves of the water, given with a brown colour, and not blue, as one would expect. But as these brown lines are at some distance one from the other, it may be that the finer colour of the water has disappeared, and now only parts of the waves remain, which, as, according to our old writers, the water was reddish, would also have that colour.

According to what can still be seen, the figure was the size of a young man, not a child. In a few other places are also little pieces of *fresco* visible. So it seems the old church, before these five arches, or "crypts," were built, had everywhere on the walls *fresco* paintings.

Opposite the *fresco* of the Angel there is, in the southern wall of the church, a wide opening leading into a chamber, which had formerly towards the east, some more rooms, which are now destroyed. The church wall is very thick, and a hole is broken through it. Outside of it are the remains of a strong square pier, and the Reis expressed the opinion that once a pillar may have stood on it, parts of such a pillar, especially the capital, having been found. South of this pier a flight of steps was found but it is not easy to decide whether they were old or of later, perhaps Mohammedan, work. One would think the latter, but the steps are so much trodden as to prove that they had been for a long time in use. My first idea was that this is the upper branch of the regular stairs leading down to the water, but as northwards of it the rock rises even higher it cannot be, and very likely it is the stair to another similar pool south of the other, which further excavations will prove. In the enclosed section (No. 3) I explain this in dotted lines.

To the large tank or cistern on the west, which I reported on last year (*Quarterly Statement*, p. 123), nothing more has since been done, but the

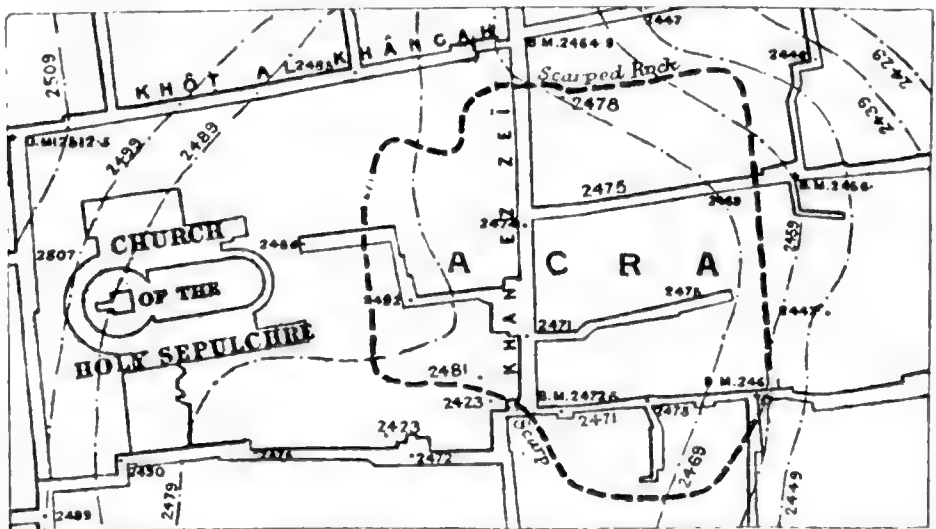
Reis told me that they have now bought all the little houses as far as this tank extends and north of the pool, and will, in course of time, thoroughly examine the locality.

In case there should be found a similar pool to the south, then the rock wall between the two would be thick enough (about 15 feet) to have carried the middle (or fifth) porch, and this would explain how different kinds of water could be in two pools so near together; the one would get water simply from the rain falling on the top and the roofs round about; the other would be fed by conduits bringing rain water from a distance. Such water from outside the town always becomes reddish when it first falls, and afterwards becomes clear.

C. SCHICK.

ROCK LEVELS IN JERUSALEM.

THE better paving of the streets is still going on, although very slowly. It is not in every street that anything of interest is found, but in some this is the case, as I have reported from time to time. To-day I have to say that the so-called "Akkabat al Takiyeh" (going eastward from the Church of the Sepulchre) was recently done. Now, in the Ordnance Survey Plan, scale $\frac{1}{2500}$, stands in about the middle of its length, on the south side, a bench mark, a few feet above the ground, with the height 2,456 feet above the Mediterranean; 45 feet west of this, near the arch going over the street, the scarp of the rock was found, going south and north, facing east, the height or top of the rock there being 2,462 feet above the sea, *i.e.*, 6 feet higher than the bench mark, so that when grading the surface they had to cut the road through the rock.



siderable height. Further north, 68 feet south of the Tarik es Serai, it is known for a long distance. To the south it was found and reported upon last year, on the Russian ground, and now we find it on the east. Opposite the bench mark mentioned, where the letter T stands, the house had tumbled down, and was recently rebuilt, its foundation being laid 20 feet below the surface, and still no rock found, so that the scarp here must have a height of at least 30 feet, and I am convinced it is 40, or even more. The word "ACRA" is on the Ordnance Survey Plan put too far east. The place where c r a stands belonged already to the "Makdesh" (Zephaniah i, 11). All this I have endeavoured to explain by the accompanying plan, in which I show the probable extent and form of the Acra terrace with dotted lines.

C. SCHICK.

REMAINS OF THE OLD CITY WALL.

AT the beginning of this year I reported on remains of an ancient and very strong wall found near the north-western corner of the present city, at the Latin Patriarch's palace, and my report was published, together with the drawings illustrating it, in *Quarterly Statement*, 1889, p. 65, where I (p. 66) promised to report whatever further may be found. I have now to fulfil this promise.

Northwards, as I hinted in my last, nothing has been done since, but southwards it was found that the wall existed only for 8 feet further south, with large stones on both sides and the middle filled up, but that beyond this such stones were only scattered here and there, most of them *in situ*, for a short distance; those not *in situ* being turned over or broken. The priest who had the direction of the work told me that a few such stones were found when the palace was built a dozen years ago and that it seems the wall had an angle just where in the Ordnance Survey Plan, scale $\frac{1}{25000}$, stands the letter R of the work, "Tarik." But this is merely a suggestion, and not proved, as he said the supposed angle of the wall gave to the latter an easterly direction, which would bring it into connection with the remains found some years ago, and reported in *Quarterly Statement*, 1886, p. 23, and afterwards; and this seems to me the reason why a corner is suggested, which very likely did not exist. I suppose the wall went straight on, very probably to the tower found when shops were built outside the present wall, in front of the present third tower, north of Jaffa Gate, and that here was thus a kind of corner, not a right angle, but an obtuse one.

At the little chapel north of the barracks in Tarik Sitti Maryam the work is going on again, but nothing more of interest has been found. They have cleared away all the walls, &c., towards the east, and thrown the site of this chapel and the premises of the Chapel of the Flagellation into one.

C. SCHICK.

A SUPPOSED DRUIDICAL STONE.

THERE are on the plain, south of Jerusalem, near the village Beit Sūfāfa on the large map, some points with the name "Es Seba Rujum," and in the "Memoirs," Vol. III, page 157, it is said: "Large stone heaps, apparently formed by clearing the surrounding land of stones for cultivation." This is the first and general impression one gets when seeing them, but looking closer there are several remarkable points, which lead to the supposition that these heaps may have had some other origin. These are, first, their largeness; second, their regular situation; and third, their number seven.

Everywhere in the mountain may be seen heaps of stones, made by clearing the land, but in general they are not so large as these nor similar in form, and may be of any number. On many parts of this plain there are at present not more stones in the field than on that part surrounding these mounds, and there are no other such heaps, only smaller ones of irregular form, spread over the land without any plan—here there is a regular plan on which the heaps are arranged. Excavation might lead to some result, and throw light on their origin. Besides the seven large heaps, there are several others of much smaller size, and irregularly situated. They seem to have once been buildings, now entirely fallen into shapeless ruins, and I should think are of a later period than the large heaps.

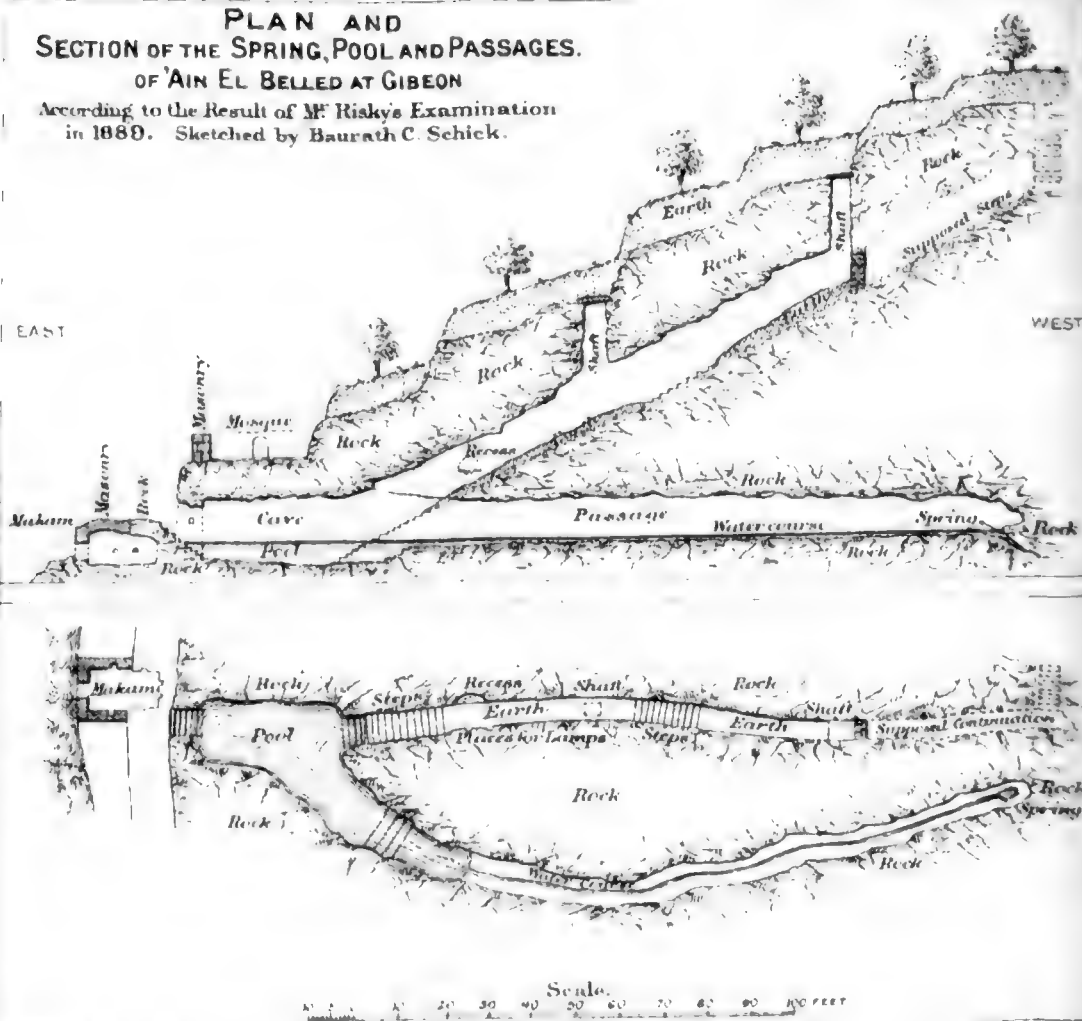
From one or two of these smaller heaps stones were recently taken away for the Bethlehem road or new buildings. One day I heard that a marvellous stone had been found, so I went there, and found a stone still standing exactly upright, so that I judged it may be *in situ*, and by closer examination became convinced it had been once a Druidical stone. I send plan and view of its four sides. It is 2 feet 6 inches wide, and on an average 13 inches thick, and crops out 3 feet from the ground. The top surface slants a little towards the sides, especially towards the west, where there is in the middle a shallow depression. The north and south sides are nearly straight, but not very smooth, and each has a hole going in for 9 and $9\frac{1}{2}$ inches, the outer opening having the figure of a human mouth, 5 to 6 inches wide, and about 1 inch high in the middle, so that one can put his hand a few inches into it. Towards the interior these holes are gradually narrowed to a kind of point. That on the south side is a little higher than the other, and goes a little downwards; the northern one, which is somewhat lower, goes a little upwards. One might think these holes to be natural clefts in the stone, but they are, especially at the lower part, smoothed and polished by frequent handling. On the eastern side there is a round hole at the same height, also going in 9 inches. This eastern side has another peculiarity, viz., at the same level as the holes above-mentioned, a projecting ledge, so cut that one-half of the breadth of the projection is about 5 inches higher than the other half.

The opposite or western side of the stone is still more remarkable.



PLAN AND SECTION OF THE SPRING, POOL AND PASSAGES.
OF 'AIN EL BELLED AT GIBEON

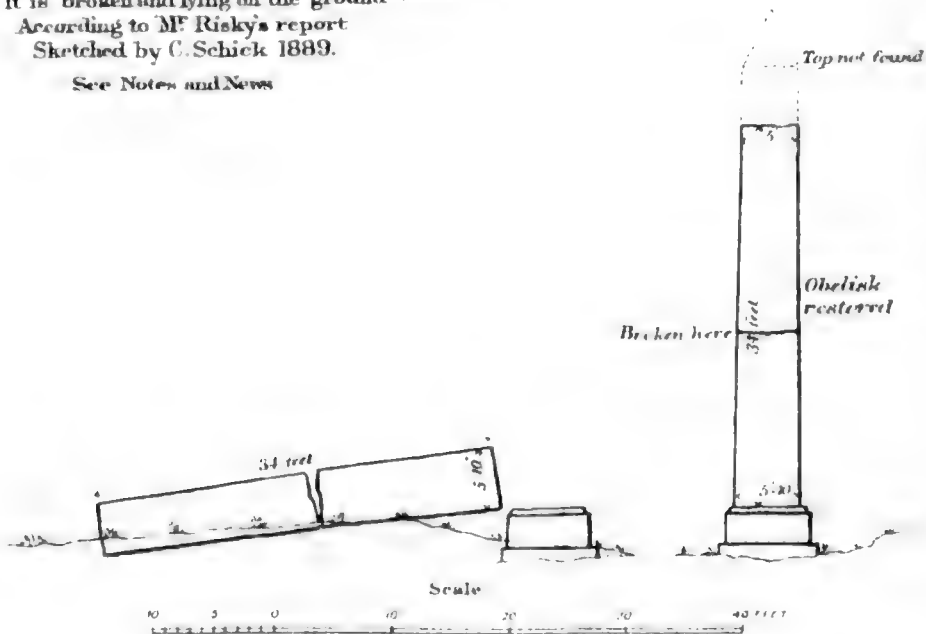
According to the Result of M^r Risky's Examination
 in 1880. Sketched by Baurath C. Schick.



OBELISK, FOUND IN THEATRE CAESAREA

It is broken and lying on the ground
 According to M^r Risky's report
 Sketched by C. Schick 1889.

See Notes and News



At first sight it appears to be covered with cracks, which on examination are found to be regular grooves, each about $\frac{1}{4}$ to $\frac{1}{2}$ -inch deep and about $\frac{1}{4}$ -inch wide, made by a tool of that breadth, as its marks can still be recognised. These furrows run obliquely downwards towards the centre of the stone. About half-way down is a natural curved cleft *across*; the others, or at least the greater part, are artificial. On another day I excavated the spot and found that the stone ended about 20 inches below, and that it stands on a layer of roughly-hewn stones, and is not *in situ*. It was used as a door-post to a room which was built here, the threshold of which is still on the ground, and a stone found against it in a slanting situation appears to have been the lintel. The bearings of the stone were north 33° west, the line just going to the Minaret on the Neby Dâûd buildings; but of course as the stone is no more *in situ* the bearings are of no value.

After reading Captain Conder's report on these old stone monuments (*Quarterly Statement*, 1882, p. 69), I became the more convinced that we have here a stone, belonging once to a Canaanitic altar of offerings, which may perhaps have stood in connection with the Seba Rujum, or seven large stone heaps.

C. SCHICK.

THE WATERS OF GIBEON.

I SEND drawings, plan, and section of the well or spring at El Jîb, the ancient Gibeon. Respecting this the Memoir to the Survey, vol. iii., p. 94, says:—"There are eight springs, which issue from the sides of the hill, the most important being 'Ain el Belled ("Spring of the Village"). This is on the south-east, at the foot of the steep hill-side, and issues in a rock chamber, about 30 feet long, 7 feet wide, and 7 feet high. The water is clear and abundant in a pool within the cave, said to be 3 or 4 feet deep. On the right, at the back, a passage is said to exist, and on the left steps leading to the surface of the hill above. These cannot now be seen, and the passage is blocked up. . . . The cave is reached by a descent of several steps. . . . There is a recess at the mouth of the cave, as if for a bar, probably showing that the spring was once closed with a door, when it could no doubt be reached from above within the city (as at Jerusalem)." A few months ago a Russian gentleman carefully examined the locality, and according to the statements and descriptions which he gave me I have made these drawings. He went up the steps and incline until he came to a place where the passage is walled up. He found two shafts, the openings of which are covered with flat stones. He also went to the source of the spring, taking off his garments and walking through the water, and measured the length of the passage. The measurements may be right, but I doubt the correctness of the bearings. These observations are important. The arrangement resembles that of the Siloah spring at Jerusalem.

C. SCHICK.

NOTES FROM GALILEE.

Shefa 'Amr.—In my report of May, 1889, I gave a sketch of a richly ornamented tomb found south of Shefa 'Amr (see *Quarterly Statement*, 1889, p. 188), and I am now able to send a photograph of the same. I have also made a plan of the interior, which was then filled with rain water. The latter has not yet entirely disappeared, and the bottom is full of mud as well as the interior of the loculi. The tomb does not contain *kokim* as was told me by natives, but three very carefully worked *loculi* with *arcosolia*, each in one of the three walls of the cave. The entrance facing north, with its rich and curious ornamentation, has been described before. By the low door we go down two steps to the bottom of the cave into a rectangular room measuring 5 feet 3 inches each side by a height of 5 feet 6 inches from the floor to the nicely worked flat ceiling. As before said, the east, south, and west walls contain each a *loculus* 5 feet 7 inches long, 1 foot 10½ inches to 1 foot 8 inches wide, and 1 foot 8 inches deep, covered by an *arcosolium* without ornamentation. Although the interior is very well preserved and the corners as sharp as if worked recently, there is no sign of any ornamentation visible, contrary to the neighbouring tombs mentioned in the "Memoirs," vol. i, pp. 340, 341, which show a rich ornamentation also along the *arcosolia*. The rock is a soft white "Maleki" limestone; in a short time both entrance and interior will be filled up again with mud; I already had to clear away a considerable mass to be able to photograph. Shepherds and vineyard-watchers use the tomb as a place of refuge for the night; fires are lighted and the ornamentations blackened and spoiled.

Khürbet Hûsheh.—This ruin, mentioned in the "Memoirs," vol. i, p. 311, and by Guérin ("Description de la Palestine," i, pp. 415, 416), to which my attention was directed by the Rev. P. van Kasteren, of the St. Joseph's University of Beyrût, must have been an important place, to judge from the mass of building stones and the fragments of columns lying about. Now that the grass is dried up a regular city wall can be traced. On the main road running from the well towards the ruin some fine capitals are lying about, which have a close resemblance to those which on other sites have been stated to be remains of synagogues. The shafts of columns lying about generally have the basis or capital worked out of the same piece, have a diameter of 18 inches, and are composed of Nâri limestone.

The inhabitants of Shefa 'Amr, with whom I spoke about Khürbet Hûsheh, and to whom this ruin belongs, cannot sufficiently praise the excellence of the water of the well or spring, the Bir Hûsheh, at the western foot of the ruin; some of the old folks assured me that Djezzâr Pasha and 'Abdallah Pasha, the famous Governors of 'Acca, always had their drinking water supply from this well, and on their excursions into the interior generally camped here on account of the water.

Through the kindness of Pater van Kasteren, who showed me the

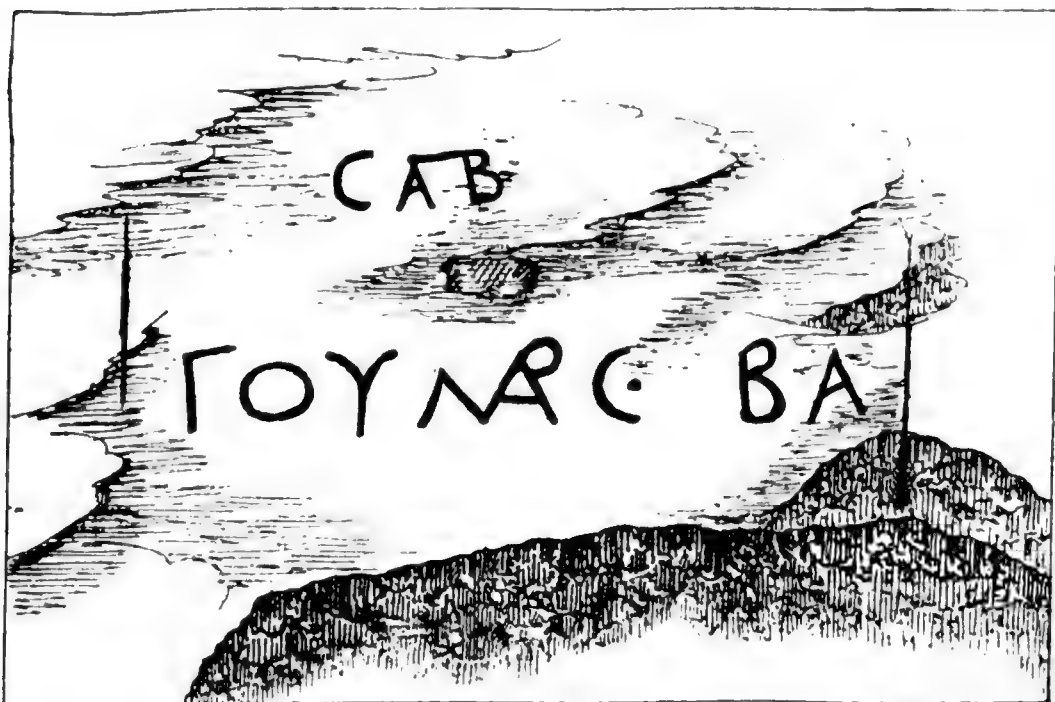


MONTHLY METEOROLOGICAL TABLE DERIVED FROM OBSERVATIONS TAKEN AT SARONA BY HERR J. DREHER IMMEDIATELY NORTH OF THE GREAT ORANGE GROVES OF JAFFA, SYRIA, 1½ MILE FROM THE SEA SHORE, ON SANDY SOIL, AND ABOUT 50 FEET ABOVE SEA-LEVEL. LATITUDE 32° 4' N., LONGITUDE 34° 47' E.

By JAMES GLAISHER, F.R.S.

Months, 1886.	Pressure of Atmosphere in Month. Corrected to 32° Fahrenheit.			Month. Mean.	Temperature of the Air in Month.								Vapour, 9 a.m.					Wind.								Mean Amount of Cloud.	Rain.				
	Highest.	Lowest.	Range.		Mean of all Highest.	Mean of all Lowest.	Mean daily Range.	Mean.	Dry Bulb.	Wet Bulb.	Dew Point.	Elastic Force of Vapour.	Weight in a Cubic Foot of Air.	Additional Weight required for Saturation.	Degree of Humidity.	Weight of a Cubic Foot of Air.	Relative Proportion of								Calm, or nearly Calm.		Number of Days on which it fell.	Amount Collected.			
																	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.							
January	30·128	29·682	0·446	29·946	70·0	43·0	27·0	64·7	49·3	15·4	57·0	57·3	53·7	50·4	·366	4·1	1·2	77	536	1	1	2	4	12	0	0	2	9	6·5	15	ins. 4·47
February	30·065	29·620	0·445	29·874	82·0	43·0	39·0	67·0	48·7	18·3	57·8	58·5	53·5	49·1	·349	3·8	1·6	71	533	1	1	2	4	9	3	3	0	5	5·0	11	3·80
March	30·115	29·584	0·531	29·879	83·0	39·0	44·0	67·7	49·0	18·7	58·3	61·3	55·4	50·4	·366	4·1	2·0	68	531	0	1	1	1	11	5	1	5	6	5·9	9	1·59
April	30·034	29·543	0·491	29·858	90·0	42·0	48·0	73·0	51·8	21·2	62·4	68·2	61·3	55·9	·448	4·9	2·7	64	523	3	0	0	0	0	4	5	7	11	3·5	4	1·21
May.. ..	30·007	29·686	0·321	29·845	86·0	48·0	38·0	76·5	56·0	20·5	66·2	72·1	65·1	59·8	·516	5·6	2·9	65	518	2	1	0	0	2	8	11	5	2	3·3	3	0·15
June	29·815	29·609	0·236	29·746	112·0	57·0	55·0	86·0	63·5	22·5	74·7	80·9	71·4	65·0	·617	6·6	4·7	58	508	1	1	0	0	2	4	14	7	1	0·7	0	0·00
July.. ..	29·795	29·567	0·228	29·677	89·0	61·0	28·0	86·0	65·6	20·4	75·8	82·2	72·9	66·7	·655	7·0	4·7	59	505	0	0	0	0	0	12	14	3	2	1·6	0	0·00
August	29·754	29·622	0·132	29·685	91·0	65·0	26·0	87·9	69·2	18·7	78·6	83·8	75·1	69·4	·716	7·6	4·7	66	503	0	0	0	0	1	13	13	2	2	1·8	0	0·00
September	29·893	29·674	0·219	29·790	94·0	59·0	35·0	87·2	66·3	20·9	76·8	83·8	74·5	68·5	·694	7·3	4·9	60	505	2	1	0	0	3	12	4	5	3	2·5	0	0·00
October	29·939	29·734	0·205	29·840	96·0	55·0	41·0	84·1	60·6	23·5	72·4	77·6	68·2	61·6	·550	5·9	4·2	58	513	3	0	0	0	6	5	0	2	15	2·7	2	0·76
November	30·109	29·814	0·295	29·948	85·0	49·0	36·0	73·2	52·9	20·3	63·1	64·5	58·3	53·1	·405	4·5	2·2	67	528	0	0	0	0	10	2	2	0	16	4·9	11	3·12
December	30·164	29·674	0·490	29·979	81·0	37·0	44·0	68·3	48·1	20·2	58·2	57·6	48·5	40·3	·250	2·8	2·5	53	537	3	0	0	0	9	1	1	0	17	3·4	11	5·00
Means	29·987	29·651	0·337	29·839	88·2	49·8	38·4	76·8	56·7	20·1	66·8	70·6	63·2	57·5	·494	5·4	3·2	64	520	Sum. 16	Sum. 6	Sum. 5	Sum. 9	Sum. 65	Sum. 69	Sum. 68	Sum. 38	Sum. 89	3·5	Sum. 66	Sum. 20·09
Number of Column ..	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31

place, I am able to send a copy and photograph of a very curious inscription in Greek characters, engraved on a flat rock very near Khürbet



Inscription near Khürbet Hûsheh,

Hûsheh. This spot is, according to our exact measurements, 508 metres to the east of the Khürbet counted from the eastern city wall, situate in a rocky region a little south of the road leading from the Khürbet to Shefa 'Amr, 100 metres to the west of a small olive grove. The inscription is read facing the Khürbet. Each character of the first (upper) line has a height of $6\frac{1}{4}$ inches; they are very much defaced. The characters of the lower (second) line are $8\frac{1}{2}$ to 9 inches high and better preserved. Between the lines there is a space of 1 foot 4 inches. A sort of frame line seems to have bordered the inscription.

So far as I am aware we owe the original discovery of this inscription to Père Julien, of Beyrût, to whom it was first shown by natives of Shefa 'Amr.

G. SCHUMACHER.

METEOROLOGICAL OBSERVATIONS.

SARONA, 1886.

THE numbers in column 1 of this table show the highest reading of the barometer in each month; the maximum for the year was 30.164 ins., in December. In the years 1880, 1881, and 1884 the maximum was in January, in 1882 in February, and in 1883 and 1885 in December, as in

this year; the mean of the preceding six years highest pressures was 30·214 ins. The highest reading in the seven years was 30·269 ins., in the year 1880.

In column 2, the lowest reading in each month is shown; the minimum for the year was 29·543 ins., in April. In the year 1883 the minimum was in January, in 1881 in February, in 1880, 1884, and 1885 in April, as in this year, and in 1882 in July; the mean of the six preceding lowest pressures was 29·512 ins. The lowest reading in the seven years was 29·482 ins., in the year 1885.

The range of barometric readings in the year was 0·627 inch; in 1880 the range of readings was 0·780 inch; in 1881, 0·711 inch; in 1882, 0·704 inch; in 1883, 0·579 inch; in 1884, 0·757 inch; and in 1885, 0·680 inch. The mean for the six preceding years was 0·702 inch.

The numbers in the 3rd column show the range of readings in each month; the smallest was 0·132 inch in August, this being the smallest range in any month in the seven years; in the year 1883 the smallest was in June; in 1882 in August as in this year, and in 1880, 1881, 1884, and 1885 in October. The largest monthly range was 0·531 inch in March; in the years 1883 and 1884 the largest was in January, in 1882 in February, in 1881 in March as in this year, in 1880 in April, and in 1885 in September. The largest range in any month in the seven years was 0·710 inch in the year 1885.

The numbers in the 4th column show the mean monthly pressure of the atmosphere; the greatest, 29·979 ins., was in December. In the years 1880, 1881, 1882, and 1884 the greatest was in January, in 1883 in February, and in 1885 in December, as in this year. The highest mean monthly reading in the seven years was 30·060 ins., in the year 1882. The smallest mean monthly reading was 29·677 ins., in July. In the years 1880, 1882, and 1883, the smallest was in July, as in this year, and in 1881, 1884, and 1885, in August. The lowest mean monthly reading in the seven years was 29·657 ins., in the year 1885.

The highest temperature of the air in each month is shown in column 5; the highest in the year was 112°, in June; the next in order was 96° in October, and 94° in September. The first day in the year the temperature reached 90° was on April 30th. In June there were six days when the temperature reached or exceeded 90°; the highest, 112°, took place on the 15th of June, in August on two days, in September on four days, and in October on three days; therefore the temperature reached or exceeded 90° on 16 days. In the preceding six years, viz., 1880, 1881, 1882, 1883, 1884, and 1885, the temperature reached or exceeded 90° on 36, 27, 8, 16, 14, and 24 days respectively. In the six preceding years, viz., 1880, 1881, 1882, 1883, 1884 and 1885, the highest temperatures were 103°, 106°, 93°, 106°, 100°, and 103° respectively.

The numbers in column 6 show the lowest temperature of the air in each month. The lowest in the year was 37° on both the 22nd and 23rd of December; the next in order was 39° on the 15th of March, and in no other month throughout the year was the temperature below 40°;

therefore the temperature was below 40° on three nights in the year. In the preceding six years, viz., 1880, 1881, 1882, 1883, 1884 and 1885, the temperature was below 40° on 13, 2, 13, 2, 9, and 3 nights respectively. In the six preceding years, viz., 1880, 1881, 1882, 1883, 1884, and 1885, the lowest temperatures were 32° , 39° , 34° , 35° , 32° , and 38° respectively.

The yearly range of temperature was 75° , being larger than any in the six preceding years, viz., 1880, 1881, 1882, 1883, 1884, and 1885, in which the yearly ranges were 71° , 67° , 59° , 71° , 68° , and 65° respectively.

The range of temperature in each month is shown in column 7, and these numbers vary from 26° in August to 55° in June.

The mean of all the highest by day, of the lowest by night, and of the average daily ranges of temperature are shown in columns, 8, 9, and 10 respectively. Of the high day temperature, the lowest, $64^{\circ}\cdot7$, is in January. In the years 1884 and 1885 the lowest in each year was in January, as in this year; in 1881, 1882, and 1883, in February; and in 1880 in December. The highest, $87^{\circ}\cdot9$, is in August; in 1880 the highest was in May; in 1881, 1883, 1884, and 1885, in August, as in this year; and in 1882 in September.

Of the low night temperature, the coldest, $48^{\circ}\cdot1$, is in December; in the years 1880, 1882, and 1884, the coldest in each year was in January; in 1883 and 1885 in February; and 1881 in December, as in this year. The warmest, $69^{\circ}\cdot2$, is in August; in the year 1885 the warmest was in July; in the years 1880, 1881, 1882, 1883, and 1884, in August, as in this year. The average daily range of temperature is shown in column 10; the smallest, $15^{\circ}\cdot4$, is in January; in 1880, 1883, and 1885, the smallest was in January, as in this year; and in 1881, 1882, and 1884, in February; and the greatest, $23^{\circ}\cdot5$, in October.

In column 11, the mean temperature of each month is shown as found from observations of the maximum and minimum thermometers only. The month of the lowest temperature was January, $57^{\circ}\cdot0$. In the years 1880, 1884, and 1885, the lowest was in January, as in this year, in 1881 and 1882 in February, and in 1883 in December. That of the highest was August, $78^{\circ}\cdot6$, and in the six preceding years the highest was in August as in this year. The mean temperature for the year was $66^{\circ}\cdot8$, and of the six preceding years, viz., 1880, 1881, 1882, 1883, 1884, and 1885 were $66^{\circ}\cdot4$, $66^{\circ}\cdot7$, $65^{\circ}\cdot5$, $65^{\circ}\cdot7$, $65^{\circ}\cdot7$, and $65^{\circ}\cdot9$ respectively.

The numbers in columns 12 and 13 are the monthly means of a dry and wet-bulb thermometer taken daily at 9 a.m. In column 14 the monthly temperature of the dew point, or that temperature at which dew would have been deposited is shown; the elastic force of vapour is shown in column 15. In column 16 the water present in a cubic foot of air is shown; in December it was as small as $2\frac{3}{4}$ grains, and in August as large as $7\frac{1}{2}$ grains. In column 17 the additional weight required for saturation is shown. The numbers in column 18 show the degree of humidity, saturation being considered 100; the smallest number indicating the driest month, is 53 in December, and the largest, 77, was in January;

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

The most prevalent wind in January was S., and the least prevalent were W. and S.W. ; in February the most prevalent was S., and the least was N.W. ; in March the most prevalent was S., and the least was N. ; in April the most prevalent was N.W., and the least were E., N.E. and S.E. ; in May the most prevalent were W. and S.W., and the least were E. and S.E. ; in June the most prevalent was W., and the least were E. and S.E. ; in July and August the most prevalent were W. and S.W., and the least prevalent were N., E., and compounds of E. ; in September the most prevalent was S.W., and the least were E. and S.E. ; in October the most prevalent were S. and S.W., and the least were E. and compounds of E. ; and in November and December the most prevalent was S., and the least prevalent winds were N.E. and compounds of E. The most prevalent wind for the year was S.W., which occurred on 69 times during the year, of which 13 were in August, and 12 in both July and September, and the least prevalent wind was E., which occurred on only 5 times during the year, of which 2 were in both January and February, and 1 in March.

The numbers in column 29 show the mean amount of cloud at 9 a.m. ; the month with the smallest is June, and the largest January. Of the cumulus, or fine weather cloud, there were 71 instances in the year, of these 14 were in October, 10 in September, and 9 in January, and only 2 in February. Of the nimbus, or rain cloud, there were 48 instances, of these 10 were in February, 8 in December, and 7 in January, and only 2 from June to October. Of the cirrus, there were 56 instances. Of the cirro-cumulus, 50 instances. Of the stratus, 12 instances, and of the cirro-stratus, 9 instances ; and 119 instances of cloudless skies, of which 20 were in June, 14 in December, and 12 in both July and October.

The largest fall of rain for the month in the year was 5.00 ins. in December, of which 1.65 inch fell on the 11th, 1.14 inch on the 15th, and 0.85 inch on the 14th. The next largest fall for the month was in January, 4.47 ins., of which 1.28 inch fell on the 26th, 0.79 inch on the 16th, and 0.75 inch on the 14th. No rain fell from May 11th till the 30th of October, making a period of 171 consecutive days without rain. In 1880 there were 168 consecutive days without rain ; in 1881, 189 consecutive days ; in 1882 there were two periods of 76 and 70 consecutive days without rain ; in 1883, 167 consecutive days ; in 1884, 118 consecutive days ; and in 1885, 115 consecutive days without rain. The fall of rain for the year was 20.09 ins., being 8.59 ins., 2.00 ins., and 9.97 ins. less than in 1880, 1882, and 1883 respectively, and 2.60 ins., 1.36 inch, and 0.03 inch more than in 1881, 1884, and 1885 respectively. The number of days on which rain fell was 66. In the six preceding years, viz., 1880, 1881, 1882, 1883, 1884, and 1885, rain fell on 66, 48, 62, 71, 65 and 63 days respectively.

JAMES GLAISHER.

NORMAN PALESTINE.

SINCE my paper in the last *Quarterly Statement* was printed, Sir C. W. Wilson has kindly called my attention to two papers on the subject which had escaped my attention.

The first of them is by M. Clermont-Ganneau ("Recueil D'Archéologie Orientale," No. 5, 1888). In this he has worked out fully the identification of Mont Gisart with *Tell Jezar* (pp. 350-391), giving the episode from William of Tyre to which I referred. I believe no other writer has suggested this identity; and M. Ganneau's paper was published a year before my note. I think, however, the suggestion that Galatia was the present *Keratīyeh* is hardly as satisfactory as its identification with *Jelediyah*, which I proposed in the *Quarterly Statement*, and published in the "Memoirs" (vol. iii). M. Clermont-Ganneau identifies the *Cannetum Sturnellorum* (Itin. Ric. v, chs. xli and xlv) with *Wady Kassâbah* near Tell el Hesy, on account of the names, and this appears to me to fit well with the other places mentioned, and with the distances which he has worked out.

The other paper is a careful and exhaustive one by Herr R. Röhricht: "Studien zur mittelalterlichen Geographie und Topographie Syriens," in the "Zeitschrift des Deutschen Palestina Vereins" (x, 4), 1887. In this I find that half of the identifications which I proposed (*Quarterly Statement*, October, 1889, pp. 197-200) have already been proposed two years earlier by this scholar. Their reliability is much increased by this independent opinion, and the following sites are those to which I refer:—

Amouhde	=	'Amûdeh.	Aschar	=	'Askar.
Benehabeth	=	<i>Beni Hârith.</i>	Bet Digge	=	<i>Beit Dukka.</i>
Bether	=	<i>Bittîr.</i>	Bethsurie	=	<i>Beit Surik.</i>
Chole	=	<i>Kuleh.</i>	Casracos	=	<i>Kefr Kus.</i>
Courcoza	=	<i>Kurza.</i>	Dere	=	<i>ed Deir.</i>
Feitata	=	<i>Fattâtah.</i>	Galilee	=	<i>Jelîl.</i>
Geschale	=	<i>Kashkaliyeh.</i>	Gez	=	<i>Jett.</i>
Heulem	=	'Aulam.	Heedix	=	<i>Hadîtheh</i>
Hubim	=	<i>Hubîn.</i>	Kefreachab	=	<i>Kefr 'Akâb.</i>
Lahemedie	=	<i>El Hammadîyeh.</i>	Lecara	=	<i>Kara.</i>
Larmedie	=	<i>Er Rumeidîyeh.</i>	Migedell	=	<i>Mejdel.</i>
Meimes	=	<i>Mâmâs.</i>	Quefrenebit	=	<i>Kefr Nebîd.</i>
Saka	=	<i>S'as'a.</i>	Terfalsa	=	<i>Teir-filsich.</i>
Turbasaim	=	<i>Turmus Aya.</i>	Der Sabeb	=	<i>Deir esh Shabîb.</i>

In four cases, also, I think that Herr Röhricht has given a better explanation than that which I have offered in the paper in question.

- (1) Ferachiem—Pisan casale—should be near Tyre. *El Ferakîyeh* (Sheet I) very possibly preserves the name, though only applying to a hill.

- (2) Jerraz. A casale of St. Mary of Jehosaphat, may be *Jerûsh* (S.W. of Jerusalem) (Sheet XVII).
- (3) Saarethe. A casale of the Hospitallers, may be the ruin *Sh'areta* (Sheet XX).
- (4) Subahiet. A casale of the Holy Sepulchre Church, may be the ruin *Subhah*, south of Jerusalem (Sheet XVII).

Herr Röhricht's paper is a careful and valuable discussion of the subject, and fairly exhaustive. He has used the P. E. F. Map and *Memoirs* (which were unknown to M. Rey), and has treated of 600 out of the 700 places of which the names are mentioned in documents of the Crusading period. He goes over the same lists previously studied by Prutz, Rey, and other scholars, and accepts their results in 240 cases, to which I may add 12 in which his identifications are the same given in the P. E. F. *Memoirs*, which (as far as I know) were not fixed before 1882-3. In about 85 cases (including those above noted) his identification appears to be a new one and satisfactory. In a very few instances he has been misled, by want of acquaintance with the ground, into suggestions which are not tenable; and in some cases I think the suggestions of his predecessors are better than those which he advocates. I propose to add about 40 more sites to those mentioned in my former paper, and this leaves only 200 places, for most of which different suggestions have been made, but which, on account of corrupt copying of the MSS., and from the meagre indications of position, remain doubtful. It will thus be seen that Herr Röhricht's paper is a substantial contribution to the subject.

The following are the cases where his new proposals seem to me to be evidently correct:—

Casales of the Holy Sepulchre Church.

1. Salome, near Bîreh, *Salamîyeh* (Sheet XVII).
2. Beitumen, *Beitunia*, better than *B. Anân* (Sheet XVII).

Casales of St. Mary of Jehosaphat.

3. Bethsan, *Beit Shenna* (Sheet XVII).
4. Dargeboam, *Deir el Okbân* (Sheet XIV).

Casales of Abbey of St. Sion.

5. Dersœeth (not the one in Galilee), *Deir es Sâdân* (Sheet XIV).
6. Messaria, near Tyre, *Mezr'ah* (Sheet II).

Casales of the Church of Bethlehem.

7. Phaghor, *Kh Faghâr* (Sheet XVII).

Casales of the Abbey of Tabor.

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|----------------|--------------------------------------|
| 8. Senbra | <i>Sinn en Nâbra</i> (Sheet VI). |
| 9. Cafartamara | <i>Tumrah</i> (Sheet V or Sheet IX). |
| 10. Casta | <i>Kastah</i> (Sheet VI). |
| 11. Noriz | <i>Nâris</i> (Sheet IX) |
| 12. Capharkeme | <i>Kefr Kama</i> (Sheet VI). |

Casales of the Knights Hospitallers.

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|---------------------|--|
| 13. Coquebel | <i>Kaukabah</i> (Sheet XX). |
| 14. Camsa | <i>Kemâs</i> (Sheet XX). |
| 15. Beze | <i>Bezzeh</i> (Sheet XVI). |
| 16. Deir Nachar | <i>Deir Nakhkhâs</i> (Sheet XX). |
| 17. Terra Malvarum? | <i>Khobbeizeh</i> (Sheet VIII). |
| 18. Artais | <i>Irtah</i> (Sheet XI). |
| 19. Damor | <i>ed Damân</i> (Sheet V) from position. |
| 20. Cafriasim | <i>Kefr Yasîf</i> (Sheet III). |
| 21. Cafresur | <i>Kefr Sib</i> (Sheet XI) from position. |
| 22. Socque | <i>Shuweikeh</i> (Sheet XI). |
| 23. Turrearme | <i>Tul Keram</i> (Sheet XI) from position. |
| 24. Theris | <i>Tîreh</i> (Sheet IX). |
| 25. Losserim | <i>Sîrîn</i> (Sheet IX). |
| 26. Torciaffe | <i>Teir Harfa</i> (Sheet III). |
| 27. Theyre | <i>Tîreh</i> (Sheet IV). |
| 28. Teira | <i>Tîreh</i> (Sheet XI). |
| 29. Bethiben | <i>Beit Iba</i> (Sheet XI). |

Casales of the Teutonic Knights.

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|---------------|--------------------------------|
| 30. Der Henne | <i>Deir Hanna</i> (Sheet IV). |
| 31. Seebeique | <i>Shubeikeh</i> (Sheet III). |
| 32. Jashon | <i>Jathân</i> (Sheet III). |
| 33. Danehyle | <i>Fasl Dâniâl</i> (Sheet IV). |
| 34. Clil | <i>Iklîl</i> (Sheet III). |
| 35. Delaha | <i>Delâta</i> (Sheet IV). |
| 36. Quabrique | <i>Abrikha</i> (Sheet II). |

Casales of the Pisans.

- | | |
|-----------------|-------------------------------------|
| 37. Elfarachie | <i>Ferakîyeh</i> (Sheet I). |
| 38. Talobie | <i>Tarâbich</i> (Sheet I). |
| 39. Aithiti | <i>'Aitît</i> (Sheet II). |
| 40. Ainebedelle | <i>'Ain Abu Abdallah</i> (Sheet I). |
| 41. Dordegaye | <i>Deir Dughîya</i> (Sheet II). |
| 42. Darzibme | <i>Teir Zinbeh</i> (Sheet II). |

Casales of the Venetians.

43. Homeire	<i>Humeireh</i> (Sheet II).
44. Lahaya	<i>Tell el Haiyeh</i> (Sheet II).
45. Szorcoorum	<i>Shaghâri</i> (Sheet II).
46. Lahemedie	<i>el Hammâdiyyeh</i> (Sheet I).
47. Lanahemine	<i>el Hanîyeh</i> (Sheet I).
48. Tyrdube	<i>Teir Dubbeh</i> (Sheet I).
49. Brochey	<i>Berûkhei</i> (Sheet II).
50. Lagariddie	<i>Jârûdiyyeh</i> (Sheet I).

It will be seen from this list that Herr Röhricht, by aid of the P. E. F. Map, has added materially to M. Rey's results, especially in elucidating the possessions of the Hospital of St. John in the plains and of the Italian Republics, in the vicinity of Tyre, and in Upper Galilee.

The remarks which follow may be of use to those who are interested in the subject of Crusading Palestine; and though venturing sometimes to disagree with those who have specially studied the question, I wish to be understood fully to appreciate the careful work of M. Rey and of Herr Röhricht.

Casales of the Holy Sepulchre.

(From the H.S. Cartulary.)

There were 70 villages given by the kings and barons at various times to this church in the 12th century. They lay mainly between Jerusalem and Nâblus and in the hills north of the latter town. The majority are well known places, as noted in the "Memoirs."

The following may require a few words of notice.

1. *Betheslori* is, I think, probably *Beit Farik* (Sheet XII), it lay in the Nablus territory, not *Beit Fâr* (Röhricht).

2. *Derxerip* may be *Deir Sherâf* (Sheet X), as Herr Röhricht proposes, but I think, perhaps, *Deir Tureif* (Sheet XIV) agrees better for position.

3. *Castrum Feniculi* is *Faneitir* according to Röhricht (Sheet VIII). If the word means "fennel" I think it may be sought near Haifa, in the *Wâdy esh Shomarîyeh* ("Valley of Fennel") on the north slope of Carmel (Sheet V).

4. *Bubil* or *Bubin* may be 'Abwein, as suggested by Röhricht (Sheet XIV), but the initial letter is the gutteral.

5. *Subahiet*, other possible sites are *Soba* (Sheet XVII), and 'Ain *Subieh* (Sheet XVII).

6. *Urniet* or *Uniet* might be *el Beituni* (Sheet XVII), it is a very doubtful site.

7. *Zenu* and *Zenum*, the proposed site at *Zanû'a*, is not impossible, but is rather far from the other places.

8. *Helmule*. I think *Almît* preferable to *Malhak* or *el'Amâmûr* proposed by Röhricht (all on Sheet XVII).

9. *Beitelamus*, Herr Röhricht follows Rey, but the site is doubtful geographically. *'Ain Beit Tulma* is worth consideration (Sheet XVII).

10. *Barimeta* or *Barineta* cannot well be *Bîr el Mutih*. I think rather that the ruin *Meita* near Bireh (Sheet XVII) or *Bornât*, a ruin on Sheet XIV, is to be understood.

11. *Benehatie*. Röhricht proposes *Beni Hasan*, a district name. I would suggest *Kefr 'Atiya* or *Kefr Hatta* (Sheets XV and XIV).

12. *Ragabam* is, I think, clearly *Râjîb* (Sheet XIV), and *Roma*, *el 'Ormeh* (Sheet XIV).

13. *Sapharoria* seems to me best placed at *Kefr Urieh* (Sheet XVII). In Fellah dialect *Chefr* or *Shefr* = *Kefr*.

14. *Gith* is somewhat doubtful, but I think *Jett* (Sheet XI) is better than *Beit Jîz*.

15. *Thora* may be *Tîreh*, near Bethhoron (Sheet XIV).

16. *Deirfres*, perhaps *Abu Fureij* (Sheet XVII).

17. *La Palmerce* (cf. Cartulary, Nos. 127, 128, 144) was near Haifa, mentioned with *civitatis veteris* (" *Haifa el 'Atikah* "). Probably the palm grove near Haifa, on the banks of the Kishon, is intended. There are very few palm groves in Palestine, and it must always have been a marked feature of the place.

18. *La Forest* appears to me to be the Forest of Assur (Itin. Ric. iv, ch. xvi), the existing oak wood near *Umm Sâr* (Sheet X) not *Sindiâneh*, "the oak" (Röhricht).

19. *Buffles* or *Casale Bubalorum*, I see no special reason for connecting with *Umm el Jemâl*. The site which I recently proposed at *Bablân* (Sheet VIII) is quite possible topographically.

Casales of St. Mary of Jehosaphat.

(Bull of Alexander IV, 30th January, 1255.)

This church which held the supposed tomb of the Virgin, possessed 48 villages in different parts of Palestine, many being well-known places. The following are worth notice :—

20. *Serra*, probably *Surra* (Sheet XI) or *Kh. Sarra* (Sheet XV).

21. *Beith Bezim* I believe to be *Beit Bezzin* (Sheet XI).

22. *Casrielme* seems to have been near Tiberias, and if so, can hardly be *'Alma* as proposed by Röhricht. It seems to be the Arabic قصر الماء (*Kasr el Ma-*) or "Water tower" probably on the shores of the lake.

23. *Lichorat* may have been near Tyre, I am disposed to think at *El Kureih* (Sheet I).

Casales of the Abbey of St. Sion.

(Bull of Alexander III, 1179.)

This church, the present Nebi Dâûd at Jerusalem, held in western Palestine, 28 villages including several well-known places.

24. *Faro fronte* might be for Fara Fonte "the spring of Fara." In this case it would be the 'Ain Fârâh with ruins near Michmash (Sheet XVII).

25. *Gul* seems more probably to be *Kulch* (Sheet XIV) than *Juleijil*.

26. *Gerable* may be *Jurbek* as proposed by Röhricht, or perhaps *Jerâbeh* (Sheet XVII), near Yalo.

27. *Caforana* seems to me to be one of the two sites (Sheets XIII, XIV) called *Kefr 'Ana* rather than *Kefrein*.

Casales of the Church of Bethlehem.

(Bull of Gregory IX, 1227 A.D. Clement IV, 1266 A.D.)

The church of the Nativity owned 40 villages, which are difficult to identify, as the transcription of the native names seems to be very incorrect.

28. *St. George* was apparently *el Khudr*, near Bethlehem, as suggested by Röhricht. The same place is mentioned by John Poloner in 1422 ("Memoirs" iii, p. 26).

29. *Quercus*. I think the Quercus Abraham, or Abraham's oak, near Hebron, may be intended.

30. *Archas* seems to me to be the Arecha of Marino Sanuto, 1322, A.D., which, as his map shows, was the Bible Archi (Josh. xvi, 2), now 'Ain 'Arik ("Memoirs" iii, p. 7).

31. *Bethamar*. There seems no reason to doubt Rey's identification with *Beit Ummâr*, a site of known antiquity. *Beit T'âmîr* proposed by Röhricht is named from the T'âmîrah tribe, and is probably a modern title.

32. *Cudicherius*, whatever this means it seems doubtful if *Bir Kadismu* can have any connection. The latter is only a roadside well near Mar Elias, where tradition says the Magi saw the star.

Casales of the Abbey of Tabor.

(Bull of Paschal II, 29th July, 1103 A.D.)

This was one of the first abbeys to be endowed. It owned 34 villages in Lower Galilee, especially round Mount Tabor, as well as 22 beyond Jordan, or in the Jordan Valley.

33. *Desurchain*, an unknown place. Herr Röhricht suggests *Dâr Sursuk*, but he will see from the "Memoirs" (i, p. 145) that this name applies to a modern house. It is named after the Beyrout banker Sursuk, and has no connection with any ancient site.

Casales of the Knights Hospitallers.

(Paoli, 1781).

The possessions of this great order were obtained by purchase from the Barons. They were widely spread, but, especially in the 13th century, they owned the best lands in the maritime plains and western foot hills. Altogether we have the names of 182 of their villages in Western Palestine.

34. *Betharas* seems to me clearly to be *Beit er Rush* (Sheet XX), Herr Röhricht says (p. 239) "Bet dârâs, written on the English map Bet Durdis." The English map is correct. Beit Derâs is a well known place (Sheet XVI), but the ruin near Gaza is called Beit Durdis, not only on the P. E. F. Map, but on the older map of Robinson.

35. *El Roheib* is perhaps *er Ruheibeh* south of Beersheba.

36. *Tamarin*, a hill, is perhaps the village of *Tumrah* (Sheet XIX).

37. *Moitana* or *Montana*, I have proposed to find at *el Muteiyen* (Sheet XIV).

38. *Loie*. I do not understand why this should be placed as far north as 'Ajja. It seems to have been near to Sileh, and Rey connects it with *Neby Lauin* (Sheet XI).

39. *Cafarsalem* is more probably *Selmeh* (Sheet XIII), than *Kefr Sa*.

40. *Cuphet* seems unlikely to be *Sefarin* as proposed by Röhricht, *Keffa* (Sheet XI) seems preferable.

41. *Maresco*, "the Marsh" near Caesarea, is probably to be sought on the Crocodile River.

42. *Cholu* (*Kuleh*) was near Mirabel, which points to the site for that castle proposed in the "Memoirs."

43. *Tour Rouge*, near Caco, there seems no reason to doubt, was *Burj el Atôt*, as proposed by Rey ("Memoirs" ii, p. 178).

44. *Daidonis*, at *Tell ed Dâdehân* (Sheet VIII), as proposed by Rey, seems probable.

45. *Saphet* in the Acre region may be *Shefeiya* (Sheet III).

46. *Casale dou Carebliers*. If Herr Röhricht is right in connecting this with a hill called *el Kharrâbah* by Boha ed Din, 16 kilometres from Acre, and 12 from Haifa, yet it is not necessary to suppose that it is "not on the English map." The distances would roughly agree with *el Khureibeh* on Mount Carmel.

47. *Jheure* may be the *Jherio* of Rey, and seems probably to be *J'aurah* (Sheet VIII).

48-9. *Romette* and *Rome* seem hardly to be the same place, both being

in the same list. Rey proposes *Rummâneh* (Sheet VI) for the first. The other is well known as Roma (*Râmeh*) not far off.

50. *Lacomédie*. It is not satisfactory to seek for such a name at a Muslem chapel (Sheikh Kaddûm) as proposed by Röhricht. The place was situated between the lake of Tiberias and La Petite Palmerée and had rights of fishing in the lake and mills fed by a stream. This seems clearly to point to *Khurbet el Kaneitriyeh* north of Tiberias. The little Palmerée was no doubt near the shore where there are a few palms still. The mills were near the lake, no doubt at the 'Ain Fuliyeh (cf. "Memoirs" i, p. 374). Sir C. W. Wilson remarked "two of the sources are surrounded by walls as at the Tabghah spring apparently to feed a mill" (cf. "Recov. Jer.," p. 359).

51. *Assera*. Perhaps the best site for this is not 'Asîreh, which is too far south, but *Sireh* near Nein (Sheet IX). The place *Sh'arah*, south of Safed, proposed by Röhricht, is too far north.

52. *Cufran* was near the last, probably *Kefrah* (Sheet IX). *Kefr 'Anân* is too far away to be probable.

Casales of the Teutonic Order.

(13th century, Prutz 1877.)

Many of these places occur in the preceding lists, as owned in the 12th century, before the loss of Jerusalem. The sites lie in Upper Galilee, and near the sea coast between Acre and Tyre, and 98 names in all are given by Prutz, in his work on the Order, 1877. Many are easily recognised, but a few may be suggested as below:—

53. *Aguille* or *Laguille* appears to be *El 'Ajliyât* (Sheet III) rather than *Jâlîs* (Rey versus Röhricht).

54. *Mezerah*. Herr Röhricht proposes *El Mishr'a*, near Haifa (Sheet V. j, i). This word means "the drinking place," and applies to a small spring in a ravine. It is not the name of any village or ruin, and is in the wrong region. There seems no real objection to identifying the site in question with *Mezrah* (Sheet III).

55. *Miscalim*, in Upper Galilee. Röhricht suggests *Maskane*, southwest of Hattin (Sheet VI). The position would, however, point to *Muslakhîl* (o. n.). Such inversions are not unknown in the Fellah nomenclature.

56. *La Tyre* appears to me to be *P'ater* (Sheet IV).

57. *La Quiebre*. No reason is given by Röhricht for discarding *el Kâbry* (Sheet III).

58. *Lanoye*, as mentioned in "Syrian Stone Lore," 1887, seems to me to be *El Yanâh* (Sheet III).

59. *Gabatye* seems to be a distinct place from *El Gabcie* (*el Ghabsîyeh*, Sheet III). If so, the best site is probably *el Ghabbâti* (Sheet IV).

60. *Cassie* seems more probably *El Kâsy* (Rey), which is on Sheet IV, than *el Kuziciyeh* (Röhricht).

61. *Galafice* is, I think, *Ikhneifis* (Sheet V), not the neighbouring *Khalladiyeh* (Röhricht).

Casales of the Venetians near Tyre.

(Prutz, 1876).

The Venetians claimed a third part of many of the Crown land villages in the neighbourhood of Tyre. The total of names is about 80 in all, including a few Royal Casales mentioned as near those which the Republic claimed in return for services rendered with their fleet. Most of these places are easily fixed at the numerous villages of the Tyre region, but a few are doubtful.

62. *Femom* is, perhaps, the same as Fennes of the Teutonic order, now *Fânis* (Rey. Cf. Sheet IV).

63. *Szorcoorum*. An alternative site might perhaps be found in *Abu Sirkîn* (Sheet II).

64. *Maraqûe*. There seems no objection to Rey's identification with *M'arakah* (Sheet III). Herr Röhricht thinks it the same as Melequie (Malkîyeh, Sheet I). Possibly the Pisan casale Orachie and the Genoese Loaracha, may be the same place. Their names suggest العراق (El 'Arâk "the cavern" or "cliff"), but M'arakah, though not the same word (معركة) would sound much the same to the Franks.

65. *La Cassomie*. Rey's suggestion *El Kasimîyeh* (Sheet I) seems more probable than Röhricht's *Khamsîyeh*.

66. *Chateau Arnaud* is placed by Röhricht at Latrun (Toron). I venture to think the view taken by Rey, and yet earlier by De Sauley, and advocated in the "Memoirs" (iii, p. 15) is the true one, and that the remains of the Crusading fortress, Kal'at et Tantûrah at the village of Burj, represents this castle.

Many of the 700 places belonging to this topography are ancient Bible sites, and we thus find that in 1200 A.D. the nomenclature was unchanged from the days when the Book of Joshua was written, and has remained unchanged to our own times.

C. R. CONDER.

THE DATE OF ESHMUNAZAR'S COFFIN.

In "Syrian Stone Lore" I remarked incidentally (p. 146) that we have no inscribed monument in Syria between 530 and 330 B.C. The remark was criticised because it was supposed that I had forgotten Eshmunazar's coffin at Sidon. My intention, however, was (following the opinion of M. Clermont-Ganneau, which he told me in Palestine in 1882 at latest) to refer this important monument to a time as late as or later than Alexander the Great.

1	2	3	4
X	X	X	F
9	9	9	9
^		7	7
9	9	9	9
3	3	3	3
4	4	4	4
~		II	II
日	日	日	日
⊙			
π	π	z	z
γ	γ	γ	γ
L	L	6	6
4	4	4	4
5	5	5	5
κ	κ	ξ	
o	o	o	o
7	7	7	7
π	π	π	π
φ		φ	φ
9	9	9	9
w	w	w	w
h	h	x	x

The date usually given (*see* Dr. Taylor's "History of the Alphabet") is "the latter part of the 5th or beginning of the 4th century B.C." (vol. i, p. 224). The monumental character was compared with texts from Cyprus of the 4th century B.C., and with the texts of Umm el 'Awamîd 132 B.C. (*Corpus Sem. Inscript.* I, 1, p. 32), but the main reason for supposing an early date was the hypothesis that Eshmunazar was an independent native ruler.

Another valuable text has since been found at M'asûb, north of Acre, and published by M. Clermont-Ganneau in his "Recueil," No. 2, 1886. This text bears the date of the 53rd year of the people of Tyre and 26th year of Ptolemy Euergetes, son of Ptolemy and Arsinoe. The date agrees with that of the Umm el Awamîd text, which is the 143rd year of the people of Tyre.

The attached plate shows, No. 1, Eshmunazar's alphabet, No. 2 that of the M'asûb text, and, by way of contrast, No. 3 that of the

Moabite stone, and No. 4 that of the Siloam text. It will be clear that no philological objection exists to placing the Eshmunazar text as late as the time of the Ptolemies.

The expression אֲדֹנָיִם, or "King of kings," which Eshmunazar gives to the over-lord who bestowed on him the lands of Dor, Joppa, and Sharon, has been thought to refer to one of the kings of Persia; but in the new M'asûb text the same term is applied to Ptolemy, and M. Ganneau has compared it to the *κύριος βασιλείων* applied to the very same Ptolemy on the Rosetta stone. Eshmunazar was not an independent ruler at all, but apparently a tributary of the Egyptian monarch.

The question is one of considerable interest in connection with the monumental history of Palestine, and an instance of the uncertainty which must exist in judging the dates of inscriptions merely from the forms of the letters or from arguments as to supposed history. We have indeed much yet to learn concerning the history of the alphabet, and the new inscription of Panammu, now in Berlin, and said to be as old as the Moabite Stone, must, therefore, be awaited with much interest, as casting a light on the earlier times in which alphabetic texts are so few. It may, also, perhaps, serve to further the comparison of the Phœnician alphabet with the Cypriote syllabary, to which I called attention a year ago (*Quarterly Statement*, January, 1889, p. 17).

C. R. C.

THE OLD WALL OUTSIDE JERUSALEM.

TRACES of the wall mentioned in the October number of the *Quarterly Statement* were clearly visible when I was in Palestine. I always understood that this was regarded as the Crusading Wall. It appears to be connected with the towers outside the Damascus Gate, investigated by Sir C. Warren, and the use of a sort of concrete in parts of the foundations, visible above ground, seems to show that the work may be Mediæval.

The exact line of the Crusading Wall towards the north-west seems to me rather doubtful, the question being whether the Kalât J'alûd stood on the line of wall or not. It may of course have stood as a sort of "keep" inside the wall.

C. R. C.

THE TSINNOR.

It may be useful to refer to what Gesenius says of this word—

צִנּוֹר m. "a cataract" (so-called from its rushing noise), Psalm xlii, 7, "a watercourse," 2 Samuel v, 8.

Gesenius had no special theory as to the Jerusalem Tsinnor. The word as used in the Psalm is rendered "waterspouts" in the A. V. It would hardly seem in that passage at least to apply to any underground channel.

Ewald appears to have given an extraordinary rendering of the passage—2 Sam. v, 8.—"Whoso smiteth the Jebusites let him hurl down the waterfall (or cliff)."

I have never seen the operation of hurling down a waterfall performed.

C. R. C.

KU FOR KING.

PROFESSOR SAYCE'S opinion carries weight, but I cannot admit that I was mistaken in saying that Mr. Pinches and Mr. Bertin consider *Ku* to be an Akkadian word for king. I have their letters still in my possession. The fact is that Dr. Sayce differs from not only Mr. Bertin and Mr. Pinches, but also from Lenormant, and Norris, and Fox Talbot, in denying the existence of this word. The matter is not of very great importance, since I have been able to show independently of Akkadian that such a word exists in Turanian languages with such a meaning. It would appear that what Professor Sayce calls a "makeshift" on the part of Norris was really a discovery.

The authorities who give this word were well aware of the existence of the word *anin* or *unan*; but because we have the word "monarch" in English this does not deprive us of the word "king."

C. R. C.

BIRDS AND ANIMALS NEW TO PALESTINE.

AMONG the 2,000 bird skins which I collected while in Palestine, from 1882 to 1886, there are several which, so far as I know, are new to that country, and hence they should be added to the list of those already known. Dr. Tristram's catalogue is the one followed, and to which the additions are supposed to be made:—

- (1) Brambling—*Fringilla montifringilla*.
- (2) Cuckoo, Lineated—*Cuculus leptodetus*. An eastern form of a West African bird.
- (3) Curlew, slender-billed—*Numenius tenuirostris*.
- (4) Duck, Golden eye—*Clangula glaucion*.
- (5) Duck, Common Sheldrake—*Tadorna vulpanser*.
- (6) Phalarope, Red-necked—*Phalaropus hyperboreus*.
- (7) Plover, White-tailed—*Chettusia leucura*.
- (8) Pratincole, Nordmann's—*Glareola melanoptera*.
- (9) Yellow-ammer—*Emberiza citrinella*.

It may be of interest also if I make a few additions to his list, following the same order, chiefly as to the locality of birds. In two or more instances I was fortunate enough to obtain specimens which he has entered in his list, but which he did not obtain himself.

No. 6. Rock Thrush—*Monticola saxatilis*.

Tristram.—"It arrives in the beginning of April. South of Lebanon it is only a passing traveller tarrying but a night."

Addition.—It is true that it arrives in April, and in some seasons as early as March; but to the last part of his statement I would

add that between the 10th and the 30th of September I shot several pairs in the immediate vicinity of Jerusalem.

No. 28. White-throated Robin—*Erithacus gutturalis*.

Tristram.—“Discovered it on Hermon and Lebanon.”

Addition.—Near Jerusalem in August, 1885, I shot a fine specimen of the female of this species.

No. 30. Eastern Nightingale—*Erithacus philomela*.

Tristram.—“Not obtained by me in Palestine. It may be discovered there.”

Addition.—I have three good specimens, one shot in August near Jerusalem, and the others shot in the Jordan Valley.

No. 68. Hermit Fantail—*Drymæca inquieta*.

Tristram.—“It is very scarce wherever found.”

Addition.—I should say that it was quite common, for I saw it frequently on different journeys to and from the Jordan Valley. On this road I shot several specimens in November, also one near Jerusalem in September.

No. 90. Palestine Bulbul—*Pyononotus xanthopygus*.

Tristram.—“Never found in the hills or upper country.”

Addition.—I shot several at Hebron, which is 400 feet higher than Jerusalem.

No. 94. Red-backed Shrike—*Lanius collurio*.

Tristram.—“Have not obtained it south of Esdraelon.”

Addition.—I have shot specimens in the hills near Es Salt, also others in the hilly region between Jerusalem and the Plain of Sharon.

No. 109. Palestine Sun Bird—*Cinnyris osee*.

Tristram.—“Beyond the gorge of the Jordan I never but once found it, and that was at the south of Mount Carmel.”

Addition.—This bird, or a species of Sun Bird, is abundant at Jaffa. The markings of those found in Jaffa differ from those found in the Jordan Valley, and I have shot them both in the spring and autumn at each of these places. Whether or not these are distinct species I do not now pretend to determine.

No. 111. Serin—*Serinus hortulanus*.

Tristram.—“Is only a winter visitor to the wooded districts and the little glens near the sea. It has not been noticed inland.”

Addition.—In January and February, 1885, these birds were very abundant about Jerusalem, and at different times during those two months I shot a dozen specimens.

No. 113. Tristram's Serin—*Serinus canonicus*.

Tristram.—“Belongs to the Lebanon and anti-Lebanon exclusively. I cannot trace it on any of the spurs southwards, either from Hermon or Lebanon and there it is very local.”

Addition.—On the 7th of March, 1885, I shot a beautiful speci-

men about half an hour distant from Jerusalem, near the Convent of the Cross.

No. 116. Hawfinch—*Coccothraustes vulgaris*.

Tristram.—“Only twice detected it, once in Gilead and once near Tabor.”

Addition.—I have three specimens, one from east of the Jordan, and two from the neighbourhood of Jerusalem.

No. 139. Grakle—*Amydrus tristrami* *Sclater*.

Tristram.—“Appears to be confined to the immediate neighbourhood of the Dead Sea.”

Addition.—This bird ascends the Great Wadies to a higher point than these words would seem to imply. In the upper part of Wady Farah, and in Wady Suweinit, not far from Mukhmas, I have frequently seen them in large numbers.

No. 167. Night Jar—*Caprimulgus tamaricis*.

Tristram.—“Only three specimens known.”

Addition.—I have a beautiful specimen which I obtained at Jericho in December.

No. 193. Montagu's Harrier—*Circus cineraceus*.

Tristram.—“Not often come under my observation. Obtained three specimens by the Lake of Galilee.”

Addition.—I obtained two specimens near Jaffa in November, 1885, and one in the Jordan Valley in April, 1886.

No. 197. African Buzzard—*Buteo desertorum*.

Tristram.—“This may probably be entered among the birds of Palestine, though I have never obtained a specimen.”

Addition.—I have three good specimens, one of which was obtained near Mar Saba, and the others in the Jordan Valley. One of these was taken in December, and the others in April. As Dr. Tristram says that it has never been found in Palestine, I am glad to be able to bring it to the attention of the public.

No. 203. Booted Eagle—*Aquila Pennata*.

Tristram.—“Appears to be confined to the wooded regions of Galilee and Phœnicia, and to the Lebanon.”

Addition.—I shot a fine specimen near Jerusalem in May, 1886.

No. 226. Pygmy Cormorant—*Phalacrocorax pygmaeus*.

Tristram.—“Found on the Leontes and other streams flowing into the Mediterranean. I did not observe it on the Lake of Galilee.”

Addition.—I obtained several specimens from the Jordan near Jericho.

No. 236. Little Bittern—*Ardetta minuta*.

Tristram.—“Plentiful in the rushes and reeds round Lake Huleh.”

Addition.—Plentiful also on the Aujeh, near Jaffa, and on the Lower Jordan.

No. 237. Night Heron—*Nycticorax griseus*.

Tristram.—“Found in small numbers about Lake Huleh, and Gennesaret.”

Addition.—Also on the Lower Jordan.

No. 251. Ruddy Sheldrake—*Tadorna casarca*.

Tristram.—“At the south end of the Dead Sea, and near the Lake of Gennesaret.”

Addition.—They are just as abundant at the north end of the Dead Sea, and are found all along the Jordan.

No. 257. Garganey—*Anas circia*.

Tristram.—“I have not taken the Garganey myself.”

Addition.—I have four fine specimens from the Jordan, one of them shot in November, one in December, and two in May.

No. 294. Stone Curlew—*Ædicnemus scolopax*.

Tristram.—“Plentiful in the Ghor at the north end of the Dead Sea.”

Addition.—I saw it frequently in the region about Mar Saba, and in the hills east of the Jordan. I have specimens from both these localities, and others from the vicinity of Beirut, as well as still others from the north end of the Dead Sea. I should say it was pretty evenly distributed over the country.

No. 296. Cream-Coloured Courser—*Cursorius gallicus*.

Tristram.—“Rare in Palestine Proper. I twice obtained it near Acre; also saw it in the southern wilderness, and on the upland of Eastern Moab.”

Addition.—Very abundant between Jerusalem and Bethlehem on the Plain of Rephaim and south-east towards Mar Saba.

No. 305. Dotterel—*Eudormias morinellus*.

Tristram.—“Vast flocks near Beer-Sheba.”

Addition.—I found them near Mar Saba in May, 1885.

No. 341. Manx Shearwater—*Puffinus Anglorum*.

Tristram.—“Obtained a dead specimen near Mount Carmel.”

Addition.—I have two fine specimens, obtained at Jaffa in 1884.

I observed, during my residence of nearly seven years in Palestine, that there were great variations in the migrations of birds. Some years the land was full of them, and the next year, perhaps, there seemed to be very few. For example, I remember that for two years there were but few ducks anywhere in the southern part of the country; the next year, however, they were very abundant. What Dr. Tristram says of the dotterel, No. 305, may have been peculiar to that year. The same I know is true of my observation under No. 296, respecting the cream-coloured coursers. In other years, while found here and there, they were scarce; the year referred to they were abundant. The Arabs brought to our hotel large numbers of them for our table. Similar remarks would be true of quails, and of some other birds. Seasons vary in character and circumstances which we cannot explain, and may combine to cause these variations. As I have had occasion elsewhere to remark, this

is a study where there can be no monopoly of knowledge on the part of any single observer. Many observers are necessary, and each may add something valuable to the general fund of information.

As to animals, I may mention that I secured a fine specimen of the ratel or honey badger, *Mellivora ratel*, which was taken between Mar Saba and the Dead Sea ; also a pair of foxes, *Vulpes famelica*, small, delicate, with splendid brush. The most beautiful little creatures of the kind that I have ever seen. So far as I am aware these are both new to Palestine.

In his list of animals Dr. Tristram states of the coney, *Hyrax syriacus*, that it is "not known in Lebanon." A writer whose name does not appear, and who is unknown to me, in the "Edinburgh Review" for April, 1886, p. 326, speaks of the coney as "confined to the gorges of the Dead Sea and Arabia Petræa. It is rare in the rest of the country, and unknown in the Lebanon." The preface to Tristram's "Flora and Fauna" is dated in 1883, and the volume itself in 1884. But since 1876 I have had in my collection a fine large specimen of this animal, that was taken near the well-known Lebanon village of Abeih. Dr. Tristram's remark of the crocodile in the Zerka I would apply to this case of the coney : "An ounce of fact is worth a ton of theory."

SELAH MERRILL.

ANDOVER, MASS., U.S.A.

THE INSCRIPTIONS OF SARIS AND MOUNT OLIVET.

It is very desirable that exact squeezes should be taken of the inscriptions described by Mr. Hanauer, as found in a cave at Saris, since the characters are evidently old Phœnician, the first one being an *aleph*. The sculpture accompanying them, moreover, is in the same style as the "Proto-Phœnician" rock-sculptures I have visited near Tyre.¹

The inscription No. IV, given by Mr. Schick, which was found on the mosaic flooring at the Campo Santo on the Mount of Olives, reads : X[αἰρετ]ε · μνήσθητι τῆς δούλης σου Ζάννας. "Farewell ! remember thy servant Zanna." In Egypt the first letter of the proper name might be identified with the Coptic letter η, and the name accordingly read Hanna, but this would not be possible in Syria.

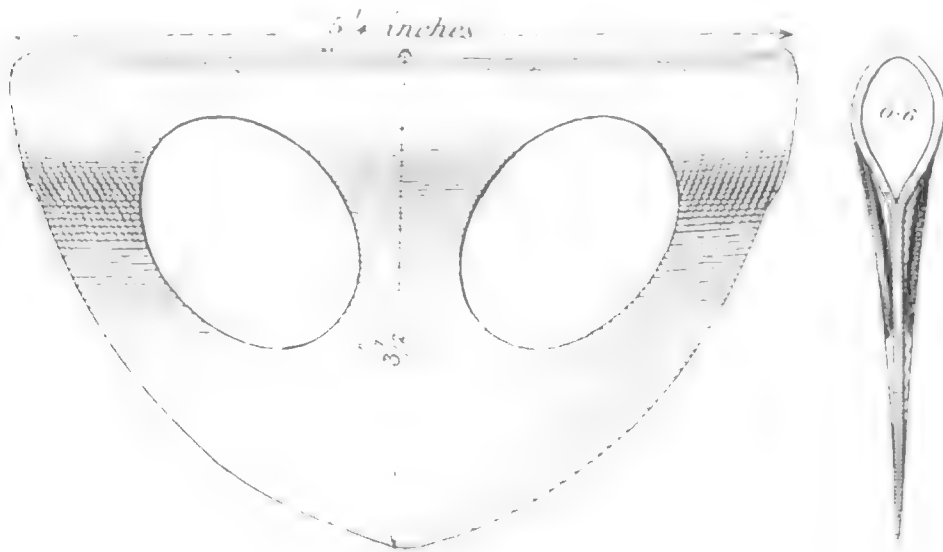
A. H. SAYCE.

¹ Squeezes of this inscription have since been received by the Fund, and will be forwarded to Professor Sayce, who is now in Egypt.

NOTE ON ANCIENT AXE-HEADS FOUND AT BEYROUT AND SIDON.

By REV. CANON GREENWELL, in a Letter to Prof. Lewis.

IN the *Quarterly Statement* for April, 1889, at p. 77, there is an engraving of a bronze axe discovered by Mr. Schumacher in a cave near Esh Shejara. It is evidently a Syrian type, based on a well-known Egyptian form. I have two out of four found near Beyrût, one similar and of the same



size as that engraved, and the other like the engraving above. The other two are smaller, but of the same forms. I have also another, found near Sidon, which is like the above figure, but not so large. Except these I do not know of any others, though such may possibly be found in some collection, public or private. These axes were certainly handled. The holes in the blade are, I believe, either for appearance or to lighten the handle. In one, the largest of mine found near Beyrût, portions of wood still remain in the socket; and the impression of the cloth in which it had been wrapped exists upon the oxidised surface of the metal.

JEWISH LAMPS.

SOME time ago I was in Dorchester—a friend offered to show me the local Museum. The collection is varied and rich. I only wish to note what especially interested me. In a corner of a case were some lamps, labelled “Supposed Early British Lamps;” a moment showed me they were old Jewish, exactly like those from the excavations at Jerusalem. My friend the Antiquary, who had himself dug up many of the objects

of interest, told me these lamps came from "Maiden Castle," a grand specimen of a Roman camp, which I afterwards visited; it is quite close to Dorchester. History tells us that three Legions were camped here; and tradition has it that Jews—captives at Jerusalem, were sold by Titus to Phœnicians, and that these slaves made the fortifications. We know history tells that captive Jews worked in the tin mines of Cornwall; and as I looked on these lamps it did seem to me that the traditions were true, and that some poor Jews, slaves and exiles from their own land, had at one time worked here in this our England, and among their poor possessions they had clung to the old lamps.

H. A. HARPER.

"THE WAY OF THE PHILISTINES."

I should like to call attention to a portion of the land between Palestine and Egypt, which would, I think, well repay skilful exploration. I mean the coast road, called in the Bible "The Way of the Philistines," across which that great wall of Egypt, with its towers and gates, must have stretched. While preparing notes for my book, "The Bible and Modern Discoveries," I was struck with the importance of this road, and also struck with the scanty information we have respecting it. Mr. Armstrong kindly showed me some large sectional maps of a portion of this road, and I was much interested in observing what a number of wells had been found in the portion surveyed. That there are "Tells," which mark ruined cities I know; and not many years ago the Archduke of Austria saw, in the street of the frontier town El Arish, an old Egyptian sarcophagus of black granite, covered within and without with very small hieroglyphics. It was there used as a water trough! On this very road the great armies from Egypt must have passed when they went on their way to invade Palestine. On this road Nebuchadnezzar and the other great invaders must have passed on their way to Egypt, and there must have been towns and settlements on the route—a fact proved by the wells I spoke of. True, I know, sand has driven in from the sea—but sand preserves ruins, and, it seems to me, that it only needs a skilful explorer, like M. Flinders Petrie, to have his attention directed to this "road," when I feel sure he would make many discoveries of interest, at very little cost both of time or money. We ought to know more of that land of Philistia, that we may get a clearer view of those people who were ever such bitter enemies to the Israelites.

HENRY H. HARPER.

NEHEMIAH'S WALL.

To all readers of the *Quarterly Statement* it must have been a foregone conclusion that the Rev. W. F. Birch would attack my paper on Nehemiah's south wall. He holds very confidently certain views of his own with regard to Jerusalem topography, and he is not able to see any probability in any others. For the benefit of perplexed readers he points out what he conceives to be the errors of my paper. May I be allowed in the interests of archæological truth to make some reply?

In seeking to restore the south wall of Nehemiah I have built upon a basis of fact, and have nowhere departed from probability. In carrying the wall round the southern brow of the modern Zion, I am only doing what most writers have done, and what Mr. Birch himself would do. He disputes its continuation along the eastern brow, up the Tyropœan, as far as the Causeway (or say the north wall of the Upper City). But this appears to be required by the statement of Josephus, that the Upper City had a wall of its own, going all round it. Apart from Josephus, it is inherently probable. Further, in adopting it I am only following Lewin, who gives reasons for it. I follow Lewin also in bringing a wall down the eastern side of the Tyropœan; I think with him that Josephus so describes its direction, and it seems to be required for the defence of Ophel, which received no protection from the eastern wall of the Upper City. Taking into account Sir Charles Warren's discoveries, which have been made since Lewin wrote his books, I assume that the wall last referred to joins the wall of Ophel, at the point where Warren found that wall to terminate. This arrangement localises the intramural "suburb," which I then have a short transverse wall to protect.

This bay up the Tyropœan is objected to by Mr. Birch as well as others. Instead of it they take the wall southward to the Pool of Siloam, and then northward along the eastern side of the Ophel hill. Their wall then does not and cannot effect a junction with the wall of Ophel, actually discovered. Moreover, it cannot be made to satisfy the descriptions in Nehemiah. The wall as I draw it does coincide with the descriptions of Nehemiah in almost every detail. In tracing the points of coincidence I am aided by Warren's discoveries, and I no longer find a guide in Lewin. That the coincidence should be so close is a strong presumption in favour of its truth, for the argument is cumulative, and it cannot fairly be put aside by such general considerations as Mr. Birch thinks it sufficient to urge. When Josephus speaks of the wall bending above the Fountain of Siloam, Mr. Birch takes him to mean southward, below Siloam, so as to include the Pool. He argues that Josephus must mean this because he speaks of the wall bending "thence again"—thence again from Siloam, says Mr. Birch; but why not thence again from the Causeway, after bending to go up the Tyropœan? As regards the Causeway, Mr. Birch allows that my plan is right, agreeing with Josephus, who

makes the Causeway part of the first wall. Whether the Causeway also joined Akra to the eastern hill is a detail, and Mr. Birch is quite wrong in saying that Warren's Akra is the basis on which I build. The question as between a wall making a bay up the Tyropœan and a wall making a sweep round the Pool of Siloam may almost be rested on the single fact that the first explains the omission from the route of the procession of so many places mentioned in the description of rebuilding (compare Neh. iii, 16-26, with Neh. xii, 37), and the second does not. It is to be noted that while Mr. Birch tries to find one or two weak points in my series of coincidences—coincidences between Nehemiah's descriptions and the line of wall in my plan—he does not attempt to make out that his own line of wall satisfies Nehemiah's description at all.

Mr. Birch is not solicitous to satisfy Nehemiah's descriptions, but rather to support one or two ingenious ideas of his own. He is confident that the wall did enclose the Pool of Siloam, because otherwise he, personally, would see no use in the rock-cut channel from the Virgin's Fountain, and he is sure that the wall of Ophel extended farther south and east than Warren found it to do, because otherwise Joab could not have found his way by the shaft from the Virgin's Fountain into the city itself, as Mr. Birch surmises that he did. That Joab entered the city in this way, aided by Araunah, is an ingenious guess; but it is only a guess, unsupported by any coincidence with any description in the Bible or elsewhere. Even if it be correct it militates against Mr. Birch's reasons for taking the wall of the city southward below Siloam Pool. For the passage if used by Joab existed in David's time, and since it afforded to the inhabitants of Jebus a means of obtaining water, even when the valley entrance to the fountain was blocked with stones and hidden from besiegers, there would be no necessity in Hezekiah's day to cut a channel through the hill for the like purpose. The supposition that Hezekiah cut this tunnel implies that he did not make Siloam Pool, for there was an open channel previously, which the rock-hewn tunnel was to supersede, and the open channel required the pool. The open channel being confessedly useless in face of an enemy, the pool which it supplied would seem to have been made for use in times of peace. But the open channel would only supply it when the water in the Virgin's Fountain rose so high as to overflow at its mouth in the Kedron Valley. It might be desired to bring it to the pool more constantly—for the same purpose as hitherto, whatever that purpose was—and one can imagine that the water ran through the tunnel when it would not have flowed by the open channel, not rising high enough. England is full of tunnels, excavated through hills and under rivers, but not at all with the purpose of hiding canals or railway trains from an enemy, and perhaps we should not make so sure that the purpose of the Ophel tunnel was to supply a besieged city.

Mr. Birch imagines that the city of David was confined to the Ophel hill. It seems to me that while the hill of Ophel was included, it was not of itself the whole of the city of David. Adopting Warren's Akra, west of the Temple, as the site recommended by what we now know of

the rock levels, and as suiting the references in the Books of the Maccabees and in Josephus, I think it possible that this was the fort which "held out still," after David had captured Ophel; but which he afterwards took, and joined it to the Lower City. The Akra thus became part of the Lower City; and this extended Lower City thus assumed a crescent form. Mr. Birch objects to my adopting the term *crescent-shaped* as a translation of Josephus's ἀμφίκυρτος. Well, the Greek word means doubly-curved, without specifying in what way; it might as well describe the gibbous moon as the crescent moon; but why not the crescent as well as any other double curve, especially when the local features of the ground seem to require it?

Mr. Birch further disputes the accuracy of some few details of my plan, and my accumulated coincidences.

1. He says that in Neh. iii, 19, 20, I make one "turning" count as two. Let him prove that it is only one. Again, the first salient angle of my plan is not mentioned in Neh. iii, and I show that there was no need to mention it, because the working party advances beyond it, and it is neither their *terminus a quo* nor their *terminus ad quem*; and in this connection I refer to the omission of the Ephraim Gate in Neh. iii, 6-8 "The Throne of the Governor beyond the river" comes in there instead; and it is obvious to every careful reader that this *may* be the same structure, or may be another structure *near* it. Mr. Birch tells us confidently that it is the same. Thus, he says, the Ephraim Gate is not omitted, and so my salient angle ought not to be. But the reason I have given is sufficient. On the next point I admit that Binnui comes *unto* the turning of the wall and *unto* the corner, and not simply *over against* them; but this would only require me to leave a trifle less space between Nehemiah's wall and the wall of the Temple enclosure.

2. In Nehemiah's description one builder takes up the work *after* another, and no doubt often at the point where the previous builder leaves off. Mr. Birch wishes us to believe that this was invariably the case, even where the next stretch of wall was not damaged, and again where diverging walls did not admit of it. I speak of Shallun repairing a transverse wall, branching eastward from the Fountain Gate, and of Nehemiah, who comes "after" him, repairing the wall from the Fountain Gate northward. Mr. Birch stands on the preposition, and cannot understand how the two men could begin their work at the same point. May I ask him simply to allow for a moment the possibility of the wall being as in my plan, and then to describe the succession of workers in some better phrase than Nehemiah does, if he can?

3. It seems unlikely to Mr. Birch that the transverse wall should be named from the Pool of Siloam, outside, and so far down the valley. Will he tell us why the Jaffa Gate is named after a town on the sea-coast and the Damascus Gate after a city in Northern Syria?

4. The bay of wall is pronounced inadmissible, because Mr. Birch knows that Nehemiah was too intelligent to fritter away the strength of the workers on a loop line of wall four times as long as the transverse

wall. But why not repair all the walls if there were workers enough? Owing to the previous building of the enclosing wall of the Temple, Nehemiah's wall, as I draw it, is pushed so far west as to be at one part very little above the valley bed; and Mr. Birch ridicules this. But it is to be observed that even this part of the wall is at no lower level than the wall of Ophel, discovered by Warren. A wall in such a position was the best that the circumstances of the locality admitted of, and was better than none. It could not be reached unless the transverse wall were taken first. Its position could scarcely be weaker than that of the north-west wall of the city, which actually has higher ground outside. Mr. Birch's alternative is a wall carried from the south-west hill, round Siloam, to the eastern side of Ophel; and *this necessarily crosses the valley*, and at a much lower level than the wall in my plan.

Finally, may I say that I have drawn a definite line of wall, and have correlated it at many parts of its course with points in Nehemiah's description; the argument is cumulative, and is not answered if one or two details be shown to be doubtful. Mr. Birch has not drawn his wall definitely, and could not make any wall going down to Siloam to tally with Nehemiah's descriptions. The Ophel wall actually discovered has no use on his theory, and apparently ought never to have been built. Further, comparing Neh. iii with Neh. xii, the processionists skip over a long line of wall repaired by the workers, and there is no way of disposing of it except by allowing the loop line as in my plan.

GEORGE ST. CLAIR.

THE WATERS OF MEROM.

I. Grounds for supposing that the waters of Merom (Josh. xi, 5, 7) are not the Lake Semechonitis of Josephus and the Bahr el Hûleh of the present day, and therefore that of this lake there is no mention in the Bible.

II. What was this "waters of Merom," and the locality of Joshua's victory over the northern tribes?

I. There appears to be no trace of the "waters of Merom" having been identified in ancient times with the Lake Semechonitis of Josephus; the Bahr el Hûleh of the Arab as far back at least as the Crusades. The district itself indeed in which this lake lies was known as the Ulatha in the days of Josephus. Ant. xv, 10, §3.

Such identification, therefore, rests at best on slender inference, and is destitute of satisfactory authority. But the name having been once thus assigned (at what time it is difficult to trace) it has been taken as correct, and handed on by one writer after another without enquiry or question.

Now it struck me in closely examining the maps of Western Palestine with Stanley's account of Joshua's battle with the northern tribes, that there were difficulties in accepting his localisation which could not be got over.

The following is a topographical description of the spot where he has placed the battle: "Owing to the triangular form of the lake a considerable space is left between the lake and the mountains at the lower end. This is more the case on the west than on the east, and the rolling plain thus formed is very fertile, and cultivated to the water's edge."¹ Now, on such ground, chosen as Stanley says, "because along those level shores they could have full play for their force of chariots," the approach of Joshua with his men of war from the south as he crossed the Wádies, and especially the Wâdy Hindâj, must have been visible for long distances, and from numerous points. He could hardly have fallen upon them suddenly; whilst had his attack with footmen been in this open plain, it could not have proved the decisive success which we know it was.

Again, the line of flight from the scene of defeat, had it been by the shores of Semechonitis, could hardly have been to Sidon the Great. The tremendous ravine of the Leittâni (Leontes), and the stern ridge of Kûlât es Shükîf on its northern side, would forbid escape in that direction.

Again, too, it is objected that the word for water in the original would not be used for a lake, but the word for "sea," as of Tiberias (*α*).

At all events the Septuagint constantly uses the expression "the water of"—always in the singular—to denote the stream running near some village, and named after it. Thus "the water of Megiddo," ἐπὶ ὕδατι Μαγέδδω (Judg. v, 19), for the upper reaches of the Kishon River; or again, "the water of Nimrim shall be desolate," "the water of Dimon shall be full of blood" (Isai. xv, 6 and 9), and so in other passages.

That is the Afon, Adwr, *ῥύδωρ*, running near a town or village and borrowing its name from it, is what is meant by the expression "the water," τὸ ὕδωρ, and not a lake.

On such grounds then, it is unlikely that the Bahr el Hûleh is meant by "the waters of Merom;" and if so, there is no reference to this lake in the SS.

Indeed, the very existence of the name Merom here may be nothing more than a mistaken reading.

II. What then may more probably be the site of Joshua's third great final victory?

Now, in reference to the Septuagint we find that one of the kings to whom Jabin, King of Hazor, sends, is not Jobab, King of Madon, as it stands in the Authorised and Revised Versions (Josh. xi, 1); but Ἰωβαβ βασιλεία Μαρών. So, too, in verse 5 it is said all the kings παρενέβαλον ἐπὶ τῶν ὑδάτων Μαρών, and not Merom. So also, verse 7, that Joshua with his warriors came upon them ἐπὶ τὸ ὕδωρ Μαρών at unawares, and fell upon them "in the mountainous country," ἐν τῇ ὄρειῳ.

Where, then, are we to look for this stream of Maron?

¹ Smith's "Bib. Dict.," s.v, Merom.

Josephus informs us (Ant. v, 1, §18) that "the kings pitched their camp at Beroth, a city in the Upper Galilee not far from Kadesh, itself also a place in Galilee."

Now, south of Kadesh runs a ravine with a perennial stream from the central watershed to the foot of the Bahr el Hûleh, bearing at the present day in its downward course the names of Wâdy el Jish (Gischala), W. Fârah, W. 'Aûba, Tawahîn el 'Aûba, and lastly, Wâdy Hindâj.

To the north of this stream lay the towns of Hazor (over the Lake Senechonitis (Joseph. Ant. v, 5, §1), and then the head of all the kingdoms), Kadesh, Iron, (Josh. xix, 37), and perhaps, taking the reading of the Septuagint, Mârûn; for of these, Iron is probably the present Yârûn; and *Μαρών*, Mârûn er Râs, about $2\frac{1}{2}$ miles from the ravine, but dependent on its stream for water; if, indeed, the addition, er Ras (*b*) does not point to the existence once of a Mârûn lying on the lower ground, and perhaps coincident with Fârah.

Along this ravine, for the water's sake, lay, I imagine, the gathering hosts of the northern confederacy, somewhere about the part which bears now the name of Fârah.

Thus, too, they would have their store cities behind them, as they were organising their bands to sweep down against Israel across Esdraelon into central Palestine. But as they lay in fancied security near to water, and in the crowded valley, by (*c*) a forced march of five days (Josephus, Ant. v, 1, §18) from Gilgal (Josephus and our versions, but not the Septuagint), Joshua and all the people of war fell upon them like a thunderbolt in the rocky ground (Septuagint) where their chariots would be useless.

Struck in the centre their army was broken asunder by the impetuous charge. Then the Israelites, facing westward and eastward on their flanks, would roll up their enemies in hopeless rout. Only at one point perhaps was a stand made; on the crest of the watershed at Kefr Birîn, *i.e.*, "the village of wells;" surely the city of Beroth, *i.e.*, "of wells" of Josephus. But the struggle was short. Led on, it may be by the mighty Caleb, the left wing of the Israelites drove their foes headlong down the tortuous valleys that at over twenty miles away open upon the road which, coming down from the Ladder of Tyre and north of Râs el Abiad, ran along the coast to the fords of the Leittâni, to Misrephoth-maim (Zarephath) (*d*) and Sidon the Great.

Eastward Joshua himself seems to have led the pursuit, perhaps between Kadesh and Hazor, cutting off the main body from their cities and driving them before him till he reached the valley of Mizpah eastward, under the roots of Hermon, whence the Hivite had descended to range himself under the banners of Jabin. Then, when the pursuit ceased with the slaughter of the last of the overtaken fugitives, Joshua turned back and took Hazor "and smote the king thereof," feebly defending it with the remnant of his host "with the sword." "And they smote all the souls that were therein with the edge of the sword, utterly destroying them; there was not any left to breathe, and he burnt

Hazor with fire." And Hazor only. As it was done to Jericho in the south, so was it done to Hazor, the head of all those kingdoms in the north.

Such I suggest as the probable site of the battle, the course of the fugitives, and the final result.

Thus, it seems, may be best brought into unison the narratives of the Hebrew, the Septuagint, and Josephus.

NOTES.

(a) The Hebrew word *Me* is not that commonly used for a large piece of standing water, but rather *Yam*, "a sea," which was even employed for so small a body of water as the artificial pond or tank in Solomon's Temple: Smith's "Dict. of Bible, s. v, Merom."

(b) As Râs el Akra on the hill and Akrabeh (Ekrebel, Jud. vii, 18) on the lower ground.

(c) This march could hardly have been from Gilgal in five days, for the distance, as the crow flies, is 75 miles.

(d) An objection to identifying Misrephothmaim with Zarephath might be, that it is named after Sidon in the description of the flight, whereas it would be reached on the way to it. Granting this, it would come in order as belonging to the eastward route of flight. Symmachus, says Eusebius, interprets it as Misraipoth of the sea. May it then be a place near the northern part of the Lake (Sea) Hûleh?

WILLIAM GOVER,

Hon. Canon of Worcester.

SALTLEY LODGE, WORTHING,
December, 1889.

APPENDIX A.

MERRAN (Merrom, Jerome).—Eusebius (whose Onomasticon with Jerome's translation I have had the opportunity of examining in his ample library through the kindness of my neighbour, Major Gaisford, of Offington) regards this village as the site of the battle. He describes it as twelve miles' distance from Sebaste (Samaria), and near Dothaim (the two cisterns?).

If so, the waters of Merom (Merran) must be the Brook Mochmur in the plain of Dothaim, south of the Carmel ridge, now known in its higher parts as the Wâdy es Selhab, and as the Nahr el Mefjir at its debouchement into the Mediterranean. But this point is fifty miles distance from Hazor and Kedesh, and such localisation can in no way be made to cohere with the precise narrative in Joshua of the lines of flight.

MEIRON.—So much could not be said against a conjecture that should place the site of the battle near Meiron, about three miles south of El Jish (Gischala), with its wâdy running from west to east till it joins the larger Wâdy et Tawahîn near the western foot of the hill on which Safed stands. Yet even so, if this were the site the western line of flight would surely be the shorter route south (not north) of the Ladder of Tyre and the Râs el Nâkûrah, to the friendly cities of Accho, Achsaph, and Achzib, while the eastward would seek the fords of the Jordan below Lake Hûleh.

The examination, therefore, of both these alternatives tends to confirm the correctness of the supposition which places the site of the battle near Maroon and Kefr Birim.

APPENDIX B.

Eusebius' Onomasticon ; Jerome's Liber de situ, &c., Joshua.

Eusebii Hieronymi Opera, Tom. III, p. 243. Editio Vallarsii, Veronæ MDCCXXXV.

Μερράν, ἐπὶ τὸ ὕδωρ ἔνθα παρέβαλον εἰς πόλεμον. Ἔστι νῦν κώμης μέρος Σεβάστης ἀπέχουσα σημείοις ιβ', πλησίον Δωθαίμ.

Merrom.—Aquæ ad quas exercitu præparato castra sunt posita. Est autem nunc vicus Merrus nomine in duodecimo milliario urbis Sebastæ juxta Dothaim.

Μαρῶθ, καὶ ταύτον εἶλεν Ἰησοῦς, τὸν βασιλέα αὐτῆς ἀνελών.

Marom.—Et hanc cepit Jesus, rege illius interfecto. (Posita est et supra Marrus.)

Μαστραιφῶθ μαίμ. Α. μαστραιφῶθ ὕδατος, Σύμμαχος Μαστραιφῶθ θαλάσσης.

Massephoth maim : pro quo Aquila Massephoth aquæ ; Symmachus, Massephoth maris, interpretati sunt.

NOTE ON GREEK INSCRIPTION.

Allow me to suggest that the inscription No. 4 on Plate at p. 183 of the last (October) *Quarterly Statement* should be read as "the Memorial (ΤΗC ΔΟΥΛΗC COUZANNAC) of the servant [minister] Susanna, not Anna, as rendered in the note, p. 179.

In Luke viii, 3, Susanna (Σουσαννα) was one of the women who "ministered" (διηκονουν) unto the Lord "of their substance."

Have we here a Hebrew (Christian) memorial of mosaic, wrought in

memory of one belonging to a wealthy family? It is to be remembered that the names of Martha, Eleazar (Lazarus), and Simeon were found by M. Clermont-Ganneau on the other side of Olivet, "close to the Bethany road and very near the site of Bethany" (*Quarterly Statement*, January, 1874, pp. 7-8), in Hebrew inscriptions on small sarcophagi. In the Greek inscriptions which he found at the same place Σ is represented by C. This is also the case on the Judeo-Greek inscription found by M. Clermont-Ganneau at Jaffa (*Quarterly Statement*, April, 1887, p. 106), and in the inscription found by my husband, Mr. Finn, near Acceldama.

E. A. F.

IRRIGATION AND WATER-SUPPLY IN PALESTINE.

MR. HARPER, in his capital book, "The Bible and Modern Discoveries," touches on a matter which may perhaps throw some light on the water-supply and irrigation in Palestine. I do not feel quite sure of the conclusion to be drawn from the descriptions given, but I judge as well as I am able in this, and leave the subject till further information turns up. At pp. 11-12 Mr. Harper quotes first from Dr. Merrill, of the American Survey, who reports having seen rows of pits, in the Vale of Siddim, and "counted in one place a row of 31, and in another row, 20; they are from 3 to 6 feet deep, and he says more can be traced." Mr. Harper also received an account of these pits from the Rev. J. Neil, who visited them before Dr. Merrill. According to him the pits are about 6 feet deep; then there is a deep shaft or well; "this well is connected with the next pit by a tunnel, so that when that well is full it overflows into the other pit, and so on through the whole series, every pit having a well. The first pit being on higher ground would catch the rain-water from the hills, and when the well was full the water would pass into the next by the tunnel, and so the whole row would be filled, and a good store of water secured." It is also stated that similar pits exist near Kurn Sirtübeh, and that "near Damascus the same arrangement for storing water may be seen in working order."

From these descriptions I would say that this is the same system of water supply that exists at the present day in Persia and Afghanistan, and is still in "working order" about Damascus. The pits with the tunnel connecting them form what in Persia and Afghanistan would be called a *Karaize*, but either the gentlemen who have described the pits in Palestine have not understood them, or they may be partly destroyed, and owing to this the accounts do not make them quite agree with the *Karaize*. Hence there is some uncertainty as to identity. Still, the leading points are so similar that I have little doubt but they are the same. I shall here give an idea of the *Karaize*, so that it may be com-

pared by travellers with the remains in the Vale of Siddim, and with the system still working near Damascus. In Persia land is of little value, but a supply of water is wealth. In many parts streams are scarce, and it is by means of the Karaize that water for irrigation is found. In the part of Persia that I journeyed over with the Afghan Boundary Commission—that is, in a line east from Tehran—these works exist everywhere. There are men whose profession it is to find out a source of water below ground near the foot of the hills, and when this has been discovered there are men who will make the Karaize. They dig a series of pits, about, perhaps, twenty or thirty feet apart, and to a depth which depends upon the soil and the level of the Karaize. These pits are not wells; they are only the means by which the tunnel through which the water is to flow is made. This subterranean aqueduct extends from the source to the point where the water is required, and there it flows out, cool and clear, for the use of a village, but principally for the irrigation of the fields. The pits are kept open, so that the men can go down at any time to clear out or repair the tunnel. The pits and the connecting tunnel below, described by the Rev. Mr. Neil, so exactly resembles a *Karaize* that I can scarcely doubt the character of the remains in the Vale of Siddim; but Mr. Neil describes the pits as wells, and ascribes to them the purpose of storing a supply of water. Now, this is exactly what would result in a Karaize if the lower end of it was destroyed, so that the water could not escape. It would accumulate and fill up the pits. Of course I only give this as a guess, and leave it for further investigation.

If the suggestion here made should turn out to be a correct one, it will have an interest in many ways. It will show that a system of water supply has extended in the past from Palestine eastwards as far as the Khyber, where I first saw a Karaize. In the Jellalabad Valley they are numerous—and at Heda, an ancient Buddhist site, there are the remains of one tunnelled through the rock,—showing that this method of supplying water is of great antiquity. If the pits in the Vale of Siddim should ultimately be accepted as the remains of a Karaize, the “ditches,” referred to by Mr. Harper, 2 Kings, iii, 16, will most probably have been the same. By throwing light on the water supply of Palestine it will explain to a certain extent the curious problem as to the former fertility of the Holy Land, with which the existence of a large population, and extensive cities, are connected. I have seen a large stream flowing from a Karaize in Khorassan, beyond which there were no other indications of water in the locality. Without this supply the place would have been a desert; by its means a number of villages existed. I have read somewhere that the Valley of Nishapur in Khorassan was at one time called “The Valley of twelve thousand Karaizes,”—an Oriental exaggeration no doubt,—but then the valley at that time was fertile and populous, and Nishapur was a great and celebrated city. I mention these facts to show how this particular system of water supply was related to fertility and population in one part of the world; and if it existed in Palestine, it will be a sufficient explanation of the same conditions.

If the arrangement which is said to be in "working order" at Damascus is similar to the *Karaise*, we need have little doubt but the system existed in Palestine. I have never been to Damascus, but many persons have, and it is to be hoped that some one will be able to tell us what the system is at that place. In the *Quarterly Statement* for 1881, p. 38, there is a mention of an underground stream, "which, rising near Hebron, runs southwards to Beersheba, and thence westward to the sea, passing by the site of Gerar." In the *Quarterly Statement* for 1873, p. 149, and 1876, p. 121, will be found notices upon the water supply of Palestine.

To the author of "The Bible and Modern Discoveries," as a "Brother Brush," I beg to convey my congratulation on his production, and wish the book every success, which I am sure it will receive.

WILLIAM SIMPSON.



THE PALESTINE EXPLORATION FUND.

NOTES AND NEWS.

The Committee of the Palestine Exploration Fund have much pleasure in announcing to subscribers and friends that they have obtained a firman granting permission to excavate at Khūrbet 'Ajlān, the EGLON of Joshua. It is understood that all objects, except duplicates, found in the course of the excavations shall be forwarded to the Museum at Constantinople, but that the Committee's agents shall have the right of making squeezes, sketches, models, photographs, and copies of all such objects. The Committee have been so fortunate as to secure the services of Mr. Flinders Petrie, who is now in Syria making arrangements to start the excavations.

The Committee will be most grateful to subscribers who wish to contribute towards this Fund to send in their donations as early as possible.

For a long time it has been desired by the Committee to present to the world some of the great hoards of information about Palestine which lie buried in the Arabic texts of the Moslem geographers and travellers of the Middle Ages. Some few of the works, or parts of the works, have been already translated into Latin, French, and German. Hardly anything has been done with them in English, and no attempt has ever been made to systematise, compare, and annotate them.

This has been done for the Society by Mr. Guy le Strange in the book "Palestine under the Moslems," just prepared and this day issued. The work is divided into chapters on Syria, Palestine, Jerusalem, and Damascus, the provincial capitols and chief towns, and the legends related by the writers consulted. These writers begin with the ninth century and continue until the fifteenth. Such illustrations as may be required for the elucidation of the text are presented with the volume.

The Committee are in great confidence that this work—so novel, so useful to students of mediæval history, and to all those interested in the continuous story of the Holy Land—will meet with the success which its learned author deserves. The price to subscribers to the Fund will be 8s. 6d.; to the public, 12s. 6d.

Dr. Torrance, of Tiberias, has explored to some extent the caves behind that city, and succeeded in penetrating several hundred feet into the interior of one of them, but without finding much. The Talmud speaks of these caves, and states that they extended as far as Sepphoris (Sefūrīeh), which is eighteen miles distant!

A Society of German Roman Catholics has purchased property at Khan Minyeh, and is erecting buildings there.

A report from Herr Schick respecting the Greek inscription found north of Damascus Gate, alluded to in the last *Quarterly Statement*, page 3; will be found on page 69, together with (reduced) copy of the inscription itself.

The essay on Ma'lula, by F. J. Bliss, Esq., B.A., of Beyrût, is printed in the current number, and also an important paper by the Rev. G. Post, M.D., on the sects and nationalities of Syria and Palestine.

A letter has been received from the Rev. Gordon C. Grist of Frome, objecting to the translations given by Major Conder and Professor Sayce of the Greek inscription on page 183 of last year's *Quarterly Statement*. The Rev. Mr. Grist thinks the true rendering should be "Christ, remember the slave Susanna," or possibly, "Christ, remember Thy servant Zanna."

Mr. Henry A. Harper's work, on "The Bible and Modern Discoveries" was published in December. It is an endeavour to present in a simple but yet connected form the Biblical results of twenty-two years' work of the Palestine Exploration Fund. The writer has also availed himself of the discoveries made by the American Expeditions and the Egyptian Exploration Fund, as well as discoveries of interest made by independent travellers. The Bible story, from the call of Abraham to the Captivity, is taken, and details given of the light thrown by modern research on the sacred annals. Eastern customs and modes of thought are explained whenever the writer thought they illustrated the text. To the Clergy and Sunday School Teachers, as well as to all those who love the Bible, the writer hopes this work will prove useful. He is personally acquainted with the land, and nearly all the places spoken of he has visited, and most of them he has moreover sketched or painted. The work is in one large, handsome volume of 600 pages. It is illustrated with many plates, and a map showing the route of the Israelites and the sites of the principal places mentioned in the sacred narratives. Price to the public, 16s.; to subscribers to the Palestine Exploration Fund, 10s. 6d., carriage included.

The work has had a very gratifying reception. The whole of the First and Second Editions are gone, and a Third Revised Edition is now ready. It should be noted that the book is admirably adapted for the school or village library.

The report of Herr Schumacher's Survey of Northern 'Ajlûn is now ready. It contains a map, plans and drawings of the important ruins of Gadara (Umm Keis), Capitolias (Beit Ras), and Arbela (Irbid), none of which had ever before been surveyed, also of the Temple at el-Kabu and numerous tombs, sarcophagi, inscriptions, dolmens, &c. The price to the public will be 3s. 6d., to subscribers to the Fund, 1s. 6d.

A special case (1s. each.) is being prepared for binding "'Ajlûn," "Abila," and "Pella" in one volume.

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

Considerable progress has also been made with the second volume, which consists of M. Lecomte's beautiful drawings, illustrating the Mission of M. Clermont-Ganneau in 1874. The illustrations for the third volume, Mr. Chichester Hart's "Flora and Fauna" of the Wâdy Arabah, are nearly ready.

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

The books now contained in the Society's publications comprise an amount of information on Palestine, and on the researches conducted in the country, which can be found in no other publications. It must never be forgotten that

no single traveller, however well equipped by previous knowledge, can compete with a scientific body of explorers, instructed in the periods required, and provided with all the instruments necessary for carrying out their work. The books are the following (*the whole set can be obtained by application to Mr. George Armstrong, for £2, carriage paid to any part in the United Kingdom only*):—

By Major Conder, R.E.—

- (1) "Tent Work in Palestine."—A popular account of the survey of Western Palestine, freely illustrated by drawings made by the author himself. This is not a dry record of the sepulchres, or a descriptive catalogue of ruins, springs, and valleys, but a continuous narrative full of observations upon the manners and customs of the people, the Biblical associations of the sites, the Holy City and its memories, and is based upon a six years' experience in the country itself. No other modern traveller has enjoyed the same advantages as Major Conder, or has used his opportunities to better purpose.
- (2) "Heth and Moab."—Under this title Major Conder provides a narrative, as bright and as full of interest as "Tent Work," of the expedition for the *Survey of Eastern Palestine*. How the party began by a flying visit to North Syria, in order to discover the Holy City—Kadesh—of the children of Heth; how they fared across the Jordan, and what discoveries they made there, will be found in this volume.
- (3) Major Conder's "Syrian Stone Lore."—This volume, the least known of Major Conder's works, is, perhaps, the most valuable. It attempts a task never before approached—the reconstruction of Palestine from its monuments. It shows what we should know of Syria if there were no Bible, and it illustrates the Bible from the monuments.
- (4) Major Conder's "Altaic Inscriptions."—This book is an attempt to read the Hittite Inscriptions. The author has seen no reason to change his views since the publication of the work.
- (5) Professor Hull's "Mount Seir."—This is a popular account of the Geological Expedition conducted by Professor Hull for the Committee of the Palestine Fund. The part which deals with the Valley of Arabah will be found entirely new and interesting.
- (6) Herr Schumacher's "Across the Jordan."
- (7) Herr Schumacher's "Jaulân."—These two books must be taken in continuation of Major Conder's works issued as instalments of the unpublished "Survey of Eastern Palestine." They are full of drawings, sketches, and plans, and contain many valuable remarks upon manners and customs.
- (8) "The Memoirs of Twenty-one Years' Work."—This work is a popular account of the researches conducted by the Society during the past

twenty-one years of its existence. It will be found not only valuable in itself as an interesting work, but also as a book of reference, and especially useful in order to show what has been doing, and is still doing, by this Society.

- (9) Herr Schumacher's "Kh. Fahil." The ancient Pella, the first retreat of the Christians; with map and illustrations.
- (10) Names and Places in the Old and New Testament and Apocrypha, with their modern identifications, with reference to Josephus, the Memoirs, and *Quarterly Statements*.
- (11) Besant and Palmer's "History of Jerusalem," already described.
- (12) Northern 'Ajlûn "Within the Decapolis," by Herr Schumacher.

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

The income of the Society, from December 19th to March 19th inclusive, was—from annual subscriptions and donations, £755 3s. 8d.; from donations for excavations, £932 8s. 6d.; from all sources, £1,983 17s 2d. The expenditure during the same period was £1,132 19s. 8d. On March 20th, the balance in the Bank was £1,195 7s. 7d.

Subscribers are begged to note that the following can be had by application to the office, at 1s. each:—

1. Index to the *Quarterly Statement*, 1869-1880;
2. Cases for Herr Schumacher's "Jaulân;"
3. Cases for the *Quarterly Statement*, in green or chocolate.
4. Cases for "Abila," "Pella," and "'Ajlûn" in one volume.

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

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

It having again been reported to the Committee that certain book hawkers are representing themselves as agents of the Society, the Committee have to caution subscribers and the public that they have no book hawkers in their employ, and that none of their works are sold by itinerant agents.

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

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

The only authorised lecturers for the Society are—

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

His subjects are:—

- (1) *The Buried City of Jerusalem, and General Exploration of Palestine.*
- (2) *Discoveries in Assyria, Chaldea, and Palestine.*
- (3) *The Moabite Stone and the Pedigree of the English Alphabet.*
- (4) *Jerusalem of David, Nehemiah, and Christ.*
- (5) *Sight-seeing in Palestine: a Narrative of Personal Experiences.*
- (6) *Israel's Wars and Worship, illustrated by the new Survey.*
- (7) *The Gospel History in the light of Palestine Exploration.*

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

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

The Survey of Western Palestine, as illustrating Bible History.

Palestine East of the Jordan.

The Jerusalem Excavations.

A Restoration of Ancient Jerusalem.

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

(1) *Research and Discovery in the Holy Land.*

(2) *In the Track of the Israelites from Egypt to Canaan.*

(3) *Bible Scenes in the Light of Modern Science.*

REPORTS FROM JERUSALEM.

Rock-cut Cave at Silwân.—When, a few weeks ago, I went down to Silwân to choose one or two points for excavation, in order to settle the question of a *second aqueduct*, I was told by the people that there exists *another rock-cut chapel* with a large iron cross in it. So I requested them to show me the spot, which they did, bringing me into a large rock-hewn cave. It is no chapel at all, although there is on one of the walls a large cross. They stated this to be of *iron*, but I found it to be *plaster*, so blackened by smoke and age as to look like iron.

I enclose a plan and section of this cave. It is situated under the first house which the road coming from the water or the Pool of Silwân, and crossing the valley, leads to. The rock is cut perpendicular to a height of 20 feet, and has in it an opening 14 feet wide and 6 feet 4 inches high. A rock-cut step leads up to this opening, which is partly walled up; only a door about 4 feet wide being left, which has wooden doorposts and wooden door, which was locked, but on my wish opened. Ten steps lead downwards into the body of the cave; its flooring about 4 feet 6 inches deeper than the surface of the road and court outside. At the end of the steps is some masonry, on one side forming a large *recess* measuring about 10 feet by 10 feet, and used as a stable. The shape of the main cave is very irregular, and on the average (without the steps, &c.), 35 feet long, 30 feet wide, and 13 feet high—the highest point is 15 feet 3 inches, as the ceiling and flooring being not quite even. On the south wall, close to the stairs, is a *recess*, not an *apse*, as I had been told, for it is neither a half circle nor of any exact measure on its four sides. Of greater interest is a kind of *passage* cut into the rock on the same side, 2 feet 4 inches wide, 4 feet high, and 14 feet 8 inches long, and terminating abruptly. Its direction is not exactly in a straight line, and its floor has a slight slope upwards. This passage is 9 feet 6 inches above the flooring of the cave, which is here somewhat higher than the main flooring, forming a kind of step.

Opposite, on the northern wall, which is not so straight as the southern, is fixed the *cross* already mentioned. It is in relief, 3 feet long, with its lower end 6 feet above the floor. Although in several places on the side walls plaster is visible, yet it was no *cistern*, as no hole for a well is observable in the ceiling, and the bottom is not deep enough for that kind of cistern from which the water is fetched by the stairs. My humble opinion is, it was originally a *habitation* for men, and at the same time, or afterwards, used for a stable, magazine, and mill. The millstones are still there.

Excavations at Aceldama—or, as the natives call the hill higher up, *El Shamah*.¹—Somewhat above the Aceldama building, near the top of

¹ Possibly a corruption of Chaudemar, the name given to the place in the 12th century.—Ed.

the hill, some excavations were made by the proprietor of the ground when about to cultivate it, and to plant vines and trees. Caves, scarps of the rock, mosaics, hewn stones, &c., were found; so I visited the place, and have to report the following. Some of the excavations had no important result; some are not finished, and those which seem to me interesting, are the following:—

(a) A kind of court or yard worked horizontally into the surface of the rock. As the ground rises towards the west the flooring is worked down to the level. On the eastern side, on some parts where the rock lies deep, it is restored by mosaics of somewhat large stone cubes. This court is on an average 32 feet long and 19 feet 6 inches wide, and has at its eastern end two small pools. The smaller one is 4 feet wide each way and 3 feet 6 inches deep, and from its bottom a round hole leads to the larger one, which is 8 feet long, 5 feet wide, and 5 feet deep, and has on its bottom a kind of shaft 3 feet 6 inches deep. This is round, and at its middle has an *upset*, so that the lower part is narrower than the upper, which has a diameter of 2 feet. This shaft, as well as the sides and bottoms of both pools, are laid with such dies or cubes as are mentioned above, and over them there is no plaster. What was the use of these things? It is not easy to say. The proprietor thinks they formed a *bath*, as he has found in the pools some white stuff which he thinks to be the sediment of soap. But this is not likely to be the case, and I rather think the white stuff is the remains of *lead*, with which the pools were overlaid, instead of cement. A bath also does not want such a court, but rather adjoining buildings. So I think it was a store-house or fabric of wine or oil.

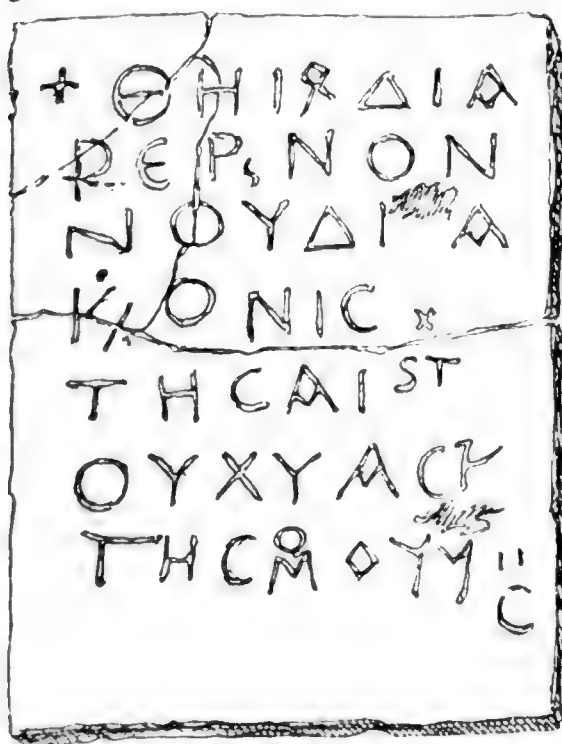
(b) Some caves and scarps with steps, &c. Close by are some rock-cut tombs, of no special interest, unless the large stone which was found before the door be reckoned as such.

(c) Farther west are other and more interesting rock-cut tombs. The workmanship is excellent, walls straight, and angles exact. The entrance, as in all rock-cut tombs, is square, 2 feet 4 inches wide and 2 feet 6 inches high; inside of it, four steps lead down into a square chamber 11 feet long and 10 feet wide, and 6 feet 4 inches high. On the walls opposite the entrance, and on the two other sides, are deep recesses cut in the rock each 7 feet long, 2 feet 4 inches high, and 3 feet deep, so forming three tombs or places where a coffin or sarcophagus might be put; yet it is clear that it was not intended for such, for on the bottom, which is about one inch deeper than the bench in front, is hewn out from the rock a kind of couch, with a shallow place for the reception of the head of the corpse. The bench before the eastern recess is only 1 foot 3 inches wide, whereas the southern is nearly 3 feet, and the western a little more than 3 feet wide. The top and sides are smooth. On the western side, where it joins the southern, and below the upper edge, there is a Greek *inscription*, from which I took a squeeze and made a good copy, which I enclose.

C. SCHICK.

The Greek Inscriptions on Tombs north of Damascus Gate.

IN answer to enquiries respecting the Greek inscription said to have been found in the Dominican ground north of Damascus Gate (*Quarterly Statement*, 1890, p. 3), on the 30th July last I sent a description and some drawings of two newly-discovered tombs at St. Stephen's, near Jeremiah's Grotto, one still with a stone door, the other one having once had a rolling stone. On each of these were Greek inscriptions, of which I sent copies (*Quarterly Statement*, 1890, p. 10). I mentioned also that on one, the covering stone of the entrance, there was also an inscription, but it had been broken in pieces and taken away by the monks. They made a wooden frame, and put the pieces together into the frame, and sent squeezes of the inscription to Paris, where it has been published in a paper called "Cosmos," No. 235, July 27th, 1889, together with notes and interpretations. I also inclose herewith a copy (reduced to about $\frac{1}{20}$). The slab is about $3\frac{1}{2}$ feet long and 2 feet 9 inches wide, and 6 or 7 inches thick; the letters are engraved, and the stone is broken into four or five pieces, and in some places the letters have suffered by weathering.



+ Οἷκ(αι) αἰε-
 φερ(ουσα,) Νόν-
 νου δια (κόνον)
 καὶ Ονισ(ίμοα διακόνδ)
 τῆς ἀγ(ιας) τ-
 οῦ χ(ρισθο) ἰ Ἄ(νάθου)(ύσσω,)
 τες μο(νῆς) αὐτῆ-
]

This is the reading of Dr. Papodoculos.

Dr. Papodoculos, a learned man in the Greek Convent, tells me the inscription is abbreviated, and may be read so that it becomes fatal to the traditional site of the Holy Sepulchre, but that before one can speak positively more proofs must be looked for, and as the matter now stands it is better not to make too much of it. He thinks it is clear from the inscription that the newly-discovered tombs were those of two deacons, Nonus and Onisimus, of the Church of the Resurrection, but that this does not prove that the church itself stood near their tombs. It seems to me

that they may have belonged to the clergy of the church on the traditional site of the Holy Sepulchre, and have been buried here in the general burial ground. However, the learned in England will read the inscription properly and settle the question ; I simply report upon it.

C. SCHICK.

This inscription has been submitted to Dr. A. S. Murray, of the British Museum, who is well known for his intimate knowledge of Greek epigraphy, and he gives the following criticism upon it :—

There is a family likeness between the inscription you have sent me and one which Boeckh (C. I. Gr. 9139) gives as *on the door of a cave at Jerusalem*. The copies he had access to differed much among themselves and he was uncertain of restoring the original. The reading of Papodoculos has probably been made with Boeckh's before him, and may, I think, pass. Here is Boeckh's inscription :—

† ΘΗΚΗ ΔΙΑΦΕΡΟΥΣΑΗΓΕΜ	Θήκη διαφέρουσα Ἡ(ρ)εμία
ΤΩΦΕΡ ΓΩΝΟΘΕΤΗ	ίερ (ομ. τοῦ) μ(ο)ναστηρ. (τῆς ἀγίας)
ΔΕCΙM Ι8 ΒΕΝΑS	Θέκλα[ς καὶ
ΚΕΥΑ Τ8 ΓΕΡ	(κατασ)κενα(σμί)νου Γερ(μανι)
ΚΟΥΤ8 ΓΙ8Η	κοῦ τοῦ ου
† ΤΗC ΑΓΙΑC CΙΩΝ	τῆς ἀγίας Σιών.

As regards the smaller inscription which Papodoculos renders as follows : "Pachomios was buried on the 20th (of some month and of some year)," a possible alternative would be to suppose the name of the deceased person to be lost at the beginning of the inscription. The sense would then be ". . . was buried on the 20th of (the month) Pachon, in the 11th year of the Indiction" (ἐτάφη τῇ ἐ(ι)κοστῇ(ῃ) Παχ(ῶ)νος λ. ἰνδ(ικτιῶνος). But I have had hardly any experience of these Christian Greek inscriptions, and therefore cannot speak with confidence. The name Pachomios, which Papodoculos restores, may be right, but his reading of the word that follows seems to be wrong.

ΕΤΑΦΗΤΝΕΚΟΣΤ(

ΠΑΧΟΜΙΟΣΛΙΧΝ

Ἐτάφη τῇ ἐ(ι)κοστῇ(ῃ)
 Παχ(ῶ)μ(υ)ος Λιχν(δενί)

= on the twentieth (of a certain month of a certain year) Pachomios from Lychis dos (?) was buried.

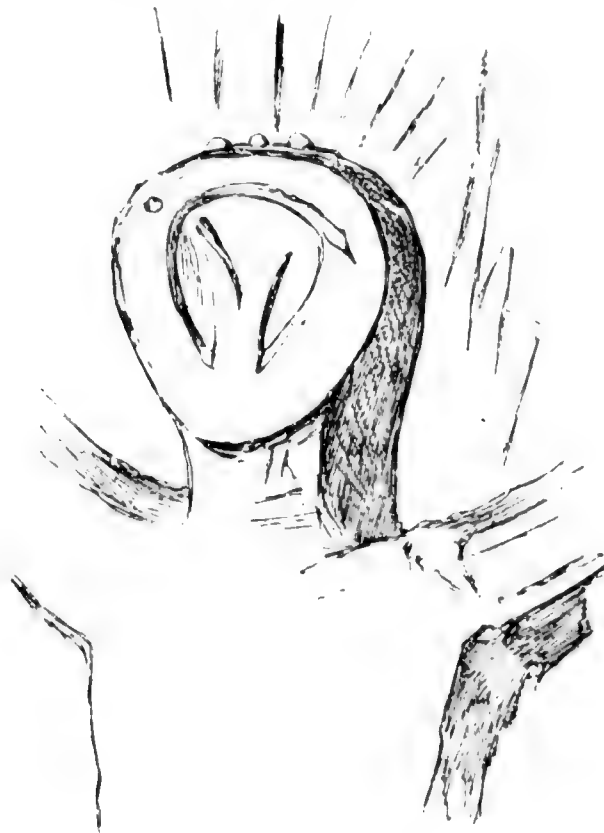
A. S. MURRAY.

CAVE OF SARÎS.

I HAVE again visited the cave at Saris, and forward the results of my attempts to obtain squeezes of the marks or characters which were noticed by me in the place where an inscription was said to have been, but which was destroyed by the peasant who had hoped to find treasure.

Mr. Schick was unable to accompany me, but he kindly allowed me to take with me an intelligent young man in his employ who proved very useful.

I was also happy in being accompanied by Mr. Lees, who came at my invitation and kindly sketched the two figures in the cave. These sketches I also forward with the squeezes, and a rough plan of the cave, with section of the pit, and also a sketch copy of the vestiges of letters, and a full sized sketch of the head of the figure on the east wall, which is very curious, the face having instead of eyes, nose, mouth, &c., an ornament very much resembling a double dagger-shaped leaf.



We did not find any letters near the figures, but a close inspection showed that when the cave was made, they had been outlined by means of a drill or borer, in such a manner that when the adjacent stone was cut away, the figures remained standing out in relief. The lower portion of many of the drill holes is distinctly visible, as shown in one of Mr. Lee's sketches, and also in that of the head itself.

Since I first visited the cave last June others have been on the spot.

The Jerusalem Freemasons especially, seem to have been quite excited by the accounts of the attitude of the figures, and about two months ago a large party of them, headed by the Master and some other officers of their society, actually made an expedition in search of it, and cleared the earth, broken pottery, and bones, in the pit or square trough in the south-eastern corner. I have made special enquiries of some who were of the party, but could not learn that they had discovered anything of importance except some broken jars or cruses (*imbriks*). However, their visit was of service in so far as it saved us the trouble of clearing out the four-foot deep pit or trough, which at the western end has at the top a step or ledge. The floor of the cave round the western and southern walls had been cleared, so that we had only to excavate in the centre to ascertain the level there, as the floor outside the pit seems to shelve towards the centre from all sides. To do this was no easy task, as besides the stuff which had come out of the pit, the soil in the cave is very hard and full of tree roots which had penetrated in search of moisture. The rock floor in the centre of the cave is five feet from the ceiling. At the north-west, south-west, and south-east corners it is three feet from the ceiling. In the south-east corner the rock overhangs the pit.

In the rubbish that had been taken out of the pit Mr. Lees found a broken *siraj* or earthenware shell-shaped lamp like those used at the present day by the Fellahin, only larger. From the rock terrace above the cave there is a magnificent view over the sea-board plain. We saw the range of Carmel very clearly with the naked eye, and, of course, yet more so with a field glass.

I enclose a squeeze of a small Greek inscription in raised letters found stone dug up lately close to the tombs of the Prophets on Olivet.

I have not had time to write out the list of Judeo-Spanish proverbs which I promised some months ago. I have begun but do not know when I shall finish. We missionaries, however intensely we may be interested in the Palestine Exploration Fund work, can seldom find leisure to indulge in it.

P.S.—In my report I described the cave as being hewn out of *narie* rock, soft to work, but hardening by exposure; I was mistaken, it is hard *mizzie*.

J. E. HANAUER.

IRRIGATION AND WATER SUPPLY IN SYRIA.

REFERRING to the notice by Mr. Simpson upon the above subject in the last *Quarterly Statement*, I may mention that in April, 1889, while riding with my wife from Palmyra to El Beda, on our return journey from the former place, I observed a considerable number of pits such as those which Mr. Simpson describes. Those that I saw were within a few miles of Palmyra, and were, I should judge, distant from 200

to 300 yards from one another. But I did not observe carefully. Our men stopped at two of them and found water. I supposed that they were old irrigation pits communicating with one another by an underground channel, and fed from the hills on the north side of the gap to the east of which Palmyra stands. I made no examination of them, however, being ill at the time, and engaged in struggling against a strong west wind, which carried so much sand with it as to be most unpleasant.

I do not remember to have seen El Beda mentioned in any of the guide books or accounts of journeys to Palmyra. It is considerably to the north of the direct route from Karyatin to Palmyra, and about six hours ride from Palmyra. It consists of a well of brackish water, and a small block house, which as I was told had been recently established by the Turkish Government, and in which an officer and eight soldiers, with their horses, are stationed. The establishment of this station makes the journey between Palmyra and Karyatin easier and safer than it was before.

With regard to Palmyra, I will mention another matter which may be of interest.

All modern notices of the place which I have read refer to the fact that no fresh water is to be found there, and some express wonder at the ancient prosperity of the Palmyrenes in the absence of this requisite. The guide books recommend the traveller to bring a supply of drinking water with him, as the stream of sulphurous water which, until last summer, was alone known in modern times as the source of supply there, is very disagreeable to the taste. We were, therefore, much surprised to find that the stream near to which our tents were pitched was fresh and pure. It appears that it was only discovered in the summer of 1888, and that we were the first European travellers to see it. It runs only a few feet under the surface of the ground, in an old flagged channel or conduit which widens out at the spot where it now comes to light so as to admit of a landing, on which people coming to fetch water or to bathe can stand, and it was a very interesting sight to see the hot and thirsty Arabs, engaged in digging during the day in other parts of the ruins for water which they had not yet found, rush rejoicing at sunset to this spot. But the artificial channel ending here, the water disappears a few yards further on in a sandy hollow. The volume of water was about 16 inches deep by 22 wide ; it was tepid, but when cooled in earthenware jars very pleasant and refreshing to the taste. I have no doubt that there are several similar streams conducted by similar channels in other parts of the ruins. The surface of the ground (presumably in consequence of the accumulation of sand blown in from the desert) has evidently risen since the erection of the chief buildings (as one may see from the proportions of the arches and columns in many places), and probably this is the cause of the disappearance of these streams. The finding of this stream has stirred up the inhabitants to search for more fresh water, and pits were sinking in several places during our visit.

MA'LULA AND ITS DIALECT.

THE village of Ma'lula in the Anti-Libanus has a three-fold interest for the traveller. Its situation and surrounding scenery are unique, its cave-dwellings and rock-tombs give evidence of an ancient but active existence, while in its dialect we find a certain strange survival of the Aramaic which Christ spoke not 150 miles away.

My first glimpse of Ma'lula was in March 1888, on my way to Palmyra. Roughly speaking, Ma'lula is about 25 miles to the north-east of Damascus, and is reached in about eight hours. At about three and a-half hours' distance from that city the path crosses a steep ridge and enters a broad rolling valley running N.E. and S.W., bounded on the east by slight hills, rising in places to higher peaks. The western boundary is one long, almost unbroken, ridge, of a curious formation. The mountain runs up smoothly for several hundred feet, with a surface of light tinted shale and gravel, terminating in a palisade of reddish-yellow limestone, from 50 to 150 feet in height, making an irregular sky-line. This columnar wall runs along the top of the ridge for 20 miles or so. It takes strange fantastic shapes, often like pillars or pilasters, now like giant teeth with monstrous roots, and now like animal forms. The red and yellow of this irregular wall cutting sharp against the vivid blue produces a brilliant effect of colour. Sometimes the gravelly hill appears above the palisade, but not often.

Before reaching Ma'lula the ridge is twice broken, once by a gorge leading to the small village of Jeb'adin, and again where the Yebrûd road crosses through a second gorge to the higher hills. About three miles beyond this point the ridge curves sharply inward and downward, rights itself for a few hundred yards, then curves outward and upward again, and resumes its former N.E. direction. In the meantime it has formed a deep basin, the shape of an amphitheatre, bounded by massive cliffs, which are pierced at the two inward corners by rapidly-ascending gorges. Great rocks and boulders lie on the steep slopes, or are heaped together at the base of the cliffs. Clinging to these rocks, rising tier above tier, like the cells of a honeycomb, are the houses which form the village of Ma'lula. The houses are built of *libin* or unburnt brick, rough unhewn stones, and mud. A few arches appear. Many of the flat roofs project, and are supported by posts, thus forming a sort of balcony. Brushwood is used in the roofs and peeps out from under the eaves. The mud and scant whitewash give the town an appearance of brown and white. The houses are at all angles: one stands out boldly on a great rock, another retreats under the overhanging precipice. A simple square Church with belfry gives point to the collection of simple houses. Under the north cliff lie the substantial buildings of the Convent of Mar Tukla. On this same side of the town there are a few substantial stone houses, but as a rule the buildings differ little from each other, in point of simplicity.

A valley opens out from the Ma'lula natural amphitheatre into the long upland, which I have mentioned. It is watered by streams from the

two gorges, and is rich in great walnut and other fruit trees, as plums, pistachio, and apricots. The limestone soil is of a dazzling whiteness, especially just outside the amphitheatre, where the path crosses ledges of soft polished white rock, easily carved, and used very effectively in decoration, as in the houses of Yebrûd. At the north side of the village threshing floors have been carved out of the hillside—rounded, level places—curious white spots in the landscape. Beyond these the hillside is strewn with sumach trees, or shrubs, used in tanning. Judging from the number of threshing floors I should say that the town must own many wheat fields in the rolling country below. Perched high above the lofty cliffs at the back of the town is the Convent of Mar Sarkis, with its metal dome. On these upper hills, the colour of maize, are many vineyards.

These general features were noticed in my first visit, when we passed through hurriedly. As we entered further into the cliff-bound recess we saw the caves high up in the face of the precipices to north and south, and the dozens of square entrance holes to chambers within the cliff at the back of the town—some apparently inaccessible, so high were they.

We rode through the twisting streets, finding the people very friendly. Once the path wound along a covered gallery fifty feet long, with dwellings above. Soon the path became precipitous; we dismounted and led our horses up a series of ledges. The baggage animal, which was ahead, slipped and began to roll, we, meanwhile, standing each on his own ledge quite helpless in view of the coming avalanche. Fortunately something stopped the horse, but the load had to be carried up by men through the magnificent gorge. At the end it is simply a climb up a fissure, where the horses lifted their legs from one deep hole in the rock to another.

In June of this year (1889) a friend and myself planned to spend a few days at Ma'lula, being curious to find out something about the Syriac dialect spoken by the inhabitants. We arrived on a Saturday evening, and remained till the following Thursday morning. In the meantime we asked many questions, and examined the Convents, cliff chambers, and tombs. I had not at the time the plan of writing an exhaustive article on the place, hence the impressions here given are merely those of an interested traveller, and lack many particulars which a scientific description should contain.

We approached the village from the north-east, as we were coming from Yebrûd, having crossed the ridge about an hour to the north. We pitched our tent on a spot cleared and built up for a threshing floor, on a slope of the hill below the northern cliff, at some little distance from the village. On Sunday, the people having no work to do, crowded about the tent—sitting outside the door, peeping in through the cracks, and even crouching inside. Oddly enough they were not troublesome. They simply wished to "admire." They were neither impertinent nor intrusive, and they kept quiet. We found their good humour unfailing. They were alert, active, and merry, but without the same conceit one finds in the Lebanon. The type of face did not seem to me as distinct as that of

Yebrûd ; dark hair and eyes are the rule ; the faces are round, and the features not striking. There were many comely women, with fresh complexions. We saw few dull countenances. We heard the echoes of one or two violent quarrels, but in their general mutual intercourse the people seemed gentle and agreeable. Their enterprise is shown by the number of men and boys who go to Damascus for work, always, however, regarding Ma'lula as their home. The majority go as bakers, while some are servants. Baking is the art of the town ; the brother of the Sheikh works in the oven.

After some inquiry we estimated the population at 2,000, including the absent. Two-thirds are Greek Catholics, the remainder are Orthodox Greek, with about twenty Moslem families, not to be distinguished in dress or language from the Christians. The people seem about on a par with each other, there being no aristocracy. The Greek-Catholic priest is a native of the place. He spoke a little French. The men all wear the veil or shawl on the head, falling over the shoulders. It is bound with thick camel-hair rope. The cloth robe which they wear over their waistcoat and full trousers struck me as much shorter than what one usually sees. The men are not heavily bearded, nor does the beard seem to come as early in youth as it does in the Lebanon. There is a school in the village, where we saw a few small boys. The teacher boards with the pupils by turn. He teaches Arabic, reading, and writing. He was sent to the town by the Bishop of Yebrûd.

All speak the Syriac dialect ; they say a woman brought as a bride from elsewhere can learn it in a year. At the same time they all speak Arabic like any Syrian. They seemed much interested and amused by our desire to look into their language, and were most good-natured in answering questions, but we found a varying intelligence in their answers ; the trouble with many being that they gave much more than was asked. Speaking the Arabic, I found little difficulty in obtaining information. If in doubt as to what one person meant, I could always ask another.

The streets in the village are often ledges of rock along the steep slope. The houses are sometimes built over the street. Near the north gorge there is a house wedged in between the overhanging cliff and a huge boulder, with an arched gallery beneath it for the highway. It has a balcony in front, supported by a single beam. The light green of willow branches contrasts with the whitewashed wall. Entering the passage under the house, we followed it up sharply to the left, and there found on our right a narrow flight of mud-steps, whitewashed, leading back to a platform-roof opening on which was the door of the house ! Within everything was very clean. The rough walls formed by cliff and boulder were whitewashed. A sick man lay on a bed on the floor. His son, who had been in Damascus, and kept one of the three small shops in the village, asked us how we made gunpowder, as he wished to compare our method with his own.

Later we called at another house in response to a cordial invitation from its mistress. From a small enclosed yard whitewashed steps of mud

led up to a roof in front of a house of two rooms. Steps, roof, walls, floor were all of this whitened mud, which comes off on the clothes. The room in which we were received had two windows and small openings above for ventilation. In one corner a cone-shaped chimney of mud came down to within 3 feet of the floor. At the angles between it and the walls there were ornamented pockets of mud. Its surface was also ornamented. The projecting angle of the chimney had a place for a lamp. Below there was no hearth, but only a place for one pot or kettle rounded out from a low platform of mud. The mud of the walls in the room was worked into pockets, ledges, shelves, rudely ornamented in rosettes and twists, with bits of glass stuck in. Chimneys are not found in the Lebanon houses, but they occur in the Anti-Libanus as near the Buka'a as Zebedani. In the other room the family stores were kept in jars made of mud and straw, whitewashed. Later in the day a fierce wind blew threatening to overthrow the tent, so we took refuge in this clean house for two nights. The woman baked bread (barley bread as well as wheaten) for the neighbours, who paid her in kind, the number of loaves being left to generosity. A fire kindled at the bottom of a pit in a mud projection at the side of the house heated its sides, against which were stuck the flat loaves, which gradually became baked.

In passing through the town we found the houses clean. We were often warned against bye-paths, because of the house-dogs. They certainly had a most villainous look. Bees are kept. We could get no meat, as there happened to be a feast, but in a village like Ma'lula there would hardly be meat oftener than once a week. Such people live on bread, cheese, olives, eggs, dibs, and vegetables in their season. Unripe fruit is much prized—as grapes (eaten with salt), plums, &c. The people rise with the dawn.

The Sheikh's house differed little from the rest, but it had a stone doorway, with some carving and coloured ornamentation. The office of Sheikh continues in the same family. He was away, but his brother (who left the oven to entertain us) said that the house was to be improved and enlarged.

In speaking of the caves and rock-chambers of Ma'lula it will be convenient to refer to the South Cliff, Central Cliff, and North Cliff of the great natural amphitheatre. These cliffs are about 150 feet in height. About 35 feet above the base of the South Cliff a cave opens in the face of the rock, the entrance being about 20 feet in length. A rude ladder, made by two irregular branches or trunks of ancient walnut trees, with rounds fastened by large nails, is the rather risky means of approach. Our servant climbed up first, disappeared in the cave, and then reappeared at a square window cut in the face of the rock some 40 feet to the left of the entrance (as we looked at it) and rather above it. We then scaled the ladder, and scrambled around the rude masonry that forms a parapet at the entrance of the cave. This wall is made partly of stones and partly of large blocks of wood. Within there are two or three plastered walls (in a somewhat ruined condition) of mud and straw, forming small

passages and shutting off the main part of the cave, which runs sloping up *behind* the face of the cliff for some 52 feet. This, added to the 20 feet of entrance, gives 72 feet as the face length. The cave then turns and slopes up inward for 70 feet more. Here the breadth is considerable. The height is from 10 to 15 feet. Before the cave turns inward a low, artificial passage leads off at right angles, through which one must creep, into a small chamber, from which a similar gallery leads to the interior cavern. Marks of the chisel or pick are everywhere visible, so that it is impossible to tell how much a natural cavern may have been enlarged. The square window in the face of the cliff has an embrasure of 3 or 4 feet, and a parapet with a drainage hole below to the right. The cliff below this hole is stained. Sockets and holes at the side show that the window may have been bolted or barred. Near the entrance, within the cave on a ledge, there are signs of an ancient inscription in large Greek letters, irregularly following the irregular surface of the ledge, something like this :—

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PA

It was not until we had been in the cave for an hour that we noticed the faint letters, and I daresay a strong sun might reveal others. A few ruder letters in red paint also occur ; also there were some plaster remains on the cave wall, rough figures of a giraffe, a horse, a bird, and a camel, with rider apparently holding an umbrella ! This last I do not recall, but my friend assures me he saw it. We noticed pretty maidenhair growing above another ledge, then damp moss on the ledge itself, then a basin scooped out, a foot across, with a tiny channel 8 inches long leading to a small hole. This was the only sign we saw of a water supply in the cave.

When we descended to the base of the cliff we found a stout, jolly man, bearing a strong resemblance to King Henry the Eighth, who said that in the troubles of 1860 he had hid for days in that cave with the women and children. All the walls within were then there : they did nothing to the place. In the face of the same cliff, somewhat to the west, there is another cave, with masonry at the entrance. This the man said was smaller, and we did not visit it. At the base of the cliff, some yards up, there are holes 12 or 15 inches square, cut in the rock at regular intervals, probably beam ends, used in the roof of some building, perhaps some public place, as the structure indicated must have been large. This cliff-castle is similar to the better known one in the Southern Lebanon, Kala'at Niha, near Jezzīn, where the Emir Fukher-ed-dīn Ma'n, held out against the Turks. There a long ledge projecting from a cliff was utilised for castle and dwelling ; beam ends occur above each other, suggesting two or three stories, water was brought by a channel from above, small reservoirs appear, granaries were carved in the rock, &c., &c. The Emir must have taken advantage of some ancient cliff dwelling, dating perhaps from the time of the one at Ma'lula.

On the huge detached boulders at the foot of the South Cliff are found many tombs. In many cases they are simply cut in the tops of rocks. One rock, far below, has steps cut to the top. There seems to have been a passion for cutting in these stones, as there are many shallow, arched recesses on detached rocks, apparently useless. Other arched recesses have a couple of tombs in them. On one great boulder an elaborate arch is cut, with a balustrade below and several deep tombs within. In another place the tombs are two deep, with a ledge, as if for cover between.

The West Cliff, directly above the town, is perforated with many square holes—entrances to dwellings cut in the heart of the rock. Some of these have been fitted with modern doors, and are used as storehouses. One is so high that at a distance it seems quite inaccessible, but on approach one finds beam-ends below, showing that the cliff-chamber might have been approached from the roof of some building in front. At the south end of this central cliff the beam ends occur in several tiers, above each other. In one place steps lead up the cliff to a chamber. We entered several rooms and found them of varying sizes, some as large as 15 feet square. At the back of one chamber there was an arch, and on the surface of the rock at its side, slightly smoothed for the purpose, was this inscription, not perfectly clear, but apparently inclusive :

ΕΤΟΥ[?]ΣΗΪΥΥ — — ΙΟΦΙΧΛΟΥ
ΠΑΤΡΟΚΛΟΥΕΠΟΙΗΣΑ
ΝΤΗΝΚΟΝΧΗΝΟΓ[?] ·
ΜΕΡΟΥΣΗΜΟΙΣΟΥΣ
ΠΩΘΕΩΜΑΛΑΧΗΔΑΑ
ΕΙΑΝ

Another rock-dwelling consisted of two rooms. In one room at the side there was an elevation as for seat or divan. The rock hung down somewhat over the lintel of the inner door, which had this inscription, in rude letters, some of which were rather indefinite :

ΕΤΟΥ[?]ΣΗΟΥΑΥΔΝΕΟΥΓΧΕΙΛΟΣ
ΖΑΒΔΕΟΥΑΒΙΣΑΛΥΥΛΣΕΡΜΟΥ[?]

In another chamber we found traces of a much longer inscription of nine lines, too indistinct for us to read. The guide told us that the above inscriptions had been copied by travellers. All the chambers in the West Cliff are quite artificial, the walls are always straight and the angles true. Slightly carved in the face of the cliff is a large arch, apparently to no purpose. Here also are small recesses like those we noticed below. In one chamber a small channel or open drain crosses the floor and disappears into the mountain at the back of the room. In another are two vats, one lower than the other but connected with it.

On the rocks outside the chambers and at a little distance are more tombs, but the chambers themselves as a rule are without tombs.

The rocks and cliffs of the South Gorge are wild and splendid, but contain no tombs. A side valley, lined with fantastic rocks and choked with boulders, enters from the south. Near by, a huge rock hollowed out like an oblong box, set on end, is called the "Hanging Place," because of a round hole in the top. One looks up to the summit of the South Cliff and is startled by its resemblance to a bear. A shallow groove runs down the cliff at one side of the gorge; as it comes to nothing it looks as if it were merely to drain the rocks above, especially as we find these drain-lines in the cliffs above the convent of Mar Tukla.

The North Gorge is more interesting. The path for horses climbs over the rocks at one side, but we followed up the brook which emerged from a narrow fissure with lofty perpendicular sides. Narrower grew the winding chasm, and we had to use our hands quite as much as our feet in getting along. Presently we heard a sound behind us, and we flattened ourselves against the walls to let pass two women with cows. As they splashed through the tiny brook their progress was more rapid than ours. They told us that God had opened up this fissure as a way for Mar Tukla, who was fleeing from her enemies, and pointed to a deep groove or aqueduct high up in the side of the cliff as the path on which she walked. We traced this aqueduct almost to the fountain on the open land above.

Mar Tukla is said to have been a companion of St. Paul's; the tradition is doubtless ancient, and thus some light is thrown upon the antiquity of the channel-aqueduct, and perhaps on ancient Ma'lula itself, as those responsible for the tradition had no notion of its real origin.

Another day we followed the horse-path up the gorge and found quantities of tombs—some open and some in rooms. Here also were large chambers, partly cavernous and partly artificial. One was regularly vaulted, with incomplete pillars not extending far below the vault. It had a broad doorway, with sockets. It contained three vats, and a place that might have been a tomb, or a place for stores. Another contained lamp-niches, a stone seat, rings cut in floor and walls, plastered holes, and vats sunk in the stone floor, used now in the preparation of sumach.

To one approaching Ma'lula from the high lands to the west, the ledges of rock which line the summits of the hills above the amphitheatre seem to roll up to the sheer edge of the precipice like angry waves of grey-white foam. Or to take a milder figure, the ledges appear sometimes like the wrinkled surface of cream or curds. In the ledges above the Central or West Cliff we find the greatest number of rock-dwellings. These are cut so near the surface of the hill that sometimes the roof of the chamber is no more than a foot thick. Some rooms are high and spacious, others not high enough to stand in. One room had an arched recess, precisely like the modern yuk, in which the beds of the family are piled by day; seats; cupboards; rings in the roof. Some chambers

seem to have been ancient wine or oil presses, with vats at different levels connected by channels.

Outside were shallow, rectangular reservoirs. One chamber had a hole near the roof in the back wall, connecting it with a room cut in a higher ledge of the mountain. The chambers are near each other and the top of the hill is quite honey-combed with this rock-city. No tombs occur here.

Mar Serkis, the Latin Serjius, is perched on these cliffs. It is a plain quadrangle with two galleried stories about a court, and has a chapel with small dome in the centre. Within the chapel we found a stone screen, with a series of western-looking panel pictures above. The altar was canopied, surmounted by dome and cross.

At the back of the nave was a ruined gallery. The convent belongs to the Greek Catholics. In the Greek Orthodox churches the screen is usually wooden, with three doors, surmounted by panels and a huge wooden cross, with painting on it. There is only one priest at Mar Serkis, who received us hospitably. There are no monks. The wine of the convent, so the priest said, is celebrated. It seemed very pure, but somewhat heavy and flavourless. A fine fruit garden stretches behind the convent, at some little distance below.

The Cave-Castle of the North Cliff is approached from above, as it opens into the face of the rock, some 100 feet above its base. We toiled up the sloping ledges, crawled through a small tunnel on our hands and knees, and then descended a narrow fissure in which little holes were notched, to a short ladder dropping to the cave itself. The descent from the tunnel above must have measured 30 or 35 feet if not more. The view was splendid; taking in the grandly-coloured cliffs opposite, the richly green gardens far below, the white houses of the town, also far below, the roofs covered with brush, with people walking over them, the dome of Mar Serkis, and the green of the vines on the upper hills of yellow, saffron, brown, white, and maize.

The floor of the cave was very sloping. In front was a parapet of stones and mud. Along the face the cave dimensions were 50 by 20 feet. At one end it rounded into the mountain to a further depth of 25 feet. The cave seemed mostly natural. In the roof were two holes, evidently artificial, apparently drilled from above; and there was a larger hole in the wall, soon branching into two funnels. Could this have been for water supply?

We have now touched on all the rock dwellings and chiselled stones of Ma'lula except those under the further end of the North Cliff. The largest chamber we found was one recently opened in the hill, below our tent. This measured 20 by 40 feet. Its roof was supported by four pillars—the natural rock left standing when the room was carved out. It was divided into two parts by a low wall, only two or three feet high. It contained seats, rings, niches for lamps, etc.

The only sign of sculpture was on a detached boulder above the tent. Here, on two arched panels, were figures of a man and woman, or two

men perhaps, the features quite destroyed. On the arched border of one panel was this inscription :—

ΕΓΝΑΤΙΑΡΕΡΕΝΙΚΗΤΑΙΟCΙΟΥΛΙΟC
[?] [?] [?]
 Λ Ρ C C

After all this detail about tombs, chambers, and caves, perhaps a few words of recapitulation will make the matter clearer.

We have in ancient Ma'lula not only a large rock cemetery, but a town of rock dwellings, which must have supported no small population. While some tombs are found in recesses and chambers, the majority are in the surface of rocks. Dwelling-houses are thickest on the hill behind the West Cliff, where there are no tombs. Below, tombs and chambers occur side by side. There may have been a large public building against the South Cliff. Both North and South Cliffs have cave-castles. Numerous beam-ends show that houses of wood or hewn stone occurred, in addition to the rock-dwellings. The business part of the town must have been above the North Gorge, where the vats, pits, &c., are rather more numerous, though they are found elsewhere. As to the origin of the cave dwellings, the present people of Ma'lula seem to have no idea.

The traditions of the place cluster around Mar Tukla. This convent is most picturesquely placed in the angle made by the North Cliff with the North Gorge. Its many buildings are shown at different angles on the steep slope. Terraces, arcades, courts, diversify its appearance.

A series of arches, with wall, set in the face of a lofty cavern in the cliff above makes a most charming combination of art and nature. We sent our servant on before to announce us, and then followed him up to the comfortably furnished room where the head of the convent received us. The Archimandrite Macarius Suleba is a Syrian, of about 60 years, with pleasant, if somewhat patronising, manner. His face is agreeable, dignified, though not intellectual. He asked many questions, for example, as to the relative position of New York and London. He was much interested in hearing of our visit to the Convent of St. Catherine at Sinai. On our showing him a ring consecrated on the Saint's relics and presented to us by the Prior, he took it, crossed his right eye with it, then the left, then the mouth. We were served with sweets, including delicious *mastik*, a drink prepared from some fruit essence, which made us all, including the servant, quite ill later on, and delicious coffee. My friend had a small detective camera which takes a picture about 3½ inches square. The Archimandrite asked us to take his likeness. However, he gave such elaborate instructions to his deacon to bring robes, a great silver cross, &c., &c., that I told him that after all the result would be but small. "What!" said he. "Not as large as that picture?" pointing to some coarse print on the wall two or three feet square. "No," said I; "it cannot be larger than this," pointing to the tiny camera. The Archimandrite was disgusted. "Here, take this cross," he said, and it was a

few moments before his dignity recovered the attack made upon it. It is needless to add he refused to be photographed.

Mar Tukla, according to the Prior's account, lived "40 years after Christ." Her name in Greek was Seleukias. (A man in the village told us that the ancient name of Ma'lula was Seleukia.) She was a native of Iconium, was engaged to the son of the King, but on her conversion desired to lead a single life, and fled. On reaching Ma'lula the miraculous passage was opened for her. She followed St. Paul to Rome. He said to her: "You have become as one of us; return to your own country and preach the Gospel." Later she lived in the cave above the Convent, which we visited with the deacon. Here a basin of ice-cold water (very holy) is formed by the perpetual droppings from the rock above. She lived in the part of the cave where the small chapel is built. Here are brought the sick of all creeds, including Moslems and Druzes, for cure. The deacon told us that only two days before a woman had been brought from Suddud (the ancient Zedad mentioned in Numb. xxxiv, 8, two days' journey from Ma'lula), all doubled up and carried in a box. She slept one night in the chapel and returned to her town, walking. At the back of the chapel is a small closed aperture, behind which the Saint was buried. A workman once tried to open the tomb, but a blast or some power came out which either paralysed or killed him.

Later on, in Damascus, I heard from the Ma'lulites there resident some more legends and tales of Mar Tukla, which I insert here. According to my informants, her people were Moslems. It will be remembered in this connection that she was a companion of St. Paul's. When fleeing from her persecutors she passed a fellah. Taking up a burnt stick, she stuck it into the ground, and said to the peasant, "If people come along and inquire for a girl, tell them that the girl who passed by planted this." She went on her way, and presently her people appeared. The burnt stick had put forth flowers; the persecutors, evidently believing that the girl who planted that shrub could not have passed recently, turned back, giving up the pursuit. When living in her cave she cured people by laying hands on the head. After her death her people came to steal her body; she appeared in the night to the Prior of the Convent and said, "They have stolen my body." At the third summons he arose, went in pursuit, and brought back the body.

Mar Tukla's presence in the village is a real thing to the people to-day. They speak of her as a "lady we have here." A friend of mine was recently in the village and heard an excited discussion. A man who had a dispute about money matters was declaring that Mar Tukla had appeared to him in a field, and had given her judgment of the affair; as the decision was favourable to himself, some scepticism prevailed in the opposite party. However, many believed in the appearance.

My Ma'lula friends say that once a man coming from Hums was greatly imperilled by a storm of rain and snow. He cried out, "If God will save me and my beast, I will offer a drop of oil to the Saint at Ma'lula." Immediately the storm ceased. On arriving at the Convent

he expressed his gratitude by offering half a pint of oil to Mar Tukla. Then he ate his dinner and spent a pleasant evening. Later on he visited the cave and found something wrong with the oil, just what I could not understand. However, he went to the Prior, told his story, and asked why the Saint was displeased. "Ah!" said the Prior. "You have not performed your vow. You promised a drop, and you presented half a pint. The Saint wishes no more and no less than you vow." So the man mounted to the cave, poured off all the oil but one drop, and the Saint was appeased.

A boy declared to me that he had seen a girl arrive in the village from Kuryatan, carried by four men, accompanied by her mother and bridegroom. She slept in the cave, and the boy affirms that he saw her the next day cured.

Another tale declares that a man in Sallieh, a suburb of Damascus, suffered with "all kinds of diseases." Having heard of Mar Tukla, he fattened a sheep and took it to Ma'lula as an offering. He was cured, and keeps up the offering yearly.

One evening a European arrived at the village and asked for shelter. He was taken in by the uncle of Machoil, the lad who taught me what I know of his dialect. During the evening the stranger said that he had had much pain in his legs for years; he had tried many medicines with no success. The host then said: "We have a lady here who can cure you." "Who is she, and what can she do?" said the Frank. The host then related the cures of the Saint. The Frank, however, remained unconvinced. Presently beds were spread on the floor and they retired. In the night the stranger felt some one treading on his legs and feet. Up he jumped, seized his host by the throat, and demanded what he meant by walking over him. The host indignantly repudiated the charge, and the fight would have waxed severe had not the Ma'lulite bethought himself of "the lady." "She has come to cure you," he declared. The next morning the Frank found that his pains had disappeared. His unbelief vanished, and he went up to the convent to make his acknowledgments to the Saint.

I asked if many Ma'lulites had been cured. "Not one," was the answer, "and the reason is this—when one of us is ill he says, I will go up to the convent and see whether perhaps the lady will cure me! It is that *perhaps* that spoils everything. We live in the place, and have no means of proving our faith. Those who travel, with difficulty, two, three, and four days, prove the strength of their faith, and so the Saint heals them."

To return to the convent. Besides the prior and the deacon, a nun was the only other person we saw in the establishment. There are suites of new rooms for the accommodation of numerous Damascenes who make Ma'lula a place for summer resort. On leaving they make presents to the convent. Similar guests are entertained at Mar Serkis. It was curious to notice in one of the rooms the yukh (or place for beds), so similar to what is carved from rock in the cave-dwellings.

The Archimandrite could tell us nothing of the history of the convent, but it was his impression that while the place was always held sacred, a convent had not been built till centuries after the Saint's death. I am sorry to say that we left without entering the church. This was an oversight that we meant to remedy. However, it was a simple square structure with flat roof. In no old convent in Syria have I seen a pointed roof, except in the church of the ruined square convent of Mar Mousa, in a gorge to the east of Nebk, off the Palmyra Road. This Mar Mousa Church bears a strong architectural resemblance to Justinian's Church at Mount Sinai.

My friend in the village told me that in an old book, no longer in the town, it was stated that Mohammed never entered Ma'lula, though the inhabitants hid for twelve years in the Cliff Castle. By "Mohammed," I suppose we may understand the Moslem army. I refer to this fact as significant in its possible relation to the survival of the old dialect, while the Arabic of the Conquerors supplanted this same old dialect in the rest of Syria, save in the small villages of Bukh'a and Jeb'adin, not far from Ma'lula itself. It is difficult, perhaps idle, to speculate on the reasons for this sporadic survival. However, it is possible that if the people of Ma'lula kept out the conqueror, or if for some reason the conqueror did not care to enter, the population of this wild, secluded gorge, might have kept purer and more intact than that of the rest of Syria, and that this might account for the preservation of their own language. Once preserved for a century or so, during which it had disappeared from the rest of the country, local pride and local tradition would be enough to retain it as a local dialect. The people seemed to us proud of their language. Meanwhile, the Arabic spoken by the Ma'lulites is of the Damascus type, far purer in accent than that of their neighbours in Ma'arra, which bears a distinct Syriac flavour in its vocalization. This is curious, but admits of explanation. The people of Ma'arra gradually adopted the Arabic as their sole language, retaining the broad Syriac vowels. The Ma'lulites learned Arabic as a foreign tongue, and kept the Syriac vocalization for the Syriac language, pronouncing the Arabic like the Arabs. For example, the ordinary Arabic word for Damascus is pronounced by the Ma'arrites *Shawm*, by the Ma'lulites *Shêm*. However, such a speculation is a delicate one. Nebk and Yebrûd, situated hardly six miles apart, have easily distinguished accents.

Bukh'a and Jeb'adin are Moslem villages, but there are indications that they were Christian not very long ago, perhaps within a couple of centuries. Bukh'a is on the high land above Ma'lula, and a few miles to the north. It is a miserable village, containing about twenty houses. Jeb'adin is to the south of Ma'lula, about an hour away. It is approached by a wild gorge, and its fifty or more houses occupy the hills above. The dialect in these villages differs somewhat from that of Ma'lula. Even in my hurried visit I noticed a difference in the form of some words. It is strange that the dialect should have survived in these two villages, and should have disappeared in 'Ain-etîny, which is much nearer Ma'lula.

Possibly they may have been more closely affiliated to Ma'lula, by inter-marriage, trade, &c.

Since writing the above I have paid a visit to Damascus, for the purpose of verifying the notes taken in Ma'lula upon its dialect. To these notes I have made such additions as will enable me to present a brief sketch of the language. Writing in Beirût I have no access to any large library. Nöldeke, in 1862, published a brief treatise on the Anti-Libanus-Aramaic, which I have not seen. I learn from Burton and Drake's "Unexplored Syria" (London, 1872), that Dr. Socin spent two months in Ma'lula studying the dialect. If he has published anything I have not seen it. In the "Unexplored Syria" (vol. ii, pp. 264-271), there is a short description of Ma'lula, with lists of skulls and bones found there, and a list of a dozen or more words of the dialect.

The ovens in the Christian quarter of Damascus are, as a rule, worked by Ma'lulites, who are looked upon as quite a distinct class of people. They have a name for shrewdness. The bread boys are notably sharp and mischievous, as well as profane. At one of the ovens I found Machoîl, the boy who had been my teacher at Ma'lula. I employed him again, because he had a rare faculty of answering questions, giving neither more nor less than what was asked. The Ma'lula dialect is not written, and very few of the villagers read and write Arabic. Hence a sharp boy whom one could keep to the point made the best teacher.

I transliterate words of the dialect into Latin characters for three reasons: 1st, as I have just noticed, the people do not write it themselves; 2nd, some letters have peculiar sounds; 3rd, many words are almost pure Arabic.

Ⲁ (*beth*) is sometimes hard like our B, but is often pronounced like P, eg. *ob*, father, *ippai* = my father. *Dhappopa* = fly. This difference is observed to-day in the Oriental pronunciation of the classic Syriac.

Ⲓ (*Gomal*) (1) like a softened Arabic غ or a thick Parisian R; (2) like the soft Arabic ج in 'aja why; also in *sejratha* tree, and *thelja* snow, both of which are very near the Arabic.

Ⲕ (dolath) like TH in that—as in *Dhemsek* (Damascus). Also like T; ex. *Blota*, town, &c. The relative ⲕ is pronounced t.

The hard sound of D appears rarely; ex. *Mdintcha*, city.

Ⲍ (cheth) is like the Arabic ح

But the ح sound occurs *kharufa*, sheep; *khuttuma*, servant, and some other Arabic words.

Ⲏ (Koph) is like *ch* in the Scottish *loch*, ex. *chathoba* = book. It also has the hard c sound in many Arabic words, and in the Syriac *dhuctha* = place; *malca* = king, &c.

Ⲑ (Ee) is usually like the Arabic ع. But I noticed the ع sound *ghubura* = dust, and *Shoghala* = work, which are near the Arabi forms.

ⲡ (Pe) is like the Arabic ف F.

Ⲡ (Qoph) loses its guttural sound, and is pronounced like simple K.

Ⲩ (Shin) is *Sh*. The *S* sound occurs, but seems usually traceable to an Arabic ص Sad, or Syriac ܫ Notice, however, Sejratha, (Arabic س).

Ⲧ (tau) is like TH in *thin*, eg. *ichthab* . he writes. It also has the sound of TCH as in the English word *hutch*, ex. *hatch* = thou.

In some words derived from the Arabic the T sound occurs.

In my transliteration the following letters and combinations have the following values :—

SH, as in *shop*, representing shin.

TCH, as in *hutch* „ one sound of tau.

TH, as in *thin* „ another sound of tau.

GH, sounded like Ar. ڭ representing gomal.

CH, as in Scottish *loch* „ soft koph.

C „ *cat*, representing hard koph.

K (no guttural) „ qoph.

Ĥ, representing aspirate cheth.

KH „ rough cheth.

DH, as in *that*, representing dolath.

T represents soft sound of dolath.

Ṭ „ teth.

' „ ee.

In words plainly borrowed from the Arabic *t* also represents ت

The influence of the Arabic on the dialect has been great. Without pretending to mention all the indications of this influence, I name a few particulars :—

1. The structure of sentences in the Ma'lula dialect follows closely that of the common Arabic. Connectives have been transferred bodily. Further on I give an example of narrative which illustrates this.

2. Many words are plainly borrowed from the Arabic, but these are usually given a Syriac termination, and altered in pronunciation, and sometimes in accent. (Some words, however, are unaltered.)

Furshta (bed), Arabic, فرشة

Durba (road) „ درب

'Aiba (shame) „ عيب

Tchuchtcha (bedstead), Arabic, تخت

3. The adjective in comparison undergoes internal changes as in Arabic.

Korsa (cold), *akrus* (colder), *ihil* (sweet), *ahla* (sweeter).

4. Salutations, complimentary phrases, proverbs, &c., &c., are generally Arabic, with slight accommodation to the Syriac pronunciation and accent.

5. The unclassical Arabic auxiliary expressions, *beddi*, *beddu*, &c. joined with the verb to express desire, and *'am*, to express continuous action in the present, have been transferred as in the phrases *betnidhmuch* = I wish to sleep; *bennāchul* = I wish to eat; *'annochil* = I am eating; *'amshoth* = I am drinking.

NOUNS.—Masculine nouns usually end in *â*, and accent the penultimate. They form their plural in *ô*, which takes the accent: *Chêfa* (stone), *chêfo*; *hsônâ* (horse), *hsanô*; *bsônâ* (child), *bsinô*. In the last two examples note the modification of the root-vowel.

Feminine nouns usually end in *tha*, and form their plural in *iotha*; *bisnîtha* (girl), *bsiniotha*; *shunîtha* (woman), *shuniotha*; *baitha* (house), *baithiotha*, where the *th* as a sign of the feminine appears in the plural.

M'artha (cave) has the plural *M'arô*, and *choweabtha* (star) the plural *chowe-bô*.

The pronominal suffixes are as follows:—

1. For masculine nouns—

Singular, *hsôna* (horse).

1st (my horse), <i>hsôn</i> .	1st (our), <i>hsonah</i> .
2nd masc. (thy), <i>hsônach</i> .	2nd masc. (your), <i>hsônêchun</i> .
2nd fem. (thy), <i>hsônish</i> .	2nd fem. (your), <i>hsonêchin</i> .
3rd masc. (his), <i>hsônî</i> .	3rd masc. (their), <i>hsonun</i> .
3rd fem. (has), <i>hsônâ</i> .	3rd fem. (their), <i>hsonin</i> .

Plural, *hsanô* (horses).

1st (my horses), <i>hsanoi</i> .	1st (our), <i>hsanênah</i> .
2nd masc. (thy), <i>hsanoeh</i> .	2nd masc. (your), <i>hsanêchun</i> .
2nd fem. (thy), <i>hsanosh</i> .	2nd fem. (your), <i>hsanêchin</i> .
3rd masc. (his), <i>hsanoi</i> .	3rd masc. (their), <i>hsanêhun</i> .
3rd fem. (her), <i>hsanoya</i> .	3rd fem. (their), <i>hsanêhin</i> .

Note.—The vowel *ê* in *hsanênah*, &c., approximates in sound to the diphthong *ai*.

2. For feminine nouns—

Singular: *Baitha* (house), *baith* or *baitha* (my house), *baithach* (thy house), *baithish* (thy house), fem., &c., &c., like the suffixes of the sing. masc. noun.

The *plural*, *baithiotha*, also takes the singular suffixes: *baithioth* (my houses), *baithiothach* (thy houses), *baithiothah* (our houses), &c., &c.

The noun *ob* (father) takes peculiar suffixes.

Sing. Suffixes.

1st, ippai (my father).
2nd masc., obuch.
2nd fem., obush.
3rd masc., obu.
3rd fem., obu.

Plural Suffixes.

1st, abunah (our).
2nd masc., abuchun.
2nd fem., abuchin.
3rd masc., abuhun.
3rd fem., abuhin.

In these various suffixes may be observed--(1) classical Syriac forms as *och* (which, however, attaches itself to a plural rather than a singular noun); (2) an Arabic suffix (with the ـ pronounced soft) in *hsonach*; (3) some peculiar forms, as in *hsonish*, *hsonah*, &c.

I add a short list of common nouns for comparison with the classical and Arabic forms:—

Raisha	= head.	Cilmtha	= word.
'Aina	= eye.	Shimsha	= sun.
Reghra	= foot.	Nura	= fire.
Furshta	= bed.	Tchuchtcha	= bedstead.
Bisra	= meat.	Sahara	= moon.
Sejratha	= tree.	Dhuctha	= place.
Hwoya	= air.	Hona	= brother.
Hoth	= sister.	Bshola	= cooked food.
Ar'a	= ground.	Thelja	= snow.
Shoptha	= week.	Shmo	= heaven.
'Afra	= earth.	Ghubura	= dust.
Chathoba	= book.	Safrona	= bird.
Shenna	= rock.	Ghanda	= garden.
Ghubelcha	= cheese.	Durba	= road.
Sara	= hair.	Chsuru	= wood.
Mdintcha	= city.	Yarha	= month.

PRONOUNS.

The *personal pronouns* are as follows:—

1st sing., Ana = I.
2nd masc., Hatch or hatchi = thou.
2nd fem., Hash or hashi = thou.
3rd masc., Hû.
3rd fem., Hî.
1st plural, Anah = we.
2nd masc., Hatchchun = you.
2nd fem., Hatchchin = you.
3rd masc., Hin or hinnun = they.

Demonstrative Pronouns.

Masc. Hanna = this. *Fem.* Hodh or ho = this.

Masc. Hothi = that. *Fem.* Hotha = that.

Plu. Hathin = those.

Relative.—The classical *ḥ* appears but is pronounced *t*.

The interrogatives are *mon* = who, and *mo* = what

The Numerals to Ten.

1. Aḥadh.	6. Shitcha.
2. Ithr.	7. Shob'a.
3. Thlotha.	8. Thmonya.
4. Urba'.	9. Tish'a.
5. Ḥamsha.	10. 'Asra.

VERBS.—The regular strong verb is inflected as follows :—

Ichthab = he wrote.

Idhmich = he slept.

Preterite.

3rd masc. sing., Ichthab	Idhmich, or -michli.
3rd fem. ,, Chathbath	Dhimchath.
2nd masc. ,, Chathbitch	Dhimchitch.
2nd fem. ,, Chathbish	Dhimchish.
1st c. ,, Chathbith	Dhimchith.
3rd c. plu., Ichthab	Idhmich.
2nd masc. plu., Chathbitchhun	Dhimchitchhun.
2nd fem. ,, Chathbitchhin	Dhimchitchhin.
1st c. ,, Chathbiannah	Dhimchinnah.

The 2nd masc., 2nd fem., and 1st c. plural, seem to be formed by adding the pronouns *hatchehun*, *hatchchin*, and *annah* to the root with little change. The 2nd pers. pronouns, *hatchi* and *hashi*, may be traced perhaps, but less clearly, in the 2nd sing. verbal forms. The other forms vary little from the classic, 3rd sing. and 3rd plural being pronounced alike. Note, however, the prosthetic vowel which almost always occurs in the 3rd person. I have noticed one exception : *rahm*, *he loved*, instead of *irham*. Note also the alternative form, *idhmichli*.

The *present and future* are generally expressed by forms based on the participle ; the preformatives of *n* and *teh* may be explained as traces of *ana*, *annah*, *hatchi*, &c., hurriedly repeated and then assimilated to the participle.

Singular, rôchib (he rides).

3rd masc., rôchib.
 3rd fem., rôchba.
 2nd masc., tchrochib.
 2nd fem., tchrochba.
 1st c., n-rochib.

Plural.

3rd masc., rochbin.
 3rd fem., rochban.
 2nd masc., tchrochbin.
 2nd fem., tchrochban.
 1st c., n-rochbin.

In subordinate clauses, as of purpose, &c., we find traces of the regular future (or imperfect) tense, as *zelli yidhmuch* (he went that he might sleep). The phrase *bettu yichthub* (he wishes to write) follows a colloquial Arabic idiom :—

Sing., 3rd masc., bettu yichthub.
 „ 3rd fem., betta tchichthub.
 „ 2nd masc., bettach „
 „ 2nd fem., bettish „
 „ 1st c., bennichthub.
 Plu., 3rd masc., bettân y-chuthbun.
 „ 3rd fem., „ y-chuthban.
 „ 2nd masc., betchun teh-chuthbun.
 „ 2nd fem., „ tch-chuthban.
 „ 1st c., bettah nichthub.

Note.—There is no trace of the *n* preformative in the 3rd masc. peculiar to the classic Syriac. It occurs instead in the 1st sing. and plu. The *y* preformative, foreign to the classic Syriac, occurs in 3rd pers. sing. and plu.

The imperative is :—

2nd masc. rehab ; 2nd f. irchab ; 2nd plural, ruchbun.

I did not hear an infinitive used. The verbal noun *riding* is *ruchb-tha*. I give suffixes of Iktal and Kutlith, 3rd and 1st pers. sing. of preterite.

Iktal.

Kutlith.

Suf. 1st sing. Kutal (he killed me)—	
„ 2nd s.m. Kutlach.	Kutlitchach.
„ 2nd s.f. Kutlish.	Kutlitchish.
„ 3rd s.m. Kutli.	Kutlitchi.
„ 3rd s.f. Kutla.	Kutlitcha.
„ 1st plu. Kutlennah.	
„ 2nd pl. m. Kutlanchun.	Kutlitchchun.
„ 2nd pl. f. Kutlanchin.	Kutlitchchin.
„ 3rd pl. m. Kutlan.	Kutlitchun.
„ 3rd pl. f. „	Kutlitchin.

Another way is to use *lomadh*, ex. *Inchus*, he butchered ; with suffixes—*nachisil*, *nachislach*, *nachislash*, *nachisli*, &c., &c.

Kotil (participial present), with suffixes : *katelli*, killing him ; *katella*, killing her ; *katil*, killing me ; *katellach*, killing thee, &c. And so

the other forms as *n-kotil* (I am killing), *n-katelli*, *n-katellach*, *n-katellish* &c., &c.

The *passive In-ktal* has the endings of the active preterite: *In-ktal*, *inkutlath*, *inkutlitch*, *inkutlith*, &c., &c.

The *intensive. Bukkar*, to know; Preterite, *bukkar*, *bukrath*, *bukritch*, *bukrish*, &c. &c.

The *future* (clearly based on the participle with *m*), *mbukkar*, *mbukrat*, *tch-mbukkar*, *n-mbukkar*, &c.

The *Pe Nun* verb *Inchus*, he killed, does not lose the *nun* in any part, but is inflected like the strong verb. *Inchus*, *nachsath*, *nachsitch*, &c.; *fut.* *nochis*, *tchnochis*, &c.; *imper.* *n-chas*.

The *Pe olaf* verb *achal* (he ate), *Pret.* *achal*, *achlath*, *achlitch*, &c.; *fut.* *ôchil*, *ôchla*, *tchôchil*, *nôchil*, &c.; *Imper.* 2nd *m.*, *chôl*; 2nd *f.*, *achûl*; 2nd *m. pl.*, *uchlun*; 2nd *f. pl.*, *uchlin*, *I wish to eat* = *bennichul*.

Ilif (both vowels short) may be a *Pe olaph*, or a *pe yudh* verb (classic).

Pret. *ilif*, *ilfath*, *ilfitch*, &c., &c.; *fut.* *lôif*, *lôifa*, *tchlôif*, *nlôif*, &c.

Ailif, to teach, is the causative form; *Pret.* *ailif*, *ailfath*, &c.; *fut.* *mailif*, *mailfa*, *tchmailif*, &c., &c.

I wish to learn = *betnîlaf*.
 He wishes to learn = *betti yîlaf*.
 I wish to teach = *betnêlaf*.
 He wishes to learn = *betti yêlaf*.

Similar to this verb is *irib*, he grew great. *Pret.* *irib*, *irbath*, &c.; *fut.* *roib*, *tch-roib*, *n-roib*, &c.—

He wishes to increase = *betti yîrub*.
I wish „ „ = *betnîrub*.

The verb *ap* he gave, is the classic **אָפּ**

Pret. *ap*, *appath*, *appitch*, &c.

Fut. *map*, *mapya*, *tchmap*, *tchmapya*, *n-map*, &c.

Imper. *appa*, *fem.* *appai*; *pl.* *appun*, *appin*.

Ap, with suffixes of the indirect object:

Suf. 1st sing. c.,	<i>appil</i> or <i>applil</i>	=	he gave me.
„ 2nd „ m.,	<i>appêch</i> or <i>applêch</i>	=	„ thee.
„ „ „ f.,	<i>appish</i> or <i>applish</i>	=	„ thee.
„ 3rd „ m.,	<i>appêli</i> or <i>applêli</i>	=	„ him.
„ „ „ f.,	<i>appêla</i> or <i>applêla</i>	=	„ her.
„ 1st pl. c.,	<i>appêh</i>	=	„ us.
„ 2nd pl. m.,	<i>appêlchun</i>	=	„ you.
„ „ „ f.,	<i>appelchin</i>	=	„ you.
„ 3rd „ m.,	<i>appêlun</i>	=	„ them.
„ „ „ f.,	<i>appêlin</i>	=	„ them.

The forms with and without lomadh seem to be used indifferently.

Other suffixes are : I gave him = applilli ; I gave her = applella ; I gave thee = applillach ; she gave him = applelli ; thou gavest him = applitchli ; they gave him = appulli ; you gave him = aptchulli ; we gave him = apnahli.

Map, with indirect object : mappîl, mapêch, mapîsh, mapêli, mapêla, mappêh, mappêlun, &c., &c.

The causative is *owpil*, to deliver—*l* is used as an auxiliary letter apparently.

Pret. owpil, owplath, owplitch, &c.

Fut. mowpil, mowpla, tchmowpil, &c.

Imper. owpil, owplun.

Note the trace of yudh, lost in the peal form.

Ee vau verb.—Akam (note the prosthetic vowel) is inflected : Akam, komath, komitch, &c. ; *plural* akam, komitchchun, &c.

Fut. koim, koima, tchkoim, &c.

Imper. Sing. masc. kôm, *fem.* kûm. *Plu. masc.* kumôn, *fem.* kuman.

Lomadh Olaph verbs.—Ishtch—he drank—is inflected.

Pret. Ishtch, ishtchath, ishtchitch, &c.

Fut. Shoth, shothya, tchoth, &c. ; *plu.* shothin, shothan, tchoth n, tchothyan, n-shothin.

Note how in *tchoth*, sh disappears before the preformative tch.

Imper. mas. Ishtcha or shtcha ; *fem.* stchai ; *plural* Ishtschôn or shtchôn ; *fem.* shtchîn.

Ihim, he saw.

Pret. Ihim, ihmath, ihmitch, &c. ; *plu.* ihm, ihmitchchun, himinnah, &c.

Fut. Hom, homya, tchhom, &c.

Imper. masc. Ihma, *fem.* hmai, *plu.* ihmun, *fem.* ihmîn.

Ihim, with suffixes :—

Himni = he saw him.

Himna = „ her.

Himnach = „ thee.

h-mânun = he saw them.

h-menchun = „ you.

h-mennah = „ us.

Ihom, with suffixes :—

hamfl = seeing me.

hamêch = „ thee.

hamîsh = „ thee (f.).

hameli = „ him.

hamêla = „ her.

hameh = seeing us.

&c. &c.

&c. &c.

IF (to bake), Hebrew **פֶּתַח**, is both Pe olaph and lomadh olaph.

Pret. if, ifath, &c. *Fut.* ôf, tchôf, nôf, &c. *Imper. masc.* ifa ; *fem.* ifai ; *plu. masc.* funin ; *fem.* finu.

In all these verbs the final radical disappears (except, perhaps, in forms homya, hmai, &c.), and the regular endings attach themselves to the second radicals.

There is a group of verbs which have peculiar terminations: tholi he came; zelli he went; and k'oli, he sat (*i.e.*, sat as a servant, served). The first two are evidently the classic ١٢١ and ٧١ , with an auxiliary lomadh appearing in some forms. K'oli seems to belong to the same class.

Preterite.

3rd sing., masc.,	Tholi.	Zelli.	K'oli.
" " fem.,	Thalla.	Zlella.	K'alla.
2nd " m.,	Thitchlach.	Zlitchlach.	K'itchlach.
" " f.,	Thishlish.	Zlishlish.	K'ishlish.
1st " c.,	Thil.	Zil.	K'il.
3rd, plu., masc,	Tholun.	Zellun.	K'olun.
" " f.,	Tholin.	Zellin.	K'olin.
2nd " m.,	Thitchehun.	Zlitchhun.	K'itchehun.
" " f.,	Thitchehin.	Zlitchehin.	K'itchehin.
1st " c.,	Thinnah.	Zlinnah.	K'innah.

Future.

3rd sing., m.,	Thêli.	Zelli.	K'elli.
" " f.,	Thiola.	Zlola.	K'iola.
2nd " m.,	Tchthêch.	Zellach.	Tchk'êch.
" " f.,	Tchthiosh.	Tchzlush.	Tchk'iosh.
1st " c.,	N-thil.	Nzil.	N-k'il.
3rd plu., m.,	Thyillun.	Zlillun.	K'illun.
" " f.,	Thyillin.	Zlellin.	K'illum.
2nd plu., m.,	Tchthilchun.	Tchzlelchun.	Tchka'ilchun.
" " f.,	Tchthilchin.	" in.	" in.
1st " c.,	N-thyillah.	N-zillah.	N-ka'illah.

Imper.

2nd sing., m.,	Thoch.	Zêch.	K'ach.
" " f.,	Thosh.	Zîsh or Zellish.	K'ash.
" plu. m.,	Thalchun.	Zlelchun.	K'elchun.
" " f.,	Thalchin.	" in.	K'elchin.

The endings of these verbs in the pret. and fut. sing. and imp. sing. bear a strong resemblance to the pronominal suffixes attached to verbs, nouns, and the preposition lomadh. Only in the plural do the forms resemble those of the ordinary strong verb.

Notice here the resemblance of some of the forms to the strong classical imperative with the "ethical dative" with *lomadh*, وَأَلْ كَب , (z-l loch), وَأَلْ كَبْ , وَأَلْ كَبْ ; also كَبْ ١٢ (tho loch) كَبْ ١٢ ,

كصو, &c. It seems as if an inflection, in preterite and future, had been built by analogy upon these imp. forms with *l*.

The verb *to be* (corresponding in use to the Arabic كان) is *wob*.

(WOB) Preterite.

3rd sing. m., wob.	3rd plu. m., waibîn.
„ „ f., waiba.	„ „ f., waiban.
2nd „ m., tchob or tchobi.	2nd „ m., utchibîn.
„ „ f., ushîba.	„ „ f., utchiban.
1st „ m., unob or nob.	1st „ m., unibîn.
„ „ f., unîba.	„ „ f., uniban.

Future.

3rd sing. m., ob or yîbtchob.	3rd plu. m., aibân.
„ „ f., tchib.	„ „ f., aiban.
2nd „ m., tchib.	2nd „ m., tchibîn.
„ „ f., tchiba.	„ „ f., tchiban.
1st „ c., unob or nob.	1st „ c., nibîn.

This inflection may possibly be based upon a combination of the verb **لوس** and the preposition **و** (beth). The colloquial Arabic expression *fi signifies* (like *wob*) *there is*; *FINI* comes to mean *it is in me* or *I can*; *FIK*, *it is in you* or *you can*. Some such use might explain the form *wob*, and the other forms might be accounted for if we regard *wob* as taken as a root, given feminine and plural terminations as in *waiba*, *waibîn*, and *waiban*, and combined with pronominal fragments as in *tchob*, *utchibîn*, and *unob*.

There is is also expressed by *ûth*; *there is not* = *tchûth*.

There was is *woth*.

He became is *ithean*, inflected *thienath*, *thienitch*, &c.

Fut. *thocan*, *n-thocan*, &c.

The preposition **ل** (*lomdah*) takes its suffixes thus:—

1st sing., *lîl*; *2nd sing. masc.*, *lêch*; *2nd sing. fem.*, *lîsh*; *3rd sing. masc.*, *lêli*; *3rd sing. fem.*, *lêla*; *1st pl.*, *leah*; *2nd pl. masc.*, *lêlchun*; *2nd pl. fem.*, *lêlchin*; *3rd pl. masc.*, *lêlun*; *3rd pl. fem.*, *lêlin*.

The preposition *lomadh* is used in such phrases as: *mor il baitha*, the master of the house; *Ob il Machoîl*, Michael's father.

A few adverbs, particles, &c. :—

Hosh	= now.	Lina	= where ?
IPil	= up.	Emma	= where ?
Ira'	= down.	Hannue	= where ?
Imodh	= to-day.	Ikdhum	= before
Rumish	= yesterday.		(conj.).
Imhar	= to-morrow.	Aja'	= why ?
Bothar	= after (prep.).	Tchu	= not.

Kayyam	= after (conj.).	Hutta	= in order
Hocha	= here.		that.
Dhuk or dhikli	= when.	Laow or Izzatchob	= if.

I add a Ma'lula-Syriac rendering of the parable of the Prodigal Son. The Ma'lula baker-boy, Machoil, like most of his fellow-townsmen, can neither read nor write, and does not easily follow "high Arabic." However, I repeated the parable to him in Arabic, simple, but as nearly equivalent to the original Syriac as possible. He gave me, bit by bit, the following translation. Later, by the aid of an oil lamp in the dark gloomy oven, I read the parable as given by him, to some Ma'lula men and boys, who easily re-translated it into Arabic.

Hence it will give a fair idea of the Ma'lula style of narrative.

Luke xv, 11-32.

11. Woth ghabrona ilê ithr ibr. 12. Z'ora amel lobu. Ya ippai applil kusmthi m-molach. Iksam lélun 'ishtchi. 13. Bothar yoma kalil, ajma' ibri z'ora chullemet, u-zelli 'a blato bhâdha, u-ilhil rowh il moli musrif bahar. 14. Dhuki rowwah chullemet t-ghappi, ithein chufna bahar bathin blato, u-ithein muhtchaj. 15. U-zelli u-k'oli ghap lahadh marôil lathin blato, u-owpli l-bistchano yir'al l-hzîro. 16. U-bettu yimlel ghowwi mnenna khurnûb t-uehlilli h-zîro. La bernash appêli mit. 17. Dhukkil 'owwit l-nephshi omar; uchma aghâr ghap lippai t-ghappai lehma zayyit, u-ana hochâ ahl-cith mehufna. 18. N-kônzil la' lippai, u-namelli, ya ippai, ukhtith lishmo u-kommach. 19. U-lophash il fristcha hutta tchemmin ibrach. Shûn uchtahadh min aghiroch. 20. Akam, zelli la'lobu. Dhukkil wob ba'idh hemni obu, tehhaman 'alê, arhit u-iskat 'a kdholi, u-neshki. 21. U-amelli ibri, ya ippai ukhtith l-shmo u-kommach, u-lophash il fristcha hutta tchemmin ibrach. 22. Omar obu laghirô, Aithûn chusso t-ahsin u-chuslulli, arnhun khotchuna b-idhi, u-surmoytha b-rughri. 23. Aithun 'akkusha ma'lufa u-nuchsunni, u-nochlin u-nhodhin. 24. Hanna ibr wob imith u hosh aytib, wob dhayya u-iltchki. U-abbit hodhin. 25. Ibr rappa wob b-hokla; u dhuki tholi u-akrib il baitha ishmi' hessa nowbtha u-reghdha. 26. U-iz'ak 'a lahadh m-naghiro, u-sha'li; mo ôth. 27. U-amelli, Honach tholi, u-obuch inchas 'akkusha ma'lufa, akbli bisslomtcha. 28. U-aghdhib, u-la sob ya'bur; u-infik obu y-tulpenni. 29. U-jowwibi u-amel lobu; ana mukhtemlach chullan ishno, u limodh la chulifitchach m-mit. B-ômraç lappitchil ghudhya hutta nihidh 'amlistikoi. 30. Lacawn dhuki tholi hanna ibrach t-rowwah il moli harîma t-zônyan nachsitchlêli 'akkusha ma'lufa. 31. U-amelli, ya ibr, hatch 'im chullan yomo, u-chutilil lech. 32. Wob wajib 'alênah nihidh u nimbisut; honach hanna wob imith u-ih, u-wob dhayya u-iltchki.

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Beirût, Syria.

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NOTES 11.—*Woth* = there was. *Ilê* to him. 12. *Amel lobu*, from *amr*, to say; *r* changed to *l* before *l* in *lobu* = to his father. *Ya* = O, common

Arabic mode of address. *Applil* = give me; *appa* is give. *Kusmthi m-molach*, the Arabic roots are used, my share of thy property. 13. *Bothar yoma kabil*; another expression is *bothar uchma yom*, after some days. *Chullemet* i.e., **صَلا مَبْرَئَة**. *Blató*, plural form used for *district*; the sing., *Blota* signifies a town. *Ilhil* = there; *il moli* = the property, a use of the Arabic article. *Musrif* (Arabic) *bahar* = great expenditure, the simple dialect fails to express the "riotous living" better than this. 14. *Rowwah*, we have had the form *rowh* with just the same meaning—an illustration of the flexibility of form we find in many words which lengthen or shorten as the rhythm of the sentence may demand. For *when* we have *dhuk*, *dhuki*, *dhukkil*, *dhukli*, the form depending on the first letter of the next word as well as rhythm. *T-ghappi* = which he had; it is the classical **ذ**; I find no trace of it as a preposition; *ghap* is *with* denoting possession, &c. 15. *K'oli . . . blato* = "served at the house of one of the masters of that land." Observe the redundant use of the l. *Lathin* = *l-hathin*; *owpli* = sent him, *owpil*—aphel from *ap*. *Yir'al* we have noticed the *y* preformative in clauses of purpose. 16. *Muenna*, from those; *t-uchlilli k-ziro*, which the swine eat (them). From *achal* w. suffix. *Bernash* = **بَرْنَش**; *mit* = **مِيت**. *'owwit*, the Arabic **عَاوِد** *ghap lippai* = at my father's, redundant; *t-ghappai*, who have, lit. who with them. 18. *N-konzil*, I will arise and go, a compound. The *konzella*! let us be off! is very common; *la'lippai*, very redundant; *namelli*, r lost or assimilated w. l of suffix. 19. *Lophash il fristcha* = there is no longer to me the right. *Hutta tchemmin* = that thou shouldst call me. 20. *Akam zelli*, he arose (and) went; conjunctions are often omitted; *hemni* = *ihm* with suffix. The Chaldaic **ܢܡܢ** equivalent to Clas. Syriac **ܢܡܢ** *tchannan 'alé* = Arabic; *Arhit* = he ran. 22. *Aithun*, imper. from *Aith*, causative of *tholi*, the fut. (part. form) is *maith*, *t-ahsin* = which (is) the best. *Chuslulli* = dress him. *Surmoytha* = Arabic **صَرْمَايَة**. 23. *Ma'lufa* = Arabic — **مَعْلُوف** *nuchsunni*, imper. from *inchas*, with suffix. 24. *Hanna ibr* = this my son. *Hosh* = now. *Utchki Ar* = **التقى** *Abbit hodhin*, they began to be merry; use of participle 25. *Akrib il baitha*, drew near to the house, *il* being probably the prep., with prosthetic vowel rather than a borrowed Arabic article. *Hessa* = Arabic **حَس** 26. *Sha'li* Hebrew = **שָׁלִי**, Syriac = **ܫܠܝ**; the Ma'lulites insert an *ee* in place of *olaph*. *Mo oth* = what is this? They also say, *mo hanna*. 27. *Akli*, &c., I could get no word for *because* (he has received &c.); such connections are seldom used. 28. *La sob ya'bur* = he did not wish to enter, *y-tulpenni* = that he might intreat him; Arabic = **يطلبوا** 29. *Mukhtemlach*, part. with suffix; Arabic root = **خادم** *Chullan ishno* = all these years; *limodh*, to this day; *la chulifitchach*, I have cost thee nothing. i.e., no trouble. Arabic **كَلَّفْتِك** *m-mit*, in anything or of anything; *b-om-rach* = "in thy days," i.e., never; *lappitchil* = thou hast not given me; *'amlis-tikoi* = 'am-listikoi, together with my friends. Arabic = **اصدقاد** 30. *Lavawn* = but, however; *harima t-zonyan* = women who (are) harlots; *Nach*.

sitch-leli = thou hast killed for him. 31. *Hatch'im* = thou (art) with me; *chutilil* = *chul-t-lil* = all which (is) to me, all that I have. 32. *Wojib'alénañ*,

Arabic واجب علينا

Since my completion of this article Dr. Van Dyck has called my attention to the book *درة الغواص في اوهام النحواص* by الحريري where reference is made to some changes of consonants, &c., similar to what we find in the Ma'lula dialect. The كشكشة ربيعة (an Arab tribe) is changing the كاف الوقف to شين; as مايش for مايبك; and sometimes the كاف, which is not the كاف الوقف, is changed to ش, as in جيدش جيدها و عينايش عيناها.

Change of hamzeh to ع is also mentioned as in أعن توست for أن توست.

In Bethlehem, and among some Bedouins, to-day ك is pronounced like TCH. In Nazareth ق loses its guttural force. The Nuseiryeh, near Sofita, say وهنت instead of أنت, for the 2nd. pers. sing. of the pronoun.

F. J. B.

ESSAYS ON THE SECTS AND NATIONALITIES OF SYRIA AND PALESTINE.

ESSAY I, INTRODUCTION.

BY REV. GEORGE E. POST, M.A., M.D., F.L.S.

The Physical Features, Climate, Soil, Water Supply, Natural History, and Health of Syria and Palestine.

I.—Physical Features.

It is not the object of the present essay to present an exhaustive view of the topics enumerated in the title, but to show their bearing on the march of population in these lands, and the preservation of the races now represented, as well as the origination and destruction of those which have been represented in the past.

No country of equal size contains so strange an aggregate of heterogeneous elements, such a medley of irreconcilable sects and races, as the

one which we are to pass in review. No country has been so scourged by war, so often trampled under foot and ruined, and yet it has never long been without a considerable population, often a very dense one. No other country has retained such distinct and strongly marked traces of the vicissitudes of its history. None is so complete a microcosm in the variety of types of civilisation and barbarism. To attempt to account for these strongly marked peculiarities simply from history will lead only to partial and one-sided results. It will be our purpose to show how, under the guidance of an unerring providence, the physical features, climate, soil, water supply, natural history, and health of Syria and Palestine, have influenced the population, history, and physical, moral, and religious characteristics of the people.

The insular character, the sinuous coast, the geographical position, and the great mineral and agricultural resources of Great Britain have had a large share in making it the great commercial and naval power of Europe. The lofty mountains, and inaccessible fastnesses of Switzerland have nurtured that spirit of independence and love of liberty which have made that land so illustrious in the history of the world. But neither of these countries has owed more of its peculiar development to its physical features and surroundings than have Syria and Palestine.

Syria and Palestine present in a geographical area of, say 50,000 miles, more diversities and anomalies than any equal territory on the surface of the globe. In this territory is the deepest valley, 1,300 feet below the level of the sea. While its mountains are not as lofty as the Alps, their nearness to the sea gives them a relative elevation as striking, and, in a physical sense, as important. They are surrounded by deserts, with a line of demarcation almost abrupt.

There exists between parts of this territory, quite near to each other, the widest difference in isolation from or in connection with the rest of the eastern world. Thus the southern and eastern deserts are so isolated, that they have been, from time immemorial, inhabited by almost independent tribes of Arabs, whom Assyrian, Babylonian, Persian, Greek, Roman, Saracen, and Turkish power has striven in vain to subdue. Thus a prime factor in preserving a race, language, and customs has been the physical features of their country. Again the mountain fastnesses of the Nusairy range, and of Lebanon, have had a large share in the semi-independence of the tribes which inhabit them, and have made possible the continued existence without fusion of such sects as the Nusairîyeh, the Maronites, and the Druzes,. But inaccessibility is the exception and not the rule in this territory. The level strip of sea coast, with openings to the interior by the plains of Esdraëlon, Merj 'Ayun, 'Akkar, and Issus, has been a highway for the conquering armies of Egypt, Assyria, Babylon, Persia, Greece, Rome, Tartary, the Crusaders, Saracens, Turks, and French ; hence, while the hill countries and deserts have contributed to *preserve* fragments of the original races unaltered, the plains have invited the intrusion of new races, and produced a mixture, unparalled in the history of mankind. Canaanite, Hittite, Hebrew, Syrian, Arab, have become intermingled with

all the historic races of Europe, Asia, and Africa, even to the blue-eyed and flaxen-haired Dane and Norwegian. Syria and Palestine have been subdued and overwhelmed oftener than any other part of the world, and such seems to be their destiny until the entrance of a new order of things. Let us see how this has occurred.

Syria and Palestine, including the Sinaitic peninsula, form the geographical meeting point of the European, Asiatic, and African continents. For Asia Minor, although included by its sea coast in the Asiatic mass, is essentially southern European in its climate, productions, ethnology (with the exception of the modern Turkish graft), and its history.

The salient physical feature of the country is the two mountain ranges which intersect it from north to south, parallel to each other and the coast. Between the westernmost of these ranges and the Mediterranean Sea, is the narrow maritime plain of Philistia, Phœnicia, and 'Akkar. Between these two ranges is the table-land of Hamath, Hums, the lacustrine basin of Cœlesyria, and the sunken trough of the Jordan, Dead Sea, and the 'Arabah. Eastward of the easternmost range is the table-land of Moab, Gilead, Haurân, Damascus, and Aleppo, stretching eastward to the Syrian Desert, and northward to the Euphrates Valley.

So pronounced are these ridges, that they turn most of the principal rivers of the country into a north and south course, in the cleft between the two chains. Thus the Orontes, taking its rise in the valley of Cœlesyria, flows northward to a little north of the latitude of Antioch, and then breaks abruptly south-westward around the shoulders of the Nusairy and Cassius chain to the sea. The Leontes, rising near the Orontes, flows southward through the valley of Cœlesyria, and, a little north of Tyre, reaches the Mediterranean through the gap between Lebanon and Galilee. The Jordan, rising on the westward slopes of Hermon, flows southward in its strange chasm, to be lost in the Dead Sea. The waters of the Tih flow northward, through the 'Arîsh, and those of the 'Arabah and Edom also northward, through the 'Arabah, to the Dead Sea. Only the lesser torrents flow westward by a more or less direct course to the Mediterranean, and the Barrada and 'Awaj eastward from Anti-Lebanon and Hermon to the Syrian Desert.

As before mentioned, the maritime plain opens by four broad depressions in the hill country to the interior plains. These great and easy highways have had a controlling influence on the destinies of the land. An army invading the Euphrates Valley from Egypt, or vice versâ, could march with ease along the coast to Acre, across Galilee by the plain of Esdraëlon and enter Haurân, whence there is hardly need to make roads to enable chariots, as well as horse and foot, to penetrate where they would to the northward. But the table-land of Haurân, Damascus, and Aleppo did not offer a more sure and safe road to an army, than did the Syrian desert hem it in from the east, and compel it to march northward or southward. Hence the great campaigns were always on north and south lines. The forces of Assyria and Babylonia made a wide detour to reach those of Egypt. No conqueror had the foolhardiness or the

resources to enable him to cross the Syrian desert to seek his foe. For this reason the kingdom of Palmyra, sequestered in the desert, was long safe from assault and conquest.

An invading army from Egypt might pass the plain of Esdraëlon, and enter Coëlesyria by the valley of the Leontes, or debouch around the southern or northern shoulder of Hermon into the Damascus plain. Or it might pass northward by the Phœnician plain to 'Akkar, and thence eastward to Hums, Hamath, and Aleppo. Or it might advance northward to the Orontes, and so penetrate to the interior. Campaigns along all of these lines were undertaken by the great military monarchies of northern Africa and Western Asia, and later of Europe. Many times these expeditions merely claimed a right of way, and seem to have interfered little or not at all with the inhabitants. At others they formed alliances with the peoples who lay on their line of march, and thus held open their own communications and line of retreat. But it could not be otherwise than that a land so accessible from every side should have been overrun and conquered by the fierce military monarchies at whose mercy they lay.

The inevitable result of the repeated conquests of the plains and more accessible mountains was to drive back the refugees into the fastnesses, and each wave of war which rolled upward left on retiring a fragment of some race or religion on the upper terraces, and in the secluded valleys of the mountains.

II.—*Climate and Meteorology.*

The physical features of the country, so exceedingly varied, and so important in their influence on political history and ethnology, exercise also a controlling influence over the climate and meteorology, which are more diversified than in any similar extent of territory on the globe.

As the great mountain chains determine the course of the rivers, so they determine the distribution of the rainfall. The Tih and Sinai are under the dominion of the climatic laws which govern north-eastern Africa, and seldom have any considerable rainfall. The dry air of the Sahara, not passing on its way to these regions over any considerable body of water, remains dry, and hence, even the lofty mountains of Sinai do not often find moisture to precipitate, and whole winters may pass without a shower. But the winds that strike the coast range of Palestine and Syria are loaded with moisture in their passage over the Mediterranean, and this moisture is condensed and poured down in copious rains over the seaward slopes of this range, and the maritime plain. The rainfall increases as you pass from Southern Palestine to Lebanon, and probably attains its maximum under the alpine summits of Sunnîn and Makmel. The rainy season lasts from the middle or end of November to the end of March. There is a month of occasional showers before and after this season, but the heaviest rains of the year usually occur in the months of December, January and February.

As much of the moisture of the air is extracted in its passage over the maritime chain of mountains, there is a considerably reduced rainfall over

the central plains and the eastern chains. These chains extract still more of the moisture of the air, so that the rainfall of the eastern table-land is much smaller than that of the coast and adjacent hills. Thus, while the average rainfall of Beirût is about 35 inches, and that of the central zone of Lebanon probably from 50 to 55 inches, that of Damascus will hardly exceed 20 inches, and the amount diminishes as the distance eastward from the mountains increases. Those parts of the eastern table land which lie open to the heavily charged clouds coming from the west enjoy a greater rainfall and more fertility than those which are cut off by intervening mountains. Thus Haurân, which lies in the gap between the mountains of Gilead and Hermon, and is backed to the eastward by a high mountain chain, enjoys a heavy rainfall, and corresponding fertility. The same is true of the region about Hums and Hamath.

The heavily wooded chains of Cassius and Amanus attract moisture, and enjoy a longer rainy season than southern Syria and Palestine, and have occasional showers even in midsummer.

The temperature of the different portions of our district depends on their altitude more than their latitude, and varies from the tropical heat of the Dead Sea Chasm, to the alpine temperature of the higher peaks of Lebanon and Anti-Lebanon. The average summer temperature of Beirût at 10 a.m. is about 84° F. in the shade. This would probably be a mean for the coast. But, owing to the low dew point, this temperature, in itself so moderate, seems much higher than it really is. At an altitude of 2,500 feet on Lebanon the average for the same season and hour is about 77° F. The air at this altitude is dry, and this temperature is, therefore, by no means oppressive. The temperature of the upper inhabited regions of Lebanon, the highest of which are 6,000 feet above the sea, is quite sub-alpine, and the winters are so severe that the better classes and many of the poorer people of Ehedin, near the Cedars, winter on the Tripoli plain. Snow covers the higher peaks during the winter months, and rests on their summits throughout the year.

On the other hand the temperature of the Jordan Valley is tropical. The thermometer ranges as high as 120° F. in the shade at Jericho in August. The harvests of this torrid depression mature a month or six weeks earlier than those of the sea-coast, and two to three months earlier than those of the hill country.

In speaking of the temperature in the shade in this land, we must not forget that it quite inadequately expresses the intense fervor of the direct rays of the sun, when no cloud intervenes to mitigate the heat. On the sea-coast the sun temperature often reaches 145° F., and sometimes over 150° F., and in the Jordan Valley and in the narrow gorges which debouche into the basin of the Dead Sea, the heat is blistering. One of these wadies is appropriately termed Wadi-en-Nâr, the Valley of Fire.

The temperature of the plateaux is subject to extremes of heat, and to bitter cold winds. It is not uncommon to have a summer heat of 95° to 100° F. in Hums and Aleppo, while storms almost like the blizzards of the western United States sweep over those boundless plains in winter.

All parts of the country are exposed to siroccos, which are the driest and most exhausting of all the winds of the country. During such winds the surface of the soil is parched and cracked, the covers of books become warped, doors snap with a sound like a pistol shot, the skin becomes dry, and the nervous system is at its highest tension. These siroccos prevail for the most part in the early spring, and are often followed by refreshing rains. They are most intolerable when they occur in mid-summer, and especially so on the great plains of the interior, where they seem like the blast of a furnace.

The rainy winds are usually from the south-west. Occasionally there is a shower from the north, and rarely from the east. But the heavy storms of winter always come up obliquely to the coast line, out of the Mediterranean.

The above particulars of the meteorology of the country denote a climate in the plains of a subtropical, and in the mountains and plateaux of a mild temperate character, with sufficient variety to cultivate strong contrasts of character, illustrated by the extremes of the effeminate inhabitants of the Jordan Valley, and the sturdy mountaineers of Alpine Lebanon. In general, the climate is one which is adapted to the existence of a large population. There being little need of fire for heating houses, the scarcity of fuel would not be felt. The long summers made it a matter of comparatively trifling cost to provide necessary clothing. From these two causes a larger population could exist than in a land where fuel and warm clothing are essential to existence. Again, the variety and range of temperature and rainfall have a most important bearing on the development of all the resources and capabilities of the country. Those plants which require moisture find it. Those which flourish best without it are also suited. Hence almost every foot of land not actually rock produces something directly or indirectly useful to man, and even the clefts of the rocks furnish pasture of no little value to sheep and goats.

III.—*Soil.*

The soil of the maritime plain is usually a fertile brown loam, with sandy reaches behind the prominent capes. That of the hill country of Palestine and Syria is also a brown loam mixed with the detritus of limestone rocks, usually thin, and, except where terraced, liable to be washed down by the torrents into the valleys. When terraced it yields a small harvest of the cereals, but is especially adapted to the fig, the mulberry, and the olive, and from 2,500 feet to 5,000 to the vine.

The soil of Coelesyria is that of the bed of an ancient lake, a rich brown, and in places almost black loam, of inexhaustible fertility. Notwithstanding the primitive ploughs, which only scratch the soil, the rude method of sowing, and the failure to manure, this plain still furnishes luxuriant crops of wheat and maize, sesame, and sorghum. The only attempt at scientific agriculture is the rotation of the crops of maize and wheat. This, and leaving portions to lie fallow, seem to suffice to maintain a fertility which is immemorial.

The soil of the Jordan Valley and of the plain of Esdraëlon, and the lesser plains of the uplands of Palestine, resembles that of Cœlesyria in fertility and strength.

Eastward of the Jordan the soil of Moab is thin, and for the most part adapted to pasturage. The rolling park land of Gilead is partly wooded, and adapted only for forest growth, and partly a grazing country, as in the days of Reuben. Only a few favoured spots are specially adapted to the raising of wheat and other grain.

Haurân, El Leja, and the great plains which stretch away to the northward as far as Aleppo, are largely volcanic. The tufas and other products of the disintegration of the volcanic rock, furnish an exceedingly rich soil, specially adapted to the growth of wheat. Seven hundred camel loads of wheat are said to be carried daily to Acre during the season immediately following the wheat harvest of Haurân.

As a whole, Syria and Palestine, while containing much rocky and unproductive territory, are countries of great fertility and resources. But their fertility depends in a peculiar manner on the industry of man. The soil of the hills must be terraced, or it will be washed down their sides by the winter torrents; it must be worked over to clear it of rocks and stones, or it will not give good nourishment to the plants and trees which it bears. But given a carefully-prepared soil, and sufficient water, and there seems no limit to the agricultural possibilities of this land of fertilising sunshine. Water, however, is a *sine quâ non*, and as the season of rain is limited, it was necessary that there should be a provision for the storage and distribution of water over all the country, through the dry as well as the wet season.

IV.—*The Water Supply.*

Few countries have a more admirable provision for the collection, storage, and distribution of water than Syria and Palestine. The limestone rocks which constitute the greater part of the mountain chains have numerous and very extensive caverns, which are natural cisterns for the storage of the surface water which percolates into them through the fissures of the overlying strata. In the centre of the north and south mountain-chains rise the lofty ranges of Lebanon and Anti-Lebanon, the summits of which are covered with snow during the winter, and carry the snow of one winter into the next. The summits of Jebel Sunnîn and Jebel Kenîseh, and parts of the chain above the Cedars, are so arranged as to collect and retain vast drifts of snow. The top of Sunnîn, for example, consists of a series of funnel-like depressions from 250 to 1,200 feet across, and from 100 to 250 feet deep. These become almost or quite filled with snow in mid-winter. From the bottoms of these funnel-like depressions there are channels leading down to the great caverns in the heart of the mountain mass, and through these channels the water which melts from the snow-drifts flows down to swell the

supply in the reservoirs, from which it breaks forth in perennial fountains at different levels down to the sea, and even under its surface. The top of Jebel Makmel is a broad plateau with transverse ridges across it, and between these ridges lie the snow-drifts, and into depressions of the plateau runs the water, to be lost in the mountain mass beneath, and then reappear in such streams as the Kadîsha, which springs forth, an ice-cold torrent, below the "Cedars of the Lord."

Similar store-houses of snow and water are found on the tops of the other peaks of Lebanon and Anti-Lebanon, and in their inmost recesses. The lake of Yamûni is drained by an underground channel, and perhaps reappears in the great fountain of Afka, which is about 400 feet lower, on the opposite side of Lebanon. In that case the underground stream must tunnel the entire breadth of the mountain chain at an elevation of over 4,000 feet.

The strata of the limestone chains are nearly horizontal, and there is abundant evidence that the water stored at the higher levels is distributed as follows: copious fountains burst forth at the base of the summit cones and ridges, as those of Neba'-el-Leben, Neba'-el-'Asal, Neba'-el-Hhadîd, the fountain of the Kadîsha, and many others: Another portion of the water percolates through the upper strata to other intramontane reservoirs at different lower levels, and is then conducted by the slightly dipping strata in channels between these strata, and breaks forth by side channels in fountains along the course of these rocky aqueducts. Nothing is more striking in travelling through Lebanon than to see from some commanding point of view the villages along both sides of a valley, like that of the Damûr, lying along horizontal lines, corresponding with the strata between which the fountains gush forth. In some cases these rocky aqueducts are many miles in length, and a single one manifestly acts as a water-main for a large number of villages. A few hundred feet below such a concealed watercourse will be another tier of villages, supplied by a second conduit, with its lateral channels to furnish the life-giving fluid to the fountains along its course.

There are also underground rivers flowing to great distances, and supplying fountains even to the level of the sea, or beneath its bed. In this way must be explained the large number of perennial springs which flow through the rainless months along the sides of the mountains of Palestine, and in the Nusairy chain, which have no snow-clad peaks to supply water through the seven months of summer. Doubtless there are many of these channels which work more or less on the syphon principle, and some of them give rise to intermittent fountains of a most interesting kind.

The capacity of the great storage and distributing reservoirs of the mountains may be inferred from the vast quantity of water which flows in the numerous streams of the country. The aggregate of the Orontes, the Leontes, the Jordan, the Barrada, the 'Awaj, the Kadîsha, the Dog River, and the Damûr, beside the numerous smaller streams, which flow into the Mediterranean, and the Dead Sea, and the Damascus plain, is

enormous. Much of this water is used for irrigation and never reaches the mouth of the stream. Many streams are wholly used in this way in summer. But, notwithstanding leakage, evaporation, and irrigation, a vast volume of water is poured out steadily through the long succession of rainless months; and if we add to this the fact that, by digging, copious supplies of potable water can be obtained almost anywhere on level ground, we shall gain a more adequate conception of the provision made for fertilising this land and supporting a large population.

The bearing of the fertility of the soil and the adequate supply of water for the wants of all whom the soil can feed, on the continuity of a large population in these lands through all the vicissitudes of the ages, is evident. A land in which the water supply is on the whole stable and certain, and the soil responds to the labourer's toil, is a land which will attract back again a population however it may have been "scattered and peeled." While there are irregularities in the amount of the rainfall there is seldom a water famine. The drought of summer is offset by the fact that the winter is a period of vegetable growth, not of sleep under a mantle of snow as in cooler climates, and that, with irrigation, two or more crops may be gathered in a year. It is still further offset by the fact that several of the staples of the country, as the mulberry, the vine, the olive, the fig, and the durrâh, are independent of rain, except during its proper season, and there is a superabundance of water for all crops which require irrigation.

It is not, then, to be wondered at that a succession of wars, and desolations, and captivities, which would have ruined a less favoured land irreparably, as they have ruined Mesopotamia, large parts of Persia, and Northern Africa, have never for any long time prevented Syria and Palestine from having a considerable population. And while the country now supports far fewer people than it once did, and may do again, yet every year of peace multiplies its population, and it needs but the protection of a stable and just government to cause it once more to swarm with people "as the sands on the sea shore for multitude."

V.—*Natural History.*

The *Flora* of this land is the richest of any country of its size in the world. The great diversity of soil, climate, rainfall, sun exposure, elevation, and depression, gives opportunity for the growth of a large number of species and varieties. The flowering plants number over 3,000 species, distributed through 850 genera and 117 orders. Many of the genera have a large number of species. Thus, *Ranunculus* has 28, *Silene* 58, *Trigonella* 31, *Trifolium* 48, and *Astragalus* 115 species, and several other genera have from 30 to 60 species apiece.

Each district has its distinctive flora. The *maritime plain* has the palm, the sugar-cane, the colocasia, the banana, the orange, lemon, citron and mandarin orange, which characterize its gardens and fields. In the dunes on the coast grow a large number of plants which are only adapted

to the blown sand, and seem to be provided to prevent this sand from overwhelming the fertile land. In the warm, moist air of the coast plain most sub-tropical plants can be cultivated in the open air.

The *lower and middle zone of the mountains* is the favoured home of the mulberry, the fig, the olive (which also grows luxuriantly on the maritime plain), and the vine. Tree culture is the main industry of Lebanon, and a considerable one on the mountains of Palestine. The cereals grown in the mountains are insufficient for the support of the population, and cannot be rated as a staple of the district. The main reliance of Lebanon is the mulberry, which not only furnishes the food of the silkworm, but later that of the sheep and horned cattle.

Anti-Lebanon is far less fertile, and has far less inhabitants than Lebanon. Tree culture is less common, but there are far more forest trees here than in Lebanon. But at similar altitudes corresponding productions are raised.

The forest trees of the *middle mountain zone* are the Aleppo Pine, the Hackberry (*Celtis Australis*), three species of Maple, the Portuguese, Lebanon, evergreen, Vallonia, Cerris, and other Oaks, the Syrian Ash, the Juniper, the Cypress, the Styrax, the Arbutus (which attains the magnitude of a considerable tree in the park-like groves of Gilead), the Terebinth, and, in Northern Syria, the Beech and Hornbeam, and others. The Walnut is generally cultivated as also the Carob. All the ordinary fruit trees, as apples, peaches, pears, plums, apricots, medlars, &c., flourish.

At an altitude of about 6,000 feet the famous Cedar of Lebanon flourishes, and doubtless once covered the subalpine zone of Lebanon and *Anti-Lebanon*. It is now found in only a few groves of Lebanon, and is extinct in *Anti-Lebanon*, but grows in considerable quantity in *Amanus*.

Of wild fruit trees there are few in our district. The sour plum (*Prunus ursinus*) is a plant of the middle and subalpine regions of Lebanon and *Anti-Lebanon*. A minute dwarf cherry flourishes on the alpine peaks. There is the Arbutus Unedo, L., the Jujube tree, the Hawthorn, the Syrian Pear. Of shrubs almost the only one with an edible fruit is the wild Blackberry.

The characteristic flora of the *almost treeless plains of the interior* consists of numerous species of Astragalus, Centaurea, Phlomis, and Salvia. These plains are the great wheat producing regions of the Levant, and along them armies have always been sure of supplies. Maize, durrâh, sesame, barley, and in wet places rice, flourish in this district. From some prominent shoulder of the mountains one of these great fertile plains appears in the spring-time a broad sea of green, and later, in the harvest-season, a sea of gold, stretching away as far as the eye can reach, or to the base of the range of mountains which constitutes its boundary.

The flora of the *Jordan Valley*, besides sharing the characteristics of the lower levels of Palestine, has an element of tropical vegetation, similar to the upper Egyptian and Nubian. The Zaqqûm, or so called Balm of

Gilead Tree, grows nowhere in our district but in this valley. The same is true of the Papyrus, *Salvadora Persica*, *Calotropis procera* (the Apples of Sodom), *Solanum coagulans*, and other plants. The torrid heat of this valley causes its crops to mature very early, and its abundant water is capable, by irrigation, of making it, what it once was, a garden of the Lord.

The *alpine peaks of Lebanon, Anti-Lebanon, Cassius, and Amanus* support a copious and peculiar vegetation, of most interesting botanical character. This vegetation, although useless to man directly, is of great indirect value, as it furnishes the food of large flocks of goats, which are a source of livelihood to no inconsiderable number of goatherds and their employers. These goats, however, do more harm than good to the country, by devouring all seedling trees, and so preventing the second growth of the forests, so needed on the higher mountain ranges, both as a direct source of wealth, and as a regulator of the rainfall.

The *desert flora* is as peculiar and interesting as that of the alpine regions, and like it, although directly of little value to man, indirectly contributes to his maintenance by supporting considerable herds of camels, and in some places asses. Not all of the so-called desert is unproductive. The valleys of Sinai have, until recently, contained large numbers of acacia and tamarix trees, which have furnished much charcoal for the Egyptian market. The supply is even yet not exhausted. The great table land known as the Syrian Desert, furnishes pasturage for innumerable flocks and herds, and supports a large nomad population.

It is evident from the foregoing sketch of the botanical regions of this land that the diversified productions of the different parts of so small a territory have had their full share in its strange history. Thus the fertility of the coast and the great plains of the interior, as well as of the depressions which connect them with the coast, has had as much to do with making them highways for conquering armies as their ready accessibility. An Egyptian or Assyrian Army could march from its base to its objective point almost without commissariat, and find abundant supplies by the way. On the other hand, the rugged surface and stony soil of the mountains, ill-adapted to the production of the cereals, could not furnish an invader with necessary supplies, thus adding to the cost and difficulty of a campaign the necessity of providing a commissariat. Yet in their remote fastnesses or fortified towns the natives could preserve a sufficient store of food to enable them to withstand a siege, and when it was over their forests and upland pasturages furnished a means of quickly regaining a livelihood, while their less fortunate brethren of the plain had been despoiled of all they possessed, and perhaps led away into captivity.

Furthermore, the deserts, while inaccessible to foreign armies, furnished sufficient sustenance to the indigenous shepherds and warriors who roamed over them.

Thus, while parts of the country were being depopulated in every campaign, there remained hives of population, furnished with scanty but

sufficient nourishment for their hardy frames and frugal habits, ready to swarm out over the desolated plains and re-people the fertile districts so inviting to those who had known only the hardships and privations of mountain and desert life.

The *Fauna* of Syria and Palestine in Bible times was more varied, and included more of the larger animals than are now to be found. It is probable that the hippopotamus, the wild ass, and the lion were found in Palestine in historic times. It is asserted that the crocodile still exists in the marshes of the Zarqa and the Kishon. But from early times the wild animals of the more formidable kind were extirpated or driven back into the deserts or remoter mountain districts. Of the larger mammals the bear still exists in small numbers on the high peaks of Lebanon and Anti-Lebanon; the leopard is occasionally met with throughout the wilder forest and mountain regions; the oryx, which inhabits the deserts adjacent to Palestine; the fallow deer, of which a few stragglers inhabit Carmel and the wadies of Galilee; the ibex, which is found in the deserts and eastern and southern mountains, as far as Sinai; the Bubale, or Boqr-el-Wahhsh of the Arabs; the addax, and the kebsh—but few of them are ever seen, and fewer captured or killed by man. The chase, therefore, is of no great importance in this land for the maintenance of human life. Wild swine exist in numbers in the forests of Cassius and Amanus, in the more secluded regions of Lebanon and Anti-Lebanon, and in the cane brakes of the Jordan Valley and elsewhere. They owe their continued existence to the fact that they are regarded as unclean, and unsuitable for food.

The chase is now almost confined to gazelles, hares, porcupines, conies, and other small mammalia, and to noxious animals, as the fox, wolf, hyæna, and jackal, and to birds. This was not, however, always so. In ancient times hunting supported a considerable population, and the game was worthy of noble and even kingly hands.

But if man finds little in the way of game to sustain life in this land, on the other hand, he has little to fear from wild beasts. A few people die annually from serpent bites, a few are torn by leopards or wolves, but predaceous animals have not seriously molested man within the historic periods.

The *domestic fauna* is, however, of great importance to man. It includes such invaluable servants as the camel, the horse, the ass, the mule, the buffalo, the ox, the sheep, and the goat. The camel is to the Arab what the reindeer is to the Laplanders. It is the beast of burden, its milk furnishes a considerable part of the food of the Bedawin, its hair is woven into cloth for garments and tents, its flesh is also most valuable in case of need. Its value is greatly enhanced by the fact that it is the most inexpensive of animals to feed. In fact, it lives and thrives where no other beast of any use to man could exist. Hence its importance to the dwellers in deserts cannot be over-estimated. Probably without the camel these deserts would have been uninhabited. With it they maintain a very considerable population. The ass, also, is an animal of

exceeding value to man in these lands. It can live on the most meagre and uninviting diet of thistles and stubble, and yet do a surprising amount of work. Being very sure-footed, it is specially adapted to mountainous and stony regions, which are the rule in Syria and Palestine. The goat also is an animal capable of living where other grazing animals would find little or nothing to support life. It climbs over almost inaccessible rocks, and lives on a host of aromatic and bitter plants, which no other animal will eat. The importance of these animals in furnishing to man the means of existence cannot be forgotten in estimating the persistence of a large population in the remoter and more barren districts.

VII.—*Mineralogy.*

The mineral wealth of our district is not large. Iron ore is found in large quantities, and has, from earliest historic periods, been worked. The Damascus steel was famous in the Middle Ages. At present, the production of iron is probably smaller than at any previous period, owing to the disappearance of the forests which furnished the charcoal used in smelting. Copper mines were worked in ancient times by the Egyptians in Sinai. Turquoise was also extracted in considerable quantities from the sandstone rocks of Wadi Maghara. Copper is said to be found in the neighbourhood of Jebâ', in Lebanon. Bitumen is found in the neighbourhood of Hasbeiyah and in the Jordan Valley. Chromium is found near Antioch, but its value was not known to the ancients. In general, it must be admitted that the country is poorer in minerals than in other resources, and that it was indebted for its supplies to other lands. Few mines have been discovered, and, except the workers in iron, few of the people have ever depended on metallurgy for their livelihood.

VIII.—*Health and Disease.*

The health of these lands is in general good. They are to a large extent free from the severe inflammatory affections so fatal in the colder climates. They are also free from the peculiar diseases of the tropics. The great variety of productions, the generally wholesome water, and the comparative certainty and regularity of the crops, cause the prevalence of a high standard of health, and prevent the famines which curse countries of one staple. The temperate habits of the people, their freedom from alcoholism, their moderate use of meat, all favour their resisting power to causes of disease, and enable them to bear injuries and operations well. The adjacent Mediterranean, the high mountains, the table lands of the interior, swept by pure and almost constant winds, the deserts which lie on two sides of the land, all contribute to the maintenance of the purity of the air, and support a vigorous stock of humanity, fitted to replenish and infuse new vigor into the more effeminate races of the lower districts. They are also a sanitarium of the most perfect kind, and constantly afford

a refuge to those enervated by the tropical climate of Egypt and the warmer portions of Syria and Palestine themselves. Again and again has it happened, while cholera has prevailed on the coast and in the cities of the interior, that the mountains of Lebanon and Anti-Lebanon, and the Syrian and Sinaitic deserts have been quite free from the scourge.

The bearing of the excellence of the conditions of health on the recovery of a people subjected often to the rigors of war, and the derangement of industry, as well as the forcible breaking up of homes, and the crowding together of large bodies of men, is not hard to see. As a good constitution in an individual enables him to rally from desperate illness and regain sound health, so the sound state of a country's health enables it to recuperate after the horrors of war, and speedily reproduce the population which had been wasted by the sword.

Summary.

Syria and Palestine constitute a territory situated at the meeting point of the three ancient continents, and forming a highway connecting them, and along this highway the historic races of mankind have passed to and from a career of invasion and conquest unexampled in the annals of the world. Yet, although affording an easy pathway to invaders and conquerors, this land contains hiding places for those who have escaped conquest, which have afforded refuge to a large number of communities, still surviving, and transmitting by living tradition the fragmentary history of the past.

The *Climate* is such as to favour rapid increase of population and the maintenance of life, with a small expenditure for fuel and clothing, and a frugal diet. The *Soil* is rich, and produces, under the favourable conditions of exposure, altitude, and rainfall, a vegetation of unexampled richness and variety, and has been proven capable of supporting a very dense population. The *Water Supply* is copious for a country with a rainless summer, and the provisions for storing and distributing it are such that the population is well able to occupy a large part of the land. Even the deserts yield subsistence to a considerable number of hardy men, who are, and always have been, unconquerable. The *Flora* and *Fauna* are such as to favour the growth of population, and to make available to man all that the soil and climate furnish. Finally, it is a country whose lofty mountains and breezy plateaux furnish an admirable sanitarium for its tropical and sub-tropical lowlands.

From the combination of these causes these lands were inhabited from the earliest periods of history, and their populations, so often conquered, destroyed, or carried into captivity, have often returned, or a remnant of them has survived in some mountain fastness or desert solitude, or such rugged refuges as the lava sea of the Leja, or the volcanic cones of the Jebel-ed-Durúz, and these remnants have often clung to the traditions, religion, and customs of their forefathers, and in one case a

few villages have clung to their ancient language, or rather transformed it into a new and most interesting dialect. In taking up the individual sects it will be our duty to point out the origin and history of each, and their present geographical distribution so far as possible.

Meantime, the subject of a second preliminary essay will be—

The Land Tenure, Agriculture, Industries, Dress and Habits, Art and Architecture, Amusements, Science, and Music of these sects, so far as they are common to all.

METEOROLOGICAL OBSERVATIONS.

SARONA, 1887.

THE numbers in column 1 of the table show the highest reading of the barometer in each month; the maximum for the year was 30·285 ins. in January, this being higher than any reading in the preceding seven years. In the years 1880, 1881, and 1884, the maximum was in January as in this year, in 1882 in February, and in 1883, 1885, and 1886 in December. The maximum, therefore, has always been in the winter months. The mean of the preceding seven years highest pressures was 30·207 ins.

In column 2, the lowest reading in each month is shown; the minimum for the year was 29·145 ins. in April, this being lower than any reading in the preceding seven years. In the year 1883 the minimum was in January, in 1881 in February, in 1880, 1884, 1885, and 1886 in April, as in this year, and in 1882 in July; the mean of the seven preceding lowest pressures was 29·516 ins. The minimum, therefore, has taken place in the months from January to July.

The range of barometric readings in the year was 1·140 inch; this range being greater than any in the seven preceding years, viz., 1880, 1881, 1882, 1883, 1884, 1885, and 1886, when the ranges were 0·780 inch; 0·711 inch; 0·704 inch; 0·579 inch; 0·757 inch; 0·680 inch and 0·621 inch respectively. The mean for these seven years was 0·690 inch.

The numbers in the 3rd column show the range of readings in each month; the smallest was 0·104 inch in October, this being the smallest range in any month in the eight years; in the year 1883 the smallest was in June; in 1882 and 1886 in August, and in 1880, 1881, 1884, and 1885 in October, as in this year. The mean of the seven preceding smallest monthly ranges was 0·175 inch.

The largest monthly range was 0·843 inch in April, this being the largest range in any month in the eight years; in the years 1883 and 1884 the largest was in January, in 1882 in February, in 1881 and 1886 in March, in 1880 in April as in this year, and in 1885 in September. The mean of the seven preceding largest monthly ranges was 0·584 inch.

The numbers in the 4th column show the mean monthly pressure of the atmosphere; the greatest, 29·958 ins., was in February. In the years

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MONTHLY METEOROLOGICAL TABLE DEDUCED FROM OBSERVATIONS TAKEN AT SARONA BY HERR J. DREHER IMMEDIATELY NORTH OF THE GREAT ORANGE GROVES OF JAFFA, SYRIA, 1½ MILE FROM THE SEA SHORE, ON SANDY SOIL, AND ABOUT 50 FEET ABOVE SEA-LEVEL. LATITUDE 32° 4' N., LONGITUDE 34° 47' E.

By JAMES GLAISHER, F.R.S.

Months, 1887.	Pressure of Atmosphere in Month. Corrected to 32° Fahrenheit.				Temperature of the Air in Month.								Mean Reading at 9 a.m.			Vapour, 9 a.m.			Degree of Humidity.	Weight of a Cubic Foot of Air.	Wind.									Mean Amount of Cloud.	Rain.	
	Highest.	Lowest.	Range.	Mean.	Highest.	Lowest.	Range.	Mean of all Highest.	Mean of all Lowest.	Mean daily Range.	Mean.	Dry Bulb.	Wet Bulb.	Dew Point.	Elastic Force of Vapour.	Weight in a Cubic Foot of Air.	Additional Weight required for Saturation.	Relative Proportion of									Calm, or nearly Calm.	Number of Days on which it fell.	Amount Collected.			
																		N.			N.E.	E.	S.E.	S.	S.W.	W.					N.W.	
January	in. 30·285	in. 29·442	in. 0·843	in. 29·866	78°·0	32°·5	45°·5	63°·4	44°·9	18°·5	54°·1	53°·6	49°·9	45°·4	grs. ·303	grs. 3·4	grs. 1·4	71	grs. 538	3	1	3	5	6	2	1	1	9	5·8	12	ins. 5·74	
February	30·239	29·724	0·515	29·958	77°·0	37°·0	40°·0	64·3	44·0	20·3	54·2	56·9	52·3	48·1	·336	3·8	1·4	72	537	1	0	1	1	3	4	1	2	15	4·7	7	2·27	
March	30·063	29·743	0·320	29·900	89°·0	37°·0	52°·0	67·9	46·6	21·3	57·2	62·4	52·3	43·7	·285	3·2	3·1	50	530	1	1	3	3	3	3	5	1	11	4·4	4	0·89	
April	29·993	29·145	0·848	29·765	97°·0	43°·0	54°·0	78°·0	52·9	25·1	65·5	71·0	62·3	55·7	·444	4·8	3·5	58	518	0	4	2	0	3	3	7	1	10	5·8	2	0·07	
May.. ..	30·061	29·704	0·357	29·844	98°·0	45°·0	53°·0	80·2	56·3	23·9	68·3	74·6	66·6	60·8	·533	5·8	3·5	62	516	1	0	0	0	4	5	11	4	6	2·1	2	0·95	
June	29·865	29·654	0·211	29·744	89°·0	58°·0	31°·0	83·9	62·7	21·2	73·3	79·5	72·3	67·3	·670	7·2	3·6	66	508	0	0	0	0	1	13	13	1	2	2·4	0	0·00	
July.. ..	29·893	29·573	0·320	29·671	89°·0	62°·0	27°·0	85·9	66·1	19·8	76·0	83·0	74·7	69·2	·712	7·6	4·4	63	504	0	0	0	0	0	21	8	0	2	3·7	0	0·00	
August	29·766	29·567	0·199	29·653	92°·0	64°·0	28°·0	88·5	69·1	19·4	78·8	84·8	75·7	69·8	·729	7·8	4·9	60	502	0	0	0	0	1	18	8	1	3	1·9	0	0·00	
September	29·966	29·670	0·296	29·802	90°·0	61°·0	29°·0	86·6	67·3	19·3	77·0	83·2	73·7	67·4	·671	7·1	4·9	59	506	2	0	0	0	0	11	3	6	8	2·2	1	0·08	
October	29·964	29·860	0·104	29·875	100°·0	57°·0	43°·0	88·2	63·8	24·4	76·0	81·8	72·2	65·8	·635	6·8	4·8	58	509	0	2	2	1	2	10	2	1	11	2·2	0	0·00	
November	30·099	29·713	0·386	29·930	82°·0	52°·0	30°·0	77·8	57·2	20·6	67·5	70·3	64·8	60·6	·530	5·8	2·3	71	521	0	5	1	6	5	1	0	1	11	4·3	5	1·84	
December	30·087	29·776	0·311	29·949	76°·0	46°·0	30°·0	70·1	50·9	19·2	60·5	58·9	54·6	50·7	·371	4·2	1·4	75	534	0	1	1	1	8	6	1	0	13	4·6	10	5·22	
Means	30·023	29·631	0·392	29·821	88·1	49·5	38·5	77·9	56·8	21·1	66·5	71·7	64·3	58·7	·518	5·6	3·3	64	519	Sum. 8	Sum. 14	Sum. 13	Sum. 17	Sum. 36	Sum. 97	Sum. 60	Sum. 19	Sum. 101	3·7	Sum. 43	Sum. 17·06	
Number of Column	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	



1880, 1881, 1882, and 1884 the greatest was in January, in 1883 in February as in this year, and in 1885 and 1886 in December. The highest mean monthly reading in the eight years was 30·060 ins. in January, 1882.

The smallest mean monthly reading was 29·653 ins. in August, this being the lowest mean reading in any month in the eight years; that in August, 1885, was nearly as small, being 29·657 ins. In the years 1880, 1882, 1883, and 1886, the smallest was in July, and in 1881, 1884, and 1885 in August as in this year.

The highest temperature of the air in each month is shown in column 5; the highest in the year was 100°, in October; the next in order was 98° in May, and 97° in April. The first day in the year the temperature reached 90° was on April 10th, and on three other days in this month the temperature reached or exceeded 90°. In May there were two days when the temperature reached or exceeded 90°, in August on nine days in September on two days, and in October on eight days; the highest in the year, viz., 100°, took place on the 29th of October; therefore the temperature reached or exceeded 90° on twenty-five days during this year. For the preceding seven years, viz., 1880, 1881, 1882, 1883, 1884, 1885 and 1886, the temperature reached or exceeded 90° on 36, 27, 8, 16, 14, 24 and 16 days respectively. In the seven preceding years, the highest temperatures were 103°, 106°, 93°, 106°, 100°, 103° and 112° respectively.

The numbers in column 6 show the lowest temperature of the air in each month. The lowest in the year was 32°·5 on January 28th; the next in order was 33° on the 27th of January, and 36° on both the 26th and 29th of the same month, the temperature being below 40° again on the last day of January; in February the temperature was below 40° on seven different nights, and in March on three nights. Therefore the temperature was below 40° on fifteen nights in this year. In the preceding seven years, viz., 1880, 1881, 1882, 1883, 1884, 1885, and 1886, the temperature was below 40° on 13, 2, 13, 2, 9, 3, and 3 nights respectively. In the preceding seven years the lowest temperatures were 32°, 39°, 34°, 35°, 32°, and 38° respectively.

The yearly range of temperature was 67°·5; in the seven preceding years, viz., 1880, 1881, 1882, 1883, 1884, 1885, and 1886, the yearly ranges were 71°, 67°, 59°, 71°, 68°, 65°, and 75° respectively. The mean of the seven preceding yearly ranges was 68°·0.

The range of temperature in each month is shown in column 7, and these numbers vary from 27° in July to 54° in April. In the year 1880 these numbers varied from 25° in August to 53° in both April and May; in 1881 from 29° in July and September to 51° in May; in 1882 from 25° in August to 47° in November; in 1883 from 25° in July to 62° in March; in 1884 from 24° in February to 51° in April; in 1885 from 22° in July to 52° in March; and in 1886 from 26° in August to 55° in June.

The mean of all the highest by day, of the lowest by night, and of the average daily ranges of temperature are shown in columns 8, 9, and 10 respectively. Of the high day temperature, the lowest 63°·4, was in

January. In the years 1884, 1885, and 1886 the lowest was in January, as in this year; in 1881, 1882, and 1883, in February, and in 1880 in December. The highest, $88^{\circ}5$, was in August, in the year 1880 the highest was in May; in 1881, 1883, 1884, 1885, and 1886, in August, as in this year; and in 1882 in September. Of the low night temperature, the coldest $44^{\circ}0$, was in February; in the years 1880, 1882, and 1884, the coldest was in January, in 1883 and 1885 in February, as this year, and in 1881 and 1886 in December. The warmest, $69^{\circ}1$, was in August; in the year 1885 the warmest was in July; in the years 1880, 1881, 1882, 1883, 1884 and 1886 the warmest was in August as in this year. The average daily range of temperature is shown in column 10; the smallest, $18^{\circ}5$, is in January; in the years 1880, 1883, 1885, and 1886 the smallest was in January, as in this year; in 1881, 1882, and 1884 in February. The greatest range of temperature, $25^{\circ}1$, is in April; in the year 1884 the greatest was in April, as in this year; in the years 1880 and 1885 the greatest was in May, in 1881 in June, in 1883 in September, and in 1882 and 1886 in October.

In column 11, the mean temperature of the air is shown as found from observations of the maximum and minimum thermometers only. The month of the lowest temperature, $54^{\circ}1$, was January, but February was nearly as cold, being $54^{\circ}2$. In the years 1880, 1884, 1885, and 1886, the lowest was in January, as in this year; in 1881 and 1882 in February; and in 1883 in December. That of the highest, $78^{\circ}8$, was August, as in each of the 7 preceding years. The mean temperature for the year was $66^{\circ}5$, and of the 7 preceding years, viz., 1880, 1881, 1882, 1883, 1884, 1885, and 1886 were $66^{\circ}4$, $66^{\circ}7$, $65^{\circ}5$, $65^{\circ}7$, $65^{\circ}7$, $65^{\circ}9$, and $66^{\circ}8$ respectively.

The numbers in columns 12 and 13 are the monthly means of a dry and wet bulb thermometer taken daily at 9 a.m. In column 14 the monthly temperature of the dew point, or that temperature at which dew would have been deposited, is shown; the elastic force of vapour is shown in column 15. In column 16 the water present in a cubic foot of air is shown; in March it was as small as $3\frac{1}{2}$ grains, and in September it was as large as $7\frac{3}{4}$ grains. In column 17 the additional weight required for saturation is shown. The numbers in column 18 show the degree of humidity, saturation being considered 100; the smallest number indicating the driest month, is 50 in March, and the largest 75, indicating the wettest month, was in December; the weight of a cubic foot of air under its pressure, temperature, and humidity at 9 a.m., is shown in column 19.

The most prevalent winds in January were S.E. and S., and the least prevalent were N.E., W., and N.W.; in February the most prevalent were S.W. and S., and the least was N.E.; in March the most prevalent was W., and the least were N., N.E., and N.W.; in April the most prevalent was W., and the least were N. and S.E.; in May the most prevalent was W., and the least were N.E., E., and S.E.; in June the most prevalent were S.W. and W., and the least were N., N.E., E., and S.E.; in July the most prevalent was S.W., and the least were N., N.E.,

E., S.E., S., and N.W.; in August the most prevalent was S.W., and the least were N., N.E., E., and S.E.; in September the most prevalent was S.W., and the least were N.E., E., S.E., and S.; in October the most prevalent was S.W., and the least was N.; in November the most prevalent were S.E., S., and N.E., and the least were N. and N.W.; and in December the most prevalent were S. and S.W., and the least prevalent were N. and N.W. The most prevalent wind for the year was S.W., which occurred on 97 different days in the year, and the least prevalent wind was E., which occurred on only 13 times during the year.

The numbers in column 29 show the mean amount of cloud at 9 a.m.; the month with the smallest is August, and the largest in both January and April, which were of the same value. Of the cumulus, or fine weather cloud, there were 60 instances in the year; of these 18 were in August, 11 in September, and 9 in July. Of the nimbus, or rain cloud, there were 57 instances; of these 14 were in December, 13 in January, and 8 in both February and March, and only 4 from May to October. Of the cirrus there were 46 instances. Of the cirro-cumulus there were 59 instances. Of the stratus 23 instances. Of the cirro-stratus, 10 instances. Of the cumulus-stratus, 6 instances; and 104 instances of cloudless skies, of which 17 were in October, 14 in May, and 13 in September.

The largest fall of rain for the month in the year was 5·74 ins. in January, of which 1·83 inch fell on the 16th. The next largest fall for the month was in December, 5·22 ins., of which 2·12 ins. fell on the 15th. No rain fell from the 2nd May till the 14th of November, with the exception of one day, viz., the 12th of September, when 0·08 inch fell, and so making two periods of 132 and 63 consecutive days without rain. In 1880 there were 168 consecutive days without rain; in 1881, 189 consecutive days; in 1882, there were two periods of 76 and 70 consecutive days without rain; in 1883, 167 consecutive days; in 1884, 118 consecutive days; in 1885, 115 consecutive days; and in 1886, 171 consecutive days without rain. The fall of rain for the year was 17·06 ins., being smaller in amount than in any of the preceding seven years by 11·62 ins., 0·43 inch, 5·03 ins., 13·00 ins., 1·67 inch, 3·00 ins., and 3·03 ins. respectively. The number of days on which rain fell was 43. In the seven preceding years, viz., 1880, 1881, 1882, 1883, 1884, 1885, and 1886 rain fell on 66, 48, 62, 71, 65, 63, and 66 days respectively.

JAMES GLAISHER.

A HITTITE PRINCE'S LETTER.

THE majority of the Tell el Amarna letters have now been published. Whether the kings to whom they are addressed are to be identified with Amenophis III and Amenophis IV, or with invading Babylonian monarchs who had reached Egypt and there ruled for a brief space, and to whom the Princes of Mesopotamia, and the Babylonian Governors set up in Syria and Phœnicia, were writing, may be doubtful. It is

highly improbable that native Egyptians, acquainted with the simpler hieratic script, would have used the clumsy Cuneiform; and it is indisputable that the letters were written, not in Egypt or by Egyptians, but in Syria and Mesopotamia, and by Asiatics. The names of the monarchs addressed are read as *Nimutriya* and *Khuri*. The first has been supposed equivalent to Ra-mat-neb (Amenophis III), and the tablet with his name bears the Egyptian character *nuter* on the back. The second is supposed to be the Oros of Manetho, and connected with Nofer-Kheperu-Ra (Amenophis IV). The name of one of the messengers sent with a letter to *Nap-khu-ririya*, King of Egypt, is Pirizzi, and this is also that of a messenger from the King of Mesopotamia mentioned in the Egyptian docket on the back of another letter from the same writer. This letter mentions the Egyptian Queen Thi, and it appears that the author (Dusratta, King of Mitani) was father-in-law to the King of Egypt. Naturally he uses the cuneiform script, but the docket is in hieratic writing. *Nap-khu-ririya* seems pretty clearly to be Amenophis IV, which gives the date of the letter. (See "Proceedings" Bib. Arch. Soc., June, 1889.)

Among this mass of Semitic documents there is one letter in another language, addressed to *Nimutriya*, and this has been partly translated by Dr. Hugo Winckler and by Dr. Sayce.¹ They both have come to the conclusion that the language is that of the Hittites; but the difficulty which remains is that, as the text for the most part is ideographically written, it is only possible to obtain the sounds of the language in a few cases with any certainty.

The reasons for supposing the letter to be Hittite are: 1st. That the name of the sender is *Tarkundarais*—a Hittite name. 2nd. That he ruled apparently in Syria. 3rd. That the Prince of the Hittites is mentioned in the letter.

The heading of the letter is supposed to be Assyrian, it is as follows:—

"To *Nimutriya* the Great King the King of Egypt of *Tarkundarais* King of the Land of *Arzapi* the letter."

The more certain phrases of the letter itself are as follows:—

". . . me peace to my houses my wives my sons my great men my army my horses my lands . . . may there be peace.

". . . may there be peace to thy houses thy wives thy sons thy great men thy army thy horses thy lands may there be peace

"The Prince of the Hittites ruling at the Mountain of *Igaid* . . . of gold by weight, twenty *manas* of gold, three *Kak* of ivory, 3 *Kak* of . . . , 3 *Kak* of . . . , 8 *Kak* of . . . , 100 *Kak* of lead (or tin) 4 . . . , 100 *Kak* of . . . , 100 *Kak* of . . . , 4 *Kukupu* stones . . . , 5 *Kukupu* stones of a good kind, 3 . . . , 24 plants of the

¹ Dr. Winckler's paper was read at the Royal Academy of Berlin, on December 13th, 1888. The text is published by Dr. Sayce ("Proc." Bib. Arch. Soc., June, 1889.)

. . . tree, 10 thrones of ushu wood from the White Mountain
10 . . . , 2 ushu trees. . . .”

The more obscure part of the letter to be mentioned afterwards is supposed to refer to a demand for the hand of an Egyptian princess.

The importance of this letter for the study of the Hittite language is very great, and it is satisfactory to find that in the opinion of specialists it presents many marks of relationship to the Akkadian. In the absence of bilinguals it is one of the best means of furthering our knowledge which has come to hand. The following remarks occurred to me on first reading it.

Tarkhundarais.—The last syllable is doubtful, but the name presents us with the familiar Tarkhun, which I have already shown to be a Turko-Mongol word meaning “chief.” Dara is an Akkadian word for “prince,” and, as I have previously shown, is also Hittite, and found in Altaic languages with the same meaning.

Igaid may probably, as Dr. Sayce suggests, be the Ikatai of the “Travels of a Mohar,” which, as is clear from Chabas’ commentary, was in the neighbourhood of Aleppo. Thus the Prince of the Hittites appears in the Hittite country, where alone we know of this tribe—in northern Syria.

Mi is the possessive pronoun, first person singular, as in Akkadian, and in Altaic languages generally. (See my previous paper on the “Hittite Language” in the *Quarterly Statement*.)

Ti is the possessive pronoun, second person singular. This no doubt recalls Aryan languages, but is also found in Altaic speech, as in the Hungarian *te* and Zirianian *te*. It is a dialectic variation of *si*, which is the commoner sound in Altaic speech (Mongol *si*, Akkadian *Zae*).

Plural.—The sound is not supposed to be certain, but the emblem is that which has the sound *mes* in Cuneiform. The tacking on of this emblem to those for “house,” “wife,” &c., &c., seems to indicate an agglutinative language.

Khuuman-kuru-in, “may there be peace,” is a precative form, which Dr. Sayce admits, to remind us of Akkadian.

An-na, rendered “lead” by Dr. Sayce, seems, perhaps, to be phonetic. In this case it recalls the Akkadian *anna*, Hungarian *on*, Armenian *anag*, for “tin.”

Arzapi, the country ruled by Tarkhundarais, is thought to be Razaffa of the Assyrian inscriptions, the Rezep of the Bible (2 Kings xix, 12). If so, this prince with a distinctively Hittite name ruled the mountains of Ikatai, from a town supposed to be near Nisibin. It is not a well fixed site. One place so-called was on the road from Rakkah to Homs, west of the Euphrates; another was near Baghdad. The Syrian Reseph may fairly be supposed to be the place intended; the emblem *Ki* attached to the word is probably the genitive.

It appears, therefore, that as far as at present deciphered, the letter in question confirms my view that the Hittite language was one closely connected with Akkadian.

The following appears to me to be the correct translation of the main part of the letter of which only a few words have been previously read :—

“ My great Chief, the Lord Irsappa, the Envoy, who is of my family, my brother, I am sending to fetch thy daughter, O my Rising Sun, as a wife. My brother has a son of noble appearance. He brings, therefore, to thy city a bag of gold as a present. Let my brother bring my gift to thee from this place. These my . . . thus he brings, afterwards to give thee, in order that thy servant the envoy from thee with this one of mine whom I am sending may take her afterwards to the young man. Thy (servant ?) I cause to fetch, to fetch from far (if) thy daughter receives the envoy with favour, thy envoy shall go as far as the house of the great fortress, before the young Princess, as she goes through the countries . . . Let her come to (our ?) palace. The Prince of the Hittites, ruling in the mountains of Ikatai, sends therefore 30 *tu* of usu wood, as appointed. Irsappa will weigh the weight of the bag of gold.”

The expression “ Rising Sun ” as a title for the King of Egypt, occurs in many of the Tell el Amarna texts as well as in Egyptian.




The inscription so rendered gives us at least seventy Hittite words some of which, however, being written “ ideographically,” that is, by a single emblem, may be considered of doubtful sound ; but the rest, amounting to more than fifty, are syllabically written, and may thus be considered of known sound.

Out of this total there are twenty-five words which I had previously fixed as belonging to the Hittite language, being found either on the Hittite monuments, or by analysis of the names of Hittite towns and of Hittite Princes. The number of such words, which I have previously published, amounts to about 100, so that a quarter of these words are confirmed by this new and independent evidence.

The words so confirmed are as follows :—

<i>A</i> = participial affix.	<i>Me</i> = “ to be.”
<i>Ar</i> (or <i>Er</i>) = man.	<i>Mes</i> = plural.
<i>Ata</i> = “ Chief.”	<i>Mu</i> = “ me,” “ my.”
<i>Du</i> = “ go.”	<i>Ne</i> = “ he,” “ of,” “ to.”
<i>E</i> = “ house.”	<i>Neke</i> = “ belonging to.”
<i>Enu</i> = “ Lord.”	<i>Papa</i> = “ young man ” and “ father.”
<i>Ga</i> = “ Oh.”	<i>Sa</i> = “ with,” “ in.”
<i>Gal</i> = “ great.”	<i>Sar</i> = “ Chief.”
<i>Gan</i> = “ this.”	<i>Si</i> = “ eye,” “ see.”
<i>Kar</i> = “ fortress.”	<i>Tak</i> = “ stone.”
<i>Kal</i> or <i>Khal</i> = “ town.”	<i>Tarku</i> = “ Chieftain.”
<i>Khat</i> = “ Hittite.”	<i>Ti, Ta</i> = “ to,” “ at.”
<i>Kur</i> = “ mountain.”	

The words not previously connected with the Hittite language require further notice for their identification :—

1. *Agga*, "strong"; Akkadian *Agga*, "strong"; *Akku*, "great";
Medic *Ukku*, "great."
2. *An-na*, "tin"; Akkadian *an-na*, Hungarian *on*.
3. *Bi*, "he," "it"; Akkadian *Bi*, "he"; Medic *Ap*, *up*; Turkish ,
"this"; Samoyed *ba*; Finnic verbal pronoun *pi*; Esthonian *b*;
Tcherkess *be*; Yakut *by*.
4. *Bi-bi-pi*, "the which" (pl.); Akkadian *aba*, Medic *upe*, "which,"
with the plural in *pi* as in Medic.
5. *Dam*, "wife," as in Akkadian (ideographic).
6. *Egir*, "afterwards" Akkadian *egir*, (ideographic).
7. *Guskin*, "gold"; Akkadian *Guskin* (ideographic). This word is
probably connected with the Tartar *kin*, "gold"; Manchu *chin*;
Chinese *kum*.
8. *Gar* (in *Khalugari* "haste-maker"); Akkadian *gar*, "to make"
or "cause," perhaps connected with the Aryan root KAR or
GAR, "to do"
9. *Ki*, "as." I have already proposed this as possibly a Hittite
word. Akkadian *ki*, "as"; Hungarian *ki*, "so."
10. *Ku* (or *Kuin*) "dawn" or "bright"; Akkadian *ku*, "dawn" or
"bright"; *kun*, "dawn." Compare Livonian *koi*, "the dawn,"
Finnic, *koi*, "bright," Basque *eguna*, "day."
11. *Kuru*, "peace," as in Akkadian (ideographic).
12. *Kala*, "city." See "Transactions Bib. Arch. Soc.," ii, p. 248, where
W. A. I. ii, 30, 14, is quoted as the authority for the word
 , *Kal*, or *Kalla*, being an Akkadian word for "town."
According to the known rules of change in sounds this would
be the older form of the later *val*, *vol*, or *aul*, a well-known
Tartar word for "city," or "camp," found also in Etruscan. In
Susian the form *khal*, "city," is well-known. It may be but a
variant of *kar*, "fortress," the Votiac and Zirianian *kar*, "town."
13. *Kuis-tu*, "as far as," or "up to"; Medic *kus*, "until."
14. *Kuukta*, "favourable"; Medic *kukta*, "favouring." For these and
other Medic words the authority is Oppert's "Les Mèdes."
15. *Ku-ku-pu*. Probably the plural of *ku-ku*, which is the intensive
of *ku*, "bright," "precious"; the word is preceded by *tak*,
"stone" (Turkish *tash*), and *tak-kukupu* would thus mean
"precious stones," which are enumerated among the presents.
16. *Kur-ra*, "horse," as in Akkadian. There is no very evident
reason for regarding this as ideographic.
17. *Khal*, "haste" (in *Khalugari*, "haste-maker") as in Akkadian, e.g.,
Dara khal-khal, "the very swift (or 'bounding') deer." It is
the Votiac *zal*, "swift"; Altaic *yel*, "swift."
18. *Là*, "gift." This appears to be an Akkadian word, and to occur in
in Medic as *Lu*.
19. *Lal*, "weight," as in Akkadian (ideographic).
20. *Li-il* appears to be the Akkadian suffix *lal*, "possessing"; *si-liil*,

- “appearance possessing,” being thus the Akkadian *si-lal*, “aspect.”
21. *Muk* or *Vag*, supposing the sign to be read as in Medic, means “to bring,” “carry,” “carry oneself,” “travel.”
 22. *Nin*, “Lady,” as in Akkadian. In Chinese we find *neung*, “Lady”; in Turkish *nene*, “mother,” a term of respect.
 23. *Nitakh*, “man,” as in Akkadian (ideographic).
 24. *Num*, “high,” “noble,” a common Turanian root; Samoyed *num*, “high,” “heaven.” In Akkadian, *Num*, *Nim*, *Enim*, is “high”; *Nu*, “Prince,” is probably from the same root.
 25. *Pi*, “to cause”; Medic *Pe*, “to do.”
 26. *Pir*, “army,” as in Akkadian; compare the Medic *Pirra*, “battle.”
 27. *Pu*, “young.” In Etruscan we find *Pu* and *Puia* for “daughter” or “child”; Hungarian *fiu*, “son”; Vogul *pu*; Votjak *pi*, connected with *pu*, “little.” This word is also Aryan for a child, whence *pu-er* and *pu-ella* in Latin. The gender is not distinct in Akkadian.
 28. *Ra*, “towards,” as in Akkadian. In Buriat Mongol *r*, “to”; Medic *ra re*, “to”; old Turkish datives *ra ru*; Basque *ra*, “towards.” This particle I had already supposed to occur on the Hittite monuments.
 29. *Sak*, “son”; Medic and Susian *Sak*; Etruscan *Sech*. It survives in the Lapp *sakko*, “offspring.” It is also known in Cassite.
 30. *Sa-as-sa*, “ruling,” apparently the causative from *Sa* and *Assa*; Akkadian *Sa*, “ruling” *Issi*, “master.” This is very common, e.g., Etruscan *Isa*; Yakut *us* and *icci*; Altaic *us*, Finnic and Esthonian *issa* or *isü*, meaning “master.” *Khate-sa-assa* means, I think, clearly “Ruler of the Hittites.”
 31. *Sade*, “mountain,” as in Akkadian (possibly ideographic). *Sad* appears to mean a mountain chain (from a root meaning “long”). The word was adopted in Semitic languages.
 32. *Sari*. In the Medic texts of Malamir we find *sar* in the sense of “appoint.”
 33. *Sis*, “brother,” as in Akkadian (ideographic).
 34. *Su-kha*, “bag.” In Akkadian *sugga* is rendered “baggage.” Compare the Hungarian *zsok*, “bag.”
 35. *Si* “face,” “appearance,” cf. *li-il*.
 36. *Tik*? “in front of,” as in Akkadian.
 37. *Tsil*, *Tsilua*, apparently the Akkadian *Tsil*, “to raise,” “put.”
 38. *Tur*, “child”; Akkadian (ideographic). Compare Yakut *ödër* Tunguse *edör*, “young”; Etruscan *etera*, “child”; Mordwin *Tsur*, “son.”
 39. *Tur-rak*, “daughter,” as in Akkadian *Rak*, meaning “female.”
 40. *U*, “relation” or “blood,” as in Akkadian (ideographic).
 41. *U*, “I”; Akkadiu *U*, *Vu*; Medic *Hu*.
 42. *Ud*, “sun,” as in Akkadian (ideographic); Buriat Mongol *ude*, “day”; Chinese *yat*, “sun.”

43. *Ud*, "to appear," connected with the preceding.
44. *Uppa*, "thus," "therefore"; Medic *uppe* or *huppe*.
45. *Zi*, probably "to carry away," as in Akkadian. The word *an-zi* appears to be a verb. The preceding syllable forms the infinitive (cf. Medic *an-to*, "to go"; *in-para*, "to arrive"; Akkadian *ni-gin*, "to enclose.") In each case the root is affixed.
46. *Zi-in*, apparently "palace"; Akkadian *zi*, "building"; Medic *zi-yan*, "palace."

In addition to these words we have the personal name *Ir-sappa* for the Hittite messenger. Each of its constituents occurs in other Hittite names: *Ir* (in *Irkhulin*, the name of a King of Hamath) is apparently the common Turkic *er*, "man"; *Sappa* compares with *Sap-let*, a Hittite Prince mentioned in an Egyptian papyrus.

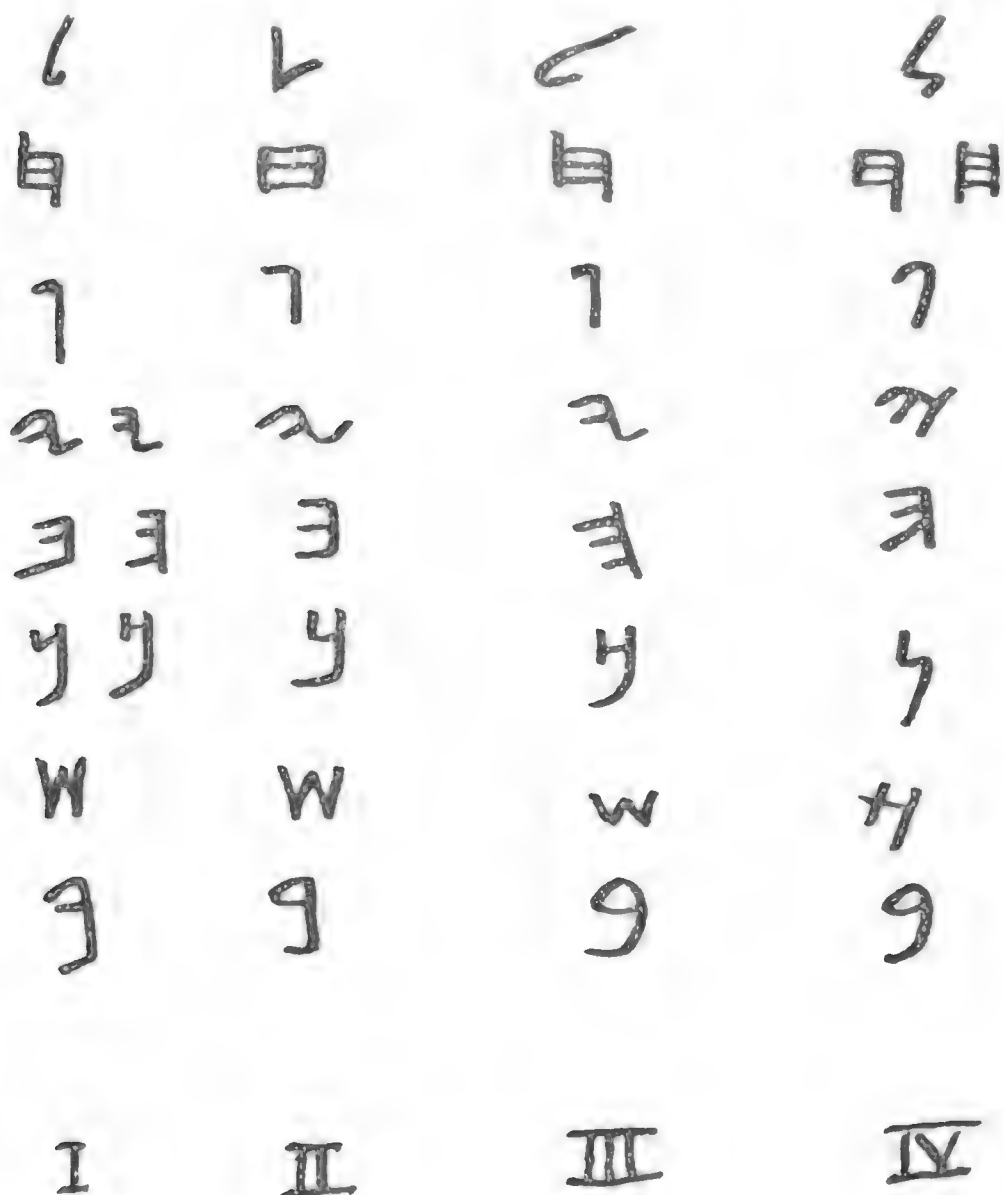
Several doubtful words have not been noticed in this enumeration. They are as follows: *am* and *ma*, "this one" (as in Akkadian); *makh* "great"; *kak-ti*, "says"; *da*, "my" (as in Medic); *du-ukka*, "again"; *dusi*, "he is" (Medic *duis*); *kue*, "putting" (as in Akkadian); *daas*, "they are" (as in Medic); *ki*, "place"; *khaudak*, "he may take"; *kidda*, "far" (Akkadian *gid*); *asmiis*, "she has received"; *ga-as*, "she comes"; *tu*, "weight"; *shi*, "horn." The following words are also of unknown sound, "servant"? and "country." The words *raat*, *khu-uz* (perhaps "slave"), *Kak*, *Istu*, are difficult, but *guza* seems to mean "throne, and *khir*, *gis*, *pa-na*, "plants of the Pan tree," recalls the Hindi name for the betel. *Gismestu* can hardly mean "thy trees" because of its position in the sentence; as repeated (lines 7 and 10) it might mean "to continue." *Khu*, "he," "this" (as in Akkadian and Medic) seems to occur in line 14, and *da* in line 18 "to give" (as in Akkadian). The new letter not only appears to show clearly that the Hittite language was a Tartar dialect akin to Akkadian and Medic, but it also materially increases our stock of Hittite words, giving a present total of about 150 in all. The grammatical construction of the sentence is exactly that which has been discussed in my previous paper on the "Hittite Language" in the *Quarterly Statement* for 1888.

C. R. C.

THE SEAL OF HAGGAI.

THE attached comparison may be of value as showing on what grounds this seal is supposed to be ancient. Col. 1—The Haggai letters. Col. 2—The Jewish Early Coinage (2nd cent. B.C.) Col. 3—The Siloam Text (supposed 700 B.C.) Col. 4—Late Phœnician (2nd cent. B.C.) In the test letters, *Cheth Yod Shin*, the Haggai character is nearer to the Siloam Alphabet.

The assertion that the Siloam text presents older forms than the Moabite stone is as yet unproved ; on the contrary the forms of the *mim*, *nun*, and especially of the *aleph* are those found on texts of the 7th



century B.C. and later, and the text is only placed as early as 700 B.C. because some of its letters approach those of the older Moabite alphabet.

C. R. C.

BEZETHA.

This name applied to the new part of Jerusalem, north of the temple. Josephus speaks of Bezetha (Βεζηθά) "which is also called the New City" (2 Wars xix, 4) which by no means shows that the Hebrew name meant "New City." Dr. Neubauer (Geog. Tal. p. 139) says the word has been

variously translated. The common etymology is **בית חרתא** *Beth Haditha* "New house" others give **בית זיתא** "House of Olives." R. Schwarz points to the word **בצעא** "swamp" but there are no swamps at Jerusalem. Yet the real meaning of the name may not be unconnected with a passage to which R. Schwarz was referring.

Dr. Neubauer cites this passage which appears in various Talmudic works. Tosiphtha *Sanhed*, ch. 3 ; Tal Jer *Sanhed* i, 2 ; Tal Bab *Shebuoth* 16a, *Megillah Taanith*, ch. 6. "Two places called Bitzin (**בצעין** or **בציים**) existed at Jerusalem, the lower and the upper. The lower was added to Jerusalem by the exiles who came back from Babylon and had the same rights as the rest of the city, the other was added later by a king and without consulting Urim and Thummim. It had not previously been added to the city because it was on the weak side of Jerusalem."

Now since Bezetha was both on the weak side of Jerusalem, and also only added in the later times of the Herodians, it is clear that the Upper Bitz'a may, as Dr. Neubauer said, very probably be Bezetha.

I would now call attention to the meaning of the word. The root **בצע** in Aramaic is used according to Buxtorff with the meaning "to cut off" or "divide." Hence the Bitz'a was the "cutting" (*Frustra Fovea Fossa*) and Gesenius (s. v. **בוא**) makes the Hebrew roots **בוא** and **בצע** and **בוע** equivalent, all with the sense of *dividing*. Hence we might easily suppose that *βεζηθα* (with the long vowel *Bezêtha* represents a word **בוארתא** from the Root **בוא** equivalent to the Aramaic **בצע**.

Bezetha only appears in history after the Christian Era, that is after the building of Herod's Temple. Now, as Josephus explains (5 Wars iv, 3), "It lies over against the Tower Antonia, but it is divided from it by a deep valley which was dug on purpose, and that in order to hinder the foundations of the Tower of Antonia from joining to this hill." It is true that in the same passage he seems to consider Bezetha as equivalent to the Greek "New City," but the translation may here be doubted.

It seems probable that Bezetha, therefore, may simply be the Hebrew or Aramaic *Bezâtha*, and may mean "the cutting," referring to the fosse north of Antonia, which still exists and which was converted, after the time of Josephus, into the Twin Pools. This explanation has not, as far as I know, been previously proposed.

C. R. C.

ESAU'S HEAD.

THERE is a curious legend in the Talmud as to the death of Esau. According to this account, Hushim, son of Dan, cut off Esau's head in the faction fight which followed the burial of Jacob. The head was buried in Hebron, but the body in Mount Seir.

On the Survey Map north of Hebron will be found the village of Siair

(Sheet XXI, Mem. III, p. 309), in which is shown the traditional tomb of Esau (*El'As*), which I have fully described on a later page (p. 379).

The village appears to be the Zior of the Bible (Josh. xv, 54), but it would appear probable that at some time or other this site was regarded as the Biblical Seir, where Esau's body was buried. The legend of the head was not, however, recovered in connection with Hebron.

C. R. C.

GIHON.

IN histories, commentaries, books of travel, and guidebooks, we read of a Mount Gihon, a Valley of Gihon, a Fountain of Gihon, and an Upper and Lower Pool of Gihon. In the Bible, Gihon, near Jerusalem, is mentioned only as a place which had an upper and, as may be inferred, a lower outflow of water (2 Chron. xxxii, 30.) It was at a lower level than the city, in the valley נַחַל and apparently near enough to En-Rogel for shouting and music to be there heard from it; but the two places were not in sight of each other. From Joshua xv, 7, it appears that En-Rogel was to the east or south-east of the city, and as Gihon was near it, and in a nachal, or narrow deep water-course, we must look for the latter in one of the narrow valleys which converge just below the city on the south-east. In the Chaldee and Syriac versions of the Bible, Gihon is translated Siloah, and this gives an indication of its position. According to high authorities, Gihon means a bursting forth and was therefore the name given to this water source. But this term is applied to no other spring, and it seems to me not improbable that the true derivation of Gihon is not גִּיחַ *giah*, to burst forth, but גַּחַן *gahan*, to bow down to prostrate oneself, and that the term was originally applied, not to the fountain, but to the canal which brought the water from the fountain.¹ How fitting such a term would be for such a narrow passage, which can only be traversed in portions of its extent by a person going literally on his belly גַּחַן *gahan*, everyone who has been through the canal will feelingly recognise. But however this may be, all the difficulties of the narratives, so far as Gihon is concerned, seem to disappear if we consider that the names Gihon and Siloah were applied to the canal, and especially to its southern end, which was the lower and principal outflow of its waters whilst its upper outflow was at what is now called the Virgin's Fountain. There is nothing to indicate the situation of the Shiloah alluded to by the prophet Isaiah (viii, 6), but there can be little doubt that it was identical with the Siloah, or more properly Shelach, of Nehemiah; only the prophet speaks of the softly flowing stream, and Nehemiah of the pool which it supplied. That this pool was the same as the "pool of Siloam" few will question, and if there ever was a "pool of Gihon" (which there

¹ The form גַּחַן or גִּיחַו, if derived from גַּחַ, is exactly the same as שִׁלַח or as the Rabbis spell it שִׁילוח, from שִׁלַח to send (cf. John ix, 7).

was not) it would have been either here or in the other valley, in which was the upper outflow of water. By David Kimchi and Rashi, as well as by the Targum, Gihon and Siloah are regarded as identical, and this being so, it is easy, in the light of modern discovery, to understand the dictum of R. Samuel that "Siloah was within the city" שלוח המדינה היה באמצע המדינה. (Talm. Jer. Chag., page 4). The entrance to the passage leading down to the shaft by means of which the branch of the aqueduct was reached from above, as discovered by Sir Charles Warren, was almost certainly within the ancient city. This shaft and passage may have been constructed partly for convenience of ordinary life, but were no doubt chiefly designed to enable those within the walls to obtain the water when the outer approaches to it were stopped and hidden.¹ This branch aqueduct is a part of the canal which I venture to think was called Gihon or Siloah, and thus Siloah might be truly said to be within the city.

THOMAS CHAPLIN, M.D.

SITE OF CALVARY.

Now that so much interest is concentrated on the excavations in progress in and near Jerusalem, in which the readers of the *Quarterly Statement* are being well posted up by Herr Schick, would you be so good as to insert the enclosed letter, which I happened to come upon when turning over a copy of "Mount Seir," and which in justice to the late Colonel Churchill ought to be made public?

Allow me to add that, in my opinion, the recent excavations in the neighbourhood of "Jeremiah's Grotto," so clearly described by Herr Schick, all tend to confirm the view that this spot is without doubt the site of the Crucifixion and of the Holy Sepulchre.

EDWARD HULL.

"Ordsall Rectory, Retford, Notts.

"SIR,—May I take the liberty of saying that nearly 20 years ago the site of Calvary as you and Captain Conder indicate it, was pointed out to me by Colonel Churchill (now dead), the historian of the Lebanon?

"His arguments were identical with yours, though we neither of us knew of the Roman Causeway. On two subsequent visits to Jerusalem the idea became a certainty to me.

"I do not think Colonel Churchill mentioned his idea to many persons, as it met with much disfavour.

"I am, Sir,

"Faithfully yours,

"S. KELSON STOTHERT.

"To Professor Hull."

¹ No doubt Hezekiah stopped the lower outflow as well as the upper, for he stopped "all the fountains." The Jews who sustained the siege by Titus were not so prudent.

NEHEMIAH'S WALL.

MR. ST. CLAIR says that in his line for this wall he has "nowhere departed from probability." To me he rather seems to have plunged into impossibility. To reduce his theory to ruins, all that is needed is to prove that Nehemiah's Wall passed near 'Ain Silwân (Siloam), since thence to the wall of Ophel (Neh. iii, 27) it could never have passed up the Tyropœon.

It may be well to premise that, though he names Lewin and Warren, no support whatever from these two writers or from Thrupp accrues to Mr. St. Clair's theory, since Lewin draws Nehemiah's Wall down to Siloam, and Sir Charles Warren, in his plan ("Jerusalem Recovered" and "Temple or Tomb"), does the very same; while Thrupp, unable to bring his wall down to 'Ain Silwân, brings Siloam up to it instead—all of them having seen, what is obvious enough, that the wall passed *near* Siloam.

If Mr. St. Clair, as I pointed out (1889, 207), appeals to Josephus, his theory collapses at once, for the Jewish historian states that the first wall was built by the kings, and makes it to reach to *Siloam*. I quoted *three* passages to prove this, and it is no answer whatever for Mr. St. Clair to ignore *two* of them entirely, and, as to the third, to suggest that "thence" may refer to a place that has *not* even been named. Josephus distinctly speaks of part of the first wall as "bending from Siloam towards (or facing) east" (Wars, v, vi, 1). Again (as I pointed out) the Romans drove the Jews out of the lower city and "set all on fire *as far as Siloam*." How possibly could the wall bend from Siloam or the fire reach to Siloam if the wall on the north never came nearer to it than 1,500 feet, as is urged by Mr. St. Clair, and so shown on his plan. It seems wasting space to add that when the country for 90 furlongs round had been scoured for wood there would in August be nothing outside the wall left to set fire to "as far as Siloam."

Therefore *within* the city the fire extended to Siloam, or, in other words, the wall came near to 'Ain Silwân. Whatever support Mr. St. Clair may have for his new theory, he will find none whatever in Josephus, and perhaps now he will be willing to dismiss this witness, as the first wall of his time need not *necessarily* have been on the line of that of Nehemiah.

Accordingly, *without Josephus*, it is next to be proved that Nehemiah's Wall came near to Siloam. It is stated (Neh. iii, 15) that Shallun repaired "the wall of the Pool of Siloah by the king's garden." Happily, Mr. St. Clair admits that this pool was near 'Ain Silwân, and does *not* urge that Nehemiah is here said to build a wall near that pool, though distant some 1,500 feet from *his* (Mr. St. Clair's) city, merely to show that he had plenty of workmen to spare. Mr. St. Clair maintains,

however, that his wall across the valley, 1,500 feet distant from the Pool of Siloam, derived its name from that pool; just as now the Jaffa and Damascus Gates at Jerusalem are named from places miles away. Gates naturally have and had, as at Rome, their name from places to which the road led that passed through them; but that part of a city wall should have its name from the place as well as from the direction (as east, &c.) towards which it looked is quite a *different* question. Neither Lewin (so far as I remember) nor Mr. St. Clair attempts to give any instance of the kind.

Neh. iii, 15, mentions indeed the *fountain* gate, because the road through it led to the *fountain*. Whether this means 'Ain Silwân or En-rogel (see Jos. Ant. vii, xiv, 4, and Wars, v, xii, 2) need not now be discussed; and if the wall adjacent could have derived its name from the road, why, I may ask in turn, was it not called *the fountain wall*, instead of *the wall of the Pool of Siloah*? If there is any truth in Mr. St. Clair's way of taking the words, surely he can furnish us with an example to save his theory from destruction.

Until such an instance is produced, *the wall of the Pool of Siloah* must be taken to mean *literally what it says*; just as the Damascus wall means the wall of and at Damascus, and not part of the wall of Jerusalem, near the Damascus Gate.

Therefore, as Shallun repaired the wall of the Pool of Siloah, it seems to me that the conclusion is inevitable that the wall went close to the pool (so as to defend it), even if it did not actually enclose it, as seems to me to have been most probably, if not certainly, the case in *Nehemiah's* time.

And now my task on this point is practically done, since if the wall came near to 'Ain Silwân Mr. St. Clair's structure falls to the ground like a castle of cards, and there it must remain until it can be shown that the wall of the Pool of Siloah was not the *actual* wall of that pool.

A few other points, however, deserve notice.

1. I have never objected to a bay up the Tyropæon. I know as yet of no evidence that there was not such a bay (in the wall) in the time of Solomon, and at what point the wall crossed the Tyropæon is still an unsettled question; but I maintain that it can be proved that in the time of Hezekiah the wall on Ophel (so-called) must have reached close to 'Ain Silwân, and have thoroughly defended it, if it did not also enclose there the Pool of Siloah.

2. I fail to understand what Mr. St. Clair means by saying, "Their (*i.e.*, others' and my) wall does not and cannot effect a junction with the wall of Ophel." Why cannot *our* wall from the south join that wall just as well as his wall does from the west? As a matter of fact, Sir Charles Warren's and Major Conder's wall on their plans ("Jerusalem Recovered" and "Handbook to the Bible") actually do join the Ophel wall, and (1879, 179), on "Nehemiah's Wall," I state, "Here we seem to join the *wall of Ophel*."

3. He says again of our wall, "It cannot be made to satisfy the

descriptions in Nehemiah." What does this mean? If it means we cannot show "corners and turnings," I would observe that no reasonable person would expect to find such underground remains before the required excavations are made.

4. I believe the wall of Josephus had (as Mr. St. Clair says) a bend *above* Siloam; but this in no way prevented the wall afterwards going down to Siloam, and there enclosing the *spring* (Josephus's word) of Siloam, as seems probable from the fact that Simon held that spring.

5. After Mr. St. Clair's procession from the west reaches the Ophel ridge, we do not read of their passing any point named on the repaired wall. Why, then, after my procession reaches the same ridge from the south, is it to be required to pass any point named on the same repaired wall? It seems arbitrary to demand more from us than from himself. Evidently once on the ridge of Ophel the procession kept to it.

6. I am *confident* that the wall came *near to* the Pool of Siloah (though I have never insisted on its *inclosing* it), because *the wall of the pool is distinctly stated to have been repaired*. Mr. St. Clair is wrong when he says (*supra*, 47) I argue "that Josephus must mean this because he speaks of the wall bending thence again." As I am cautious about trusting Josephus, let me say I take him to prove that the wall came *near to* Siloam in *his* own time, but as to Nehemiah's time I do not care to ask on this point what Josephus thought.

7. I see no object in attempting to add details, without further evidence, to the line I adopted on p. 179 in *Quarterly Statement*, 1879. My reason is given in 3, above.

8. Where do I say "the wall of Ophel extended further east than Warren found it?" That it extended further south than he traced it is, I imagine, admitted now by everybody who writes on Jerusalem, except Mr. St. Clair. I quoted two passages from the Bible to prove that before the time of Nehemiah there was a wall on Ophel due west of the Virgin's Fount or Gihon. One of these (2 Chron. xxxiii, 14) Mr. St. Clair passes over in silence, not seeing (I suppose) how to get over it. The other (xxxii, 30), which speaks of Hezekiah's stopping Gihon, &c., he explains in an amusing manner, being unwilling to admit that the Jewish King made the tunnel through Ophel in order to prevent an enemy using the waters from Gihon. While he admits that Schick's aqueduct at that time carried water into the Tyropœon, he supposes that the waters sometimes could not rise high enough to flow into it, and that therefore the tunnel was made through the hill at a lower level for the waters to flow more constantly.

This beats all the odd notions one has heard of about Jerusalem. The difference of level between the bottom of the aqueduct and the water in the tunnel cannot be much more than 12 inches, though really the more the better (*see* "Defence of the Gutter"), and yet merely for this gain of about 12 inches Hezekiah is made to cut through the rock a tunnel 1,700 feet long.

Now, from what I have seen and heard of Gihon for some years,

I hereby certify Mr. St. Clair that it is a well-conducted spring, and, though remittent, still always obedient to natural laws and ready in old time to rise at a moment's notice all the inches necessary to reach the higher aqueduct; and more than this, to remain at that height unless emptied by over-drawing. Indeed, I venture to assert that the tunnel was made by Hezekiah because the waters would persistently *rise*, not because they would *not*, and not only rise, but also *overflow*; so that Hezekiah, do what he might, could not prevent their flowing and overflowing as usual, any more than he could by the plug stop En-rogel from overflowing after heavy rains. Therefore Hezekiah was forced to make the tunnel through Ophel to the Pool of Siloah, where the Assyrians could not get at the water.

It is this same Gihon that leads Kitto to observe, "It curiously shows how deficient men of liberal education and even eminent scholars are generally in knowledge of natural science." I believe, however, that Mr. St. Clair knows of the latter more than I do. He made "only a guess," intent at the time on his double wall with its corners and turnings, unless, it may be, his feeble defence was *meant* to portend his speedy abandonment of his strange theory.

Let me add that Schick's aqueduct carried (I believe) water to the King's Pool, below the later Pool of Siloah, in the Tyropœon, and that Hezekiah's tunnel carried water into the ditch (Isaiah xxii, 11) or Pool of Siloah, just below 'Ain Silwân. Further, Mr. St. Clair fails to tell us what Hezekiah (2 Chron. xxxii, 30) was going to gain by stopping the upper outlet of Gihon (at the Virgin's Fount) *in peace*, or even in war, if the Assyrian could draw the water lower down, at the Pool of Siloah.

9. Mr. St. Clair very prudently does not attempt to meet any of the proofs I have brought forward from time to time showing that the City of David, or the Acra of I Maccabees, or the Acra of Josephus, was solely on Ophel (so called), south of the temple. He "accepts," he says, "Warren's Acra;" as if that were enough (1889, 90).

10. Mr. St. Clair's explanation of ἀμφίκυρτος is also curious. He says it means *doubly curved*, and, therefore, counting the inner curve, he asks why it may not mean *crescent-shaped* as well as *gibbous*. Such ingenuity would enable this word to be applicable to the moon at any time except the moment when it is just half-moon. The Greeks, however, had three words to describe forms similar to the phases of the moon when less than full—ἀμφίκυρτος, *gibbous*, μνηοειδής, *crescent-shaped*, διχότομος, *cut in half*. I hardly think the lexicographers will accept this latest interpretation for the first word.

I have corrected enough errors, and will only add that I did not say that the throne of the governor *was* the gate of Ephraim, but that I believed it marked the position of the latter gate. Again, I did *not* say that a builder *invariably* began where the preceding builder ended, but that the expression *after him* (which is not *invariably* used) seemed, *when it is used*, to indicate that the fresh builder began where the preceding one ended.

My apology for these tedious notes must be that unless I can defend my own theory and show the errors of any adverse one relating to the position of David's sepulchres, I cannot reasonably expect the Executive Committee to begin the excavations necessary to finding the sepulchres of the kings.

W. F. BIRCH.

RUINS OF THE "SLIME PITS" IN THE VALE OF SIDDIM.

THE remains to which Mr. H. A. Harper has called attention in the first edition of his "Bible and Modern Discoveries" are undoubtedly the ruins of a *karaize*, such as Mr. William Simpson so well describes in the last *Quarterly Statement*, the underground connecting channel of which is called a *kanot*. But Mr. Harper has fallen into a mistake in supposing that the description I gave him applied to *the present state* of the ruins on the east of the Jordan situated in that singularly dry and waterless region in the *Ghor*, now absolutely desert, extending for some ten or twelve miles north of *Tell Nimrim*. This description, as it appeared on page 12 of the first edition of "The Bible and Modern Discoveries," though it is far from accurate, must have been given by me to Mr. Harper as that of a rough view of the system as it would be if restored, or as it now exists, where it is still to be seen in working order on the plains of Damascus, as described by Dr. Porter in "Murray's Handbook for Travellers in Syria and Palestine." So little like a water system is it, as it now exists in this strip of arid desert in the *Ghor*, held by the *Adwan* tribe of Bedawin, that Dr. Selah Merrill declares in his account of it that he had no idea of the purpose it served! Nothing like it, so far as I have been able to ascertain, is to be found in any other part of Palestine, for what at first was thought by those who made the survey of Western Palestine to be a similar ruin near *Kurn Surtubeh*, appears, from the account in the "Memoirs of the Survey Map" (vol. ii, plate facing page 397), to be some four rock-cut *beers*, or ordinary underground cemented water-cisterns, connected with an ordinary aqueduct, which rises three-quarters of a mile west of the *Kurn*. All that I saw, and all that now exists in the desert north of *Tell Nimrim*, are three rows of bason-like, circular mounds, about 5 or 6 feet high and some 30 feet in diameter, resembling in shape the dens of ant-lions. The actual pits themselves, which once yawned deep and wide within these enclosures, are now in all instances filled up. In the longest row there are no less than 31 of these shallow basons. They are generally 30 feet apart, but in some instances 50 to 60. As seen at a distance, the three rows resemble a string of monster mole-hills, only placed at regular intervals.

My discovery consists in recognising these remains, when on a journey to the highlands of Moab in 1873, as the exact marks left by such a

water system as Mr. Simpson describes when in ruins, as I had an opportunity of seeing it in several places in the desert east of Damascus when travelling to Palmyra in 1872, and also in identifying them with the "slime" pits, or probably "marl clay," and possibly "cemented" pits, with which the Vale of Siddim was full, just north of the site now identified as that of the Cities of the Plain, and which dangerous network of pits stretching across the whole vale naturally completed the route of the retreating armies of the five kings, as described in Gen. xiv.

Mr. William Simpson is certainly right in supposing that the connecting channel of a *karaize* in Syria, as in Central Asia, is in every case at the bottom of the pits, and that under ordinary circumstances they are almost, if not quite, empty of water; and if I led Mr. Harper to understand anything else I was mistaken. But I think the words which Mr. Harper quotes as mine must be what he has gathered from my verbal description rather than any that I could have written. The "rain water from the hills," which is intended to be caught and conveyed on by the first pit, is not surface water, but that of a spring underground at the foot of the hills; and the object is not to keep water standing in the pits, but to pass it on by their connecting channel, or tunnel, through the gradually descending ground till it flows out at a point on a level with the surface, some half a mile to three miles away from the spot where the water is found at the bottom of the first pit. I specially referred Mr. Harper, when telling him about my discovery, to Dr. Porter for a full description of this system as now at work on the Plains of Damascus. As Mr. Simpson says, it is "to be hoped that some one will be able to tell us what the system is at that place," I will now give Dr. Porter's words in Mr. Murray's "Handbook for Travellers in Syria and Palestine," 1858, vol. ii, p. 497:—

"A mode of obtaining water for irrigation extensively employed over the Plain of Damascus is deserving of notice. A well is first sunk till water is found; then, following the slope of the plain, another is sunk at the distance of 50 or 60 yards, and the two are connected by a subterranean channel, with just enough of fall for the water to flow. A long line of wells is thus made and connected, and the stream of water obtained is at length on a level with the surface, and ready for use. The whole plain is filled with these singular aqueducts, some of them running for two or three miles underground. Where the water of one is diffusing life and verdure over the surface, another beneath is collecting a new supply, deriving it, too, in some measure from the surplus of the former which percolates through the soil. Many of them are now choked with rubbish, and no longer serviceable." Dr. Porter has also another allusion to this system of irrigation on page 540 in the same volume, and two in his "Five Years in Damascus," vol. i, pp. 159, 394, in the first of which (p. 159) he alludes to the circular bason-like mounds around the mouths of the pits. Readers of the *Quarterly*, who may be interested in the discovery *in situ* of the ruins of constructions mentioned in the Bible as existing nearly 4,000 years ago, may see the subject fully discussed in an article

entitled "The Cities of the Plain and the 'Slime Pits' of the Vale of Siddim," which I am contributing to the May number of the "Theological Monthly."

JAMES NEIL.

ERRATA.

- 1889, page 52, "Spring of the fig." *For fig, read almond.*
" " 207. *For novel, read or Thrupp's.*
" " 208. *For Rabboth, read Rabbath.*
" " 209. *For "That the, read that "The.*
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THE
PALESTINE EXPLORATION FUND.

NOTES AND NEWS.

On the 22nd of June last, the Fund completed twenty-five years of existence. During this period a large amount of important work has been done. Western Palestine, as far north as the Nahr el Kâsimiyeh, has been completely surveyed, and fifteen hundred square miles of the country east of the Jordan. Important excavations have been made in and around Jerusalem, and at Tell Hesy. Besides a series of accurate maps of the Holy Land, an immense number of drawings, photographs, and plans has been produced and published, together with memoirs of the surveys, name lists, and other valuable matter, whilst the *Quarterly Statements* have afforded the means of publishing many new discoveries by the officers of the Fund and other travellers, and the views and arguments of scholars and explorers with reference to disputed sites and other points of interest. It is satisfactory that the fund has lost none of its vitality. No less than 187 new members were added during the past year, and the vigour with which the work is carried on where openings for it present themselves, is shown by the recent important excavations of Mr. Flinders Petrie, in the western plain; the researches of Herr Schick at Jerusalem; and of Herr Shumacher in the north and north-east.

In the present number will be found two important communications from Mr. Flinders Petrie, one being notes on places visited by him in Jerusalem, and the other a short and condensed report of his excavations at Tell Hesy.

The latter have already proved of the greatest interest and importance. A wall, 28 feet 8 inches thick, of clay bricks, unburnt, which has been uncovered, is believed to be that of the ancient Amorite city of Lachish, erected probably 1,500 years before Christ. Phœnician pottery of about 1100 B.C. was found above its level. Later constructions found on the spot are the supposed wall of Rehoboam, and remains of the fortifications made in the reigns of Asa, Jehosha-

phat, Uzziah, Jotham, and Manasseh. In one building, probably of 900 B.C. or 1000 B.C., was found a curious form of decoration—a shallow pilaster, with very sloping side, resting on a low cushion base, and with a volute at the top. “We are here,” Mr. Petrie writes, “face to face at last with work of the earlier Jewish kings, probably executed by the same school of masons who built and adorned the Temple of Solomon.”

The discoveries of pottery are most valuable. Some fragments have inscriptions of very ancient form. “We now know for certain the characteristics of Amorite pottery, of earlier Jewish, and of later Jewish, influenced by Greek trade. In future all the tells and ruins of the country will at once reveal their age by the potsherds which cover them.”

The work of Mr. Guy le Strange on “Palestine under the Moslems” was published in April.

For a long time it had been desired by the Committee to present to the world some of the great hoards of information about Palestine which lie buried in the Arabic texts of the Moslem geographers and travellers of the Middle Ages. Some few of the works, or parts of the works, have been already translated into Latin, French, and German. Hardly anything has been done with them in English, and no attempt has ever been made to systematise, compare, and annotate them.

This has now been done for the Society by Mr. Guy le Strange. The work is divided into chapters on Syria, Palestine, Jerusalem, and Damascus, the provincial capitals and chief towns, and the legends related by the writers consulted. These writers begin with the ninth century and continue until the fifteenth. The volume contains maps and illustrations required for the elucidation of the text.

The Committee have great confidence that this work—so novel, so useful to students of mediæval history, and to all those interested in the continuous story of the Holy Land—will meet with the success which its learned author deserves. The price to subscribers to the Fund is 8s. 6d.; to the public 12s. 6d.

The new map of Palestine, so long in hand, is now ready. It embraces both sides of the Jordan, and extends from Baalbek in the north to Kadesh Barnea in the south. All the modern names are in black; over these are printed in red the Old Testament and Apocrypha names. The New Testament, Josephus, and Talmudic names are in blue, and the tribal possessions are tinted in colours, giving clearly all the identifications up to date. It is the most comprehensive map that has been published, and will be invaluable to universities, colleges, schools, &c.

It is published in 21 sheets, with paper cover; price to subscribers to the Fund, 24s., to the public, £2. It can be had mounted on cloth, rollers, and varnished for hanging. The size is 8 feet by 6 feet. The cost of mounting will be extra.

Mr. Henry A. Harper's work, on "The Bible and Modern Discoveries" was published last December. It is an endeavour to present in a simple but yet connected form the Biblical results of twenty-two years' work of the Palestine Exploration Fund. The writer has also availed himself of the discoveries made by the American Expeditions and the Egyptian Exploration Fund, as well as discoveries of interest made by independent travellers. The Bible story, from the call of Abraham to the Captivity, is taken, and details given of the light thrown by modern research on the sacred annals. Eastern customs and modes of thought are explained whenever the writer thought they illustrated the text. To the Clergy and Sunday School Teachers, as well as to all those who love the Bible, the writer hopes this work will prove useful. He is personally acquainted with the land, and nearly all the places spoken of he has visited, and most of them he has moreover sketched or painted. The work is in one large, handsome volume of 600 pages. It is illustrated with many plates, and a map showing the route of the Israelites and the sites of the principal places mentioned in the sacred narratives. The work has had a very gratifying reception. The Third Revised Edition is now nearly exhausted. It should be noted that the book is admirably adapted for the school or village library.

An interesting note from Rev. J. E. Hanauer is inserted in this *Statement*, which will set at rest the many conflicting statements as to whether or not the Dead Sea is visible from Jerusalem.

Mr. Hanauer has forwarded a series of photographs of the rock-hewn altar near Sūrāh, of sculptured stones found at 'Artuf, of the interesting sculptured figures in the cave near Saris (taken by magnesium light), and of stones with inscriptions recently dug up near the supposed St. Stephen's Church, north of Damascus Gate.

From Mr. G. R. Lees, F.R.G.S., Head Master of the Boys' School of the London Jews' Society at Jerusalem, has been received an account of further observations on rock-hewn chambers at Silwān, which appear to have been chapels. Herr Schick has also sent elaborate drawings and reports of the same, as well as an account of discoveries of mosaics, &c., at the so-called House of Caiaphas, of a newly opened tomb near Bethany, &c.

Mr. Lethaby, of Kerak, has sent two fragments of soft limestone with sculptured figures of animals, which were found in digging the foundations of a house.

The projected railway between Jaffa and Jerusalem was begun in March. The Governor of Jerusalem and other notabilities went down to Jaffa to see the work commenced. It is believed that the line will run past Ramleh and up the Wady Surar. It is reported that a concession has also been given for a line between Haifa and Damascus.

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

Considerable progress has also been made with the second volume, which consists of M. Lecomte's beautiful drawings, illustrating the Mission of M. Clermont-Ganneau in 1874. The illustrations for the third volume, Mr. Chichester Hart's "Fauna and Flora" of the Wâdy Arabah, are nearly ready.

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

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

Mr. George Armstrong, for £2, carriage paid to any part in the United Kingdom only) :—

By Major Conder, R.E.—

- (1) "Tent Work in Palestine."—A popular account of the Survey of Western Palestine, freely illustrated by drawings made by the author himself. This is not a dry record of the sepulchres, or a descriptive catalogue of ruins, springs, and valleys, but a continuous narrative full of observations upon the manners and customs of the people, the Biblical associations of the sites, the Holy City and its memories, and is based upon a six years' experience in the country itself. No other modern traveller has enjoyed the same advantages as Major Conder, or has used his opportunities to better purpose.
- (2) "Heth and Moab."—Under this title Major Conder provides a narrative, as bright and as full of interest as "Tent Work," of the expedition for the *Survey of Eastern Palestine*. How the party began by a flying visit to North Syria, in order to discover the Holy City—Kadesh—of the children of Heth; how they fared across the Jordan, and what discoveries they made there, will be found in this volume.
- (3) Major Conder's "Syrian Stone Lore."—This volume, the least known of Major Conder's works, is, perhaps, the most valuable. It attempts a task never before approached—the reconstruction of Palestine from its monuments. It shows what we should know of Syria if there were no Bible, and it illustrates the Bible from the monuments.
- (4) Major Conder's "Altaic Inscriptions."—This book is an attempt to read the Hittite Inscriptions. The author has seen no reason to change his views since the publication of the work.
- (5) Professor Hull's "Mount Seir."—This is a popular account of the Geological Expedition conducted by Professor Hull for the Committee of the Palestine Fund. The part which deals with the Valley of Arabah will be found entirely new and interesting.
- (6) Herr Schumacher's "Across the Jordan."
- (7) Herr Schumacher's "Jaulân."—These two books must be taken in continuation of Major Conder's works issued as instalments of the unpublished "Survey of Eastern Palestine." They are full of drawings, sketches, and plans, and contain many valuable remarks upon manners and customs.
- (8) "The Memoirs of Twenty-one Years' Work."—This work is a popular account of the researches conducted by the Society during the past twenty-one years of its existence. It will be found not only valuable in itself as an interesting work, but also as a book of reference, and especially useful in order to show what has been doing, and is still doing, by this Society.

- (9) Herr Schumacher's "Kh. Fahil." The ancient Pella, the first retreat of the Christians ; with map and illustrations.
- (10) Names and Places in the Old and New Testament and Apocrypha, with their modern identifications, with reference to Josephus, the Memoirs, and *Quarterly Statements*.
- (11) Besant and Palmer's "History of Jerusalem," already described.
- (12) Northern 'Ajlân "Within the Decapolis," by Herr Schumacher.

To the above must now be added Mr. Henry A. Harper's "The Bible and Modern Discoveries." Price to the public, 16s. ; to subscribers to the Palestine Exploration Fund, 10s. 6d., carriage included. And Mr. Guy le Strange's important work "Palestine under the Moslems," price to the public, 12s. 6d. ; to subscribers to the Fund, 8s. 6d.

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

The income of the Society, from March 20th to June 20th inclusive, was—from annual subscriptions and donations, £132 18s. 6d. ; from donations for excavations, £174 18s. 0d. ; from all sources, £609 9s 7d. The expenditure during the same period was £1,025 1s. 1d. On June 20th, the balance in the Bank was £772 17s. 0d.

Subscribers are begged to note that the following can be had by application to the office, at 1s. each :—

1. Index to the *Quarterly Statement*, 1869–1880 ;
2. Cases for Herr Schumacher's "Jaulân ;"
3. Cases for the *Quarterly Statement*, in green or chocolate.
4. Cases for "Abila," "Pella," and "'Ajlân" in one volume.

The following gentlemen have kindly undertaken to act as Hon. Local Secretaries :—

The Rev. Vincent Joseph Higgins, Ashworth Vicarage, for Nottingham.
 John Nanson, Esq., for Ambleside.
 Rev. T. F. Wright, for Cambridge, Mass., U.S.A.
 W. Clarkson Wallis, Esq., for Brighton.
 Rev. R. Raikes Bromage, M.A., F.R.G.S., Keyford Parsonage, for Frome,
 in place of C. W. Le Gros, Esq., resigned.
 Norman Penney, Esq., for Gloucester.

A. Kemp Brown, Esq., M.A., owing to his leaving Leeds, has resigned his appointment as Honorary Secretary.

The Committee will be glad to communicate with ladies and gentlemen willing to help the Fund as Honorary Secretaries.

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

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

It having again been reported to the Committee that certain book hawkers are representing themselves as agents of the Society, the Committee have to caution subscribers and the public that they have no book hawkers in their employ, and that none of their works are sold by itinerant agents.

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

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

The only authorised lecturers for the Society are—

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

His subjects are :—

- (1) *The Buried City of Jerusalem, and General Exploration of Palestine.*
- (2) *Discoveries in Assyria, Chaldea, and Palestine.*
- (3) *The Moabite Stone and the Pedigree of the English Alphabet.*
- (4) *Jerusalem of David, Nehemiah, and Christ.*
- (5) *Sight-seeing in Palestine: a Narrative of Personal Experiences.*
- (6) *Israel's Wars and Worship, illustrated by the new Survey.*
- (7) *The Gospel History in the light of Palestine Exploration.*

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

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

The Survey of Western Palestine, as illustrating Bible History.

Palestine East of the Jordan.

The Jerusalem Excavations.

A Restoration of Ancient Jerusalem.

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

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

ANNUAL MEETING.

THE Annual Meeting of the General Committee of this Society took place at the Office, 1, Adam Street, on July 1st. Among those present were Viscount Sidmouth, James Glaisher, Esq., F.R.S., Walter Morrison, Esq., M.P., Walter Besant, Esq., M.A., T. Chaplin, Esq., M.D., Captain Mantell, R.E., W. Aldis Wright, Esq., Wm. Simpson, Esq., Rev. William Allan, Basil Woodd Smith, Esq., Rev. W. J. Stracey, Guy le Strange, Esq., Henry Mandslay, Esq., &c.

James Glaisher, Esq., F.R.S., in the Chair.

The Chairman, after mentioning that he held in his hand a packet of letters from various members regretting their inability to attend, and that the Report of the last Meeting would be taken as read, called upon the Hon. Secretary to read the Report of the Executive Committee for the past year.

MY LORD AND GENTLEMEN,

Your Executive Committee, elected at the last General Meeting, on July 16th, 1889, have now, on resigning their office, to render an account of their administration during their term of office for the past year 1889-90.

It may be noted at the outset that the Society has now completed its twenty-fifth year of existence.

Your Committee have held twenty meetings since the last Report was issued.

In the last Report your Committee reported that they had hopes of a Firman being granted. Their hopes were realised in the month of February. On the 27th an official letter arrived stating that a permit for excavating in the vicinity of 'Ajlân (Eglon) had been granted. Having secured the services of Mr. Flinders Petrie previously, immediate steps were taken to inform all subscribers and friends interested in the work, and a "special appeal" was made inviting subscriptions. The result up to date, your Committee are pleased to report, is the receipt of £1,110 6s. 6d., although the amount named by the Committee was only £1,000. Mr. Petrie, on closing his work in Egypt, lost no time in proceeding to Palestine, but owing to a clerical error in the Firman, a delay of three weeks was caused. The following is a summary of the excavations by Mr. Flinders Petrie himself. It will be found a very satisfactory record of work done and discoveries made:—

"After lengthy delays, officially, I was able to begin excavation for the Palestine Exploration Fund in the middle of April. Unfortunately, nothing was known of the history of pottery in Syria, and therefore nothing had been done in past surveys and explorations towards dating the various *tells* and *zhurbahs*. It had been necessary, therefore, in applying for a site, to trust to the identification by names; and there seemed little risk in expecting that Umm Lakis and 'Ajlân would, one or other—if not both—prove to be Amorite towns, Lachish and Eglon. Some other ruins were included in the legal limit of area for the permission. Among them, most happily, was Tell Hesya.

“So soon as I arrived and could examine our ground, I saw, from my Egyptian experience, that every site, except Tell Hesy, was of Roman age, and unimportant. At Umm Lâkis, three days' work amply proved its late date; and 'Ajlân was a still more trivial site. I therefore attacked Tell Hesy, a mound of house ruins 60 feet high and about 200 feet square. All of one side had been washed away by the stream, thus affording a clear section from top to base. The generally early age of it was evident, from nothing later than good Greek pottery being found on the top of it, and from Phœnician ware (which is known in Egypt to date from 1100 B.C.), occurring at half to three-quarters of the height up the mound. It could not be doubted, therefore, that we had an Amorite and Jewish town to work on. My general results are as follows:—

“Topographically, this place and Tell Nejîleh, six miles south, are the most valuable possessions in the low country, as they command the only springs and watercourse which exist in the whole district. From their positions, their early age, and their water supply, it seems almost certain that they are the two Amorite cities of the low country, Lachish and Eglon. The transference of the names in late times to settlements a few miles off, is probably due to the returning Jews not being strong enough to wrest these springs from the Bedawîn sheep-masters.

“Historically, this town began as an immensely strong fort, with a wall 28 feet thick, on a knoll close to the spring. This is certainly pre-Jewish, by the relative position of Phœnician pottery; and approximately its age would be about 1500 B.C., agreeing well to the beginning of the Egyptian raids under Tahutmes I.¹ This fort, after repairs, which still exist as solid brickwork over 20 feet high, fell into complete ruin. No more bricks were made; rude houses of stones from the stream were all that were erected; and for long years the alkali burner used the deserted hill, attracted by the water supply to wash his ashes with. This corresponds to the barbaric Hebrew period under the Judges. Then, again, the town was walled, Phœnician pottery begins to appear, and some good masonry, evidently the age of the early Jewish kings. Successive fortifications were built as the ruins rose higher and the older walls were destroyed; Cypriote influence comes in, and later on Greek influence, from about 700 B.C. and onwards. The great ruin of the town was, about 600 B.C., that by Nebuchadnezzar; and some slight remains of Greek pottery, down to about 400 B.C., show the last stage of its history. Happily the indications can be interpreted by our literary records, otherwise we could have discovered little about a place in which not a single inscription or dated object has been found.

“Architecturally, though little has come to light, it is of the greatest importance. In a building, which is probably of Solomon's age, or certainly within a century later, were four slabs, each bearing half a pilaster in relief. These pilasters have a quarter-round base, a very sloping shaft, and a volute at the top, projecting, without any separate capital or line across the shaft. The

¹ I should explain that the various Sirius feasts recorded in Egypt leave no doubt that the XVIIIth dynasty was from about 1568 to 1333 B.C., and the XIXth from 1333 to 1160 or later. To date the exodus under either dynasty seems beset with equal difficulties. I incline to the later date.

volute seems derived from a ram's horn. We now see the early date and Asiatic nature of the Ionic style; and we have some definite ground for the temple architecture. A special key to the age of masonry is in the methods of stone-dressing. The use of the 'claw-tool,' more intelligibly called the 'comb-pick,' is distinctive of Greek work in Egypt, and it is known in early work in Greece. As now, on examining the stone-dressing of 1000 B.C., and a gateway and steps of about 750 B.C., there is not a trace of this tooling, it seems almost certain that it is as much of Greek age in Syria as in Egypt. Hence we must attribute the whole of the known walls of the Haram area to Herod and later builders. The use of drafted masonry, with an irregular bump on the face, is fixed to as early as 750 B.C. by the gateway just named; and the use of flaked-dressing (as I may call it), is fixed to 1000 B.C. by the pilaster slabs, agreeing with the work of the supposed Solomonic column by the Russian Church at Jerusalem.

"Pottery is now pretty completely known, and we shall be able in future to date the ages of towns at a glance, as I can in Egypt. Without entering on details, we may distinguish the Amorite by the very peculiar comb-streaking on the surface, wavy ledges for handles, and polished red-faced bowls, decorated by burnished cross-lines. These date from about 1500 to 1100 B.C., and deteriorate down to disappearance about 900. The Phœnician is thin hard black or brown ware; bottles with long necks, elegant bowls, and white juglets with pointed bottoms. Beginning about 1100, it flourishes till about 800, B.C. It develops into the Cypriote bowls, with V-handles, painted in bistre ladder patterns, which range from about 950 to 750 B.C. Due also to Phœnician influence, seem to be the lamps from about 900 to 750 B.C., formed by open bowls pinched in at the edge to form a wick-spout. These were succeeded in the time of Greek influence, from 750, by the same pinched type, but of Greek ware, and with a flat brim. The Greek influence is also seen in the massive bowls of drab pottery, like those of early Naukratis, and the huge loop handles, such as belong to both Naukratis and Defenneh before 600 B.C. All these approximate dates are solely derived from the levels of the walls and the thickness of the deposits; but they agree well with what is otherwise known.

"As unfortunately the Turkish Government claims everything, all the perfect pottery has been taken by the officials, and the stone-work is left to be destroyed by the Bedawin. Casts, photographs, and potsherds (such as any visitor can pick up here), are all that may be brought to England. These will be exhibited this summer in London, probably along with my Egyptian collections of this season.

"It is much to be hoped that some fresh explorer will come forward to take up this Syrian work, of which we have only been able to lay some of the foundations by the excavations of this spring. Much more has to be done before we can settle the historical problems which await solution in this land."

Herr Schick, our worthy agent in Jerusalem, though incapacitated from active work for some time through illness, did not fail to report all discoveries of interest in and outside of Jerusalem. A few may be mentioned, which have already been published in the *Quarterly Statement*, viz. :—

1. The excavations outside the Damascus gate in the ground of the Domini-

cans, a little to the east of the smaller church discovered in 1880, had exposed additional fragments of masonry, bases of columns, doorsteps, &c., thereby giving sufficient detail to show the foundations of another church, much larger than the former one, and measuring 130 feet by 73 feet. Mr. Schick suggests this to be the original church of St. Stephen's. In the same neighbourhood have been found some rock-hewn tombs, with rolling-stone doors, bearing Greek inscriptions and mason's marks.

2. On the eastern brow of Zion some rock-hewn chambers have been cleared out, which showed evidence of having been used in ancient times as dwellings. These are on the property of a French gentleman, who kindly allowed Mr. Schick to examine and plan.

3. In the village of Silwân three little rock-hewn chapels were found; they are most remarkable, cut out of the solid rock, and from an inscription in the apse of the centre one, appear to have been dedicated to the memory of the prophet Isaiah. Indications of another rock-hewn church, of which the apse remains, were found and noted by Herr Schumacher near 'Athlit.

4. At the Pool of Bethesda the discovery of a fresco on the wall over the Pool, representing an angel troubling the water, is of great value, proving that in crusading times the spot was regarded as the site of Bethesda.

5. Mr. Schick, during the paving of the streets in Jerusalem, obtained some more rock levels; from these, with former ones, he has given what he thinks is the top or form of the Acra terrace.

6. As the stones of one of the immense cairns or mounds in the Plain of Rephaim were being removed for road purposes, a peculiar upright stone was revealed having regular tooled grooves running obliquely towards the centre of the stone on the one side; there are also some curious holes in it.

7. An obelisk, broken, originally about 45 feet in height, was found in the Theatre at Cæsarea; this is believed to be the first obelisk found in Palestine.

We have received from Herr Schumacher (1) a photograph of a very richly ornamented tomb found near Shefa 'Amr, which was published in the October *Quarterly Statement* for 1889; (2) a photo of a Greek inscription found on a flat rock near the important ruins and spring of Khurbet Husheh. This inscription was pointed out to Herr Schumacher by the Rev. P. Van Kasteren, of the St. Joseph's University, Beyrout; (3) a few days ago ten photos and a description of the figures cut in the rock in Wâdy 'Akkâb, opposite Tyre.

To the Rev. J. E. Hanauer the Committee are indebted—

(1) For an account of the cave near Sarfs, with the curious figures carved on the walls.

(2) For a copy of a Greek inscription which he discovered at Beit el Khûlîl.

(3) For a collection of Judeo-Spanish proverbs.

(4) For several photos of interest, including the rock-cut altar near Zorah.

(5) And for various notes of interest obtained on the spot.

In the April *Quarterly Statement* was published a very interesting paper on the Sects and Nationalities of Syria and Palestine, by Rev. Geo. E. Post, M.D., who has articles in hand on Palmyra and the Bedawîn.

In the same number is an able and learned paper on Mâlula and its Dialect, from F. J. Bliss, B.A., who promises an exhaustive account of the Druses, &c.

PUBLICATIONS.

"The Bible and Modern Discoveries," by Henry A. Harper, was published in December. It is an endeavour to present in a simple but yet connected form the Biblical results of twenty-two years' work of the Palestine Exploration Fund. The writer has also availed himself of the discoveries made by the American Expeditions and the Egyptian Exploration Fund, as well as discoveries of interest made by independent travellers. The Bible story, from the call of Abraham to the Captivity, is taken, and details given of the light thrown by modern research on the sacred annals. Eastern customs and modes of thought are explained whenever the writer thought they illustrated the text. To the Clergy and Sunday School Teachers, the writer hopes this work will prove especially useful. He is personally acquainted with the land, and nearly all the places spoken of he has visited, and most of them he has moreover sketched or painted. The work is in one large, handsome volume of 600 pages. It is illustrated with many plates, and a map showing the route of the Israelites and the sites of the principal places mentioned in the sacred narratives. The work has had a very gratifying reception. The whole of the First and Second Editions are gone, and a Third Revised Edition is nearly exhausted. It is proposed that Mr. Harper write a second volume to complete the old Testament and also take in the New Testament.

For a long time it has been desired by the Committee to present to the world some of the great hoards of information about Palestine which lie buried in the Arabic texts of the Moslem geographers and travellers of the Middle Ages. Some few of the works, or parts of the works, have been already translated into Latin, French, and German. Hardly anything has been done with them in English, and no attempt has ever been made to systematize, compare, and annotate them. This has now been done for the Society by Mr. Guy le Strange in the book "Palestine under the Moslems," just prepared and issued. The work is divided into chapters on Syria, Palestine, Jerusalem, and Damascus, the provincial capitals and chief towns, and the legends related by the writers consulted. These writers begin with the ninth century and continue until the fifteenth. Illustrations required for the elucidation of the text are presented with the volume.

The Committee are in great confidence that this work—so novel, so useful to students of mediæval history, and to all those interested in the continuous story of the Holy Land—will meet with the success which its learned author deserves.

Northern 'Ajlûn "Within the Decapolis," by Herr Schumacher, was published in April. It contains an account of his journey between the Jabbok and Yarmuk and is fully illustrated with a map, plans, and drawings of the ruins, tombs, dolmens, inscriptions, &c.

Of the Memoirs of the Western Survey there are only some 15 sets left of the 500 printed.

The Survey of Eastern Palestine as far as accomplished by Major Conder was published in 1889. This volume has been sent out to subscribers.

The Archæological Mission of M. Clermont Ganneau. The illustrations of this work are being reproduced from the beautiful drawings of M. Lecomte, and will be ready in a few days for the letterpress.

The Fauna and Flora of the Wady Arabah, by H. C. Hart, is in the press, the plates are almost ready, and will be issued before the end of the year.

The New Map of Palestine.—The Committee are pleased to say that the new map which has been so long in hand is now ready. The map takes in both sides of the Jordan and extends to Baalbeck and Damascus in the north, and to Kadesh Barnea in the south. It is compiled chiefly from the surveys of the officers of the Fund by George Armstrong, the Assistant Secretary, and revised by Colonel Sir Charles W. Wilson and Major C. R. Conder.

The scale is $\frac{3}{8}$ of an inch to the mile. All modern names are in black, and over these are printed the Old Testament and Apocrypha names in red; New Testament, Josephus, and Talmudic names in blue; clearly showing at a glance all the identifications of the places that have been obtained. Those marked with a ? are doubtful.

The price to subscribers to the Fund will be 24s.; to the public £2.

Raised Contour Map of Palestine.—The Committee have pleasure in bringing before you for your inspection a raised contour map of Palestine, which is now nearing completion.

It has been for a considerable period in course of construction by Mr. Armstrong, the Assistant Secretary.

The contour lines on the west of the Jordan represent a rise of 100 feet; those on the north and east, a rise of 200 feet each.

It is on the same horizontal scale, and gives nearly the same extent of country as the new map hung alongside of it.

Museum and Office.—The Committee have to report that all the objects of antiquity belonging to the Fund were removed from the South Kensington Museum, and are now in Messrs. Taylor's Depository until suitable rooms are secured, which will serve for both the Office and Museum. The Committee have rooms in view which they hope to take early next year.

Since the last Annual Meeting the following reports and papers have been published in the *Quarterly Statements*:—

By Herr Schick—

“On the Discovery of an Old Church in Jerusalem;” “On Tombs, Inscriptions and Roman Tiles on the Mount of Olives;” “On Tombs with Rolling-Stone Doors, Inscriptions, Masons’ Marks, and Large Cisterns North of the Damascus Gate;” “On Caves on Eastern Brow of Zion;” “On Rock-cut Chapels at Silwân;” “On the Fresco of an Angel over the Pool of Bethesda;” “On Remains of the Old City Wall;” “On Supposed Druidical Stone on the Plain of Rephaim;” “On Subterranean Passages at Gibeon;” “On Tombs at Aceldama,” &c., &c.

By Rev. J. E. Hanauer—

“On the Discovery of a Cave with Curious Figures at Saris;” “An Inscription at Beit el Khülil;” and “A Note on the Dead Sea being Visible from Jerusalem.”

By Herr Schumacher—

“On Sarcophagi near Akka;” “On Tomb with Curious Figures near Shefa ’Amr;” “On a Rock-cut Semi-circular Apse near Tantura;” “On Inscriptions,” &c., &c.

By W. M. Flinders Petrie—

“Notes on Places visited near Jerusalem;” “Report of the Excavations at Tell Hesi.”

By Rev. Dr. Camden Cobern—

“A Visit to the Scene of Excavations.”

By James Glaisher, F.R.S.—

“Monthly Tables of Meteorological Observations taken near Jaffa for the Years 1885, 1886, 1887, and 1888.”

By Rev. George E. Post, M.D.—

“Essay on the Sects and Nationalities of Syria and Palestine;” “The Roebuck in Palestine.”

By F. J. Bliss, B.A.—

“Ma’lula and its Dialect.”

By Dr. Selah Merrill—

“Birds and Animals New to Palestine.”

By T. Chaplin, M.D.—

“On Gihon.”

By Major C. R. Conder, R.E.—

“On Norman and Norman Fiefs in Palestine;” “On the Vannic Language;” “On the Hittite Prince’s Letter;” “Notes on the Holy Sepulchre;” “The Date of Eshmunazar’s Coffin;” “The Old Wall Outside Jerusalem;” “The Tsinnor;” “Ku for King the Seal of Haggai;” “Bezetha;” “Esau’s Head;” “Native Name of Palmyra;” “Pella;”

“New Hittite Bas-Reliefs;” “The Málula Dialect;” “The Greek Inscriptions North of Damascus Gate;” “Dr. Post’s Paper;” “The Inscriptions of Edrei,” &c., &c.

By Professor Sayce—

“On the Accadian Word for King;” and “The Inscription of Saris and Mount Olivet.”

By William Simpson, F.R.G.S.—

“On Irrigation and Water Supply of Palestine.”

By Col. Sir Charles W. Wilson, R.E.—

“On the Tell es Salabiyeh Monument.”

By Henry A. Harper—

“On Jewish Lamps;” and “The Way of the Philistines.”

By Rev. Canon Greenwell—

“Note on Ancient Axe-heads.”

By Mrs. Finn—

“Notes on Mosaic and Embroidery in the Old Testament;” “On the Old Walls of Jerusalem;” “On Greek Inscriptions;” “On Sunbirds;” “On Nehemiah’s Wall;” “On the Mounds on the Plain of Rephaim;” “On the Waters of Merom,” and “On the Tsinnor.”

By Rev. W. F. Birch—

“On Nehemiah’s Wall;” “Nehemiah’s Defence of the Gutter Tsinnor;” “The Pool that was Made;” and “The Siloam Inscription.”

By Gray Hill—

“On Irrigation and Water Supply of Syria;” and “Mashita.”

By Rev. Canon Gover—

“On the Waters of Merom.”

By Dr. Murray—

“On the Greek Inscriptions found on some Tombs North of the Damascus Gate.”

By Professor Hull—

“On the Site of Calvary.”

By Rev. Henry Brass—

“On the Site of Capernaum;” “The Cave of Adullam;” and “The Place of Elijah’s Sacrifice.”

By George St. Clair—

“On Nehemiah’s Wall;” and “Sutekh, the Chief God of the Hittites.”

By Rev. James Neil—

“On the ‘Slime Pits’ in the Vale of Siddim.”

The following is the Balance Sheet for the year 1889, which was published in the April *Quarterly Statement* :—

The number of subscribers is steadily, but not rapidly increasing; since the date of last meeting some 187 have joined the annual list.

The Committee desire again to record their special thanks to their **Honorary Local Secretaries** for their efforts so cheerfully and readily made on behalf of the Society's work.

The Committee have to announce with regret the death of six members of the General Committee since the last Annual Meeting, viz.—

Earl of Carnarvon.
 Col. Sir Henry Yule, C.B., R.E.
 Sir George Burns, Bart.
 General Sir Howard Elphinstone, K.C.B.
 George Jackson Eldridge, Esq., C.M.G., H.B.M., Consul-General,
 Beyrout.
 Rev. H. Hall-Houghton.

The Committee propose that the following gentlemen be invited to become members of the General Committee:—

The Duke of Norfolk.
 Major C. M. Watson, C.M.G., R.E., War Office, Horse Guards.
 Sir John Coode.
 der Stuart Murray, Esq.
 Reginald Stuart Poole, Esq., LL.D.
 H. Rylands, Esq., F.S.A.
 Bishop of Lincoln.
 Bishop Blyth, of Jerusalem.
 P. Le Page Renouf, Esq.
 James Melrose, Esq.
 Rev. James H. Rigg, D.D., Principal of the Westminster
 Training College.
 Dr. D'Erf-Wheeler, Jerusalem.
 J. R. Barlow, Esq.
 T. Rymer, Esq.
 Rev. W. H. Rogers, D.D.
 Herbert Birch, Esq.
 Rev. Thomas Harrison.
 H. C. Kay, Esq.

The CHAIRMAN.—We have the pleasure of having Mr. Petrie with us, and I should like to know whether he would like to add anything to what has been said in the Report.

Mr. FLINDERS PETRIE.—I do not wish to suggest any additions to that Report as a Report. I have stated in it as briefly as I can the principal heads of information, and I think that will be all that I should wish to state for the present in the Annual Report until you shall decide what form the further and more detailed publication will take.

Mr. WALTER MORRISON.—Everything I can tell the Committee has been stated by Mr. Flinders Petrie. I should like to ask Mr. Petrie one question. In the Report it is mentioned that he identifies Lachish with Tell-el-Hesy. I don't know how far this is from Umm Lakis.

Mr. PETRIE.—They are about 3 miles apart. It has been supposed that Umm Lakis and 'Ajlân must naturally be Lachish and Eglon, which were near together. But neither of these sites can be ancient, as they only contain a small depth of Roman pottery. Tell Nejîleh, which I suppose to be Eglon, is about 6 miles from 'Ajlân.

Mr. MORRISON.—We know that in Oriental countries an important town does shift about. We have the cases of Memphis and Cairo, of Delhi, and of Jericho.

Mr. PETRIE.—My reasons for identifying these sites are that we know Lachish and Eglon to have been the two principal towns of the Amorites in the low country, and Tell Hesy and Nejîleh are the most valuable positions in that district as commanding constant springs, whereas every other place depends on wells. As moreover I find at these places the only two great Amorite cities that I have seen in all the district, it seems almost certain that these are Lachish and Eglon, which must have been in this part. My supposition is that after the Jews were removed the Bedawîn would push up into this country, and naturally seize on these springs for their flocks and herds. The Jews returned here in feeble force, and were not strong enough to eject the Bedawîn; they therefore occupied the nearest points they could within sight of the old places, on the opposite hills; the families from Lachish founding Umm Lakis (which implies in Arabic "a descendant of Lachish"), and the families from Eglon founding 'Ajlân.

Mr. MORRISON asked a question with reference to the masonry of the south-east corner of the Haram area being Herodian.

Mr. PETRIE.—That is just a question how long those signs as masons' marks may have existed. One can hardly use it as a conclusive argument. The question of the stone-dressing seems to me very important. A certain peculiar form of tooling, "claw-tooling" or "comb-picking," is known in Greece before it is ever known in Egypt. Subsequently we find it used in Egypt in Greek times, and it is abundantly used in Palestine. That is entirely absent from the masonry we now know belonging to the period of the Jewish kings; there is no trace of that, and as it belongs entirely to the Greek period in Egypt, it is a very strong argument that where we find this tooling we must suppose it to belong to the Herodian period in Palestine.

Mr. MORRISON.—I follow that. What does Major Conder say about it?

Mr. PETRIE. - It was satisfactory to see that the method of dressing the stone at Tell Hesi, probably 900 or 1000 B.C., was exactly similar to that on the column at the Russian Church, viz., by flaking it away so that the surface appears to be hollowed out in a series of flakes, and that was further reduced by pick-working, which left the surface what I may call the pocke surface. I found only one such stone re-used in the Triple Gateway of Jerusalem.

Mr. MORRISON. We use the claw-tool, or comb-picking, now. A sort of hammer with a number of sharp points.

Mr. PETRIE.—They use that also in the East. At present my belief is that it was a Greek invention, imported by the Greeks into both Egypt Palestine.

Mr. MORRISON.—Major Conder is very strong about that.

Mr. PETRIE.—There is no question it is the essential means of judging of the period of the stone, and I think we have now much firmer grounds for our judgment in having got early masonry of which we can be certain of the date to within a century. There is a point I should be glad to hear the opinion of the Executive Committee on, which might almost be laid before the present Committee, as to whether the circumstances will justify us in adopting the name Lachish for this site provisionally, instead of referring to it as Tell Hesi, which does not convey a definite idea to most people. I don't know how far it might be suitable to assume that identification and proceed upon it, but it will simplify matters rather in writing on the subject if we can at once venture to adopt this identification of this place as Major Conder suggested.

Mr. GUY LE STRANGE. -Was the identification made before you went there?

Mr. PETRIE.—Yes. Major Conder suggested it some time before that. I now can prove it to be distinctly an Amorite fortress from the section shown, and a fortress of great strength and great importance, and that the Umm Lakis is certainly of the Roman period. We have destroyed the rival, and we have greatly strengthened the case for Tell Hesi by finding the early wall and proving the early date of it. The distance between is three miles.

Mr. GUY LE STRANGE.—Is there a place called 'Ajlân there now?

Mr. PETRIE.—Yes, between Tell Hesi and Umm Lakis; almost midway between the two.

Mr. GUY LE STRANGE.—Umm Lakis is not known in the old Arab chronicles. There is mention of 'Ajlân in that part of the world in the early chronicles, but only once, though. There is the well-known place, Ajlûn, east of the Jordan, but there is an 'Ajlûn in the chronicles mentioned in that part of the world too, once or twice only.

Mr. PETRIE.—I may say that Tell en Nejileh is within sight of the place now called 'Ajlân; they are only about 5 miles apart.

Mr. BASIL WOOD SMITH.—In the absence of Lord Sidmouth I beg to move the adoption of the Report. It does not require a speech from me, because Mr. Flinders Petrie has made a more effective speech. At

unlearned and untravelled Englishman could not deal with it so exhaustively. It must be very gratifying to us to find that the Fund is still so vigorous, and that it promises to go on doing even greater things in the future. I have been looking at the new raised contour map and it strikes me as being very effective indeed. It gives me a more vivid idea of the contour of Palestine than I have ever had before. It presents to the eye clearly and distinctly the qualities of the surface of the land. I have great pleasure in moving the adoption of the Report.

MR. HENRY MAUDSLAY.—May I add a word? In the case of blind people that map would give the finest explanation possible; they would pass their fingers over it and ascertain in a moment the main features of the country. To my mind it is one of the most beautiful and effective things I have seen.

CAPTAIN A. M. MANTELL, R.E.—We have to congratulate ourselves that so much has been done during the last 12 months. I remember in '80 or '81, when I had the pleasure of going out with Major Conder, there was a great talk of our getting a new Firman, and that talk has gone on until 10 years have elapsed, and it is a great satisfaction to think we have now succeeded in getting rid of the obstruction. I have much pleasure in seconding the adoption of the Report.

THE CHAIRMAN.—Having that Report of Mr. Petrie before us and Mr. Petrie himself here, I should like to move that our best thanks be given to Mr. Petrie for his exertions. When he was at Jerusalem it was very cold, and I know he has gone through very great extremes of heat and cold, as those who go to Palestine generally experience. I trust the experience he has had in that country, the good work that he has done, are indications of other good works that he will be induced to follow up next year, for I did hear when he was there—and I didn't wonder at it at all, frozen one day and melted the next—under those circumstances he would go there no more. I hope, however, and I know I am not alone in that, that he will see his way, "as it is only broken ground," to use his own words, to follow up the work next year; to start in the good time, and knowing as he does the country now, and knowing the people and others, that we may have to thank him another year for the services he will have rendered between now and our next Annual Meeting. I would ask the Treasurer if he would kindly second that vote of thanks.

MR. MORRISON.—I should be very happy indeed to second that vote of thanks. I am sure what has fallen from Mr. Petrie to-day is sufficient to whet our appetite for fresh discoveries. It seems as though there were a considerable field, and Mr. Petrie, with that instinct which comes I suppose from practice—like the blacksmith's arm—will be enabled to hit upon the right spot. No doubt in this particular case it was rather a hurried matter, and there was not sufficient time for Mr. Petrie to go out to make his way, and do full justice to the opportunities offered to him.

A MEMBER having asked if the Firman allowed of excavations in any part.

THE CHAIRMAN said :—I was going to speak of that. Our Firman was confined to ten square kilometres, but I am in hopes that directly we can find another site, after having broken ground, we shall have very little trouble in getting a new Firman. Ten years have passed of great anxiety, but I can assure you that we have never forgotten that dropping water will wear away a stone. Perseverance will gain our ends I have very little doubt. I can only say we are greatly indebted to the Marquis of Salisbury, and I think he never flagged for a single moment from the first attempt, and I have no doubt we shall have the same assistance when we apply again. Now, gentlemen, you have heard the motion.

The resolution was put to the Committee, and carried unanimously.

MR. PETRIE.—I thank you most sincerely for your very kind expression concerning my work. It has been a very great pleasure indeed to me to undertake what I have done, especially as I think that I have been able to lay a foundation for future work by getting the pottery and the masonry accurately dated, which will enable others, I hope, to be as successful in examining sites, and with more certainty than they could have done before. I am almost afraid that Egypt has greater attractions for me than Palestine, but in any case it will be my pleasure to give any assistance I can in helping others towards the work, or giving any information I can from the small experience I have had in the country. (Cheers.)

THE CHAIRMAN.—Gentlemen, there is another duty to perform. Mr. Schlick has done his work well. I had doubts upon some things, but it took a load from my mind to hear from Professor Lewis, who has just returned from a visit to Jerusalem, that the measurements that had been sent to us were correct. He tells us every one—angles, direction, and length of line, was found to be accurate. It is a very important thing that we should know that anyone who is there sending us information is careful in his measurements, and doesn't jump at conclusions. For the good work he has done for us, and the constancy with which he has worked, I should like to ask the Committee to thank this coadjutor who has worked so exceedingly well.

MR. WILLIAM SIMPSON.—I have very much pleasure in seconding that. I think we could not do otherwise than pass a vote of thanks to him.

The resolution was put to the Committee and carried unanimously.

THE CHAIRMAN.—Well, gentlemen, who would have imagined that an over-wrought man, writing here, writing there, ever engaged in artistic work, would find any time to devote to us? Who would have thought that Mr. Walter Besant, who is so energetically at work, and so usefully in so many things, should find time to come here, so that what he had done for us entitled me to move our thanks be given to him. That which he has done has been effective, as is everything he does. It is an early ove, as Mr. Petrie says his early love for Egypt will overcome his

love for Palestine. Mr. Besant is here. If he were not, I have a note from him which is of an earnest nature, and I do ask you to give a warm vote of thanks, and I feel sure, under the circumstances in which Mr. Walter Besant is placed, that you will thank him, and thank him very warmly for being with us. Everyone in the room, I know, would second that, but, Professor Lewis, you know his work best, and I will ask you to do so.

PROFESSOR HAYTER LEWIS.—I am extremely glad to second that. He collects valuable information and puts it in a way which everyone can understand and thoroughly enjoy, and he uses his interest in every way for the advancement of the Fund. I am quite sure I should do my duty very imperfectly if I didn't second, with my heartiest good will, the resolution you have moved. (Cheers.)

THE CHAIRMAN.—It is passed by acclamation. I need not put it to the meeting. Mr. Besant, the meeting has thanked you for those good services you have rendered.

MR. WALTER BESANT.—I really do not deserve your thanks. I have been here very little indeed, and all the real work of this Society has been entirely done by Mr. Armstrong. I have not been here for the last ten days more than once. I am always very anxious to carry on the work in which I have been engaged so long and so happily, and as long as I can continue the work you may depend on me.

THE CHAIRMAN.—I have yet one other motion. You see this contour map, that map has been done entirely by Mr. Armstrong, not in his office hours. There is a deal of work to be done here, no one knows it better than I do. It is a map that, I think, answers all the desires that I have heard expressed from time to time. Here we have something that speaks, and will speak, to the good work of the Survey. Just see. So far as the Survey extends we know everything. South and east of that much is uncertain or unknown. How is this map to be reproduced? It has been a subject for thought, how it can be readily reproduced and how it can be brought into schools and have a general application, even that application which my friend Mr. Maudslay referred to just now, that the blind would feel and know how deep a certain part was below the level of the Mediterranean, and so in every other part of it. It is one that I feel exceedingly proud of. Look how well these two maps—the raised contour and new map of Palestine—will work together. This has been part of the work in the past year, and therefore as Mr. Armstrong has performed his duties to my *entire* satisfaction, and in addition has prepared this map of which I am proud, I should like to move that our thanks be given to Mr. Armstrong. I will ask Dr. Chaplin, knowing the value of the work, to second this resolution.

DR. CHAPLIN.—It affords me very much pleasure, sir, to have the opportunity of seconding the vote of thanks to Mr. Armstrong for this very valuable work. I have had the pleasure of seeing it in the course of its progress from month to month, and I know how very much labour and thought Mr. Armstrong has bestowed upon it, and I also know what

has already been said, how very much occupied he is in this office, so that I think the time he has bestowed upon it, and the skill and judgment which he has displayed in connection with it are exceedingly creditable, and we owe him really a very warm vote of thanks.

MR. ARMSTRONG briefly returned thanks.

MR. GUY LE STRANGE moved and—

MR. HENRY MAUDSLAY seconded the re-election of the Executive Committee. This was put to the meeting and carried unanimously.

REV. W. J. STRACEY.—Before we separate there is one more vote of thanks which is due, and that is to our Chairman. I should judge by his looks that he must be as old as I am, but he is a very much younger man than I am myself really. I will only say, as regards Palestine, that I look back to my short tour there ten years ago with the greatest pleasure I almost ever had in my life. I never went anywhere where I had so much satisfaction. I make a point of telling all my friends, particularly the younger clergy, that they cannot do better for themselves than to take a holiday of two months and go to Palestine. I beg to move that our very best thanks be given to you, Mr. Chairman, for your presidency on this occasion.

MR. HENRY MAUDSLAY.—I have had the honour of being requested to second this motion, and I shall do so in the very fewest words. The Chairman has my most entire and hearty consideration, and I am quite sure that his devotion to the work which he has done so efficiently warrants and ensures its continuance. Without his application and perseverance I think the thing would, perhaps, have died a natural death long ago. It is reported that Queen Mary said she should have the word "Calais" written on her heart. I am quite sure that our Chairman has the word "Jerusalem" written upon his heart, and "Palestine" written in his head and in his thoughts. I am quite sure he will carry out this work as long as God gives him strength, for the furtherance of the object that we have in view. I beg to second the resolution.

Put to the Committee and carried unanimously.

THE CHAIRMAN.—I thank you very much, because I understand that this vote is not individually addressed, but to the Executive Committee who aid me so well and so effectively, and work so well. This I can assure you, that all that is in my power I certainly shall do; and knowing this vote is to the Executive Committee, and knowing them so well, I am certain they will do so. I hope that this time next year, as I have already said, Mr. Petrie will be here to report again; but I first wish to express my individual thanks to him for the deep concern he has shown in the interests of the Fund. I can only say, in the name of the Executive Committee, I thank you very sincerely for the kind vote you have just given me. I hope we shall have a good Report next year.

The Committee then adjourned.

NOTES ON PLACES VISITED IN JERUSALEM.

Silwan.—The Isaiah tomb is now in custody of the Franciscans, who have made it into a chapel, kept locked up. The published inscription is not quite correct ; apart from the curvature it is

ΚΤΥΤΗΦΕΡΩΙ(Α)ΙΑ
ΠΡΟΘ ΤΟΥ

There is no trace of a letter between *προφ* and *του*. The surface is rough picked, and rubbed down partly, before inscribing. Greek inscriptions were used till crusading times here (as in the Anarulph inscription), but such have the *a* made in the Coptic form Δ Α, φ as φ, and not as here Θ. Professor Lewis noted some small corrections in the restored plan of Herr Schick.

Absalom's Tomb appears to be of several periods. From the position of the entrance it was probably a rock tomb decending in the surface of the open field originally ; the steps and rough chamber being of this age. Secondly. It was cut around and isolated in the Herodian age. Thirdly. the side recesses for bodies were cut in the sides of the chamber ; certainly later than the moulding round the top of the chamber, which is cut into by them. That the entrance at the top of the steps was used in the second period, is shown by the relief circle carved on the stone over it, which does not occur in any other part of the top.

The tomb of St. James, near it, has also been originally different, as there are signs of a square shaft as the original entrance, altered by being cut away on one side to form the present steps.

Church of St. Stephen outside Damascus gate. There can be no doubt as to the general form and size of this building. A pier was found by us just where it was required to match an existing one, so that there are now four known, in two pairs. The apse was plastered over on the outside with plaster, with irregular flakes of limestone imbedded in it. This plaster remains against the outer earth, after the stones have been removed, and shows all the joints of the wall which existed there. The present blocks around the apse have all been roughly placed there by the friars. They have also made up part of the apse outline with loose blocks, but the steps leading up to the apse on either side are quite undisturbed, and are of fine red clouded marbly limestone. The great excavations in the rock are later than the church and its destruction, as they are cut askew to it, and were filled with rubbish ; moreover pieces of the broken columns of the church were used in the filling up of low parts of the sides of the hollows.

A tomb lately opened there has the stone door, with iron ring for the pivot, and iron nails for the lock. The inscriptions over these tombs are—

ΕΠΙΣΥΚΕ̄ and ΟΚΔ†ΤΟΙΚΣ
 ΗΛΠΙΩ ΕΝΒΟ,ΤΟΥ
 ΜΗΚΑΤΣ ΥΥ,

Mosque of El Aksa.—With regard to the age of this, the irregular use of materials which are of the age of Justinian, the capitals which do not match, the stumpy columns built up of odd material, and unsuitable proportions of the monolith columns in parts, seem to conclusively show that it must have been built after the Arab conquest, as Professor Lewis maintains. But it appears that its original form was totally un-Arab, a pure basilica, of nave and two aisles, with the clerestory arcade work, above the nave arches, which is purely Roman in design; a Christian architect was doubtless the constructor of this. The special point to note is the extraordinary thickness of the piers which bound the aisles; these seem to me to be the thick outer walls of the original basilica form, pierced through with arches so as to extend the mosque into the Arab type of a large number of low colonnades, or forest of columns. Professor Lewis does not see any objection to this view of the independent basilica form being the first, and extended later on, though he strongly holds to the large area of the colonnades in early Arab times.

Rock Tombs. The regularity of many of these tombs suggested that they were cut to measure; and on measuring them it is found that the same lengths recur frequently. Thus (in metres, the only measure I happen to have here) there are lengths found of 2·22, 2·23, 2·24, 2·27, 2·28, 2·29, 2·30, and 2·31, all evidently intended for the same quantity; again, there occur 2·81, 2·83, 2·83, 2·84, 2·84, 2·84, 2·85, 2·87, 2·88, 2·90, 2·91, 2·93, 2·93, and 2·94 metres; and this extent of variation is not more than is often found in one single chamber owing to accidental errors in the excavating. From those tombs which I have already measured it is certain that more than one cubit was used, and in two cases there is valuable evidence of a part being cut by one cubit, and a later chamber being cut out with a different cubit. The cubits found are—

Inches ±

- 25·12 ·1 One chamber of tombs of Judges, with other chambers cut later with 22·5, leading from it.
 23·83 ·06 Four chambers of one tomb, near Judges, with later chamber on 22·5 cut from it.
 22·55 ·04 Eighteen tombs, tomb of Judges and others by it, and tombs of Hinnom. No variation in amount in different places.
 15·46 ·08 Six tombs in valley of Hinnom, one with moulding and therefore late. (Herodian.)

The 25·12 is already known to be probably the sacred cubit of the Jews ; and 22·5 is the double of the Phœnician foot. I should say that all the results were worked out in metres, in which form I could not recognise the resemblance to known measures, which I am familiar with in inches ; hence I could not have the faintest prejudice or inclination to adapt the results to cubits already known. I hope to obtain more material and work out these results more fully in future.

Future Work required in Jerusalem.—A great deal of clearance has been made in Solomon's stables by the late Pasha here, and the inner ends of the triple gate opened out on the Haram area. Thus much more can be seen of the masonry ; and four periods are traceable, probably ranging from Herod to Justinian. I am told by Professor Lewis that the lowest blocks of the great wall on south-east are dressed with the "claw tool," or *comb pick* as it may better be named. This tooling is, in Egypt, characteristic of Greek work, and is well known early in Greece (Parthenon, &c.) ; hence it gives a strong presumption that the whole of the south-east wall is of Herodian work. If so, it is very unlikely that Solomon's wall occupied that line, as if it did its lowest courses would have been buried in the rubbish, and used by Herod for his foundations. Hence the most urgent question is whether any trace of Solomon's wall can be found *within* the line of the present wall. To settle this, some excavations in Solomon's stables are needed. Probably the best place would be in the internal angle between the great corner tower and the east wall where two sides of the pit would be of masonry, with ledges to fix timbering, &c., upon ; thus we should learn whether the wall is backed (1) with earth, (2) with vaults, or (3) with a rock scarp ; also (4) whether there is any sign of Solomon's wall or foundations. Other pits might be sunk to find the rock, and search for walls or masonry, between this and the outcrop of the rock in the triple gate.

It is also very desirable to open and examine the vaults beneath the raised platform of the Haram, but these are jealously guarded from any chance view.

W. M. FLINDERS PETRIE.

EXPLORATIONS IN PALESTINE.

EARLY in February a vizierial permission was granted for excavations about Khurbet 'Ajlân, and an area of 9½ square kilometres in that neighbourhood. And as soon as the packing of my Egyptian collections was finished, and they had been inspected by the Government, and a bad attack of influenza had been overcome, I left Egypt for Syria, arriving at Jaffa on March 9. The season was unusually late ; no rain had fallen till Christmas, and the spring rains lasted heavily till the beginning of April ; the last day of March there was a furious storm over all south Palestine ; a white squall, which I saw tearing along over Jaffa at the rate of an

express train, breaking shutters and windows there in a way not known for years.

Although the permission was signed, it unfortunately contained a trifling error of description, which for form's sake was rectified ; but this produced so much delay that the paper did not reach Jerusalem, where I was awaiting it, till March 29. For nearly three weeks, therefore, I was unable to forward the business at all, as no steps could be taken until the original document could be presented to the governor, Reshad Pasha. This time was not, however, all wasted, as I was fortunately able to examine and discuss the various buildings and remains of masonry with Professor Hayter Lewis and Dr. Chaplin ; and thus I learnt, I cannot say much, about the antiquities, but rather I found how provokingly little is positively known, and in what a vast uncertainty almost every question still remains. Perhaps to learn our ignorance, at first hand on the best authority, was as useful a preparation as I could have for appreciating scraps of information. It is easy and simple to speak of Solomonic masonry, the Jebusite rock-scarp, &c. ; but when the positive proofs of such ages are enquired into, the constant resource must be the answer, "There is nothing certain in Jerusalem." If ever the history of the city is to be clearly settled, it must be by learning the archaeology of Syria in other and less complicated sites, and then applying the knowledge of stone-working, of construction, and of pottery to fix the ages of things in Jerusalem.

But while waiting I began on a fresh enquiry which had not hitherto been opened. The abundance of rock-hewn tombs about Jerusalem is well known, and many of them have been surveyed and published. Much yet remains to be done in this matter, but it would need a considerable time in Jerusalem to work out the subject. The dimensions of those that are cleared are, however, easily taken, and hence we may examine whether they were wrought by measure, and, if so, what measure or cubit was used by the masons. Over fifty tombs I thus measured, from mere single chambers, up to the complex arrangements of the "Tombs of the Kings." From these it was abundantly plain that some measure was generally used, not only from the regularity of the sides of a chamber, but also from the repetition of the same length in ten or a dozen different tombs. The details of the results must be published with reference to the already published plans of several of the tombs : but the general results are that far the commonest cubit is of 22·6 inches, which is evidently the Phœnician cubit of 22·3 at Carthage, and known in the Hauran. Earlier than this, and in the "Tombs of the Kings," there is a cubit of 23·7 ; there is also one tomb of a cubit of 25·1, which is the Hebrew, Assyrian, and Persian cubit of 25·1 to ·3, and in the valley of Hinnom only are tombs cut to a cubit of 15·5 inches, which seems to be peculiar to Syria. From the workmanship most of these tombs are probably of the Herodian times ; but whether the 15·5 inch cubit of the rude Hinnom tombs is earlier or later cannot be decided yet ; the presumption is that such a near and convenient site for tombs would be early occupied. We have at

least now a basis of accurate information as to the various cubits and their relative use, which will serve to start further studies.

So soon as the permission arrived Mr. Moore and I went to the governor, who was most cordial and willing to facilitate matters in every way. But further delays were due to the official who was deputed to receive everything that might be found on behalf of the Government. So that it was not till April 14 that I could at last begin work, only one week before Ramadan. I had already visited the various sites included in the area of the permission, but found that all but one were of Roman age and unimportant. The only promising place was Tell Hesy, in the Arab country, six miles from the village of Burer, where we had to settle to begin with. But as Umm Lakis had been supposed to be Lachish, and it was the nearest site to the village, three miles off, I determined to just examine it, partly in order to get a body of men together who could go off as far as Tell Hesy afterwards.

My expectations of Umm Lakis from the first view of it, were quite confirmed. We trenched about all over the ground down to the undisturbed native red clay; but there was only 6 or 8 feet of earth, and pottery of Roman age was continually found in it; while, most decisively, a worn coin of Maximian Hercules (circa 300 A.D.) was found within 2 feet of native clay. On a hill to the north some walls were seen, but they proved to belong to a building with a large bath, probably a Roman villa. That Umm Lakis is the great historic city of Lachish is utterly impossible, after over three days' digging over the site. Khurbet 'Ajlân appeared far less promising than Umm Lakis; there is very little extent of artificial soil, very little pottery about it, and what there is shows Roman age; as it is all under crops I did not think it worth while to dig into it, after the insignificance of the much less unpromising site which we had already settled.

We then moved and established ourselves at Tell Hesy, which appeared to me to be a very important city of early date. In the absence of any inscriptions it might seem very risky to draw a conclusion as to the identification of a town; but we will first notice what reasons there are for believing this to be Lachish, and then we shall see how valuable the literary notices of its history become in understanding the site. Lachish was one of the five strongholds of the Amorites, with Jerusalem, Hebron, Jarmuth, and Eglon (Jos. x, 5). And it continued to be one of the strongest places in the country down to the invasions of Sennacherib and Nebuchadnezzar, to both of whom it was a special object of attack. It must, therefore, have had some natural advantages, and from various other notices (especially Eusebius) it certainly lay in the low country in this district. Now at Tell Hesy is the only spring for many miles around, a brackish brook trickles down from Tell Nejileh, where in ancient times it was confined by a massive dam; and at Tell Hesy it is joined by a fine fresh spring, while the whole of the water is swallowed in the stony wady within a few hundred yards lower, and never reappears. It is certain then that Tell Hesy and subordinately Tell Nejileh must have been

positions of first-rate importance from the time of the earliest settlements. They would thus agree to the character of Lachish and Eglon. The history of Tell Hesy begins about 1500 B.C., and ends about 500 B.C.; while Tell Nejîleh, as far as can be seen on the surface, is of the same age, or ruined even earlier. The absolute point of date is the position in Tell Hesy—some way from the bottom of it—of the thin black Phœnician pottery which is known in Egyptian remains as belonging to about 1100 B.C. While the close of its history is fixed by the fragments of Greek pottery on the top of it, and the total absence of Seleucidan and Roman objects. There are then no sites in the country around so suited to the importance of Lachish and Eglon as these two Tells; and conversely there are no recorded places of such primary value as these must have been, except the two Amorite capitals of the low country, which we know to have been near together.

It will naturally be asked how the names of Umm Lakis and 'Ajlân come to be in places which are some miles from these tells, and are certainly not the cities of Lachish and Eglon. A conjecture may be tolerated that during the captivity the Bedawîn spread over the south country and seized these springs for their flocks; that the "residue of Israel" which returned were not strong enough in this outlying district to dispossess the occupiers,* and that the men of Lachish and the men of Eglon (*see* the local groups maintained in Neh. vii, 25-38) took up lands in sight of their old habitations, on the other side of the Wady Hesy, and gave them the old names. Such a process seems very likely; and the possibility of it must warn us against placing too much value on the position of a name alone. The name Umm Lakis might well be applied to a descendant of the ancient city; Umm Lakis being like Abu Daud in modern Arabic, meaning "his father is David," and so "its mother was Lachish. I will not venture to say whether there is an echo of the old 'Ajlân in the name Nejîleh, but the tell is not more particularly grassy than other places; nor will philologists perhaps allow it possible that the name of Lachish may have been formed from that of the Wady Hesy, the town of "Hesy," Le-hesy.

The actual remains of Tell Hesy consist of a mound which is formed of successive towns, one on the ruins of another, and an enclosure taking in an area to the south and west of it. This enclosure is nearly a quarter of a mile across in each direction, and is bounded by a clay rampart still seven feet high in parts, and in one place by a brick wall. This area of about 30 acres would suffice to take in a large quantity of cattle in case of a sudden invasion; and such was probably its purpose, as no buildings are found in it, and there is but little depth of soil. The city mound is about 200 feet square; its natural ground is 45 to 58 feet above the

* The feeble occupation of Lachish is shewn by the phrase "Lachish and the fields thereof" (Neh. xi. 30), while all the other towns occupied had villages dependent on them: this shows that there were not enough settlers to fill up the *Khurbets* all round Lachish.

stream in the wady below, and on that the mass of dust and ruins of brick walls rises 60 feet. The whole of the east side of the town is destroyed by the encroachments of the valley, which here makes a great bend that has enabled the winter torrents to eat away this side. But for this fact we should have been unable to reach anything much of the earlier ages here ; but in the section cut away in a steep slope above the wady, every period is equally exposed. We can thus see the succession of the walls of the town, and trace its history.

The earliest town here was of great strength and importance ; the lowest wall of all being 28 feet 8 inches thick of clay bricks, unburnt ; and over this are two successive patchings of later rebuilding, altogether 21 feet of height remaining. Such massive work was certainly not that of the oppressed Israelites during the time of the Judges ; it cannot be as late as the Kings, since the pottery of about 1100 B.C. is found above its level. It must therefore be the Amorite city ; and agrees with the account that "the cities are walled and very great" (Num. xiii, 28), "great and walled up to heaven" (Deut. i, 28), and also with the sculptures of the conquests of Ramessu II, at Karnah, where the Amorite cities are all massively fortified. So far as a scale of accumulation can be estimated, the foundation of the city wall would have been about 1500 B.C., and thus agrees to the time of the great Egyptian conquests of the land, beginning under Tahutmes I, at that date. The need of defence against such a well-organised foe, probably gave the great start to fortifying in Syria. On both outside and inside of this wall is a great quantity of burnt dust and ashes, with fragments of pottery ; and we can now exactly know the character of the Amorite pottery, and its peculiarities, which are quite different to those of other times or places.

The next period is marked by a stratum of 5 feet of dust and rolled stones out of the valley below, lying in confusion on the ruins of the great Amorite wall. These remains clearly show a barbaric period, when the inhabitants were not skilled either in brick-making or in fortifying, and when rude huts of the nearest materials were piled up, only to fall soon into ruin. This accords with what we glean as to the period of the Judges, and, coming immediately on the ruins of the Amorite city, the historical relation of these remains can hardly be doubted. Above this we meet a period of wall-building and fortifying, which goes on with intermissions and various destructions until the end of the history. The first of these walls is the most solid, being 13 feet thick, and this probably belongs to Rehoboam's fortification of Lachish (2 Chron. xi, 9) ; for, though David and Solomon doubtless did some building (2 Chron. viii, 2-6), yet probably this was more in the outlying parts of the Kingdom, and not so near home, where the strength of the inhabitants was sufficient protection. Rehoboam, on the contrary, found himself with a shattered country, which needed consolidating throughout ; and his fortifications of the inner circuit of towns show how little David and Solomon had thought it needful to attend to them. Probably to this

fortifying of Rehoboam we must attribute the wall which I have traced along the north and west of the town, forming a tower at the north-west corner. But to trace the connection of walls in one part with another is a difficult task, as they need to be cleared all along, and all the rebuildings and patchings tracked out—a most tedious affair. The four rebuildings which may be traced on the east face section must belong to some of the fortifying mentioned as having been done under Asa, Jehoshaphat, Uzziah, Jotham, and Manasseh. That the main building here does not belong to later times than Nebuchadnezzar's destruction is shown by the scanty remains of post-exilic times found on the very top of the mound, a Persian coin and pieces of Greek pottery of the fifth century.

On the south side a different character of walls is found; one of the later being a massive brick wall 25 feet thick, and still of a considerable height. Probably this belongs to Manasseh's work, about 650 B.C. This was built over a great *glacis* slope, formed of blocks of stone faced with plaster, which can be traced for forty feet height of slope; perhaps this may be attributed to the hasty defences by Hezekiah at the time of Sennacherib's invasion in 713 B.C. A flight of steps of rather rough stones led up to an ascent of the *glacis*, which has now perished in the valley, and there is the gateway of a building at the foot of the steps, the rest of which has likewise been washed away. As this building may be attributed to about 700 B.C. or earlier, its character is important in the question of stone-working. There is the system of drafted stones, with a smooth edge, and a rough lump on the middle of the face; but there is no trace of the "claw tool," or rather comb-pick, as it may be more intelligibly described. On the masonry at Jerusalem this is a constant feature, and we will notice later on the importance of this matter. This *glacis* slope overlies the earth, which is piled 10 feet deep around a large building, the line of which I have traced on the east side. This building is 85 feet long, with walls of clay brick, over 4 feet thick. It must be considerably earlier than the *glacis* to allow of ten feet of accumulation; and as the *glacis* cannot be likely to be earlier than Hezekiah, the building can hardly be of Ahaz; but it rather belongs to the long and flourishing time of Uzziah. Indeed, on a regular scale of accumulation of deposits, we should need to date it back to Jehoash; but we can hardly be too early in dating it to 800 B.C. Then ten feet more below this is another clay-brick building, which we should accordingly have to date back to 900 B.C. or earlier—perhaps 1000 B.C. It has, moreover, been ruined and burnt, and then reconstructed out of the old materials, very rudely. Though of clay brick, it had doorways of fine, white limestone, and some precious slabs of these yet remain, turned upside down in the reconstruction. These show us a curious form of decoration by a shallow pilaster, with very sloping side, resting on a low cushion base, and with a volute at the top. We are here face to face at last with work of the earlier Jewish kings, probably executed by the same school of masons who built and adorned the temple of Solomon. We see decoration which

we must suppose to be closely akin to that of Solomon's time—if not, indeed, as early as that itself. We learn that the Ionic volute, which the Greeks borrowed from Asia, goes back to the tenth century in Asiatic art; and we can hardly fail to see its origin from a ram's horn, thus leading us to a pointed suggestion as to the form of the "horns of the altar." Looking downwards from this, to test the scale of its age, we see the oldest Amorite level, of about 1500 B.C., 32 feet below it, a distance which would require us to date it to 1000 rather than 900 B.C., and which shews that the age is under, rather than over, estimated in the successive steps described above. The truth most likely is that this decoration is of Solomon's own time. Beside these wall-slabs there are fragments of a cavetto moulding from the door lintels, exactly like that of the early Jewish monolith shrine at Siloam. Three of these pilasters have been found, and though not thought worth removal by the Turkish officials, not one of them can come to England. I have taken casts and photographs of them, and carefully reburied them in known spots. Beside these, one of the slabs had a graffito on it representing a lion (?) walking; and as it was upside down it must have been scratched in the time of the first building. Unfortunately the remainder of this building is beneath 30 feet of earth, and the small prospect of there being anything else of importance in it, makes it scarcely worth while to undertake such a weighty clearance. No small objects have been found in the ashes so far.

The great scarcity of small antiquities, and the rarity of any regular stonework, makes this excavation seem barren after those in Egypt. Yet every fragment bearing on the history of art in Palestine is of great value from its very rarity, and the present results just described fill a wide space in our architectural knowledge which has hitherto been a blank. Another matter of importance in itself, and of inestimable value for future exploration, is the fixing of a scale of dated pottery. Poor as Tell Hesi is in some respects, it is full of potsherds; and the chance of such a grand section as that of the east face from top to bottom, gives us at one stroke a series of all the varieties of pottery over a thousand years. We now know for certain the characteristics of Amorite pottery, of earlier Jewish and of later Jewish influenced by Greek trade, and we can trace the importation and the influence of Phœnician pottery. In future all the tells and ruins of the country will at once reveal their age by the potsherds which cover them.

The methods of stoneworking are another great key to the age of work. In the Haram wall at Jerusalem all the stones are dressed with the comb-pick (or "claw-tool"), down to the very base as Professor Lewis states. This tool in Egypt is characteristic of Greek work, and it was used in pre-Persian work in Greece, pointing to its being of Greek introduction. Now in the masonry of the period of the kings here we have a strong test of the question; and in no part either of the gateway, steps, or pilaster slabs is any traces of comb-pick work to be seen. The evidence, therefore, is strong that this tool is a sign of Herodian and later ages; and we must

ascribe the whole of the Haram wall to Herod. This also strengthens the view that Ramet-el-Khallil is an early building, as no trace of comb-picking is seen on the massive blocks there, but only on the later relining of the building.¹

W. M. FLINDERS PETRIE.

THE WORK AT TELL EL HESY, AS SEEN BY AN AMERICAN VISITOR.

It is with pleasure that I accept your invitation to send you an account of my visit with Mr. W. M. Flinders Petrie. What you want, I am sure is not any archaeological dissertation, or any account of the "finds;" but rather a description of some of the things which would interest one new to the country, and new to the work of excavating.

The trip from Jaffa down the coast, past Ashdod and Ascalon, towards Gaza, was a memorable one. The hedges of prickly pear in full bloom, sometimes twelve feet high and twelve feet deep, which surrounded the village, and the date-palms which lovingly moved their beautiful plumes over the mud huts and queer conical-shaped ovens, made Philistia appear to me more beautiful than any other part of Palestine.

These level sandy roads, though, impress one that the "way of the Philistines" would have been just fitted for the chariots of Egypt, and the worst road in the world for a band of slaves to take when attempting to escape from the Pharaoh.

What could be more romantic than a journey over this historic "highway," sleeping in a khan at night, having a box for a bed and the sky for a roof, and passing scarcely a town that did not have some granite shafts or marble capitals—sometimes as richly carved as those of Baalbek—built into its mud walls or used as a donkey trough at the village well?

There was constant evidence that I was walking over ancient soil. Not only was the summit of every mound that I visited covered with broken pottery, but at Ascalon I was offered many old coins and an image of a goddess, which I suppose to be Ashtoreth; at Umm Lakis, a *fellah* tried to sell me a Phœnician *menhir*; and at El Kustneh I descried a raised platform surrounded by mats, and a heap of stones and a lamp, which seemed to hint at the perpetuation of the ancient Canaanitish worship even to this day.

Charming as was all this, however, I was glad when on the morning of the 8th May, I caught sight of the end of my journey—a gashed and broken tell lying by the water-brook like some hurt creature of the

¹ Full detailed reports of the results of these excavations, with plates plans, and sections, will be published later on. Portions of the pottery and other antiquities which have been brought home will be exhibited at Oxford Mansions in September, together with Mr. Flinders Petrie's Egyptian discoveries of the past season.

geologic ages fallen in its dying agonies. In the distance this fancy was encouraged, because of the many little objects which could be seen crawling in and out of the fresh wounds. On approaching nearer these moving objects took shape as Arabs, who seemed to be mangling the poor carcass in a most reckless way, until the discovery was made that every stroke of the pick was directed "from above," and that every puncture and furrow and tunnel had some definite object.

These Arab picksmen looked picturesque enough in their single garment, and their wives no less so, as, unencumbered with very little clothing excepting their necklaces and armlets, they carried away upon their heads in ragged native baskets, and pitched over the cliff the results of their husbands' manly toil. The cliff was formed by Dame Nature, who, in her interest for Palestine explorations, ages ago sent a torrent tumbling along this wady, and sliced the tell from the top to bottom, much better than any modern excavator could have done it; thus leaving a clean face for accurate chronological investigation of the various eras of the mound's occupation. I am not sure whether this tell got its name, "The Mound of the Water Pit," from the hollows in the bed of the little creek which yet runs through the wady, in which water can be found in the summer after the stream is dried up everywhere else, or whether it comes from the spring of good sweet water which trickles out of the rocks at the base of the tell.

I was in the camp several days before I found this spring, and delighted enough I was to find it, for it was the first draught of cool water that I had been able to get for a week. It was a novel sight to sit on the cliff in the evening and watch the Bedawin girls crowding about this spring, each seeking to be the first to fill her black jars and lift them into the wicker baskets hung on each side of her donkey's back.

The Bedawin were plenty. At any time one might count half-a-dozen camps in sight, each camp containing from four to forty tents. All the details of their daily life became very familiar to us. Their fields of grain were all around us. In one direction might be seen a large ungainly camel dragging the little wooden plough; in another, the shepherd leading his sheep and calling back the strays with his keen quivering whistle; in another, the harvesters reaping the barley crop, or rather pulling it up, for even those who had sickles did not pretend to cut the stalks of grain with them, but only used them to collect more comfortably the handfuls, which they then extracted by the roots!

Yet we may be glad that they are willing to "farm it" even as much as they do. For untold centuries these "children of the East" were accustomed to live in the desert, and then just about harvest-time they would come up "like grasshoppers" as far as Gaza, and pitching their black tents, help themselves. (Judges vi).

In Gideon's day it was a great encouragement to the Hebrew captain to hear one of these thieves tell his comrade that he had just dreamed that one of the stolen barley loaves had grown astonishingly large,

and rolled down the hill against his tent and overturned it. Having tried for some time to live on native barley bread, I can understand how, after a heavy supper, one might easily dream that these loaves could be used effectively as cannon balls, or as ammunition for a catapult.

But that cannot be said of the Arabic bread with which I was served at Tell el Hesy. I never relished a *table d'hôte* better than I did there. We were nomads, and had the pleasure of a perpetual picnic. Tinned meats, and the preserves for which we longed as boys, were luxuries which we enjoyed at every meal—and to eat out of the can saved washing a dish. We solved the problem of living comfortably without being everlastingly tormented with the presence of His Highness, the *chef de cuisine*.

Our most elaborate repast only required us to wash two forks, three spoons, two cups, two plates, and a dish-pan! That only took three minutes, and who wanted anything more? Sometimes I ate with a case knife, but generally used my pen-knife when it was my day to wash the dishes. As for a bread-plate, that is all nonsense—what was the table made for?

The only thing that disappointed me in Mr. Petrie was his luxurious tastes. Actually, he insisted on eating every day on a mahogany table, and would always use solid silver spoons with his dessert. I always looked with some awe at that table after I learned that it was mahogany. I examined the boxes that I laid on every night, hoping that I could report that I slept nightly on a sandal-wood bedstead; but unfortunately the cracker factory that sent them out were not putting on much style just then. After all, it might have sounded almost as well if I had only thought to say that my bedroom furniture was made of *pinus resinosa*. That is the way I shall report it in the United States. All the bedroom furnishings we had were those three boxes and a tin basin. One thing I know, I got good sleep every night.

One evening we were greatly puzzled to know what to do. Some aristocratic visitors came all the way from Egypt to see us. At any rate, the last we had seen of them had been in Egypt until they suddenly rode in upon us. One was a Prussian nobleman, the Count d'Hulst, and the other an American nobleman, Dr. Goddard, of the Egyptian Exploration Fund. At first I thought the mahogany table would have to be used as a bed, but presently I found that our visitors had brought a tent with them, and everything with which to make themselves comfortable.

To be sure they had to sleep on blankets thrown on the ground instead of reposing on a couch of sandal-wood or *pinus resinosa*, but I only went so far as to pity them. I did not propose to give up my privileges as a prior guest, even to such distinguished gentlemen.

What an evening we had together, though! As we sipped our tea and drank each others' health in delicious draughts of raspberry vinegar, and talked over all our mutual acquaintances and their virtues, and

settled all Egyptian affairs, archaeological and political, I am thinking that no more contented group of mortals could have been found inside the continent of Asia.

That is saying a good deal too, for there are few such happy-go-lucky sort of people to be found in England or America as are these Arabs. They have nothing, and they need nothing, and they want nothing. To have a turban and a shirt, and to be able to lie down during the greater part of the day in the shade of a great rock, in a weary land, is the *summum bonum*. What a fool the pushing, struggling, perspiring European appears to him! Why get excited? Why work? Will not Allah provide what is best? If you can afford a knife and a gun you are well to do. If you have a goat and a camel, and a wife or two to take care of them, you are rich. Take thy comfort, thou son of a day, and enjoy the smell of the ground while thy nose is young!

That is good Bedawin philosophy. Nevertheless, while they seem to be convinced that Allah will take care of them without work, they seem to think that it would be tempting providence not to steal. This, together with their warlike disposition, makes them anything but agreeable neighbours. Every little while the news would come to us of some traveller who had been waylaid and kept for ransom, or who had been robbed and beaten, and left half dead in the desert; and one day the noise of a battle between two hostile tribes disturbed the camp all day long. It was reported afterwards that eight men were killed in the fight. A few days before I arrived a number of leading sheikhs had been arrested and sent under a heavy escort to Jerusalem. The fact that our camp was never molested was due, I think, much more largely to Mr. Petrie's exceptional skill in managing the Arabs than to the fact of the *Effendi* being on the ground.

He was very just in his dealings with them, and very careful of their rights. An illustrative case is seen in his treatment of the barley-patch on the top and sides of the tell. The Arabs would race over this according to the primitive law that one "can come into the standing corn" and "pluck the ears," providing only he puts no sickle in the grain (Deut. xxiii), but the director of affairs would not put so much as his foot over the path.

That leads me to say that the best thing I saw at Tell el Hesy was Mr. Petrie himself. All day long he would go from group to group of his workmen, critically examining the colour and character of the clay and any scraps of pottery that had been found. It was a constant surprise to me, as we went prospecting together, to see how accurately he could determine, even at a distance, the meaning of some peculiar formation. It was an equal surprise to notice how swiftly and certainly he would expose any of the impostures which are so frequently attempted by the *fellaheen*. I think he scarcely needs to do more than walk over a mound covered with pottery to tell the age of the latest town to be found underneath, while, because of his long experience and minute observation, from a chip of tool or scrap of vase

he can reconstruct the original as infallibly as a zoologist can draw the picture of an animal upon being shown a bit of his skeleton.

May he stick his spade deep into Philistia and bring up great spoil!

CAMDEN COBERN.

Detroit, Michigan,

June 16th, 1890.

THE DEAD SEA VISIBLE FROM JERUSALEM.

JOSEPHUS ("Wars" v, iv, 3) seems to imply that the Mediterranean was visible from the Tower Psephinus. Some, however, take his words to refer to the Dead Sea. The Russian buildings can hardly be high enough to command a view of the former, so that as to that sea one suspects Josephus of inaccuracy. In 1875, my brother and I believed we saw the Dead Sea from the battlements of the (so-called) Zion Gate. In my diary for April 12th, I find noted, "We next entered by the Zion Gate, climbed the tower from which we had a most glorious view of the Moab Mountains (with just two strips of *the Dead Sea visible*), through the most pellucid atmosphere, as the slanting rays of the sun shone upon the country from behind us."

After searching many books, questioning a native of Jerusalem, as well as an English resident of 20 years, and others, I find now no corroboration from them of my belief, but rather the suggestion that we mistook the haze for the sea. One is reluctant, however, to accept this explanation as final.

W. F. BIRCH.

THE DEAD SEA VISIBLE FROM JERUSALEM.

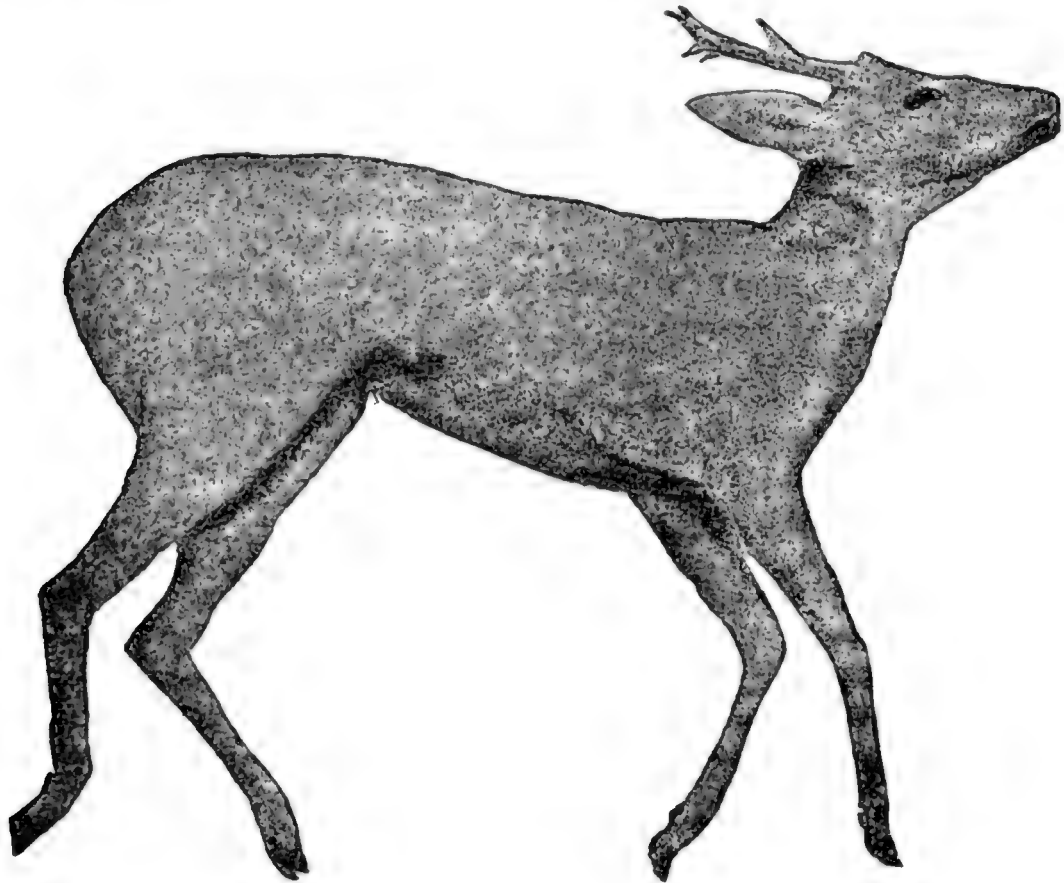
THE Dead Sea *can* be seen from the roof of the London Jews' Society's Boys' School, and also from that of Christ Church, but only at a certain hour of the day during the summer months. I have often noticed it about 8 a.m., shining like a small speck of molten silver through a small gap amongst the bare hills towards Mar Saba. This was all that, *till a few years ago*, could be seen of it. However, since the erection of the large church of St. Salvador in the Franciscan convent in the north-west part of the city, several large portions of it may be seen at all hours of the day (unless the weather be hazy), if one will take the trouble of climbing into the clock-tower.

J. E. HANAUER.

THE ROEBUCK IN PALESTINE.

IN the "Fauna and Flora" Canon Tristram notes the Roebuck among the animals of Palestine, but does not appeal to a specimen of his own collection. He says it is found in the woods of Carmel, but that Sheikh Iskandar is its most southerly station. He also states that it is called the Yahhmûr, ^{يَحْمُور} by the natives.

Major Conder, in "Tent Work in Palestine," i, 173, says that he obtained a specimen from the charcoal burners of Carmel, and sent the bones and skin to the museum at Cambridge. He also says that



it is called Yahhmûr by the natives, and that a district of Carmel is known as "the Yahhmûr," probably from the former abundance of this animal.

The Yahhmûr of the Hebrew (Deut. xiv, 5) is translated "fallow-deer," but this is, in view of the above testimony, a mistake. The true fallow-deer (the "hart" of Ps. xlii, 1) is the Iyyal, which is not now often found south of Cassius and Amanus, where it is still hunted. Tristram says that it has been found along the Litâny and north-west of Tabor.

Last summer, Rev. W. K. Eddy, of Sidon, procured a female of the Roebuck species near Alma, in Northern Galilee. Unfortunately it was skinned only with a view to making a mat of the pelt, and so no scientific observations could be made. The bones were not preserved.

A few days since the same gentleman procured for me from natives a full-grown male, of which the accompanying is a sketch, made from the carcase, lying in an attitude which it assumed with ease when stretched out and left to replace itself. The point of view of the artist was 8 feet off from the feet and 4 feet above the animal. This gives a little fore-shortening of the neck, otherwise the proportions are well preserved.

The natives of the region about Qâna and 'Alma call this species the Wa'l ^{وعَل}. The term Wa'l, however, belongs properly to the wild goat or Syrian Ibex (*Caper Beden*).

The measurements are as follows :—

Height at shoulder, approximately	....	....	....	ft.	in.
" rump	"	"	"	2	4
Length (stretched out) from tip of nose to end of rump	....	....	....	2	6
" " " " hind foot	....	....	....	3	10
" " " " right horn	....	....	....	5	4
" " " " left horn	....	....	....	1	2 $\frac{3}{4}$
" " " " left horn	....	....	....	1	3 $\frac{3}{4}$
The eye was almond shaped, with point forward :					
Inside length	....	....	....	0	1 $\frac{1}{3}$
" breadth	....	....	....	0	0 $\frac{1}{2}$

A peculiarity is that this animal had no tail. The rump was rounded. The coccyx, about 2 inches long, made no external projection.

The colour was grey, with a reddish-brown shade toward the posterior part of the rump, and white between the thighs and on the belly.

The horns are three-branched, and, as depicted in the drawing, on a straight line with the front of the face, which is quite flat.

If, as suggested by Captain Conder, this species furnished the venison, which formed part of the daily menu of Solomon, it must have been abundant in the age of that monarch. It has now become quite rare, and, so far as known to the writer, no recent specimen has been minutely described and figured. The present notes fix its identity beyond a question.

GEORGE E. POST.

Beirût, March 8th, 1890.

THE ROEBUCK.

THE existence of the roebuck in Palestine was, I believe, unknown before a specimen was brought to me at Haifa in 1872. Dr. Tristram did not know of it apparently when he published his "Natural History of the Bible," in 1868, and he would, no doubt, acknowledge the source of his notice in the "Memoirs." The specimen taken to Cambridge by Mr. C. F. T. Drake in 1873 was pronounced to be the same as the English roebuck. I have also noticed its existence in the woods of Mount Gilead, where it appears to be called *Hamâr* instead of *Yahmâr* the name which I ascertained on Carmel.

C. R. C.

MASHITA.

I HAVE not Major Conder's last book by me at the time of writing but I think he states in it that the question whether the conjecture which assigns the building at Mashita to Chosroes is right, must depend upon the deciphering of the inscriptions which may be found there. My wife and I have visited Mashita twice; once in 1888, and again in April of this year (1890); and on both occasions I made diligent search without being able to discern any inscription whatever, except the "Wush" marks of the Arabs. My wife, on the occasion of our last visit, took thirteen photographs, and if these turn out well on being developed at home, I will send you copies. Some of the detail of ornamentation (which seems to me very Persian in style) is exceedingly fine. I have no description of the ruin by me, and may be merely repeating what is well known, when I give the following particulars, but the place is so seldom visited that I will venture. The main erection and enclosure are built to the cardinal points of the compass; the sculptured front of the latter and the gateway being to the south. The appearance of the ruin fully supports the theory that the buildings were never finished, as there is nothing like the requisite amount of material on the spot for completion of the work, and no building near in which the material could have been used up. The nearest building is the Khân Zitza, on the Haj road, of which, if I remember right, there is some account in Mr. Doughty's book. But this place was too far for me to visit conveniently. There is no other building nearer than Madeba (about four hours' journey), where the houses are all recently built out of cut stones found at that spot, and, therefore, the material cannot have been used up there.

The outside of the west and inside side of the east walls of the enclosure at Mashita are much worn and decayed, whilst the inside of the west and outside of the east walls are fresh looking. This is

no doubt due to the west gales and rains. I think that the ground round the building has been somewhat raised, as the beautifully ornamented string course in the sculptured south front is very near the surface of the soil. And on the east side of the gateway I could see, through an aperture, to a depth of three or four feet below ground that the wall was continued downwards in regular courses of stone. Perhaps this particular spot had been excavated as a tomb, as I saw a human skull and some bones there.

The people of Madeba and the Adwân Bedawin call the place "Umshetta," not "Mashita." It is situated in the country of the Beni Sokr, and to be quite safe one should take an escort of that tribe from Madeba. But in the spring the Beni Sokr move a long way to the eastward, and on neither occasion of our visits did we see anything of them. In 1888 we had four men of the Adwân with us, who, however, made considerable objection to going, and observed great precautions—not allowing us to stay more than about three-quarters of an hour. On our last visit we had two Adwân and four men of Madeba with us, and were allowed to stay fully two hours. The Adwân Sheikh told us that, except an American gentleman whom they conducted at the time of the American exploration of the Dead Sea, we were the only people whom his tribe had escorted to the place.

GRAY HILL.

Jerusalem, 5th May, 1890.

METEOROLOGICAL OBSERVATIONS.

SARONA, 1888.

THE numbers in column 1 of this table show the highest reading of the barometer in each month; the maximum was 30·272 ins. in December. In the years 1880, 1881, 1884, and 1887 the maximum was in January, in 1882 in February, and in 1883, 1885, and 1886 in December, as in this year; the maximum, therefore, has always been in the winter months. The highest reading in the nine years was 30·285 ins. in 1887. The mean of the eight preceding highest pressures was 30·217 ins.

In column 2, the lowest reading in each month is shown; the minimum for the year was 29·529 ins. in February. In the year 1883 the minimum was in January, in 1881 in February, as in this year, in 1880, 1884, 1885, and 1886 in April, and in 1882 in July. The lowest readings in each year have taken place in the months from January to July. The lowest reading in the nine years was 29·442 ins. in 1887. The mean of the eight preceding lowest pressures was 29·507 ins.

The range of barometric readings in the year was 0·743 inch; in the eight preceding years the ranges were 0·780 inch, 0·711 inch, 0·704 inch, 0·579 inch, 0·757 inch, 0·680 inch, 0·621 inch, and 0·843 inch respectively. The mean for the eight years was 0·709 inch.

The numbers in the 3rd column show the range of reading in each month; the smallest was 0.168 inch in August; in 1883 the smallest was in June, in 1882 and 1886 in August as in this year, and in 1880, 1881, 1884, 1885, and 1887 in October. The mean of the preceding smallest monthly ranges was 0.178 inch. The largest monthly range was 0.725 inch in December; in the years 1883, 1884, and 1887 the largest was in January, in 1882 in February, in 1881 and 1886 in March, and in 1880 in April.

The numbers in the 4th column show the mean monthly pressure of the atmosphere; the greatest, 29.977 ins., was in December. In the years 1880, 1881, 1882, and 1884 the greatest was in January, in 1883 and 1887 in February, and in 1885 and 1886 in December as in this year. The highest mean monthly reading in the nine years was 30.060 ins. in January, 1882.

The smallest mean monthly reading was 29.672 ins. in July; the smallest reading in any month in the nine years was 29.653 ins. in August, 1887, while that in August, 1885, was nearly as small, being 29.657 ins.; in the years 1880, 1882, 1883, and 1886, the smallest was in July as in this year, and in 1881, 1884, 1885, and 1887 in August.

The highest temperature of the air in each month is shown in column 5; the highest in the year was 105° in October, the next in order was 98° in March, and 97° in May. The first day in the year the temperature reached 90° was March 5th, and on six other days in this month the temperature reached or exceeded 90°: in April on one day, the 1st, when the temperature was 91°; in May on one day, on the 26th, when it was 97°; in July on ten days; in August on seven days; in September on four days; and in October the temperature reached or exceeded 90° on nine days; the highest in the year, viz., 105°, took place on the 19th, and on the 17th and 18th of this month the temperature reached 102° and 104° respectively; therefore, the temperature reached or exceeded 90° on 39 days during the year. In the preceding eight years the temperature reached or exceeded 90° on 36, 27, 8, 16, 14, 24, 16, and 25 days respectively. In the eight preceding years the highest temperatures were 103°, 106°, 93°, 106°, 100°, 103°, 112°, and 100° respectively.

The numbers in column 6 show the lowest temperature of the air in each month. The lowest in the year was 37°.0 on January 11th, and on the 12th of January the temperature was as low as 39°.0, and these were the only two nights in the year that the temperature was below 40°. In the preceding eight years, viz., 1880, 1881, 1882, 1883, 1884, 1885, 1886, and 1887 the temperature was below 40° on 13, 2, 13, 2, 9, 3, 3, and 15 nights respectively. In the preceding eight years the lowest temperatures were 32°, 39°, 34°, 35°, 32°, 38°, 37°, and 32°.5 respectively.

The yearly range of temperature was 68°.0; in the eight preceding years, viz., 1880, 1881, 1882, 1883, 1884, 1885, 1886, and 1887, the yearly ranges were 71°, 67°, 59°, 71°, 68°, 65°, 75°, and 67°.5 respectively. The mean of the eight preceding yearly ranges was 67°.9.

The range of temperature of each month is shown in column 7, and these numbers vary from 26° in August, to 58° in March. In the year 1880 these numbers varied from 25° in August to 53° in both April and May; in 1881 from 29° in both July and September to 51° in May; in 1882 from 25° in August to 47° in November; in 1883 from 25° in July to 62° in March; in 1884 from 24° in February to 51° in April; in 1885 from 22° in July to 52° in March; in 1886 from 26° in August to 55° in June; and in 1887 from 27° in July to 54° in April.

The mean of all the highest by day, of the lowest by night, and of the average daily ranges of temperature are shown in columns 8, 9, and 10 respectively. Of the high day temperature the lowest, $61^{\circ}\cdot7$, is in January. In the years 1884, 1885, 1886, and 1887, the lowest was in January as in this year; in 1881, 1882, and 1883 in February, and in 1880 in December. The highest, $88^{\circ}\cdot5$, is in July, whilst that in August is of nearly the same value, viz., $88^{\circ}\cdot4$. In the year 1880, the highest was in May; in 1881, 1883, 1884, 1885, 1886, and 1887 in August, and in 1882 in September. Of the low night temperature, the coldest, $44^{\circ}\cdot9$, was in January; in the years 1880, 1882, and 1884 the coldest was in January as in this year; in 1883, 1885, and 1887 in February, and in 1881 and 1886 in December. The warmest, $70^{\circ}\cdot3$, was in August; in the year 1885 the warmest was in July, and in the years 1880, 1881, 1882, 1883, 1884, 1886, and 1887, the warmest was in August as in this year. The average daily range of temperature is shown in column 10; the smallest, $15^{\circ}\cdot6$, is in December; in the years 1880, 1883, 1885, 1886, and 1887, the smallest was in January, and in 1881, 1882, and 1884, in February. The greatest range of temperature in any month, $24^{\circ}\cdot4$, was in March; in the years 1884 and 1887 the greatest was in April, in 1880 and 1885 in May, in 1881 in June, in 1883 in September, and in 1882 and 1886 in October.

In column 11, the mean temperature of the air is shown, as found from observations of the maximum and minimum thermometers only. The month of the lowest temperature, $53^{\circ}\cdot3$, was in January. In the years 1880, 1884, 1885, 1886, and 1887, the lowest was in January, as in this year; in 1881 and 1882, in February; and in 1883, in December. That of the highest, $79^{\circ}\cdot4$, was in August, as in the eight preceding years. The mean temperature of the air for the year was $67^{\circ}\cdot7$, and of the eight preceding years, viz., 1880, 1881, 1882, 1883, 1884, 1885, 1886, and 1887, were $66^{\circ}\cdot4$, $66^{\circ}\cdot7$, $65^{\circ}\cdot5$, $65^{\circ}\cdot7$, $65^{\circ}\cdot7$, $65^{\circ}\cdot9$, $66^{\circ}\cdot8$, and $66^{\circ}\cdot5$ respectively.

The numbers in columns 12 and 13 are the monthly means of a dry and wet-bulb thermometer, taken daily at 9 a.m. In column 14 the monthly temperature of the dew-point, or that temperature at which dew would have been deposited, is shown. The elastic force of vapour is shown in column 15. In column 16 the water present in a cubic foot of air is shown; in January it was as small as $3\frac{1}{2}$ grains, and in August as large as 8 grains; in column 17 the additional weight required for saturation is shown. The numbers in column 18 show the degree of

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MONTHLY METEOROLOGICAL TABLE DEDUCED FROM OBSERVATIONS TAKEN AT SARONA BY HERR J. DREHER IMMEDIATELY NORTH OF THE GREAT ORANGE GROVES OF JAFFA, SYRIA, 1½ MILE FROM THE SEA SHORE, ON SANDY SOIL, AND ABOUT 50 FEET ABOVE SEA-LEVEL. LATITUDE 32° 4' N., LONGITUDE 34° 47' E.

By JAMES GLAISHER, F.R.S.

Months, 1888.	Pressure of Atmosphere in Month. Corrected to 32° Fahrenheit.				Temperature of the Air in Month.							Mean Reading at 9 a.m.			Vapour, 9 a.m.			Degree of Humidity.	Weight of a Cubic Foot of Air.	Wind.									Mean Amount of Cloud.	Rain.	
	Highest.	Lowest.	Range.	Mean.	Highest.	Lowest.	Range.	Mean of all Highest.	Mean of all Lowest.	Mean daily Range.	Mean.	Dry Bulb.	Wet Bulb.	Dew Point.	Elastic Force of Vapour.	Weight in a Cubic Foot of Air.	Additional Weight required for Saturation.			Relative Proportion of								Calm, or nearly Calm.		Number of Days on which it fell.	Amount Collected.
																				N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.				
January	30·166	29·709	0·457	29·958	76·0	37·0	39·0	61·7	44·9	16·8	53·3	53·5	49·8	46·1	·311	3·5	1·1	76	540	0	1	3	1	13	2	0	2	9	5·6	11	ins. 4·94
February	30·137	29·529	0·608	29·870	78·0	42·0	36·0	66·1	49·1	17·0	57·6	60·1	55·4	51·3	·378	4·2	1·6	73	531	1	0	1	4	7	8	1	0	7	6·6	9	2·74
March	30·144	29·592	0·552	29·878	98·0	40·0	58·0	77·5	53·1	24·4	65·3	69·8	60·0	52·4	·395	4·3	3·6	54	522	1	3	1	4	6	6	4	1	5	4·1	2	0·28
April	29·992	29·550	0·442	29·795	91·0	48·0	43·0	74·7	54·8	19·9	64·8	69·5	62·7	57·4	·472	5·2	2·7	65	520	0	0	1	2	5	7	8	2	5	5·8	5	1·12
May.. ..	29·939	29·690	0·249	29·817	97·0	52·0	45·0	78·2	58·1	20·1	68·2	72·9	65·1	59·3	·506	5·4	3·3	62	517	2	0	2	0	0	8	8	10	1	3·0	4	0·28
June	29·874	29·645	0·229	29·768	89·0	56·0	33·0	82·4	63·2	19·2	72·8	78·0	70·2	64·7	·612	6·6	3·7	64	511	0	0	0	0	0	11	13	4	2	1·4	2	0·01
July.. ..	29·809	29·574	0·235	29·672	93·0	64·0	29·0	88·5	69·2	19·3	78·9	84·5	76·3	70·9	·757	8·1	4·6	64	502	0	0	0	0	0	12	10	2	7	1·9	0	0·00
August	29·767	29·599	0·168	29·696	91·0	65·0	26·0	88·4	70·3	18·1	79·4	84·6	75·0	68·7	·703	7·4	5·2	58	503	0	0	0	0	1	13	8	3	6	1·7	0	0·00
September	29·943	29·664	0·279	29·802	90·0	63·0	27·0	87·1	67·3	19·8	77·2	82·1	73·4	67·6	·676	7·2	4·5	61	507	1	0	0	0	2	7	4	6	10	2·7	0	0·00
October	30·048	29·720	0·328	29·855	105·0	58·0	47·0	88·1	67·5	20·6	77·8	81·6	71·3	64·3	·604	6·5	5·1	55	509	1	0	2	4	2	2	1	4	15	5·5	2	1·67
November	30·139	29·553	0·586	29·922	80·0	41·0	39·0	69·5	53·1	16·4	61·3	63·5	57·9	53·2	·405	4·5	2·0	70	524	0	4	1	2	9	5	3	0	6	4·9	13	6·27
December	30·272	29·547	0·725	29·977	75·0	40·0	35·0	63·8	48·2	15·6	56·0	55·5	52·7	50·0	·362	4·1	0·9	83	532	0	3	1	2	9	5	1	0	10	6·3	14	11·53
Means	30·019	29·614	0·405	29·834	88·6	50·5	38·1	77·2	58·2	18·9	67·7	71·3	64·2	58·8	·515	5·6	3·2	65	518	Sum. 6	Sum. 11	Sum. 12	Sum. 19	Sum. 54	Sum. 86	Sum. 61	Sum. 34	Sum. 83	4·1	Sum. 62	Sum. 28·84
Number of Column ..	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31



humidity, saturation being considered 100; the smallest number indicating the driest month is 54 in March, and the largest, 83, indicating the wettest month, was in December. The weight of a cubic foot of air under its mean pressure, temperature, and humidity, at 9 a.m., is shown in column 19.

The most prevalent wind in January was S., and the least prevalent winds were N. and W. In February the most prevalent were S.W. and S., and the least were N.E. and N.W. In March the most prevalent were S. and S.W., and the least were N., E., and N.W. In April the most prevalent were W. and S.W., and the least were N. and N.E. In May the most prevalent were N.W., W., and S.W., and the least were N.E., S.E., and S. In June, July, and August the most prevalent were W. and S.W., and the least were N., N.E., E., S.E., and S. In September the most prevalent were S.W. and N.W., and the least were N.E., E., and S.E. In October the most prevalent were S.E. and N.W., and the least was N.E.; and in November and December the most prevalent was S., and the least were N. and N.W. The most prevalent wind for the year was S.W., which occurred on 86 different days in the year, and the least prevalent wind was N., which occurred on only six times during the year.

The numbers in column 29 show the mean amount of cloud at 9 a.m. The month with the smallest is June, and the largest February. Of the cumulus, or fine weather cloud, there were 106 instances in the year, of which 24 were in September, 16 in July, and 15 in June. Of the nimbus, or rain cloud, there were 63 instances, of which 15 were in December and 10 in both January and November, and only 5 from May to September. Of the cirrus there were 64 instances; of the cirro-cumulus there were 23 instances; of the stratus, 14 instances; of the cirro-stratus, 6 instances; and 90 instances of cloudless skies, of which 15 were in August, and 13 in both June and July.

The largest fall of rain for the month in the year was 11.53 ins., in December, of which 2.95 ins. fell on the 18th, 1.95 inch on the 11th, 1.10 inch on the 12th, and 1.05 inch on the 16th. The next largest fall for the month was 6.27 ins. in November, of which 2.10 ins. fell on the 13th. No rain fell from the 4th of June till the 1st of October, making a period of 118 consecutive days without rain. In 1880 there were 168 consecutive days without rain; in 1881, 189 consecutive days; in 1882 there were two periods of 76 and 70 consecutive days without rain; in 1883, 167 consecutive days; in 1884, 118 consecutive days; in 1885, 115 consecutive days; in 1886, 171 consecutive days; and in 1887 there were two periods of 132 and 63 consecutive days without rain. The fall of rain for the year was 28.84 ins., being 0.16 inch, 11.35 ins., 6.75 ins., 10.11 ins., 8.78 ins., 8.75 ins., and 11.78 ins., larger than in 1880, 1881, 1882, 1884, 1885, 1886, and 1887 respectively; and 1.22 inch smaller than in 1883; therefore it was greater than any of the falls of the eight preceding years, with the exception of 1883, when the fall was 30.06 inches. The number of days on which rain fell was

62. In the preceding eight years, viz., 1880, 1881, 1882, 1883, 1884, 1885, 1886, and 1887, rain fell on 66, 48, 62, 71, 65, 63, 66, and 43 days respectively.

JAMES GLAISHER.

ERRATA.

In consequence of the reading of the barometer at Sarona on April 23rd, 1887, as found by comparison with the reading at Jerusalem on the same day, being too low by half an inch, the following corrections in the *Quarterly Statement* for April, 1890, are necessary:—

				ins.	ins.
In general table opposite page 112, col. 2, April, for	29·145	read	29·522.		
“ “ “ “ 3, “	0·848	“	0·471.		
“ “ “ “ 4, “	29·765	“	29·781.		
“ “ “ “ 2, Means for	29·531	“	29·662.		
“ “ “ “ 3, “	0·392	“	0·364.		
“ “ “ “ 4, “	29·821	“	29·822.		
				ins.	ins.
On page 112, 10th line from top, for	29·145	read	29·442.		
“ 16th “ “	1·140	“	0·843.		
“ 7th “ bottom for	0·848	“	0·843.		
“ “ “ “ April	“	January.			

I.

THE SITE OF CAPERNAUM.

IN his “Rob Roy on the Jordan” (7th edition, pp. 344-351), the author has conclusively shown that Tell Hûm is too near the place of embarkation after the Feeding of the Five Thousand, and not sufficiently near “the land of Gennesaret;” and that Khân Minia, or some other spot on the Plain of Gennesaret, corresponds to St. John vi, 17-21, and St. Mark vi, 53.

Last spring I explored the rocky promontory to the N.E. of Khân Minia, so far as the rank thistles (often rising far above one’s head) and thorns would allow. On the highest part, about 242 feet above the lake, are the remains of a fortification—possibly the station of the Roman Centurion (St. Matthew viii, 5),—and here and there traces of buildings, but *everywhere* I found broken pottery, showing that there was formerly a large population dwelling on this rock.

I am disposed to consider this to be the site of Capernaum rather than (or perhaps in addition to) the ruins to the south of the Khân. At the foot of the rock is the copious fountain 'Ain et-Tîn.

If this be so, then it must have occupied by far the most prominent position of any city on the Sea of Galilee, and would account for the remarkable expression in St. Matthew xi, 13, "And thou, Capernaum, which art exalted unto heaven, shalt be brought down to hell!"

The ruins of the Khân at the junction of the roads from Cæsarea, Jerusalem, and Perea with the great Roman road leading north to Damascus, probably mark the very spot where Matthew sat "at the receipt of custom;" and the outlying rocks at the foot of the cliff, to this day the favourite resort of fish, indicate the spot where Peter would naturally go to "cast his hook." (St. Matthew xvii, 27.)

The only difficulty in this identification of the Site of Capernaum is the statement of Josephus, that the Plain of Gennesaret is watered by a fertile fountain, in which is found the *Coracinus*, or cat-fish; "the people of the country call it Capharnaum." Canon Tristram has argued, and with great probability, that he refers to the Fountain 'Ain el Mudaowerah, about $2\frac{1}{4}$ miles from Khân Minîa, in which that fish abounds (as I can also testify), but fails to show that there are any ruins in its neighbourhood which would answer to such an important city as Capernaum.

This identification, though conclusive against Tell Hûm, has far less force against Khân Minîa, as the fountain may have been named after the nearest city of any note. According to the fishermen with whom "Rob Roy" conversed the *Coracinus* is also found at 'Ain et-Tîn, close to Khân Minîa, which may have been used to irrigate a part at least of the plain, though if Josephus used the word *διάρδεται* accurately, I must admit that this fountain fails to meet its requirements.

I confess I cannot agree with the laboured theory which would make 'Ain Tâbghah the fountain which waters the plain of Gennesaret.¹ For it would be a work of supererogation to bring water at a great cost round the shoulder of a hard rocky promontory to irrigate what was already one of the best watered plains in Palestine. Four considerable streams run through it; Tristram calls it "the marshy plain."

Nor would an aqueduct be needed for drinking water, for no one would prefer the hot and brackish water of 'Ain Tâbghah to the cooler and sweeter water of 'Ain et-Tîn which was close at hand. I very much doubt if this cutting in the rock, now used as a pathway, is an aqueduct at all. Our party were unanimous in holding it to be of considerably higher level than 'Ain Tâbghah. The photograph, No. 59 of the Palestine Exploration Fund gives a good idea of its height above the plain. We had unfortunately no level with us, but the pathway seemed to descend

¹ We could find no *Coracinus* in this fountain, and it is difficult to see how it could get there from the lake.

on either side, and there were no traces of an aqueduct being continued beyond the cutting. I should rather think that this so-called aqueduct was of old neither more nor less than it is now, a portion of the paved road from 'Ain Tâbghah to Khân Minfa, cut deep into the rock at this point to avoid the inconvenience and danger of the natural surface of this shoulder of rock which here slopes down to a precipice; "resembling more the great rock-cutting of the Roman road at Abila, than any of the rock-cut aqueducts of the country." (Conder, "Tent Work," ii, 185.)

I picked up tessaræ in the ploughed fields between 'Ain Tâbghah (the probable site of Bethsaida) and the wooden house just built by German settlers in the middle of the little bay. The inmates told me they had found several while digging their garden.

II

THE CAVE OF ADULLAM.

May I put in a plea for the traditional site of this Cave in the Wâdy Khureitun near Bethlehem, as possessing superior claims in everything but similarity of name to the ones recently discovered at 'Aïd-el-Mâ.

Without for a moment questioning the fact that there was a city called Adullam in or near the Wâdy es-Sünt in the *Shephelah*, there may have been more than one city or cave known by that name; ¹ indeed Josephus, though he says it was "a cave near the city of Adullam," yet immediately afterwards implies that it was in "the desert," or wilderness of Judæa.

The objections to 'Aïd-el-Mâ are as follows:—

(1) Neither the caves nor the hill in which they are situated are places of very great strength, and are no more entitled to be called "the hold" (1 Sam. xxii, 5; 1 Chron. xi, 16) than scores of others similarly situated. They are far too much exposed to be resorted to as hiding places.

(2) 'Aïd-el-Mâ is only 10 miles (as the crow flies) from Gath (Tel es Sâfia), and it is hardly likely that the Philistines would tolerate the presence of such a foe as David so close to their chief city.

(3) In their expedition to Rephaim and Bethlehem (1 Chron. xi, 16), the Philistines would probably pass within sight of David, and it is exceedingly improbable that they would leave such an enemy in their rear to harass them and cut off their communications.

(4) Bethlehem is too far away, and out of sight on the other slope of the watershed. It would take the best part of a day for the three men

¹ There was more than one Kadesh, Carmel, Gibeah, Gilgal, Bethsaida, Ramah, &c.

to get to Bethlehem and back. Besides, why should David so long for water from the well of Bethlehem, when he had a much more copious spring of better water at his feet at 'Aïd-el-Mâ?

(5) David in taking his family to Moab would have to pass again by or near Bethlehem, which does not so well fit in with the narrative as would a place in the wilderness of Judaea.

In favour of the traditional site :—

(1) It is one of the most remarkably situated caves in the side of one of the grandest and wildest gorges in Palestine, the narrow path to it blocked by a fallen rock, so that a few resolute men could defend it against a host. Moreover, the existence of such a stronghold would not be suspected. Our local guide from Bethlehem even was at fault and had to get the assistance of a shepherd to find out the entrance. There are three caves opening one into the other, of which the first is lofty and of considerable size, and could easily accommodate 400 men. We found the floor dry and dusty even towards the end of the rainy season.

(2) It was in David's own country, "the wilderness of Judaea," where he had been accustomed to feed his sheep (1 Sam. xvii, 28). Such a cave would naturally suggest itself to him as a safe and almost inaccessible hiding place.

(3) It was only three or four miles from Bethlehem (as the crow flies), and from the hills above it Bethlehem could be easily seen encompassed by the Philistines. In that "dry and thirsty land" we can appreciate David's longing for "water from the well of Bethlehem," as his eye rested on his beloved city.

(4) It falls in most naturally with David's bringing his parents from Bethlehem, and then for further security taking them on to Moab (1 Sam. xxii, 1, 3, 4) for this cave lies between Bethlehem and Moab; whereas 'Aïd-el-Mâ is on the wrong side of Bethlehem.

(5) In short it is impossible to conceive of a site, which in every particular (except the modern name) agrees with all that Scripture tells us about the Cave of Adullam.

Would that all traditions were equally fortunate!

I shall not easily forget our visit to this cave. Our guide had provided lights and a ball of string so that we should not lose our way. But when we were in the largest cave we forgot all about our guide, and explored on our own account.

On our return, in the low and narrow passage connecting the first and second caves, we heard groans and cries for help, and were amused to find our guide, who had attempted to *follow* us, lying on the ground with light extinguished, holding on to the end of the string, and "trembling like an aspen leaf"—probably from fear of the ghosts that might haunt the cave.

III.

THE PLACE OF ELIJAH'S SACRIFICE

Is near the edge of a hollow or sloping plateau, about 300 feet below the actual south-eastern summit of Carmel, and probably close to a spring which Tristram shows to be a never-failing one from the fact of the shell-mollusc *Veritina michouii* being found in it. The sea can be seen from the *shoulder* of the mountain, about ten minutes' walk from this spot. Hence it was not necessary for Elijah's servant to go to the very top seven times, as some writers assert.

Everything here, as elsewhere, corroborates the minute accuracy of the Scripture narrative.

HENRY BRASS.

St. Matthew's, Red Hill,
February, 1890.

REV. C. DE CARA AND THE HITTITES.

IN a letter to the "Civiltà Cattolica," the Rev. C. de Cara, S.J., has recently announced:—

"Of the similarity of the characters of the archaic alphabet of Cyprus with those of the inscriptions of Hamath near the Orontes, no one has sought the reason which now I have found, and which seems to me convincing, viz., that the origin of the archaic Cypriote is due to the Hittites."

It is curious that the Rev. Father should claim a discovery already indicated by Dr. Sayce in 1880, and which I have endeavoured to elaborate for the last three years; but the result, no doubt independently reached, serves to show the soundness of a comparison so generally accepted.

C. R. C.

PELLA.

DOUBTS having been expressed as to the position of Pella, and its identity with Fahil, the following notes may be of use:—

Jabes, a large village, was six Roman miles from Pella, on the way to Gerasa. Amathus, beyond Jordan, was 21 Roman miles from Pella, towards the south (not the Amathus near Gadara, but the southern town of the name). Arbel, beyond Jordan, was "in finibus Pellicæ." Jabesh Gilead was six miles from Pella, on the mountain in the direction of Gerasa (see "Onomasticon"). In the Talmud חמטה דפחל or "the Hot Bath of Pella" is mentioned (Tal Jer Shebiith, vi, 1), evidently the springs at Tell Hamma. The name of Jabesh is preserved in Wâdy Yâbis. Amathus is Tell Ammâta, 15 Roman miles in a direct line south of Fahil.

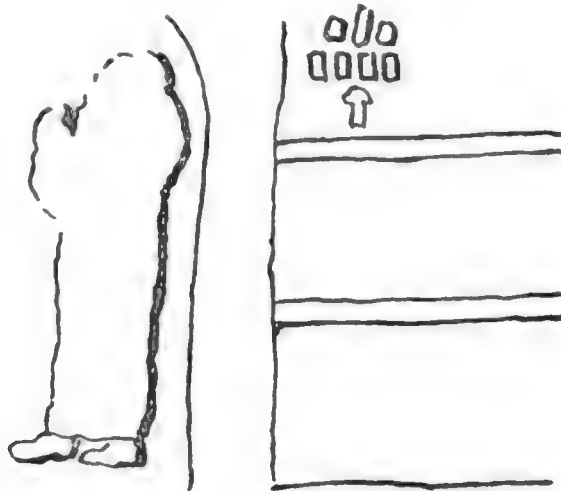
C. R. C.

NEW "HITTITE" BAS-RELIEFS.

In the important work by MM. Humann and Puchstein, just published, a new bas-relief with six lines of the Altaic Hieroglyphs is represented (Plate XLIX), which, though unfortunately so worn as to be for the most part illegible, still furnishes us with several new ideas. This figure, discovered in 1882, comes from Marash (Figs. 4 and 5), and represents a long-robed personage facing to the left. The hair is arranged in a curled-up plait or pigtail. The beard is long; the garment is fringed; the shoes, as usual, curled at the toes. A round skull cap seems to be represented. Marash lies at the foot of the Taurus, 70 miles north-east of the head of the Gulf of Alexandretta, and several Altaic sculptures have been found here previously.

The inscription differs from others, inasmuch as the whole of the lines appear to read from left to right, not alternately, as at Hamath. On the Marash lion the text also reads in the first line from the left (as does Hamath Stone, No. IV), and we may, perhaps, suppose the new text to be later than those of Hamath and Jerablus, especially as the writing seems to be more phonetic in its character.

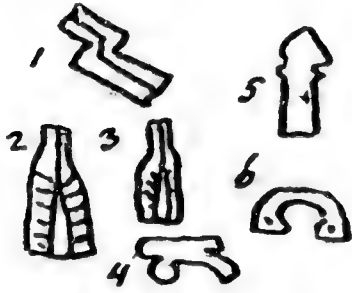
The commencement of the text as shown in the accompanying sketch is also, I believe, the same as that on the lion given below, on the shoulder of which is a figure which may be regarded as a fuller form of the common emblem of "speech." These four emblems



should, I believe, be read EN-NE-ME-KE, signifying "speech" or "invocation." The termination in *mek* is known in other cases on the

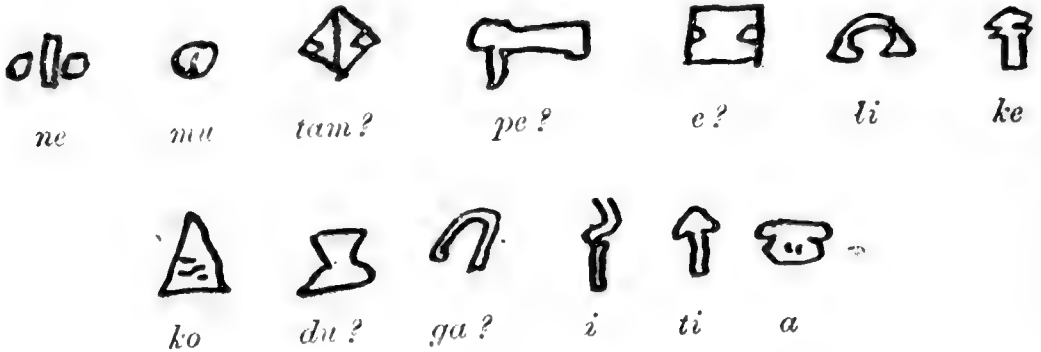
Hittite texts, as, for instance, on the Hamath Stones Nos. I, II, III, where we may read the group ZI-KU-KU-ME-KE-LI, which, as an Akkadian expression, I suppose to mean *Zi Kukumekli*, or "spirit protecting."¹ The termination in *mek* is very distinctive of Turanian speech. In Turkish it forms the participle, the infinitive, and the

abstract. It also occurs in the ancient inscriptions of Malamir in such words as *tarmak*, "the totality" (Sayce, "Malamir," p. 74), with the same abstract signification.



The new text, like the Marash lion, is written in a very confused manner, and the sketch given is quite illegible for the most part. With the exception of the head and arms the figure is covered as well as the field of the

block. This arrangement is the same which occurs on the Assyrian figures in the British Museum. The common Hittite signs given below occur frequently:—



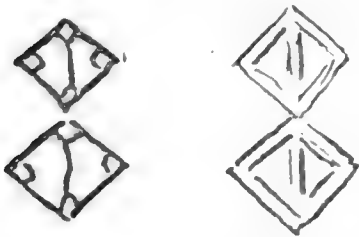
The position of *li* as a termination appears to be the same throughout as in the texts already known. As far as can be judged from the decayed state of the text, there do not seem to be any new symbols unknown before.

On the same plate (Figs. 1, 2, 3) is another "Hittite" monument from Samsat (the ancient Samosata on the Euphrates), which lies far to the

¹ The word *kuku*, "to help," "protect," "defend," as an Akkadian word is well known, and seems to survive in the Cantonese *chiu-koo*, "to help." It appears also in the Susian *kuku*, "favour," and in the Medic verb *kkuta*, "to help," or "protect," or "favour"; and at Malamir *kukuna*, "of favour." It may be connected with the old Turkish word *kuch* or *koch*, for "power," and in Hungarian it again appears in *kegy*, "favour." Although I pointed out in the *Quarterly Statement* the connection between Akkadian and Chinese before Mr. Ball commenced his interesting papers on the subject, it seems to me that the Tartar, Turkish, and Mongol languages are far safer for comparison than even the most archaic of Chinese dialects, because the phonetic decay in the latter has (as is well known) been so great that comparisons are apt to be misleading.

north-east of Carchemish and south of the Taurus. This is also much decayed, but consisted of nine lines. The deer's head (TAR) and the other signs are the same apparently as in previous texts, and the rare sign MI for "country" may, perhaps, occur in the last line.

MM. Humann and Puchstein have also given copies of two texts (the lion text and the text with two seated figures) from Marash, which were already known, but of which new copies cannot fail to be useful. The latter especially was not well copied before, but the extreme irregularity



of the writing renders it unusually difficult to follow. It clearly reads from the right, and seems to be almost entirely phonetic. The new texts seem, perhaps, to confirm what was before doubtful, namely, a reduplication of the sign which (comparing with the oldest Cuneiform) I have supposed to represent the sun with the value *ut* or *tam*.

In fact I think it is established beyond doubt that this sign has the latter value in the word *Tam-zi* (Tammuz) found on a seal and at Carchemish.

This is also shown in the new copy of the lion text as occurring in the first line, followed by *Ka-ne-ke Tarku*. It is possible, however, that these emblems have not been quite correctly copied, and that they represent a late form of the emblem *an*, in which case the reduplication may be read ANAN, meaning either "Gods" or "King."¹

The general impression obtained from these texts is that they are later and (as is natural) less ideographic than those of Carchemish and Hamath, representing a northern extension of Hittite civilisation.

C. R. CONDER.

¹ By the light of these new copies we obtain the following commencement for the lion text.

	NE	AN	AN		ZU ?		NE	AN	KA	TAR		DU
EN	ME	U	DU	KA	RE	U	TAR	AN	NE	KE	KU	KE
	KE	GAL ?	KE		THE				KE	KU		LI
		A	LI		...							

This seems to be a dedication or invocation, for the second word is well known as the name of a god—at Ibreez for instance. The commencement is thus very like that of some of the texts on the old statues of the Akkadians at Tell lo; and roughly speaking it seems to run, "Invocations for Anu... the living god... the royal prince Tarku (or prince of gods Tarku...). It is known that Tarku was the name of a deity in Asia Minor as well as a word for prince.

THE MALULA DIALECT.

THE interesting paper in last *Quarterly Statement* by Dr. Bliss on the Syriac Dialect of Malula gives several indications of the archaic character of the ordinary Fellah dialect of Palestine to which I have lately again called attention.

As regards the phonology—

ك, pronounced ch (as in “chaff”), is the common Fellah pronunciation of the letter.

ق pronounced without guttural sound is also not uncommon among Fellahin.

ع for hamza, is also a Fellah change (“Lanberg,” p. 82, gives many examples).

ش, pronounced س, as in *sejratha*, “tree,” is the Fellah *sejerah* for *shejerah*, “tree.”

In grammatical forms—

o for 3rd person singular possessive is the Fellah و. *Abu*, “his father,” for literary *Ab-hu*.

Phash answers to the common Fellah *Fihâsh*.

Some of the words are also so used in Fellah speech, e.g., *Shenna*, “rock” (as in Hebrew); *Ho*, or *Hey*, “this”; *Blato* (Fellah, *Blâd*), “country”; *Blota* (Fellah, *Belled*), “village.”

The Fellah dialect, indeed, seems to have been but little affected by the literary Arabic, and retains much of its old Aramaic character.

C. R. C.

MAR TUKLA.

IN the paper on “Ma'lula and its Dialect,” by Mr. Bliss, he says, “Mar Tukla is said to have been a companion of St. Paul’s, the tradition is doubtless ancient.” (*Quarterly Statement*, April, 1890, page 83.) This would, I think, hardly lead one to understand that the story of St. Paul and Thecla, as related in the apocryphal “Acts of Paul and Thecla” (to which I imagine Mr. Bliss refers) was as old as 170 or 180 A.D., which is the date Dr. Salmon assigns to it.

LESLIE W. TROUGHTON.

GREEK INSCRIPTION NORTH OF DAMASCUS GATE

IN the Jerusalem volume of "Memoirs" will be found a collection of numerous Greek texts of the same character as that published in the last *Quarterly Statement*. They come from the Wâdy Rabâbeh cemetery and from other parts of the town. In the Muristan I found such a Greek text, which cannot well be older than 900 A.D. *Θηκι διαφερουσα Μηνα υπερ Ωπρου* (Jerusalem vol., p. 426). At the church by Jeremiah's Grotto, Lieut. Mantell and I copied another text of the same character. It was originally written across two slabs, and we only obtained the right hand halves of the lines (Jerusalem vol., p. 392). This was also a deacon's tombstone.

The text from Boeckh given by Mr. A. S. Murray is only a bad copy of the inscription on the tomb of Thecla Augusta (9th century), fully described in the Jerusalem volume of the "Memoirs" (page 418). This is one of texts in the cemetery of St. Sion, in Wâdy Rabâbeh.

The Christians were still powerful in Palestine under the Arab Khalifs, and the tombstones are written with the same contractions and general style, and seem not earlier than about 8th to 9th centuries, A.D.

C. R. C.

NOTES ON DR. POST'S PAPER.

I VENTURE to make a few notes on this paper. The existence of the *Beech* in Syria is of some interest philologically, and it would be interesting to know where it occurs. It is known in Asia Minor and in the Caucasus, and grows on chalky soils.

The Papyrus is not confined to the Jordan valley. I have seen it in several places on the coast near Sidon, in the Zerka, and further south, as noted in the "Memoirs."

It is certain that the lion still existed in the Lebanon in 1300 B.C. ("Travels of a Mohar").

It is certain that the crocodile exists in the Zerka, but I found no native who knew of it in the Kishon.

The wild boar is found in the mountains in all parts of Palestine where cover exists.

I have seen supposed specimens of *Tin* from the Lebanon.

Cholera sometimes spreads in the mountains. It reached Safed (3,000 feet above the sea) when I was there in 1874.

The "ancient language" is not confined to a few villages, I think, being recognisable in Fellah speech throughout Palestine.

C. R. C.

THE INSCRIPTIONS OF EDREI.

HERR SCHUMACHER has given us several Greek inscriptions which are not in Waddington's great work, but those from Edrei are found in the "Inscriptions Grecques et Latines de la Syrie," copied in 1862, and published by Waddington in 1870.

The long text, which is No. 2070 *e.* of Waddington, has, however, been better copied by Herr Schumacher (though some parts seem doubtful), and the date is certain. The following are the parts which appear to me to be quite clear:—

Αγαθη

Τυχη

1. Ὑπερ σωτηριας και νεικης του Κυριου ημων Αυτοκρατορος
2. Γαλιηνου Σεβ. εκτισθη του Σεβ. προνοιας
3. (Ιουλ)ιου (Ιουλ)ιανου του κρατιστου
4. Ισιδωρου
5. Μ. Αντου. Βασσου Αιλιου Βασσ .
6. ου και Ζηνοδωρου Ταυρινου και Σαβινου

ΕΤ. P. N. H.

The text is of the reign of Galienus, and of the year 158. Galienus reigned 260–268 A.D., and the date is clearly of the era of Bostra (105 A.D.), which gives us 263, or the fourth year of Galienus.

The Julius Julianus of this text is a person well known from two other inscriptions—one at Bostra and one at Palmyra (Waddington, Nos. 1951 and 2580). From the former we learn that he was Prefect of the 1st Parthian Legion of Philip, or Commander of Parthian auxiliary cavalry. Philip was an emperor of Arab origin, and Julius Julianus may have been of the same race. Philip was killed in battle by Decius, near Verona, in 249 A.D., so that Julius Julianus was a person of importance some 14 years before the date of the inscription of Edrei, but not more than 19 since Gordian III was murdered in 244 A.D.

From the Palmyra text we learn that Julius Julianus was commandant of cavalry at Palmyra. He held the high rank of *militia quarta*.

As regards the other names, that of Bassus is often found in the Hauran. Zenodorus, son of Taurinus, might be a relation of Rabbelus, son of Taurinus, whose name occurs at Dekîr, in Trachonitis (Waddington, No. 2537 *g*). Another Zenodorus, son of Bathanus, is noticed as dying at the age of 42 at Edrei (2070 *l*).

The Hauran texts are of the highest value for the history of Syria from the time of Herod and Agrippa down to the first days of the Moslem Conquest. Of these texts 1,600 are collected. They not only give decrees of the emperors for the rule of the province, and for the discouragement of the *baksheesh* system, with details as to the Roman forces, but they show that as late as the time of Agrippa I the inhabitants of Bashan

were living in underground caves, and had not begun to build houses. They show us how late Paganism survived, a heathen temple having been built in 320 A.D., in the Hauran, to Apollo Aunos, by Arabs. In another case in Trachonitis such a temple appears to have been converted into a church. The gods of Greece—Zeus, Helios, Selene, Kronos, Herakles, Athene—were adored side by side with Arab deities, Dushera, Aziz, Amnu, &c. The Arabs were early converted to Christianity, and a Greek-Kutic bilingual of 586 A.D. shows that they built a church at Harrân only a few years before the Moslem Conquest.

Their creed was apparently heretical and Ebionite. They adored Sergius and Bacchus, Martha, Marthine, Elijah, St. George, and Job, side by side with "the God of Abraham, Isaac, and Jacob," and with Christ and the Virgin Mary.

The earliest distinctly Christian texts here, as in Italy, belong to the 3rd century, A.D. The Saints Martha and Marthine were adored, according to Epiphanius (*Adv. Hæres.*, II), by the Elkaisites and Sampseans in Arabia (*see* Waddington, p. 570). These heretics of the 3rd century A.D. were also found along the Euphrates, and followed a prophet of Hadrian's time. They were great exorcists, and their doctrines as to the successive incarnations of our Lord were shared by the Nazarenes of Syria, whom the Elkaisites also resembled in their austerities. They appear to have been still known to Moslem writers in the 10th century A.D. as *Mughtasileh*, or "baptists."

C. R. C.

MOSAIC AND EMBROIDERY IN THE OLD TESTAMENT.

MOSAIC wall decoration is generally acknowledged to be of ancient origin, and I am inclined to regard this art as of extreme antiquity in Jerusalem, and as being perhaps of Jewish origin. There is, I think, distinct allusion to the use of mosaic ornament, or "embroidery in stone," in 1 Chron. xxix, 2, where King David is enumerating the materials prepared by him for the temple—gold, silver, brass, iron, and wood, onyx stones, **שֹׁהַב**, stones for setting, **בִּלְוָאִים** "glistening stones of divers colours," **אבני פוך ורקמה**, and every precious stone **יָקָר**, and stones of marble, **שֵׁשׁ**. The words, **אבני פוך ורקמה**, rendered in our Authorised Version "glistening stones of divers colours," can be translated more closely to the Hebrew words and construction by "stones of colour and embroidery." **פוך** "Colour" may imply stain, or artificially produced colour; and **רקמה**, "embroidery," is rendered in Exodus xxxviii, 23, &c., &c., Judges v, 30, and Psalm xlv, 14, as embroidery and needlework in stuffs, and it carries with it the idea of overlaid, applied (*appliqué*) ornament (still much used in Egypt, Palestine, Turkey, Persia, &c.). Appliqué embroidery appears to have been used for stuffs

when parti-coloured **רְקֵמָה** designs were placed upon the material of which articles of dress or furniture (curtains, &c.), were made. Travellers are familiar with the bold designs thus placed as ornaments upon Egyptian tents. The Fellaheen of Palestine still embellish in this way the clothing worn by men and women, thus perpetuating the art which was used to decorate Joseph's coat of "*many colours*," literally of "*many pieces*," for that is the exact translation of **כְּתֹנֶת-פַּסִּים** (Genesis xxxvii, 3).¹ "Many pieces" of multi-coloured materials are employed to produce the effect—as may be more fully seen in the splendid embroideries of Resht, in Persia, and in the quaint patterns worked by the Turcoman women in their encampments.

But to return to "the embroidery in stone," known as mosaic. Some writers have ascribed the origin of the art to Moses, the Hebrew Law-giver. Be that as it may, there is in 1 Chron. xxix, 3, evidence that the art was known to King David and his people.

Josephus also appears to refer to it ("Antiquities," viii, 5, 2) as having been used for wall decoration in the palace of King Solomon:—

"To this was joined another house that was built for his queen. [It is well to remember that the Hebrew word **בֵּית**, house, often means 'room,' though it is also used for 'mausion.'] There were other smaller edifices for diet and for sleep after public matters were over, and these were all floored with boards of cedar. Some of these Solomon built with stones of ten cubits, and wainscotted the walls with other stones that were sawed, and were of great value, such as are dug out of the earth for the ornaments of temples and to make fine prospects in royal palaces, and which make the mines whence they are dug famous. [This mention of thin marble slabs for wainscoting reminds one of the sculptured slabs used in Assyria for the same purpose which have been found at Nineveh, &c.] Now the contexture of the curious workmanship of these stones was in three rows, but the fourth row would make one admire the sculptures, whereby were represented trees and all sorts of plants, with the shades that arose from those branches and leaves that hung down from them. Those trees and plants covered the stone that was beneath them, and the leaves were wrought so prodigious thin and subtle that you would think they were in motion; *but the other part up to the roof was plastered over, and, as it were, EMBROIDERED WITH COLOURS AND PICTURES.*"

This passage brings before us the splendid walls—built of great stones—marble-lined to a certain height; sculptured where on a level with the eye, and then high up, above the marble wainscot, enriched with glowing mosaic pictures of many colours, set in "plaster."

Observe that only the higher parts of the walls were thus embroidered. It is just in the higher parts that we find mosaic work in the Dome of the Rock on Moriah, at St. Sophia at Constantinople, and in the Church

¹ So also in 2 Samuel xiii, 18.

of the Nativity at Bethlehem. These latter were discovered during our residence at Jerusalem, when a happy chance revealed the fact that beneath the whitewash that covered the walls of the nave lay preserved the gold and coloured mosaic work, placed high (and in the Dome of the Rock at an angle), so as to reflect, as only "glistening" mosaic could, every ray of light coming from below or from above. The Church of the Holy Sepulchre at Jerusalem was decorated with mosaic in former times, but this was destroyed by the great fire of 1808. I have myself picked up many fragments of mosaic out of the *débris* from that fire, which still lay (when first we went to Jerusalem) in heaps on the hill west of the city beyond the Valley of Gihon. I still possess some of the little cubes in red, green, blue, and well-gilded glass. I have also found similar mosaics in the ancient baths, probably Herodian, which we discovered in Solomon's gardens at Umtas.

Incomparably the finest specimen of mosaic decoration still existing in Palestine is preserved for us in the Dome of the Rock on the Temple site at Moriah—that treasure-house of exquisite design, execution, colouring, and form, which beautifies the otherwise desolated site of former Temple magnificence. Here we find the sumptuous mosaics above the marble pillars, in the rising of the arches up toward the spring of the great dome, where but for the reflection from their brilliant surface the effect would be dark and sombre. The arabesques are boldly traced in colour on the golden ground to shine and sparkle in a thousand tints, produced by the play upon the mosaic of the changeful lights that reach them through open door or coloured window as the sun passes round from his rising over Olivet to his setting in the west. There is here a faint reminiscence of the Temple splendour, with its carvings wrought in gold—its metal work in silver, brass, and iron—its onyx, its gems—its precious stones and marble, and its mosaics in "glistening stones of divers colours"—"stones of embroidery," used where blended tints and reflected lights could now subdue and now enhance the glory, and bring out the full, rich harmonies of tone and colour in that resplendent sanctuary.

The use of mosaic pavement in Palestine was evidently very ancient. I have found the small stone cubes, red, black, and white, scattered in every part of the country—among the ruins of towns and of villages, and also loose in ploughed fields at a distance from any village. We discovered remains of pavement, in various places, only hidden by a few inches of soil, where little else remained to show that here had been some dwelling or public building.

The finest specimen still extant near Jerusalem is the pavement which covers the floor of the old Georgian Church, in the Convent of the Cross, west of Jerusalem (now in the hands of the Greeks), which still bears sad traces of the murders of the Christians who had sought shelter within their sanctuary, when Chiroses, the Persian king, and his heathen army broke in upon them. The great purple stains testify to the fate of those poor martyrs, while at the same time giving us some certainty as to the age of this most interesting mosaic floor.

While tracing back the history of embroidery in stone, the kindred topic of embroidery in stuff claims attention. I have referred above to the earliest allusion to appliqué work in the history (Genesis xxxvii) of Joseph's coat of many colours, and we find repeated mention of the same art in the history of the preparation of the Tabernacle in the Book of Exodus.

"An embroiderer," רוקם, was one of the artificers mentioned, Exodus xxxviii, 23, as distinct from the "designer" or "thinker," חושב

The embroidery in blue, purple, and scarlet, that is, the laying on of thin and coloured material (for that is the meaning of the verb רוקם, with which is closely connected the idea of thinness, as in Arabic, رقيق and رقيق), was used for the hanging of the gate of the outer court (Exodus xxvii, 16); for Aaron's brodered coat (Exodus xxviii, 4); for his girdle and those of his sons (רקמה); "Appliqué embroidery" (translated "needlework") is also mentioned in Judges v, 30, and in Psalm xlv, 14. The word would also be accurate in describing embroidery wrought on to stuff in gold thread, coloured silks, or braids, and in Judges v, 30, this is spoken of as רקמתים, applied embroidery, the same on both sides. The women of Israel thus appear to have been celebrated in the days of Deborah for their skill in embroidery, and to have practised the art, still preserved among orientals in Turkey if not in Persia, of working so that both sides should do alike—the wrong side as well as the right side; for the word used by Sisera's mother means "embroidery in double" (Authorised Version, "needlework on both sides").

Skill in original design is also expressly mentioned in the history of the preparation of the Tabernacle.

The very same verse (Exodus xxxviii, 23) which mentions Aholiab as the "embroiderer," רוקם also mentions him as a designer, חושב literally "thinker" (Arabic حسب to think, calculate). This word is rendered in our Authorised Version "cunning workman." In Exodus xxxv, 32, חושב מחשבות means "thinker out of thoughts." "To devise curious work," in Exodus xxxi, 4, לחשוב מחשבות, "to think out thoughts," whether in gold, silver, brass, precious stones, wood, or embroidery. Bezaleel and Aholiab were specially given skill in design and in execution, that they might carry out under Moses' direction the plans given upon Mount Sinai.

Who that has watched the "cunning workmen" of to-day in the Bazaars of Jerusalem, Damascus, or any other Eastern city can fail to be reminded of these illustrious artificers who were, to some extent at least, founders of these arts in Israel.

The worker in metal, as he carries out the beautiful design which he devises as he goes on, is no less interesting than the gem or seal engraver, deep in thought as he turns the polished stone hither and thither, pro-

ducing the desired name or couplet, and beautifying it with here a flower and there a leaf cunningly inserted among the flowing lines. Thus (though probably without the added ornaments) were graven the golden plate for the head dress of the High Priest (still existing in our Lord's day), and the inscriptions on the precious jewels for his shoulders and for his breastplate.

And so with the embroiderer. We see the survival of the art in the rich effects produced by the Eastern craftsman as he sits upon his shop front laying braid or fine gold thread in mazy and intricate patterns, designing as he works, and embellishing the velvet, cloth, or silken cushion, or jacket which he is making.

That gold thread was used in the Tabernacle embroideries is certain from Exodus xxxix, 3, where, in speaking of the working of the Ephod, it says that they "beat gold into thin plates and cut it into wires," literally "threads," for the word here, **פתילים**, is to this day used for the soft threads of lamp-wick, and the same word is used in Arabic for the same thing. (*See* also "lace," for "braid," in Exodus xxviii, 28.)

This gold thread was made to work in with the blue, purple, and scarlet with "cunning work" (design). The "cunning work" of embroidery was used not only for the Ephod, but also for the breastplate (Exodus xxxix, 8, 15), for the curious girdle of the Ephod (xxviii, 27, 28, 39; xxix, 5; xxxix, 5, 20, 21).

It was in this kind of work that the Cherubim were wrought into the ten curtains for the innermost covering (Exodus xxvi, 1), and for the vail before the Ark (xxvi, 31). As to Aaron's coat, **כתונת** (Exodus xxviii, 4, 39), that was to be enriched with **שבץ**, "chequered" embroideries. This is the very word used in Psalm xlv, 14, for the golden chequered robe of the King's daughter, "all glorious within," as well as on the outer or right side of the work. The chequered pattern of gold thread embroidery among coloured silks may still be seen in oriental work, and it is one of the most magnificent in effect. Enough oriental art remains to this day to give us some idea of the splendour of the embroideries in stone, and in gold and silk, as wrought by the ancient Israelites for the Tabernacle in the Wilderness and for the Temple on Moriah.

E. A. FINN, M.R.A.S.

THE ELMS, Brook Green, W.

NOTE.—For the use of the verb **השב** (to think out), see Amos vi, 5, where it is translated "invent" (instruments of music like David); and Daniel xi, 24, "forecast devices."

SUN-BIRDS.

On page 41, January *Quarterly Statement*, Dr. Selah Merrill mentions having seen and shot the Palestine Sun-bird at Jaffa, and in the Jordan Valley. We saw some near Jericho in February, 1847, and obtained specimens; and we had in the museum of our Literary Society at Jerusalem, a specimen which had been shot at Sidon by Mr. Abela, who prepared it and sent it to Mr. Finn. We also, like Dr. Merrill, noticed the great variations in the coming to Palestine, or to parts of the country, of migratory birds. The natives always rejoice when great flocks of storks come, as bringing good crops and prosperity. They eat the locusts. Some years none were to be seen near Jerusalem.

We saw them in August, 1859, nesting in the pine trees near Acre. (Ps. civ). It is very curious to see and hear them on their departure early in November—when they wheel in vast hollow circles over Jerusalem. The numbers of small migrants also varied greatly.

I have also heard in October, on a still starry night, vast numbers of bee catchers passing westwards (or south-westward). I tried in vain to see them; standing in the open air for some time. There was neither cloud nor mist, yet they could not be seen though heard most distinctly, and the snapping of thousands of little beaks had a most singular effect, while the birds were invisible. This snapping sound is familiar enough in the hot summer weather in the day time, when the bee catchers fly and wheel after their prey, their bright plumage glittering in the sunshine. The storks, when wheeling in the air, also make a clapping noise, with either their beaks or their long legs.

E. A. FINN.

NEHEMIAH'S WALL.

MR. G. ST. CLAIR holds (January *Quarterly Statement*, pp. 47-50) that as the Upper City was (according to Josephus) surrounded by a wall of its own, therefore the defences of the south end of the Tyropœan must have formed a bay or loop line. This was the view taken by Mr. Finn and myself when in Jerusalem, and we hold, as Mr. St. Clair does, that here were the "two walls" between which Zedekiah escaped by the King's garden to the Jordan Valley (Arabah), as Manasseh appears to have attempted before him (2 Chron. xxxiii, 11), when the Chaldeans "caught (or seized) him among the thorns," and as the Jewish leaders attempted to do after Titus had taken the Temple.

"They caught Manasseh among the thorns" is closer to the Hebrew than our translation—

וילכדואת מנשה בחוהים

Was the Tyropœan even then a place for thickets of thorns? as it is now, full of prickly pear cactus.

E. A. FINN.

THE STONE MOUNDS ON THE REPHAIM PLAINS.

ON page 22 of the January *Quarterly Statement*, Herr Schick mentions the Seba' Rujum near Bait Safâfa, on the Plain of Rephaim, south-west of Jerusalem. These mounds of loose stone are of great size, and are *unlike* others in the country. It would be very desirable that they should be examined. The accumulation of small stones in them is enormous, and evidently ancient. We always regarded them as artificially made for some special purpose—possibly as burial cairns on a battlefield, and certainly erected with immense expenditure of time and labour. Can they be memorials of the defeat of the Philistines by David? (2 Sam. v : 1 Chron. xi, xiv).

E. A. FINN.

THE WATERS OF MEROM.

THE Rev. Canon Gover argues (p. 52 January *Quarterly Statement*) that the expression "the waters" should not be understood to mean a lake, but rather a stream and its head waters.

An instance in point may be found in Joshua xvi, 1. "The waters of Jericho," probably Elisha's fountain and the stream that flows from it.

A similar expression is used in Scotland—"Allan waters," "the water of Gala," &c. Canon Gover also mentions Misrephothmaim, pp. 52-53. I would suggest the great headland north of Acre, now called the "Musheirifeh," as probably Misrephothmaim, even though the Hebrew letter is *Sin* not *Shin*—Misraiphoth of the Sea—as in Symmachus. Was not "the Valley of Mizpeh eastward" of Josh. xi, 8, the Valley of Safet? מַצְפֶּה = מַצְפֶּה. Mr. Finn held that Safet was Mizpeh.

It is well to note that the difference in Hebrew between Madom and Marom would only be that between ד and ר (D and R) מַדוֹם or מַרוֹם.

E. A. FINN.

THE TSINNOR.

So much depends on the identification of the Tsinnor or "gutter" of 2 Sam. v, 8, at which Joab climbed up into the Jebusite fortress, that I venture to contribute a few remarks on the subject based upon the Bible narrative and that of Josephus, and the discoveries of Sir Charles Warren.

First as to the meaning of the word Tsinnor, צִנּוֹר. It occurs in Psalm xlii, 7, where it is translated "waterspouts," but "gutter" or "watercourse" would seem to be more correct if we take into account the Chaldee form צִנְרִין, as used in the Targum of Ecclesiastes i, 7, for בְּחַלְיִים brooks (hollow channel).

Secondly as to the site of the Tsinnor of 2 Sam. v, 8. Josephus, in his paraphrase of 2 Sam. v, 8, tells us that there were ditches at the base of the citadel.¹

It is most important to notice that Josephus declares that the Upper City, "called by us the Upper Market-place," was that upper city which King David took from the Jebusites and called the Citadel (Wars v, iv, 1, and Ant. vii, iv, 1). The "ditch," therefore, by which Joab climbed was a "ditch," gutter, or "narrow watercourse," at the foot of the Upper City on the south-western hill, called in the Bible Zion.

This establishes the identity of Zion (though Josephus never uses that word), the city of David, with the Upper City and Market-place of Josephus, on which he tells us were the palaces of David; of the Asmonean Princes and of Herod. Now there is but one place connected with the south-western hill, where a narrow watercourse has been found sufficiently important to be mentioned, as the Bible and Josephus mention the "gutter" and "ditch" in the description of the Fortress Hill. That watercourse, ditch, or gutter, is cut in the rock just above the lowest cleft of the Tyropœan, where it separates the east mountain, Moriah, from the South Western Zion. It was discovered and thoroughly examined by Sir Charles Warren, who came upon it at Robinson's Arch, some 70 feet below the present surface of the ground. It is cut in the side of Zion, only 24 feet above the bottom of the Tyropœan, itself a mere gully at this part (and at present filled up to a depth of 89 feet).

At page 124 of "The Recovery of Jerusalem," Sir Charles Warren says: "The west wall of the Sanctuary at Robinson's Arch cuts through an ancient system of rock-cut water ducts and tanks running along the western side of the Tyropœan Valley," *i.e.*, at the base of the south-western hill, Zion.

The discovery was made while examining a pavement (deep down below Robinson's Arch)—a pavement belonging to a roadway evidently of great antiquity. Upon it the great voussoirs of Robinson's Arch were found lying huddled just as they had fallen at its destruction. Below this ancient pavement, at a depth of 23 feet, were found two great voussoirs of an arch (belonging to a still older viaduct) "jammed in over a GREAT ROCK-CUT CANAL running, from north to south, 12 feet deep and 4 feet wide, its eastern side being about 12 feet from the Sanctuary wall [the western wall], but it does not run parallel to it, and was probably in use before this portion of the wall was constructed" [by Herod the Great; for here we have his addition to the Temple, which he carried for symmetry's sake across the Tyropœan on the base of Zion.]

Here, then, we have a canal, ditch, Tsinnor or gutter, worthy of mention as a landmark. It was arched over. Sir Charles Warren examined it northwards. At page 107 we read: "Higher up towards the north this canal was found to open into a circular rock-cut pool, of which only half is to be seen, as it is CUT THROUGH *by the foundations of the Sanctuary wall,*"

¹ Considering the then depth of the Tyropœan in its original condition at its narrowest point, Josephus may have held it to be one of the ditches.

which shows that it existed before Solomon built that wall ; for here we reach the old part that was built by him.

On page 109 Sir Charles Warren says, "the winding aqueduct was cut in the rock" before the Temple was built. That is to say, we have here at the narrowest part of the Tyropean, just above its bed, and on the shelving base of the mountain, a vast cutting of 12 feet deep by 4 wide *in the live rock*. This was on the eastern outer side of the Zion fortress, and before the neighbouring mountain of Moriah was built upon or walled, while it was yet the property, the open threshing floor of Ornan the Jebusite.¹ This gutter in David and Joab's time was a deep-cut trench on the right bank of the Tyropean. From the Bible narrative, 2 Sam. v, 8, we learn that it was David who appealed to his army to smite the Jebusites (whose blind and whose lame scoffed at him), and named the gutter as the point to be reached. From 1 Chron. xi, 6-8, we learn that it was Joab who first went up and won the chief command.

Josephus exactly confirms this : "The King, knowing that the proposal of dignities and rewards would encourage the soldiers to greater actions, promised that he who should first go over the ditches that were beneath the citadel, and should ascend to the citadel itself and take it, should have the command of the entire people conferred upon him. So they were all ambitious to ascend, and thought no pains too great in order to ascend thither. However, Joab, the son of Zeraiah, prevented the rest, and as soon as he was got up to the citadel, cried out to the King and claimed the chief command. And thus were the scoffers silenced."

Later, when the Temple fortress was built, and its stupendous walls on Moriah crowned the left bank of the Tyropean, this ditch became "the fortified ditch" between the two walls of Zion West and Moriah East. See Josephus, Ant. x, viii, 2, as to Zedekiah's escape to the desert. In 2 Kings xxv, 11, Jeremiah xxxix, 4, and lii, 7, we read that Zedekiah fled "by the way of the gate between the two walls which is by the King's garden to the plain" (Arabah, *i.e.*, Jordan Valley), where he was caught in the plain of Jericho. The Temple was already in the hands of the Assyrian army. Zedekiah was therefore fleeing from the citadel, which had not yet been taken, down through the ditch between the two walls of Zion and the Temple (on his way to the Kedron Valley). The same thing was also attempted afterwards by the Jewish leaders in the Upper City after Titus had captured the Temple (Wars vi, viii, 5).

But in David's time the ditch or gutter was not thus protected and shut in. It was, nevertheless, an additional defence for the citadel of Jebus just at the point, where, far up the face of the mountain, the fortress stood upon the scarped cliffs visible to this day as we look from Olivet towards Zion. Truly this part must have seemed to the Jebusites

¹ It is worth notice that David paid Ornan 50 shekels of silver for the threshing floor and for the oxen—(2 Samuel xxiv, 24) ; but that he gave 600 shekels of gold *for the place*, that is for the whole Temple site—the mountain, which Solomon walled round for the Sanctuary—(1 Chron. xvi, 25.)

so absolutely invulnerable that we can understand the boastful insolence of the blind and of the lame. The Tyropœan, in its then condition—90 feet deeper than it now is—a mere gully between the two mountains—was no insignificant obstacle to any attack from this side.

Well did Joab deserve his promotion when he reached the ditch, and scaled the rock, surprising the garrison, much as the garrison of Edinburgh Castle was surprised in days of yore, when the seemingly inaccessible rock was scaled by a daring soldier.

In searching, while we lived in Jerusalem, for the Tsinnor, we remembered how invariably the eastern mount, Moriah, had been taken before the upper city, Zion. It lies lower, and was more accessible to attack. It must have been still more so in David's time, before it was walled and fortified by the Temple buildings.

But we never could satisfy ourselves that the Tyropœan valley, as it now is, fully answered the idea of a Tsinnor, though it fairly suited that of a fortified ditch between two walls of Zedekiah's time. But the discoveries of Sir Charles Warren have revealed not only the amazing depth and straitness of the Tyropœan gorge, and its true course, bending eastwards, but have also at this very point traced out the great rock canal at the base of Zion, and have demonstrated that this canal, a veritable Tsinnor or gutter, existed before Solomon built the Temple, in the days of David and of the Jebusites.

It is shown in "The Recovery of Jerusalem," in a picture on page 105. And the mouth of it is shown just west of Herod's Temple wall, in the elevation of south front of the noble Sanctuary, which also shows the slope of Zion as it falls into the deep Tyropœan bed on the right (page 119).

If the elevation were continued westwards we could better understand the full height of Mount Zion, the Upper City, 110 feet higher than the summit of Moriah (which is 2,440 above the sea level).

Moriah was the possession of Ornan—a royal possession indeed; and from 2 Sam. xxiv, 23, he would seem to have been the Jebusite king. The Hebrew text here says, "All these did Araunah, a king, give unto the king."

This may help us to understand the references to the king's dale, and to the king's gardens, in the Kedron Valley, between Moriah and Siloam—now and for many ages the property of the Siloam people. In looking for any living relics of the Jebusite people who were still existing in the days of Ezra and Nehemiah, and of whom some probably still exist as native Fellahîn, the most likely villages would doubtless be Siloam—Et Târ (on Olivet), Abu Dis, and perhaps 'Aisawîyeh, north of Olivet, and Beit Sahlur, south of Siloam (Josephus, Wars, v, ix, 4, speaks of the Siloam gardens and of the people as being then enemies of the Jews).

It is from some of these villages and others that Sir Charles Warren obtained the sturdy labourers who worked so well under him and his Royal Engineers in tracing the mighty works of Solomon and of the Jebusites before him.

E. A. FINN.

IRRIGATION AND WATER SUPPLY IN PALESTINE.

MR. WILLIAM SIMPSON, in his interesting paper (p. 55 January *Quarterly Statement*), mentions the system of pits for water connected with shafts at intervals, and linked by an underground tunnel, as seen by the Rev. Mr. Harper and the Rev. J. Niel in the Vale of Siddim, also found at Surtabeh and Damascus.

Mr. Simpson found the same system in use in Persia and Afghanistan, where the pit and tunnel are called Karaize. Sir R. Burton also mentions them. The same system is still in use in Cyprus, where professional well and aqueduct makers construct them as in olden times, in what look like waterless districts. The word used in 2 Kings iii, 16, is גַּרְבַּי (reservoir), and also in Isaiah xxx, 14, Jeremiah xiv, 3, and again of the Siddim Vale in Ezek. xlvii, 11, where our version gives "marishes." The same word is still in use in Palestine, e.g., the well known Jebb (جَب) Yussuf between Siberias and Safet.

E. A. FINN.

THE STONE (EBEN) OF ZOHELETH.

As no one has yet produced an instance (1889, 41) from the Bible of *eben* meaning a *cliff*, it may safely be concluded that such is not to be found. Major Conder's note (*id.* 90) fails to meet the case, for he quotes Gesenius as rendering *eben* rock (Gen. xlix, 24), but the dictionary says that "some persons apply the term (*rock*) to a stone of any size, and speak of boys throwing *rocks* at each other - a supremely ridiculous expression."

In the verse above, the A.V. and R.V. render the word "the stone of Israel." The Arabic *Zehwete* (for all that I know) may come from the Hebrew *Zohelath*; but it is an utter impossibility for a solid *cliff*, however slippery, at the village of Siloam, ever to have been the moveable stone of Zohelath, close to Enrogel, several hundred yards distant from that village.

Several explanations have been given of the word *Zohelath*. If the expression means the stone of "moving to and fro," let me offer the conjecture that it was a *logan* (or rocking) stone which will *log* again, whenever the *débris* of centuries is thoroughly cleared away from near Enrogel.

W. F. BIRCH.

GILION.

ON p. 124, Dr. Chaplin thinks it not improbable that the name Gilion (Fountain of the Virgin) was derived from "*gahan*, to bow down, to prostrate oneself, and was originally applied not to the fountain, but to

the canal which brought the water from the fountain," i.e., it was applied to the Siloam tunnel.

Thus, as it would be most unsatisfactory to have to take 1 Kings i, 33, 45, as speaking proleptically, when Gihon is named by David and Jonathan, it must in this case follow that the Siloam tunnel existed in the time of David.

Surely Dr. Chaplin does not wish to maintain—

1. That the Siloam inscription in the tunnel is as old as the time of David.

2. Or else that it was cut (perhaps hundreds of) years after the tunnel was made.

3. That the tunnel, therefore, is not the work of Hezekiah referred to in 2 Chron. xxxii, 30; but was made in or before the time of David.

So critical was Hezekiah's position that there was reason in his making the tunnel. It is not easy, however, to see why either David (who fled before Absalom) or the Jebusites should ever have executed in haste such a gigantic work. Accordingly, the proposed derivation seems inadmissible.

Dr. Chaplin's paper satisfies me at last that the Pool of Siloah (the ditch, Is. xxii, 11) was actually enclosed by a wall, *i.e.*, the outer wall of 2 Chron. xxxii, 5; and that "the two walls" (Is. *id.*, 2 Kings xxv, 4) were not a loop-wall defending the pool, but the old city wall, and the outer wall, which thus placed Siloam within the city.

W. F. BIRCH.

DEFENCE OF THE GUTTER (TZINNOR).

In *Quarterly Statement*, 1885, 62, I expressed my willingness to challenge attack on this question. Let me then try to defend my theory against the objections urged from time to time.

As the *Fund* being mutilated would end in *Fun*, so the quotation (*supra*, 39) from Ewald probably fares likewise, through Major Conder's not reaching to "the lame and the blind."

Though my interest in *Jerusalem* topography is owing to the accident of some of Warren's plans having in 1868 been sent to me through a postal error, still Mr. St. Clair wrongly attributes my theory to a guess. It is due to sheer plodding, superadded to a slight acquaintance with Hebrew characters, and to a resolute adherence to Scriptural Hebrew usage, which neither allows *emek*, *ge*, and *nachal* (1878, 180) to be interchangeable terms, nor "two hundred and a thousand" (as in the commonly accepted version of the Siloam inscription) to mean "one thousand two hundred."

The perception (1878, 182; 1882, 56) that the Tyropœon was the Valley of Hinnom forced me to place Zion (the City of David) on Ophel. The only reason discoverable for choosing such a low site was the proximity of Gihon, while Kennicott's explanation of 2 Sam. v, 8,

revealed the full reason. As some one in the city must have helped Joab to ascend a practically inaccessible shaft, I was driven to search for a traitor.

At this point I find Josephus dragging in Araunah, as not slain with the rest because of his good-will to Israel and special affection for David, while the extraordinary generosity shown to Araunah in his being permitted to possess the hill just above the City of David, indicates that the Jewish king was deeply indebted to him. If Mr. St. Clair, however, cares to argue that it was Araunah's *grandmother* who was the traitor I shall be glad to answer him. My theory is no guess, no product of a vivid imagination—the constant bane of topographical research.

Josephus, in rendering *tzinnor* by *ὑποκειμένων φαράγγων*, is no opponent of mine, since Kennicott says this means “subterraneous cavities.” The *plural* here is of importance; for surely it would not be necessary for the assailant to cross more than one valley or ditch in order to take Zion. Most interpreters agree (1878, 184) in making the word signify something *hollow* and in applying it to water. Those who render the word *watercourse* (R.V., Sp. Comm.) are practically in agreement with me, since the first length of 70 feet from Gihon (Virgin's Fount) into Zion is actually an *aqueduct*. A watercourse, according as it is (practically) horizontal, oblique, or perpendicular, forms an *aqueduct*, as at Gihon; or a *cataract* (as claimed by some for Psalm xlii, 7); or a *waterfall*, as interpreted by Ewald, and urged by Professor Sayce; only unfortunately on Ophel (at Gihon) the water is at the bottom when we first find it, and so both the proposed cataract and waterfall would have to do without water at the top—a most awkward arrangement.

Mr. St. Clair says my theory (or explanation) is “only a guess unsupported by any coincidence with any description in the Bible or elsewhere.” Let me show how it is supported by coincidences with both the Bible and “The Recovery of Jerusalem,” and also with Palestine topography and history in general.

The account in 2 Sam. v, 8 is certainly concise and obscure, if not elliptical; but 1 Chron. xi, 6, supplies what is wanting (1885, 64). Two words, however, in the Hebrew give us all we need; they are **בצורה יגיע**. Professor Theodores renders them “reaching as far as the aqueduct.” The extreme difficulty of discerning what was meant has produced a variety of interpretations. Bochart, Ewald, &c., from the verb **גיע** appear to have got the idea of hurling persons down the waterfall (or that down which the water fell, *i.e.*, the cliff).

To me, in the verse quoted, **גיע** seems connected with the verb **יגע** (indeed the LETTERS are identically the same), which means *to labour, to exert oneself, particularly to make strenuous exertions*. I conclude, therefore, that he who was going to smite the Jebusites had before him a task demanding almost superhuman exertions; he would have to make strenuous exertions (literally) *in the gutter*.

Even getting along the watercourse in this luxurious age (when, as Mr. St. Clair tells us, the water flows at a lower level than formerly)

proved a dangerous matter, when Captain Warren was attempting to get up the vertical shaft. He states ("Recovery of Jerusalem," 245), "Once, while the fellahin were bringing in some frames, the spring suddenly rose, and they were awkwardly placed for a few minutes, being nearly suffocated." How would they have fared if the water, instead of flowing through the tunnel, could only have overflowed into the Kidron? Surely Joab essayed an enterprise hazardous enough in the first 70 feet, and there were worse perils beyond, viz., the Thebez stone, and the Jebusite sword, and possibly the deep pit.

I have ventured to take **זר** (2 Sam. v, 8) as referring to *exertion* in the gutter; but as there is apparently something wrong with the passage, I must decline to deal with it grammatically. Certainly Hebrew is a charmingly elastic and reversible language if this one word equally well describes Joab's slowly going *up* (R.V. "Let him get *up* to the watercourse") and the Jebusites' quickly coming *down* (Ewald, "Let him *hurl down* the waterfall the lame, etc.). Therefore waiving this diplomatic word, let me show how the other word *tzinnor* of itself establishes my theory.

I have to prove—

- (1.) That the fortress Joab took was immediately west of Gihon.
- (2.) That the *tzinnor* meant the passage from Gihon leading to Ophel.
- (3.) That it was practically inaccessible.
- (4.) That, therefore, there must have been a traitor.
- (5.) That Araunah was that traitor, being spared and enriched.

Now as to these several points,

(1.) Has been proved in these pages (1878, 180; 1885, 104; 1888, 46), and he that will dare to attack my arguments must be more venturesome than even Joab.

(2.) Was settled years ago by Kennicott, before the secret passage on Ophel was ever thought of. As Gihon was the only spring hereabouts, so this, consequently, was the only passage that could possibly be alluded to. Let me add, however, that the *tzinnor* at Jerusalem is no solitary instance of this kind of contrivance. The one at Rabboth Ammon mentioned by Polybius, and perhaps as old as Joab's time (1878, 190; Jos. Ant. vii, vii, 8) gave Kennicott the clue to the truth. Another at Gibeon is described and pictured on page 23. I believe there was another at Samaria, and I am satisfied there was another at Bethel. The proximity of the spring and the words in Judges, i, 24, 25, "the entrance into the city" (*see* also Jos. Ant. v, 2, 6) forbid my doubting it. At the castle of Subeibeh there is also a passage, said (but vainly, I believe) to reach to the spring at Banias. After such instances as these it is rather for my opponents to prove that *tzinnor* does not mean the secret passage at Gihon, and to show why the Castle of Zion was ever built on Ophel, except for the purpose of obtaining water by such a contrivance.

(3.) Is proved by the difficulty named above, and by Sir C. Warren's account of his ascent in 1867 (Recovery of Jerusalem, 245).

(4.) Naturally follows from (3). But here again I may add, that as Bethel fared, so afterwards did Zion. From Bethel to Khartoum treachery has always been a common and often the easiest way of taking a fortress. Let the founder of the Hittite Luz witness this, or the *Callidus emptor Olynthi* and his gold-laden ass, or Demosthenes (De Corona, page 324) with his long list of traitors, or the Jotapata deserter (Wars, iii, 7, 33) who might have told us something interesting about Josephus himself. In short, history and the east (if not the west) have always swarmed with traitors.

(5.) David was exasperated,¹ and Joab never scrupled to shed blood. To think that the Jebusites would receive any quarter is absurd. If the Bethelites in the north of Benjamin were put to the sword, why should mercy be shown to an *insolent* enemy in the south? Certainly the Bible does not say that Araunah was spared at the capture of Jerusalem; but all statements in profane historians are *not necessarily untrue*; and Josephus twice distinctly asserts that Araunah, for special reasons, was spared, when the city was taken; and from the Bible we further gather that he was rich, receiving from David 600 shekels of gold. Josephus, I admit, does not positively say that Araunah was guilty of treachery; but it seems to me that either from tradition or his own common-sense he knew this was the case, and that he *meant* his readers to see it too. Traitors, it must be remembered, do not like to be *called* traitors, and after a certain shady transaction and suspicious-looking prediction connected with Jotapata some years before, Josephus probably concluded on reflection that it was coming too near home for *him* openly to brand Araunah as the betrayer of Zion (Ant. vii, 3, 3; 13, 4).

I claim, therefore, on the testimony of one Hebrew word, and of Sir Charles Warren, &c., that my "Gutter" theory, so far from being *only a guess*, is amply corroborated by "coincidence with the description in the Bible and elsewhere."

Further, Joab's exploit seems to be alluded to in Prov. xxi, 22: "A wise (lit. *crafty*) man scaeth the city of the mighty (*gibborim* in Hebrew) and casteth down the strength of the confidence thereof." Joab was *crafty* enough, the Jebusites *confident* enough (2 Sam. v, 6), while Zion, when it became the City of David, was garrisoned by men *mighty* enough (his *gibborim*); though four centuries of successful resistance might well have entitled the Jebusites to the same distinction.

It is open to question how much of the underground passage (from Gihon to the surface of Ophel) traversed by Captain Warren was covered by the term "Gutter;" certainly the first 70 feet; probably the shaft 40 or 50 feet high; possibly from this point Joab may have advanced by the south-west limb of the cave now partly filled (1867,

¹ "*Hated of David's Soul*," 2 Sam. v, 8. Both here and in 1 Chron. xi, 6, *smiteth* occurs. Nabal barely escaped with his life; the Amalekites were *all* slain (1 Sam. xxvii, 9); the Ammonites were tortured to death (2 Sam. xii, 31). Surely at Jebus *all* would be slain, except *the traitor* and, it may be, his family.

Letters, 39) with dry walls and (I conjecture) connected with "the passage) apparently "blocked up" in the chamber at the bottom of the chasm.

Posthumous fame is so greedily sought after, that (I think) it is quite possible that somewhere in the "Gutter" Joab had an inscription cut commemorative of his daring feat. Some day it may be found and read.

W. F. BIRCH.

THE POOL THAT WAS MADE.

WE learn from Nehemiah iii, 15, 16, that the wall of Jerusalem, in its course from near the Pool of Siloah to the pool that was made, passed over against the sepulchres of David.

It is certain (*Quarterly Statement*, 1879, 177 ; 1889, 209) that the course described above was on Ophel (so-called), and enclosed the sepulchres of David, leaving them on the left hand (1879, 179), and that the Pool of Siloah was in the Tyropæon Valley, at the southern end of Ophel. Mr. Schick's discovery of the old Shiloah aqueduct has entirely removed (*Quarterly Statement*, 1889, p. 37) the great difficulty noticed by Thrupp in regard to Siloam.

If, now, the position of the pool that was made could only be satisfactorily defined, we should be a step nearer, and possibly very near indeed, to finding the sepulchres of David.

Recently, in a totally unexpected manner, fresh light has fallen upon the position of this pool. In *Quarterly Statement*, 1889, p. 51, I proved, at least to my own satisfaction, that the Jebusites, for the sake of obtaining water, hewed the mysterious rock-staircases north of Joab's Well. But if there was any need for this work, and otherwise it would not have been made, they surely would never have allowed the waters from Gihon (Virgin's Fountain) to run to waste, but rather have carefully stored them in some pool. Such a pool must necessarily have been in the Kidron Valley, south of Gihon, unless we suppose that Schick's aqueduct (*Quarterly Statement*, 1889, p. 51) was made by them, and not by Solomon. This seems to me most improbable.

Thus at last we gain a glimpse of a very *old* pool existing at Jerusalem in the Kidron, south of Gihon, even as far back as the time of Joshua. Curiosity eagerly asks, "Is it noticed in the Bible? What was its name? What was its approximate position?"

For twelve years I have been probing this question of the site of the pool that was made, and from time to time have supported or suggested five different positions (*Quarterly Statement*, 1877, pp. 202, 204 ; 1879, 180 ; 1883, 107, 155) for it between Siloam and the Virgin's Fountain ; indeed, wherever within these limits I could find a pool existing or devise a supply of water to fill one. This troublesome search became necessary (as I stated in *Quarterly Statement*, 1877, 202) "in default of any evidence of a pool situated further south (*i.e.*, than the Virgin's Fountain) in the valley of the Kedron," to represent *the pool that was made*.

Thus the conclusion forced upon me, that the Jebusites themselves made a pool south of Gihon, is most welcome, inasmuch as, by providing a pool in the Kidron, it exactly meets the obvious requirements of Neh. iii, 16; and so another difficulty of long standing entirely vanishes.

So confident am I that this theory is not a mare's-nest that below I request the Executive Committee to undertake an excavation in the Kidron ravine, in order to test and (I doubt not) also to prove the correctness of my conclusion.

It seems to me, however, that one may safely go still further. Stanley ("Palestine," 513) gives the Hebrew word for *pool* as meaning an *artificial tank*. I believe this opinion is correct.

As then every pool had, of course, to be made, it is most extraordinary that one should be described merely as "the pool that was made," without any addition whatever as to *when*, or *where*, or *by whom*, &c., it was made; some such explanation seems absolutely necessary. Now, Isaiah (xxii, 9, 11) says to the people of Jerusalem, "Ye gathered together [or *drew in, withdrew, i.e.*, into the city] the waters of the lower pool. . . . Ye made also a reservoir [R.V.] between the two walls for the water of the old pool." This lower pool seems to me to be the King's Pool named in Neh. ii, 14, and to be identical in position with the present lower Pool of Siloam; while the reservoir seems to be the pool which (2 Kings xx, 20) Hezekiah made in the Tyropæon, close to Ain Silwân, at the southern end of his rock-tunnel through Ophel. The result of this tunnel or aqueduct being made would be (1) that the waters of Gihon, being thus diverted, would no longer, by means of Schick's aqueduct, supply the lower or King's Pool; and (2) that Hezekiah's pool or reservoir (A.V., "ditch") would receive the waters of (the Jebusite pool, *i.e.*) the pool that was made; by this I mean the waters which, but for the diversion, would have flowed into that pool. Be it observed, however, that Isaiah speaks of the reservoir receiving the waters of (*i.e.*, which used to flow into) the *old* pool. The Jebusite pool would, indeed, be pre-eminently *the old* pool. Hence I conclude without hesitation that "the pool that was made" (Neh. iii) was identical with the old pool (Isaiah xxii).

Further, as the words "that was made," without any addition, appear to me (as stated above) to form an unmeaning description, I strongly suspect that through some defect in the manuscript the Hebrew word for *old* (ישנה) has been misread into "that was made" (עשויה).

I may add that the three pools (the King's Pool, the Pool of Siloam, and the pool that was made) in Neh. ii, iii, seem to me to be necessarily *three different* pools, being mentioned by one writer in one story, but I do not see any impropriety in Isaiah's subsequently describing one of them (the King's Pool) as the lower pool.

It remains to consider the approximate position of the Jebusite, *i.e.*, "old," pool, mis-entitled "that was made." (1878, 187, 5.)

Mr. Schick's excavations, narrated in *Quarterly Statement*, 1886, p. 198, seem to supply a clue to the right answer. In his first shaft, A, in the

Kidron Valley, 350 feet south of the Virgin's Fountain, he says, "We struck a bottom of very hard concrete a few inches thick, consisting of lime and small stone chippings, with pounded bricks in it. Under it there was dry mud, like the deposit in a well or a pool. . . . Has the valley really been so deep here, or have I come into an old pool? I cannot tell." Let excavation decide the question. I would, however, observe that the Jebusite pool would need a concrete flooring, and this is exactly what has been found, while the non-discovery of broken pottery below the concrete seems to suggest that the latter was put down in very early times. By excavation it might easily be ascertained whether this concrete is a part merely of a small cistern or of an actual pool.

If the concrete should be found to extend westwards to the Ophel hill and to end at a point where the rock is perpendicular or scarped, so as to present a steep face, and if remains of an old wall should be found at the top of this steep rock, or even if the rock at the top be found to be such that it is suited for the foundation of a wall, then I am ready stoutly to maintain that the concrete really marks the site of the pool that was made.

Neh. iii, 16, distinctly says that the wall was repaired *to* this pool, and the Hebrew word (גַּי) used for *to* or *unto* (R.V.) in this chapter seems to me to mean in this description *right up to* or *close to* (see iii, 20, 21, 24). But the wall, so far as I can see, could only come *close to* the pool, not by the wall descending into the valley, which seems out of the question, but by the pool itself reaching to the foot of the rock on which the wall stood; and this would apparently be effected by the rock being cut down so as to present a vertical face, and cut to such a depth that the water would reach the foot of the scarp.

Should excavation happily show the existence of a pool at the shaft A, then the limits within which the sepulchres of David are to be found, become greatly reduced. For then this pool, instead of the Virgin's Fountain, would be the most northerly limit possible. Further, if those sepulchres had been close to the pool, it would hardly have been worth mentioning them as a landmark. I think, then, we might safely strike off quite 200 feet from the end at Siloam, and measure off nearly as many from the southern end of the Jebusite pool. This would leave us a distance about 100 yards long, north and south, within which it is exceedingly probable, if not absolutely certain, that the sepulchres of David are situated. The breath of the area need not now be calculated. This discovery (that is to be, so to say) of the pool that was made, of course, requires the city of David to be extended further south than I have placed it on my plan (1886, 34; 1889, opp. 36), and the position of David's tomb probably must go with it. I cannot help this; but I stated (1886, 34) that "How far the city of David extended *southwards* is open to question," and that "the approximate position of the sepulchres of David is a still more difficult question." I earnestly hope that here once more the Executive Committee will decide that the spade shall certainly follow the pen.

NOTE ON THE POOL THAT WAS MADE.

Further consideration satisfies me that the "concrete flooring" was part of an actual pool, and not merely of a well. If excavation should show that I am wrong in this conclusion, the precise position of the pool that was made will still be unknown; yet it is a point gained to find that it was situated in the Kidron.

On the supposition, however, that the concrete marks a pool that was made by a dam across the valley, a considerable difficulty at once probably presents itself, inasmuch as Mr. Schick failed at shaft A to find rock at 2,064 feet, although it is given on the contour plan as lying at 2,099 feet. This difference of at least 35 feet implies that our knowledge of the rock-surface at this part of Ophel is still very imperfect, and it follows that any proposed line of wall based on such imperfect knowledge, *may* easily be very far from the truth.

It may also approximate to the truth. An examination of the rock contours in the Jerusalem Portfolio leads me to the following admissions:—

1. If the Jebusite pool really reached westwards, so as to be almost beneath the wall, then the wall must practically have approached the valley to near contour 2,129. If, however, it should be found that the water of the pool could not have reached within 50 or even 80 feet of the foot of the wall, then the meaning attached above to **Ty** must be given up. Nevertheless this would really prove a great help, since the loss of verbal precision in this case would be a great topographical gain, inasmuch as in Neh. iii, *unto over against* obviously implies a greater intermediate distance than *to* or *unto*.

If, therefore, the Hebrew word for *to* should be found to apply to a distance of 50 or 80 feet, then as the wall was *over against* the sepulchres of David, it follows that they were more than that distance from the wall; and so whenever the wall is found (a comparatively easy matter) there will be no need to search the first 50 or 80 feet from the wall. It will suffice to examine the rock beyond this distance.

2. As the placing of "the pool that was made" near shaft A, apparently requires the City of David to have extended further south than is shown on my plan (*Quarterly Statement*, 1886, 34), and as the contour plan in the Portfolio gives a steep or scarped corner of rock on Ophel, 250 feet north of the Pool of Siloam, it seems to me very probable that the wall of the City of David followed the line of this scarp. Accordingly, I extend the west wall southwards 250 feet, and thence across the ridge of Ophel, until on the eastern side it reaches to contour 2,179 feet. At this point, the outer wall built by Hezekiah to defend his new reservoir, *i.e.*, the Pool of Siloam, came, I imagine, close to or joined the old wall of the City of David, though whether the point of junction was here or more to the west is open to question.

As this point of junction, an important one as a landmark, is not mentioned by Nehemiah, I can only account for its omission by supposing that the Sepulchres of David were opposite this point, or at any rate sufficiently near to render unnecessary the mention of any other landmark.

From Neh. iii, 16, it seems clear (1886, 34) that the Sepulchres of David were within Nehemiah's Wall, and I am more and more inclined to think that they were also *within* and not merely *near* the City of David. On measuring up my plan I cannot make the part of my wall to be *over against* these sepulchres, until a point is reached at least 350 feet distant from Siloam. When a further distance of 150 feet has been struck off from the wall running south from near the Jebusite Pool, there only remains a length of wall amounting to 230 feet, *over against* which the sepulchres could have been situated, while the breadth of the area available for the sepulchres of David, cannot, it would seem, exceed 130 feet. Further, this breadth, for searching purposes, may, as aforesaid, be reduced to 80 or 50 feet, in case the wall is not found to pass close to the Jebusite pool.

I do not at present see any prospect of fixing the position of the Sepulchres of David more precisely than I have attempted above, and therefore, after twelve years' hunt, I must leave to some enterprising explorer the task of bringing matters to a successful termination by actually discovering the long-lost tomb of David.

Any reader observing any defect in my theory will oblige me by pointing it out.

P.S.—The only reason I can suggest why the 148-foot tunnel (*Quarterly Statement* 1889, 48) was made almost on a level with aqueduct leading southwards from the grotto, is that the waters from that grotto, *i.e.*, from En-rogel, might thus be conducted to some point within the wall of Jerusalem. If this work had only been finished, then (1) by walling up in part the southern entrance to the grotto the waters of En-rogel could have been drawn from within the city by means of a shaft or staircase leading to the northern end of the tunnel; and (2) the tunnel would have afforded a secret way of exit from the city and so afterwards have helped Zedekiah in his flight from the Chaldeans.

W. F. B.

THE SILOAM INSCRIPTION.

THE commonly accepted version of the fifth line in the Siloam Inscription is not entirely satisfactory, inasmuch as it is inconsistent with Scriptural Hebrew usage.

It stands thus in the Jerusalem Memoirs, 347, and *Quarterly Statement*, 1883, 210: "And there flowed (5) the waters from their outlet (or the spring) to the pool for a thousand two hundred cubits." Professor Sayce gives it again, as follows, in his "Fresh Light from the Ancient Monu-

ments" (87), "The waters flowed from the spring to the Pool for a distance of 1,200 cubits."

Professor Sayce (88) says, "The language of the inscription is *the purest Biblical Hebrew*. If this be the case, the translations given above need correction, since the words, as deciphered in the inscription, stand literally as *two hundred (and) a thousand*. Dr. Neubauer, in the "Athenæum" (1881, 112), remarked that such an expression "is not Hebrew. The thousands are always before the hundreds." We have, indeed, in I Sam. vi, 19 (R.V.), the words, "He smote of the people *seventy men (and) fifty thousand men*," but some explanation is obviously required, since there could not be 50,000 men at (or even near) Beth-shemesh. Consequently this passage virtually supports the above-named rule.

The letters in the inscription rendered *two hundred* are **במאתים**. On this Major Conder observes (1882, 124), "There is no doubt room for the disputed letters but I have not been able to find any trace of the **ס** on either squeeze, cast, or stone." He adds (Jerusalem Mem. 352), "The *Tau* in **במאתי** seems to us to be very doubtful, though strokes exist which may have belonged to such a letter."

Professor Sayce was content at first with *a thousand cubits* and interpreted the letters **במאתי** to mean *for a distance of*, but he practically abandons this translation and accepts the other, by "formally retracting (1883, 210) his objection to the reading (translated) *two hundred*." Accordingly there is no need to deal with his earlier translation.

The question now is, what is the original word that has been metamorphosed into this inadmissible *two hundred*?

We seem to have some six letters of which the first from the left appears to be utterly illegible (really a space and nothing more remaining), and the third from the left is very doubtful, though some strokes exist.

Seven years ago when the true solution of the Shiloah difficulty first presented itself, I wrote in *Quarterly Statement*, 1883, 106, as follows:— "Without question, then, the canal seems to me to be the work of Hezekiah, and to be referred to in two passages in the Bible, 2 Kings xx, 20, and 2 Chron. xxxii, 30. I anticipate that the wording of the inscription will finally be allowed to confirm the identity of this canal with these works of Hezekiah.

On page 148 (1881) apparently,
המוציא (5) represents **פוצא** in 2 Chron. xxxii, 30.
מאתי (5) represents **למטה** in 2 Chron. xxxii., 30."

Mr. Schick's discovery (1889, 35) proves that this passage in the Chronicles refers to the Siloam tunnel. Thus the Bible account (R.V.), "Hezekiah stopped the upper *spring* of the waters of Gihon and brought them *straight down* on (rather with A.V. *to*) the west side of the city of David," really answers to the record in the inscription, "The waters flowed from the *spring* to the pool (**...מאתי...**) a thousand cubits."

Now as the *spring* named in the inscription coincides with the *spring*

named in Chronicles, so I believed and now maintain (no other suggestion, so far as I know, having been made) that the required Hebrew word, of which some letters survive, corresponds to *straight down* in the Biblical account. We are told *whence*, and *whither*, and *the distance* the waters flowed. The mutilated word (obviously not referring to the pool) most naturally would and (it seems to me) *must* describe *how* they flowed.

In 2 Chron. xxxii, 30, this *how* is described as *lemattah* and is translated in the Authorised and Revised Versions as *straight down*; but I am glad to find that at least fifty years ago the word was explained to mean *by a subterraneous course*; while *subterranean passage* is the very term applied to the tunnel by Professor Sayce in *Quarterly Statement* 1881, 141.

I need not attempt to show how *lemattah* in Chronicles can have assumed the particular combination of letters professedly found in the inscription. It must, however, be assumed that in the inscription, the first three Hebrew letters, viz., **במא** are *correctly* deciphered by the experts. All that remains for me is to complete in the *purest Biblical Hebrew*, the word thus beginning (and to complete it) in such a way that it may suitably describe the course of the waters through the tunnel.

The only word I can recommend is **במאורה** (as written in Isaiah xi, 8), meaning *in the hole or cavern*. Genesisius says, "Root עור Arab..... to be deep, to be *excavated*." Accordingly I translate the fifth line thus, "The waters flowed from the spring to the pool *in the cavern* (hole or subterraneous passage) a thousand cubits."

Let me frankly admit that *meurah* is not quite the word I should have expected to meet with in this inscription. A monotonous repetition of **נקבה** (excavation) would have been more in keeping with the stonecutter's style or the composer's meagre vocabulary.

One, however, who has not seen squeeze, cast, or stone, cannot (where there is obviously no collusion) challenge the unanimous decision of independent inspectors unbiassed, at least, in regard to the first three letters of the mysterious word.

W. F. BIRCH.

SUTEKH, CHIEF GOD OF THE HITTITES.

THE more we learn of the gods of the Hittites, the more we shall know of the Hittites themselves, for the ideal aim of nations and tribes is to become like their own gods. Sutekh was clearly the principal deity of the Hittites, for his name occurs the oftenest, and on the Karnac copy of the Egypto-Hittite treaty he is invoked as the deity of many places.

What was his form and representation? And what was his precise place in the astro-religious system of the ancients? On the engraved silver plate which contained the Hittite text of the treaty, the god was figured in the centre. The silver plate has not come down to us. Yet who knows but that the figure of Sutekh may one day be found surviving among the hieroglyphs of some Hittite inscription! The name is probably

Egyptian, compounded of Sut or Set (= Sothis, the Dog-star) and ekh, meaning ruler. We may look upon it as an Egyptian equivalent for the Hittite name of the deity, or as the name of an Egyptian god corresponding to the Hittite deity, and the actual name used by the Hittites is yet to be sought for. Sutekh is generally accepted as being another form of the name Set. Set was a god whose worship was established among the Hyksos or Shepherd Kings, and who had once been in favour with the Egyptians, but had come to be regarded by them as a personification of the Evil Principle. He thus became connected and confounded or identified with Typhon, as the murderer of Osiris. The place of this evil deity was in the Underworld, the dark abyss below the horizon. This is the astronomical position of the stars ushered in by Sothis, in the slow motion of *precession*. These stars make up the constellation of the whale (*Cetus*, Κητος) which, according to the Greeks, is the sea monster from which Perseus delivered Andromeda. According to Liddell and Scott, the Greek Κητος, besides meaning sea-monster and the constellation of the whale, seems to have the root meaning of gulf or depth or abyss; and this is surely because the whale constellation is in the same dark region as the abyss, as the abyss is located in the mythological system.

Sutekh, then, may be the god of the constellation Ketos, including as its herald the bright star Sirius. So his worshippers might be called Keteioi or Ceteans, just as the worshippers of Athene were called Athenians, and the worshippers of Assur, Assyrians. The Moabites are called in Scripture the children of Chemosh, after their god, and the Hittites are called the children of Heth (Hebrew *Cheth*, Assyrian *Kheta*)—why not also after their god? Homer makes mention of some Ceteans (*Odys.* xi, 521), and the Scholiast says they were “a people of Mysia of whom Telephus was king.” Mr. Gladstone has suggested their identity with the Hittites; and Prof. Sayce thinks Mr. Gladstone may be right. (“The Hittites: the story of a Forgotten Empire,” by A. H. Sayce, p. 120.)

The suggested etymological connexion of *Kheta* with *Ketos* does not require us to believe that the Hittites borrowed a god from the Greek pantheon, or a name from the Greek language; for the borrowing may have been the other way. The worship of a sea-monster by the Hittites (if that was so) was but as the worship of Dagon by the Philistines, or the reverence of the Babylonians for Oannes the Fish-man, who brought them civilisation. That the Hittites should reverence, as a god of heaven and earth, a deity discarded by the Egyptians as a ruler of darkness, was only what was charged also upon the Hyksos, and upon the Israelites themselves by their enemies.

The consort of Sutekh is believed to have been Atargatis or Derketo, a goddess half-woman, half-fish (Wright's “Empire of the Hittites,” Sayce's “Hittites”); and this lends further support to the idea that Sutekh himself was a Fish-man, the god of the deep.

GEORGE ST. CLAIR.

NEHEMIAH'S WALL AND THE SEPULCHRES OF
THE KINGS.

IN the *Quarterly Statement*, April, 1889, I wrote a paper on Nehemiah's Wall, in the course of which I showed the probable position of the royal sepulchres. Mr. Birch criticised my paper, and I replied. The argument might very well have ended there. But Mr. Birch returns to the attack, and it is obvious that the discussion might be prolonged indefinitely. Mr. Birch apologises for his "tedious notes" on the ground that unless he can show my errors the Committee will not excavate (on *his* site) and find the sepulchres of the kings. It does not occur to him as possible that they might excavate on my site and find them. However, I agree with him that the appeal should now be to the spade. If the Committee will resolve to excavate on both sites they will please a good many subscribers; and I, for my part, shall not mind which site is tried first.

GEORGE ST. CLAIR.

THE
PALESTINE EXPLORATION FUND.

NOTES AND NEWS.

The last number of the *Quarterly Statement* contained a report of the work done by Mr. Flinders Petrie at Tell Hesi and its results. Extracts from Mr. Petrie's journal are now published, which will be found of great interest.

The reports of Herr Schick give accounts of his excavations in connection with the Siloam aqueduct, the discovery of an elaborate tomb near Bethany, and other matters. The tomb, of which a plan and section are given, is remarkable in having its chambers so arranged that each one is on a lower level than that which precedes it. Herr Schick suggests that this is intended to *allow the rays of the afternoon sun to penetrate the innermost chambers of the Tomb.*

Herr Schumacher's report of the sculptured figures at Kânâ is now published, together with facsimiles of some of the photographs of the same. Major Conder has kindly contributed some valuable remarks on these curious figures.

The concession for a railway between Haifa and Damascus has been granted and disposed of to an English company. Engineers are already gone out, and have commenced surveying the proposed route. The services of Mr. Schumacher have been engaged, and it is hoped that as the work progresses important archæological observations will be made and reported.

The work of Mr. Guy le Strange on "Palestine under the Moslems" was published in April.

For a long time it had been desired by the Committee to present to the world some of the great hoards of information about Palestine which lie buried in the Arabic texts of the Moslem geographers and travellers of the Middle

Ages. Some few of the works, or parts of the works, have been already translated into Latin, French, and German. Hardly anything has been done with them in English, and no attempt has ever been made to systematise, compare, and annotate them.

This has now been done for the Society by Mr. Guy le Strange. The work is divided into chapters on Syria, Palestine, Jerusalem, and Damascus, the provincial capitals and chief towns, and the legends related by the writers consulted. These writers begin with the ninth century and continue until the fifteenth. The volume contains maps and illustrations required for the elucidation of the text.

The Committee have great confidence that this work—so novel, so useful to students of mediæval history, and to all those interested in the continuous story of the Holy Land—will meet with the success which its learned author deserves. The price to subscribers to the Fund is 8s. 6d.; to the public, 12s. 6d.

The new map of Palestine, so long in hand, is now ready. It embraces both sides of the Jordan, and extends from Baalbek in the north to Kadesh Barnea in the south. All the modern names are in black; over these are printed in red the Old Testament and Apocrypha names. The New Testament, Josephus, and Talmudic names are in blue, and the tribal possessions are tinted in colours, giving clearly all the identifications up to date. It is the most comprehensive map that has been published, and will be invaluable to universities, colleges, schools, &c.

It is published in 21 sheets, with paper cover; price to subscribers to the Fund, 24s., to the public, £2. It can be had mounted on cloth, rollers, and varnished for hanging. The size is 8 feet by 6 feet. The cost of mounting will be extra.

Mr. Henry A. Harper's work, on "The Bible and Modern Discoveries" was published last December. It is an endeavour to present in a simple but yet connected form the Biblical results of twenty-two years' work of the Palestine Exploration Fund. The writer has also availed himself of the discoveries made by the American Expeditions and the Egyptian Exploration Fund, as well as discoveries of interest made by independent travellers. The Bible story, from the call of Abraham to the Captivity, is taken, and details given of the light thrown by modern research on the sacred annals. Eastern customs and modes of thought are explained whenever the writer thought they illustrated the text. To the Clergy and Sunday School Teachers, as well as to all those who love the Bible, the writer hopes this work will prove useful. He is personally acquainted with the land, and nearly all the places spoken of he has visited, and most of them he has moreover sketched or painted. The work is in one large, handsome volume of 600 pages. It is illustrated with many plates, and a map showing the route of the Israelites and the sites of the principal places mentioned in the sacred narratives. The work has had a very gratifying reception. The Third Revised Edition is now nearly exhausted. It should be noted that the book is admirably adapted for the school or village library.

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

Considerable progress has also been made with the second volume, which consists of M. Lecomte's beautiful drawings, illustrating the Mission of M. Clermont-Ganneau in 1874. The illustrations for the third volume, Mr. Chichester Hart's "Fauna and Flora" of the Wâdy Arabah, are nearly ready.

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

The books now contained in the Society's publications comprise an amount of information on Palestine, and on the researches conducted in the country, which can be found in no other publications. It must never be forgotten that no single traveller, however well equipped by previous knowledge, can compete with a scientific body of explorers, instructed in the periods required, and provided with all the instruments necessary for carrying out their work. The books are the following (*the whole set can be obtained by application to Mr. George Armstrong, for £2, carriage paid to any part in the United Kingdom only*):—

By Major Conder, R.E.—

- (1) "Tent Work in Palestine."—A popular account of the Survey of Western Palestine, freely illustrated by drawings made by the author himself. This is not a dry record of the sepulchres, or a descriptive catalogue of ruins, springs, and valleys, but a continuous narrative full of observations upon the manners and customs of the people, the Biblical

associations of the sites, the Holy City and its memories, and is based upon a six years' experience in the country itself. No other modern traveller has enjoyed the same advantages as Major Conder, or has used his opportunities to better purpose.

- (2) "Heth and Moab." Under this title Major Conder provides a narrative, as bright and as full of interest as "Tent Work," of the expedition for the *Survey of Eastern Palestine*. How the party began by a flying visit to North Syria, in order to discover the Holy City—Kadesh—of the children of Heth; how they fared across the Jordan, and what discoveries they made there, will be found in this volume.
- (3) Major Conder's "Syrian Stone Lore."—This volume, the least known of Major Conder's works, is, perhaps, the most valuable. It attempts a task never before approached—the reconstruction of Palestine from its monuments. It shows what we should know of Syria if there were no Bible, and it illustrates the Bible from the monuments.
- (4) Major Conder's "Altaic Inscriptions."—This book is an attempt to read the Hittite Inscriptions. The author has seen no reason to change his views since the publication of the work.
- (5) Professor Hull's "Mount Seir."—This is a popular account of the Geological Expedition conducted by Professor Hull for the Committee of the Palestine Fund. The part which deals with the Valley of Arabah will be found entirely new and interesting.
- (6) Herr Schumacher's "Across the Jordan."
- (7) Herr Schumacher's "Jaulân."—These two books must be taken in continuation of Major Conder's works issued as instalments of the unpublished "Survey of Eastern Palestine." They are full of drawings, sketches, and plans, and contain many valuable remarks upon manners and customs.
- (8) "The Memoirs of Twenty-one Years' Work."—This work is a popular account of the researches conducted by the Society during the past twenty-one years of its existence. It will be found not only valuable in itself as an interesting work, but also as a book of reference, and especially useful in order to show what has been doing, and is still doing, by this Society.
- (9) Herr Schumacher's "Kh. Fahil." The ancient Pella, the first retreat of the Christians; with map and illustrations.
- (10) Names and Places in the Old and New Testament and Apocrypha, with their modern identifications, with reference to Josephus, the Memoirs, and *Quarterly Statements*.
- (11) Besant and Palmer's "History of Jerusalem," already described.
- (12) Northern 'Ajlûn "Within the Decapolis," by Herr Schumacher.

To the above must now be added Mr. Henry A. Harper's "The Bible and Modern Discoveries." Price to the public, 16s. ; to subscribers to the Palestine Exploration Fund, 10s. 6d., carriage included. And Mr. Guy le Strange's important work "Palestine under the Moslems," price to the public, 12s. 6d. ; to subscribers to the Fund, 8s. 6d.

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

The income of the Society, from June 21st to September 20th inclusive, was—from annual subscriptions and donations, including Local Societies, £131 18s. 6d. ; from donations for excavations, £24 7s. 6d. ; from all sources, £516 7s. 3d. The expenditure during the same period was £464 8s. 9d. On September 20th, the balance in the Bank was £827 19s. 6d.

Subscribers are begged to note that the following can be had by application to the office, at 1s. each :—

1. Index to the *Quarterly Statement*, 1869–1880.
 2. Cases for Herr Schumacher's "Jaulân."
 3. Cases for the *Quarterly Statement*, in green or chocolate.
 4. Cases for "Abila," "Pella," and "'Ajlûn" in one volume.
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Early numbers of the *Quarterly Statement* are very rare. In order to make up complete sets, the Committee will be very glad to receive any of the following numbers :—

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

It having again been reported to the Committee that certain book hawkers are representing themselves as agents of the Society, the Committee have to caution subscribers and the public that they have no book hawkers in their employ, and that none of their works are sold by itinerant agents.

Sir W. Q. Ewart, Bart. has kindly consented to act as **Honorary Local Secretary** for Belfast.

We have to acknowledge, with thanks, receipt of **Smithsonian Reports** for 1886, 1887, in 3 Vols.

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

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

The only authorised lecturers for the Society are—

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

The Survey of Western Palestine, as illustrating Bible History.

Palestine East of the Jordan.

The Jerusalem Excavations.

A Restoration of Ancient Jerusalem.

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

(1) *Research and Discovery in the Holy Land.*

(2) *In the Track of the Israelites from Egypt to Canaan.*

(3) *Bible Scenes in the Light of Modern Science.*

JOURNALS OF MR. W. M. FLINDERS PETRIE.

31st March to 6th April, 1890.

I DID not mention that as I went down to Jaffa (or Yafa, as it should be called) the sky became clouded, and a strong east wind that we had had, broke; puffs from the south-west came, and as I neared Ramleh I saw a low light cloud bowling forward from the south-west below the black overcast, and was astonished at the rate it altered (curls of it rolling up as I looked at it), and the rate it went along, 30 or 40 miles an hour apparently. Then came rain—most had passed to the north nearer the sea; we only had the tail of the storm, but such rain I have seldom seen; and the curtains which formed half the side of my conveyance being—one gone and the other without fastenings, I had all my time occupied in holding something as a shutter, while my saddle-bag of clothing I gripped between my knees to keep it out of the water which collected in the carriage.

After I got to Mr. Hall's I heard what a storm had raged there. Wherever shutters were left loose the glass was all smashed, and they referred to it as a sufficient test of the security of their roof, which looks looser than it is, the top storey being smaller than the lower, with a deep verandah all round, leaving an open-air promenade. Everywhere as I have gone over the country I have seen the great effect of this storm: fields high upon the hills are washed over with mud, and paths are constantly cut by the waterfalls of the receding channels.

Wednesday, when I had intended to leave, was so wet in the morning that I could not go out, so I had to postpone, and finished shopping in the afternoon. Then there was an uncertainty about camels. It had been so wet that none had come from the country to be hired, and my man was very desirous of going off home in the evening and getting up a man and camels, whom he wished to employ. So after some bother he hired a horse and rode off that night to Jimzu, beyond Lydd, where he comes from. The camels came duly next morning by 9, and we got loaded from the goods agent and the Hall's, and all off by 12. Thus we just got to Yebna by dark, and pitched by moonlight.

Yebna, Jamnia, or Jabniel, is a dirty cluster of grass-topped mud huts, which rises above the general level of the rolling plain of Philistia. This plain, or wide expanse of slightly wavy ground, is one of the greenest sights I have ever seen. Most of it is in corn, without a trace of break or ditch or hedge from hill to hill. The separation of the different strips can just be traced by the growth; but each plot seems to be about 30 feet wide and over half-a-mile long, as it went on from the road up to the top of the next rise, and where to I know not.

The straightness of the ploughing is striking—seldom could I see six

inches of bend in the line. Some regions are all left in pasture, some in heather or wild plants, some in fallow. Everywhere the west boundary is the mass of sand-dunes, which gradually eat up the land, now covering some four or five miles wide from the sea coast and ending in steep slopes which stand up 20 feet or more above the cultivated plain. Next day we went on past Ashdod, which has been partly swallowed by the sand-dunes, but still bears a mass of green-topped houses on its heap. After looking over some sites on the way, I pushed ahead of the camels to Bureir, and looked out for the best camping. I could get no shade of trees, but found a wide meadow east of the town beyond the well, which was good ground, and sloped down sharply into a little watercourse, so that it is well drained. Here we pitched, with some cactus-hedged gardens a little way off on three sides, and Burier on the west.

During the night I was awake by a dog getting in, and again by a slight noise, and looking up, saw a gap in the tent—in it, a man's head and shoulders, and heard the intruder fumbling over the tool-bag, too heavy to carry off, and awkward to open. I challenged, he ran, and four bullets went over his head to improve his pace. I had noticed the chance of an opening being tried there, and had put all small articles far from the place, which was an ill-secured and needless doorway. Next day I sewed it all up, and generally improved the arrangements. I went to the Sheikh, and he much wanted me to pitch in a dirty courtyard, with beasts and fowls about. I could not, but proposed to have two guards out near the tents, so as to make the village responsible.

The Sheikh is an oldish man, quiet and sensible, and I think there will be no troubles there. It is curious to hear, not only of *El Kudis* (Jerusalem), but *Kudes*, as some say, much near *Kadesh*. The Arabs, in whose region 'Ajlûn is, are not called "Amarin" so often as *El Amar*, exactly the Egyptian name of Amorites. I expect it is the same name, and perhaps more from the locality than from the origin of this tribe. The people here use subterranean corn and fodder bins; and I saw several letting down baskets and pulling them up full of stuff. The places are much like the cisterns, apparently, with a round hole flush with the ground. It suggests that many old cisterns, as we suppose them to be, in the ruins may be granaries. One of my guards was for four years servant to an English doctor in Constantinople, as he says. I explained my object and intention to the folks, but I find trouble in understanding their Syrian with my Egyptian. I went off next day for a round to see the country. *Umm Lakis* (supposed to be Lachish) is nearly all cultivated, and the surface stuff is Roman; so I do not see much to try for. 'Ajlûn is worse. There is very little pottery about; what there is, is Roman, and it is all with barley around, and on the top an onion garden, a hovel, and an old man. Then I went to Sukariyah (where there are also Roman things) to see the head Sheikh of the Bedawîn of the district—the Amarin. I found him a pleasant fellow sitting under an enormous flat tent, with a number of his following. I did a deal of silence, for that is orthodox; and in the

intervals stated my business. Soon after I arrived there was a chorus of dogs, and a man came up bearing a wide wooden bowl on his head, with the midday meal. It was set before us, and we gathered round, about half-a-dozen at once. The mixture was bread in sour curds, and plenty of butter melted amongst it, with a layer of pieces of fat mutton on the top. I smelt the sourness, and judiciously grabbed a good bit of plain meat, which kept me in play as long as the others. It was amusing to see them grasping handfuls of the fearful mixture, and stuffing it into their mouths. When one set had put down enough, they rose and another party squatted round the big bowl, until at last there was little or nothing left. Some favoured folks, not in the first circle, had bones and lumps handed over to them before the second or later circles of squatters came on. Before beginning, the best society rinsed hands, and when done, they went across and rubbed off the grease on a flap of the black goat's-hair tent, and then rinsed again. After coffee, I bid good-bye, slipping a napoleon into the Sheikh's hand as a smoother for future business.

Then I went to Tell Hesy, a striking place. The mound is about 60 or 80 feet high, cut away on one side by an encroaching stream. There was much pottery about, but none of it Roman—all earlier; and I think this is worth a dozen of all the other places put together. But it is mostly cultivated, and is six miles from here. The nearest village, Khurbet Hazzârah, is nothing to notice. Tell abu Shukf has much pottery about, as its name implies; but it is half cultivated. The pottery seems to be mainly pre-Roman. Khurbet Summeily has also some early pottery, but it is not important. The astonishing matter to me is, how closely these Bedawîn cultivate the ground. There is but a small proportion of pasture, nearly all being arable, some fallow, but mostly in barley. This will make any thorough work difficult, as we must buy out the crops.

7th to 16th April, 1890.

A curious survival, or revival, is seen here in the pottery. The black pottery found in early Greek sites is considered Phœnician; here all the pottery in common use is black, and is made at Gaza. Moreover, the ancient was painted with red lines, and so is the modern, only with red lead instead of ochre. Around modern tombs they do not build *welis*, as in Egypt, but open courts or enclosures. Around the inside there are niches in the wall, in which fire is burnt on potsherds every Friday. Also stone tables are built against the wall, and within these lamps or stands with fire are placed. These are identical with the curious arrangements all round the inside of the so-called Phœnician temple at Hagiar Kim, in Malta. Then on these tables, and also on graves, are placed old mill-centres or querns, which do not appear to be worn out. These are all found in old sites, and, I hear on inquiry, are not made now. They remind one of the conical black stone worshipped at Emesa, of which Elgabalus was priest.

I have been twice over to Gaza now, and made friends with

Rev. R. Elliott, M.D., medical missionary there, and his wife and her sister. He is a north Irishman, capable and energetic, and as kind and helpful as he possibly can be. He is excellent friends with the Kaimakam (Governor), and will attend to any official matters for me, and I am to stay with them any night that I may want to be in Gaza. His dispenser, moreover, is a most useful fellow, an Arab-Austrian, who writes and speaks Arabic, Turkish, English, &c. I am really more within "humanity's reach" here than in the Fayum with such friends (and a dispensary) only 12 miles off. The present Kaimakam in whose district I am is very favourable. He has been a journalist most of his life, and lived in Berlin, Vienna, &c. He has no fanaticism, and is much Europeanised in ways and feelings. The Effendi never turned up until a note came from Gaza on Thursday, asking me to go there about the business. I went and found him at the Kaimakam's. He began with every sort of objection to coming or doing anything, evidently wishing to spin out the time of all pay and no work. The old Kaimakam quite took my part, and answered "a fool according to his folly" more than once. Afterwards they came to Dr. Elliott's, and we had another talk. Dr. Elliott said very soon to me that he had seen many men object to their work, but he never saw one so set against doing anything.

At last, Monday, 14th, I began at Umm Lakis (called Laggis), and it turned out much as I expected, all Roman or Cufic. I made trench pits in many different parts, and everywhere the result is 4 to 8 feet of earth and burnt dust, &c., with Roman and Arab pottery. Beneath that is clean, untouched, red earth, veined with white infiltration, evidently undisturbed soil.

The latest date of surface pottery is probably about Omayyid or Tulunid, but pre-Crusading. I doubt if the place was much occupied before the second or third century, A.D. It is tolerably certain that therefore, in spite of the name, this cannot be Lachish; nor does the distance from Beit Jibrin accord with what Eusebius states. Tell Hesy is nearer the right distance, and is certainly a great city and early, agreeing better to Lachish being one of the fenced cities of Judah, and being besieged by both Sennacherib and Nebuchadnezzar.

What with too much tea, and men talking, and dogs and donkeys, and my man being inside my tent because the Effendi had the other, I only got two hours' sleep last night, and this morning there was a steady misty rain, which makes it wretched for standing about in wet grass, and which did not clear for two or three hours.

So far nothing appears which is probably pre-Roman, and we found a worn coin of Maximin just about where I should have expected, 2-3 feet above the native soil.

16th to 21st April, 1890.

The third day's work at Umm Lakis only confirmed what I had already noticed. Within a couple of feet of the bottom of the made

ground a very worn coin of Maximin Hercules was found. And on a rise near the town I noticed pieces of walls, which proved to be part of a Roman villa with a bath, as far as we cleared the place. It being then pretty evident that Umm Lakis is not Lachish, and that there was nothing pre-Roman there, I moved over to Tell Hesy, which is 6 miles from Bureir, and therefore too far to go every day (to those without a detailed map I may say that Tell Hesy is 17 miles east of Gaza). This is entirely in the Arab country, and though those gentry do not pay any land taxes to the Government yet they are considered to have a certain right to the ground, simply because no Turkish Governor is strong enough to reduce them to obedience. There is not a house in sight all round the country, only straggling groups of low, brown tents.

I had intended to go to the principal sheikh of the district, make friends with him, and offer to pay liberally for Arab guards as appointed by him, as a means of giving cash, slice by slice, according to time; but the Effendi would not hear of my saying anything to the Arabs, because of their rapacious expectations, but he would attend to all that by asserting his official authority. In fact, it was just a question who was to get the *pickings*, the Arabs as *de facto* masters of the situation, or the authorities as *de jure* masters. And the Effendi guessed that if I paid one party I should cold-shoulder the other. So as he took all the responsibility I left the matter entirely to him, and he had to attend to it with a vengeance. For two whole days he was in constant parley with interminable sheikhs of all the neighbourhood. Some decent and friendly, some demanding money, some threatening, and all feeling their way. He had once to begin a letter to the Kaimakam at Gaza, asking for some soldiers to be sent before one fellow would knuckle under, for the one thing these Arabs dread is a party of even pacific soldiers, as their horses would be turned loose into the standing barley and wheat to feed.

The final situation is that the Arabs will not get backshesh, and our guards consist of two from Bureir (the Constantinople doctor's servant and one who knows all the Arabs here very well), one Arab from the nearest settlement, and one appointed by the big sheikh. So everybody is responsible for us. All this is needful as the whole country is very unsettled, though not unusually so. Only the other day a big Effendi of Gaza and some others were stopped within a few miles of the town and stripped of everything. The work is overrun all day by lounging Arabs from the neighbourhood, whom I get on with very well as they are pleasant and civil enough, when not out for plunder. A few small jokes, and especially a little mimicry of any peculiar manner or ways, will set them all laughing, and make us good friends for the time, and probably less touchy afterwards. So far there is no difficulty in getting people over from Bureir to work, as I have increased their wages to 1s. a day for a man and woman or girl. But they are poor workers after the Egyptians, not doing more than one-half or two-thirds of what my old hands in Egypt would have done. I am getting them better fixed to the work

now, but at first they were all over the place, talking and smoking—anything but work. How we shall get on in Ramadan is doubtful. I want them to begin work directly after their last meal before sunrise, and (with a short pause) go on till 3 P.M., after which they can sleep on their hunger till sunset, when the feasting begins. They and the Effendi all highly approve of such a plan, so I hope to get some work out of them. Now for the place and results.

The place roughly is a high mound, cut away on the east by the stream, and a circuit of natural ridges around a slight valley on the south of it. All of this area has pottery scattered over it, and the mound itself is artificial, consisting of about 60 feet of successive town levels piled one on the other, and the river-worn stones laid down for floors to the rooms, showing all over the sides of the mound as lines of blocks. All my digging in the mound is on some given floor, which we clear. The top of the mound is all cultivated, and, if needful, I shall buy up the crops; but the man wants £4, which is rather much for it, so I wait to see what we can do around the wide sloping sides of the mound and on the river face.

This is an excellent place to work, as the storm floods have kept up so much scour as to leave the face a clean section from top to bottom of the mound, so I can work at any period I wish. I have three parties (six men) at the top level and as many at the bottom level, besides others at the sides, we have already found plenty of potsherds, and some walls of rough stones which we are following. Outside of the town circuit on the south-west, is a sand hill with much pottery buried in it, the purpose of which is not clear. The pots are intentionally buried, generally jars with a basin or cup on the top; often there is a smaller vase inside; they are altogether filled with clean white sand, like what they rest on, but cleaner than the brown humus sand around them. In one or two some small bones were found, and some bones in the sand without jars.

It reminds me much of a great burial of jars at Zuwelen near Tanis, of about 1000 B.C., which contained animal bones; and probably this is a cemetery of the sacred animals of the Amorite age. Perhaps where no bones can be found they buried the sacred flies of Baal-zebub!

Now, as to chronology. This cemetery pottery is mainly of little brown flasks, which I have this season precisely dated by finding them in a tomb about 1100 B.C. at Illahun. So that pretty well dates the cemetery to the time of the Judges. Then certain peculiar handles in this pottery are also found in the lowest part of the town which is, therefore, probably quite as old.

Then in the top of the town is peculiar pottery, which I know at Naukratis, to be about 600 B.C., and two bits of black Greek ware have been found about the same age. I conclude, therefore, that the place is as old or older than the Judges, and was destroyed at Nebuchadrezzar's invasion. This tallies very well with what we know of Lachish. Certainly out of thousands of sherds that I have looked at here, I have seen only one stray piece of Roman age, lying on the surface. As we

have only worked for two days yet, too much must not be expected of me as to preciseness or detail of history. We are badly off for water, our three sources being : (1) springs here, clear but too brackish to drink comfortably ; (2) surface ponds of rain-water, contaminated, at Bureir, to be brought 6 miles on a donkey ; and (3) deep well at Bureir, stagnant and very green, and rather salt, but probably not contaminated. The last is what we trust to, and though I boil it well, yet the colour and taste of it are almost too much for me. When boiled, it is three courses in one—soup, fish, and greens.

It is very curious how akin the pottery on the top of the *tell* here is to the Naukratite ; and, strangely, not so much like the Daphniote, which is so much nearer. There are the same large jars with *sliced* surface around the lower end and massive loop handles, the same drab dishes of thick stuff, and the same pinched up saucer lamps, and some purely Greek pottery of black glaze and red face. So far as these give a date, I should say between 600 and 550 B.C., and being like Naukratis and *not like* Defneh, it appears like a Greek settlement, and not a geographical link across from Egypt. I have suspected that the Jews may have employed Greek mercenaries like the Egyptians.

22nd to 29th April, 1890.

At last I got down here another tent from Jerusalem, to supply the place of the one I had to give up to the Effendi. For more than two weeks I had never had an uninterrupted night's sleep, and generally had to go out to silence the guards and men about. Having to be about all day as well, I was becoming rather helpless in consequence ; and so I pitched the fresh tent about 100 yards off, with a slight rise between it and our present camp. There was a great talk about the insecurity of my sleeping there, and the Effendi said he would go rather than assent to it ; but I calmed him by agreeing to two of the four guards extending their region out to there, under promise of strict silence at night, and so now I have necessary sleep. The constant noise, and impossibility of shutting it out, is the great trouble of tents, instead of walled dwellings. The town is developing. On the north side, at the base, I have found the wall of the first (Amorite ?) town, thirty feet thick, of brickwork ; and we are now clearing along the inside of it. There, at the top of the same side, I have the wall of the last town, possibly Rehoboam's fortification, but most likely rather later ; and there is the gap of a gateway, and outside, a platform of stones and probably steps leading down the mounds. Then on the east (river) face I found a part of this same wall remaining, though most of it has fallen away by the scour of the watercourse. On the south I find the first town wall, I believe, again ; and I am tracing other walls on that side also. I have begun a plan of the place, but it is not much time I can take from looking after the men.

It is an unpromising place for a temple or sculptures. During the Jewish period it is not likely that there was any shrine here, and to

reach the temple of the Amorite time we should need to remove all the Jewish stuff, many months' work and heavy cost, before baring the Amorite level. The only reason that I can work in all periods at once is by the denudation of the river face; but that only touches one side of the town, and there may likely be no important buildings just there.

I examine all the potsherds (and from 500 to 1,000 a day we turn out) for marks, but as yet only three have been found, all of the later period, in and by the last wall. This cannot be later than the reoccupation after Sennacherib's attack, 713 B.C. (2 K. xviii, 13, 14, xix, 8), and may be possibly Rehoboam's wall, 960 B.C. (2 Chron. xi, 9). In it was a pot marked with the potter's marks, and not owner's. Unfortunately I know nothing in detail of Egyptian pottery between 1000 and 650 B.C. So the difference can hardly be settled, but I incline to the earlier date. Our further work has suggested that there is a series of walls, one over the other, which I can trace by cleaning down the east face, from the thirty feet Amorite wall to a thinnish wall at the top, probably about 700 B.C.

I find that there is another great and important town near here, Tell Nejileh, which, like this, was never occupied since Nebuchadrezzar, or more probably Sennacherib. Unluckily the whole of it is covered with an Arab cemetery, so that only just the edge of the slopes could be dug into, until the day when these useless Arabs are cleared out, and a reasonable people settled here. I dined with the biggest sheikhs the other night, and could not but feel what total barbarians they were; manners and customs I set aside, as they depend on taste; but the utter ignorance, and lack of all ideas outside of their daily life, and impossibility of talking on any matter but what they had already talked of hundreds of times, was crushing. I urged on the sheikh that if they would only dam the deep watercourses and hold up the winter rains (which all run down to the sea at present), they would have good water, and could cultivate as they like with it, instead of being dependent on showers. He only said that no one had a head to do that, and they did not care to cultivate (beyond the interminable barley), as they might go anywhere, at any time; so the sooner they are moved off the better. They pay 5,000*l.* a year to the Government for what might bring in five millions in proper hands.

30th April to 7th May, 1890.

The post brought in not only its regular allowance, but a lot of arrears—letters from home, and newspapers. Probably these had been detained for the Turkish censor to examine, for there is a long list of proscribed papers and books in this enlightened rule, and prohibited journals have to be sought for.

On the Tell we have been tracing the fortifications on the north and west sides, where walling 10 or 12 feet high remains, buried in rubbish.

Also I found a wall to the great outline of the inclosure, about 1,000 feet across, which I must trace out. On the Tell one or two dated things have turned up: a Greek vase with pattern, which looks as late as the Vth cent. B.C., and a chip of early red figured vase, about 450 B.C., or 400 probably; showing that the Tell was reoccupied after the Captivity, though only very slightly. Also a small coin, Persian or of Tarsos? bearded head, Rev. king attacking a ramping lion. But as yet no sculpture, inscription, or metal work, has been found. I see from Perrot and Chipiez, however, how very little is known about Syrian pottery, and how much the work here will help to put that on a firm basis. On the river face of the Tell I have had the surface all cleared down at the north end, and have spent hours there tracing out the sections of the various brick-wall fortifications of the town. These are far the best source for its history, when combined with the notices in the O. T. of Lachish. I can find 9 successive wallings: a huge Amorite wall, 28 feet thick, two Amorite rebuildings on that; then is a period of no walls, but ruined habitations of rough stone, overthrown and spread about, probably of the Judges' period. Then a fairly stout wall, 13 feet thick, which must be Rehoboam's, then four small walls, rebuilt on the ruins of that by different kings; and, lastly, a thin and hasty wall on the top of all, which must, I think, be due to Josiah, when he tried to keep out Hophra, in 610 B.C. No one later than that would fortify down here probably, and the Persian coin was just above the bottom of this wall. The artificial mound is altogether 75 feet high, and the hill under it 45 feet, making 120 feet altogether, in one slope down to the stream.

The weather has been very tolerable till to-day, when it is 104° in the shade; and, as you may see, I cannot touch my writing without smudging the ink, I am so moist. I have finished a plan of the place, with 20-foot contours all over, which I have sent to the P. E. F.

There are some stirrings here; for when I came there were 150 soldiers down in the Gaza district after some unruly Arabs, and they seized and carried off 13 sheikhs in irons to Jerusalem. Now, the other day there was a skirmish between the Terabin and the Azizin down at Nejileh, where I went last Sunday, with the result of eight killed—5 of one and 3 of the other—only leaving happily a blood balance of 2 to be wiped out in future. The Effendi is, no doubt, of considerable use here, as he is well known to be a Pasha's man at Jerusalem, and they would think twice before getting into a scrape by interfering with him. So far we are on very good terms with the sheikhs here, though the underlings do continually steal our men's donkeys, and try to screw a ransom for them when discovered: the four donkeys taken have all been recovered. The country will never be worth anything until all these savages are thrust back into the deserts they came from, and kept there by a border garrison. Then, with proper water storage, which would cost next to nothing, this might be a thickly populated land, and very profitable. As it is, most of its profit goes into the hands of corn dealers

of Gaza, who buy up the Bedawîn crops, and export them to France, &c. Oh! joy! here is a cool wind down to 98°, and I am feeling quite lively. Next day is better, a pleasant west wind, only about 95°. It is miserable work driving these wretchedly lazy Syrians this hot weather in Ramadan. They are desperately thirsty, and I constantly find a man lying down asleep. Sometimes a fellow who is out of the way does absolutely nothing for hours, between one visit to him and another; and dismissals seem to have no effect on the survivors, for I clear off about one-quarter to one-third of the men every week, and have fresh ones, who prove even lazier. It is most untoward that I should have been cast on a hot Ramadan to work such people.

We have had a fine pair of snakes dug out in the work, 7 feet long each, bright and steely grey. Though hot, it is very dry, as may be imagined when the wet bulb is 28° below dry, 96° and 68°.

I have said nothing yet about the awful subject of coinage here. It stands thus: every place has its own valuation of all the coins in an arbitrary standard which does not exist. Thus the sovereign is 137 piastres at Jerusalem, 154 at Jaffa, 274 here. And every other coin varied in proportion. That there is no such thing as the nominal piastre in existence is a fearful puzzle to the beginner. Why the rate varies thus in each place no one can tell; it is supposed to somehow be a device of the Jewish changers for securing profits, but no one knows why or how. Then the small coins are all odd fractions of the nominal piastre—

6	3	$1\frac{1}{5}$	$\frac{3}{8}$	$\frac{1}{3}$	$\frac{1}{6}$	$\frac{1}{12}$
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worth respectively about—

5d.	$2\frac{1}{2}d.$	1d.	$\frac{1}{2}d.$	$\frac{1}{4}d.$	$\frac{1}{8}d.$	$\frac{1}{16}d.$
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though I always think of them in Egyptian piastres or francs.

(2.) *From a Letter.*

I went over to dine at the biggest sheikh's the other night. A blessed simplicity in going out to dinner without collar or socks, and kicking off your boots and sitting squat, barefoot. The notion that Ramadan fasting mortifies the body is a monstrous fallacy; true, great discomfort and incapacity result from it, but as it is made up by gorging at night with extra delicacies, and thinking of nothing but the perfect gorge all the weary day, it is hard to devise a more perfect way of making the question of the stomach *all in all*. We all sat round the mutton and messes put in the dingy copper-tinned dishes, waiting for the Gaza gun, which announces the lawful moment for feeding. Once or twice it was thought to be heard, at last every one grabbed snatches of flesh off the sheep, and pinches of rice and sundry odd dainties. To get any conversation out of them was impossible. I tried to make talk to the sheikh, but in vain. They seem incapable of connected ideas or thoughts; at first I thought I misunderstood them, but it was too true. The Arab has a vast balance of romance put to his credit very needlessly. He is as

disgustingly incapable as most other half savages, and no more worth romancing about than Red Indians or Maories. I shall be glad to return to the comparatively sensible and shrewd Egyptians.

6th to 12th May, 1890.

Around the walls of the north-west we have done a good deal. The whole of the main wall of fortification (Rehoboam's) is now found at that part and planned; we have also found the thickness of it at several parts, and I am clearing out the north-west tower, which is a good piece of ground to work, as it is clear of crops, with a steep fall around it to carry away the stuff, and some large stones already uncovered there in our work. Outside and below that I am tracking along the outside of the first Amorite wall, mainly for the sake of the chance of early pottery in the black ash earth. It would be too heavy a business to work it all along, as the earth is about 20 feet deep outside it.

On the south side, just at the edge of the cliff washed away by the wady, we lit on some masonry; and by the level I should say it could not be later than Rehoboam, and might probably be earlier. There is but little left, about two courses of small stones on each side of an entrance 5 feet wide; unhappily most of the building it led into has been washed away. But this masonry is very valuable, as it is drafted work with rough central lump, but there is no trace of comb-pick dressing, it is all the hammer-work, which I already believe to be Phœnician. At last we have some positive datum as to stone dressing, which is absolutely clear of the suspicion of Herodian origin. I have photographed the stones. There are two steps at one side of this masonry, which we are clearing and following. Then at a rather higher level, but well within the mound in level strata, and about half way up, or not later than the early Kings, we found more masonry, some fine white limestone paving, broken blocks, and a slab of wall facing. On this block is a precious example of architectural decoration, about 4 feet high. In low relief, about an inch forward, is half of a pilaster with volute top. The edge of the block is slightly projecting: perhaps a corner ornament of a room, with a similar half on the other wall. I had a paper mould on it within a couple of hours, and so I shall be able to make a plaster slab cast in London. The block itself is broken in two, and happily the Effendi and the Kaimakam are not impressed with it, and will probably not want it removed. If it could go straight to any safe museum, it would be well, but probably it would never reach Stambul, and if it did, it would be used for old stone in building. So I contemned it to the authorities, and probably shall be able to leave it buried here for some future opportunity. It is too large and heavy for me to wish to do anything with it at present. But it is a very interesting find, as we have no such complete piece of Jewish decoration before.

It is most like the pilaster in the chamber by the Haram at Jerusalem, but the main value is its completeness, showing the base and the volute

entire. I cannot photograph it until the work hole is larger, so I have turned it face down for the present to avoid injury.

The chamber fallen in, as I thought it to be, now proves to be a well, but I am not certain about clearing it out, as it will be 60 feet deep to



INSCRIBED FRAGMENT OF POTTERY FROM TELL HESY.

water, and I have no rope ladders, as they were borrowed long ago by Schumacher. Moreover, I see the side of it still extends up to the level of about 700 B.C. ; and may have been higher still, so that we should not get any early things from it.

To my surprise, Dr. Coburn (whom I met in Cairo waiting to go to M. Naville) turned up on Thursday, and has stayed on with me for five days, a very pleasant change of society from the continual Effendi. Then Count D'Hulst and Dr. Goddard came on Friday and stayed a day on their way to Jerusalem.

And then the Kaimakam and officer in command at Gaza came over to stay a day or two with the Effendi. Happily the Kaimakam quite agrees with the Effendi that the broken pottery is quite useless and insignificant.

12th to 19th May, 1890.

There is very little to report, as we have been mainly clearing away stuff from large spaces. The general state of things is that I have cut into about every space available without working in crops. To dig the crop land would be fully double cost, as not only must we buy the crops, but the Arabs insist that we must level the ground again. All the trenching, sometimes over 20 feet deep, and all the clearing of the section on the east side, on the valley cliff, has only produced two stone buildings. Both are, happily, in regions which I can clear out, so that, having traced the walls as far as I can, I have now put nearly all the men on to these buildings.

One is masonry, in the north-west tower, or bastion ; it is very rough, but built of squared blocks from an older wall. So we are clearing the whole space of that bastion, as there might be bits of sculpture or inscription used up in this later wall. The other building is by the east face and under the bare south slope of the tell ; it is where we found the pilaster slab last week and some drafted masonry. On clearing about it, I see that the pilaster slab belongs to a much earlier date than the drafted masonry, perhaps 900 and 600 B.C. respectively ; and the drafted stone gateway and a flight of steps by the side of it were built in the later wall, being the entrance to the town on this side, contemporary with the wall.

To go far in this clearing would be serious. I am already cutting away 10 to 20 feet deep of earth to reach it, and to clear it from the crop land on the top of the mound would be 30 feet deep. For the same reason I have ceased to clear along the Amorite wall on the north ; we had to cut out 20 feet deep, and never found anything but broken pottery. Some way further on I tried a trench to reach it, but not finding it when about 20 feet deep I then tunnelled, and had to go a dozen feet in before I reached it.

By trenching and undermining I brought down about 50 tons of earth in a lump, and so saved a deal of cutting, as it was a hard wall.

18th to 26th May, 1890.

As I was quite out of money, and Dr. Elliott had kindly drawn for me at Jerusalem, I had to go to Gaza to get cash. I found Dr. Elliott and Dr. Bailey, who has been *loc. ten.* at the dispensary while Dr. E. was up at Jerusalem. This dispensary is a very serious affair, as they have it three times a week, and out-patients as well, at the rate of 12,000 a year. To get to Gaza is a long day there and back. I rode a donkey for 13 miles ; then left it with Muhammed, and walked on five miles to Gaza, a matter of six hours altogether, and six hours back again. The last hour was dark, and we lost the road and had to track across fields by star guidance. I was walking ; as Muhammed was so fagged by Ramadan, I let him ride. In all, it was 20 miles donkey and 16 of walking for me. After about eight days' work we have cut back the face of the cliff, a thick slice of 5 or 6 feet, and can reach more of the stonework. We find more pavement with charcoal and burnt earth on it, evidently from the burning of a building ; and another slab with pilaster on it, like the first one, so if we could have duplicates I could have brought one away. However, I have taken a good paper mould of it and photograph. The form of the volute at the top is just the same, and also the slight swell out in the shaft at the base.

With regard to the date, more details have appeared, and I do not think it could be later than Uzziah (800 B.C.), and more likely of Asa or Rehoboam (970).

I find on that side of the town a thick brick wall high up, some 25 feet through; this can hardly be later than Manasseh, who garrisoned the fenced cities (650 B.C.), and is the last king recorded as attending to the defences. This was built over the *glacis* of a previous defence, formed of blocks of stone, bedded in the slope of earth, and plastered over smoothly, at about 40° slope. This *glacis* may very likely be a hasty work before Sennacherib's siege in 713; at least, it is not likely to be later. But this has been made after some 10 feet of earth had accumulated by the side of a large brick building, 86 feet long, divided in chambers. This depth would probably take a century to accumulate, placing the long building back to Uzziah's buildings in 800. And the long building is 10 feet over the pavement, and remains of the stone building, which would go back therefore to about 900 B.C., or to Jehosaphat, who did much in garrisoning and building. I have taken the shortest intervals that are at all likely for these successive stages; and, looking at it in the broadest way, the pavement is about half-way between the top (500 B.C.) and the bottom of the Amorite town, which I concluded to be 1500 B.C., roughly, so thus we should get 1000 B.C. for the building, or rather later, allowing for the slack time of construction under the Judges, bringing on to about 950 B.C. So it seems fairly likely that this stonework must date to about 950 or 900 B.C. of Rehoboam, Asa, or Jehosaphat. The drafted stone gateway and steps which I mentioned before seem as if belonging to the *glacis* period, about 700 B.C., as the steps lead up to the line of *glacis*, in which the staircase was probably continued, though now all lost in the valley. Certainly the great 25-foot brick wall was built *over* both the steps and the *glacis*. The curious volute on the pilaster is evidently the Asiatic type, which later became the Ionic capital. As such it is of value in the history of Greek motives, as well as of unique importance for Jewish art. It seems evidently designed from a ram's horn, and such a decoration of wooden pillars would be not unlikely (compare the Greek decoration of *boukrania*). But the immediate idea before the sculptor seems to have been a horn of metal work, to judge by the uniform calibre of the volute. We can hardly refuse to see here the form of the "horns of the altar," and not standing up, as usually supposed. There is nothing to prove whether they were rams' or bulls' horns, and the binding the sacrifice with cords to the horns, and Adonijah and Joab catching hold of the horns of the altar, do not prove the shape either way. I do not remember any other mention of the horns. The pavement remaining of this building is laid on a bed of about 4 inches of yellow sand, which yet remains where the stone has been removed. One slab of stone stands upright, but has only been so placed by some re-builders, as on it is a graffito of a lion (?), but upside down. I need hardly say that I carefully clean and examine every surface of smooth stone in search of graffiti or inscriptions. At last the misery of Ramadan is over and people venture to use salt again, which they dare not, when they must not drink all the day. As a negro guard remarked the happy evening it was over, "By my God, Ramadan was beastly!" and howls and shouts of "Ramadan goes!"

Ramadan goes! go to your father, oh son of a dog!" greeted the last sunset.

Probably people who have not seen the place will cry out aghast at the idea of leaving any chance of a building of the Jewish kings not being utterly cleared out; but I have done all that was under the lower part of the cliff, and now it is a matter of cutting 30 feet depth of stuff to reach any more of that level, and, moreover, cutting into the crop land, which will need some rowing with the Arabs about compensation. When one has to remove the height of a three-storey house before reaching the ground wanted, it needs a good prospect to make it worth while. I shall take another slice off the face, four or five feet, and mine into it, leaving buttresses, and then inform the Pasha that work is suspended here for four months, as he agreed for the hot season. If then this is preferred to any other place for work, it can again be attacked in October, but I think some less encumbered sites would be better; and, at least, this could be taken up in future years if there is nothing better. There is no chance of anyone interfering with such a tough place, and all the weathering and falls of the cliff, which are sure to happen, will be in favour of later work.

I have got some improvement in the men at last, and most of them work at least just passably, so long as they are watched. At first the only difference between watching them and not seemed to be that, in one case you always saw them doing nothing, and in the other you never saw them doing anything. But I have weeded and weeded almost daily, until of the first 26 there are but 4 left, of next week's 10 only 4 left, of the next 8 only 2 left; and of 12 only 4; of 8 only 3, and this residue is the pick of the place, and they do moderately. I had a row at the end of Ramadan, as, instead of half-hour's rest at 10 a.m. and leaving off at 4, I gave 2½ hours at 10½, so that they should be recruited for the afternoon work, and required them to go on till 6. While I was at the other side, all of one-half the men broke off at their own fancy about 5, and went down to their evening wash at the stream. I sighted them and pitched into them, and one or two were impudent. I paid off four at once, and only ceased discharging on all the rest promising to keep to my hours in future. Next afternoon I hung about that part making measurements, and, well supplied with change in my pocket, and ready to pay off instantly anyone who proposed to stop. But the effect of the four going (and not being taken back after most urgent entreaty of everyone up to the Effendi) had completely settled them, and not one slacked in his work till I whistled them off. But I doubt if I could ever get them up to Egyptian obedience; at Naukratis I have known them go on working after sunset, because I was delayed at some special point and could not whistle off.

I now see that our building is not of stone, but only of mud brick, like the rest of the town, though it had stone doorways, and these plaster slabs facing some part about the doors. There are also pieces of

cavetto-moulding like that of the rock-shrine at Siloam, and of a rib moulding which runs under the cavetto.

The whole place was burnt, and plundered for stone, and then re-used with a rough re-setting of some slabs. I doubt if we shall get any more stone by cutting further, unless we were to clear away a great distance in, and so reach some other doorways of the same building. I have a slight third dose of influenza, sore throat, very sleepy and lazy, developing into a sort of causeless cold in head and chest. Happily the returns are slighter and will wear away; but it is astonishing what a virulent and persistent infection it is. A third pilaster slab has been found, set upside down in its re-use.

27th May to 1st June, 1890.

This wretched influenza still plagues me, and I made it much worse by dining with the Effendi and the Bimbasha out of doors one night. As I had refused the Effendi's invitation the night before, on the ground of business, even when he announced that he would not eat unless I came, I felt it would be uncivil not to go, even at the cost of a cold on the chest. Happily his socialities are over; he has gone again to Gaza, and will only return here on his way to Jerusalem, on Saturday, end of the month.

A grand riddance has been the harvesting here, leaving the ground clear to get about. Hitherto I have had to go about five times the direct distance round the crops, to get at the work, up and down hill too. I tried buying out the crop on the tell, and a path to it, by offering fully the value of the grain, when reaped and threshed, five weeks before it was got in; and the fool of an Arab thought to get more, and would not take it. Then, about a week before harvest, he came round to my terms, but too late, for I did not then want the ground or paths, and I had bought fodder all the time for the donkey, and did not want the crop for feeding. He was paid out for his troublesomeness, for the Arabs, who came constantly to stare about the work, trampled his crops mercilessly. He comes for eye lotion in the meekest way now, and he has learned some lessons by this time; among others, that what is said will be done; and instead of futile rows, such as we had daily at first, he is now quite content with my assurance that I will level the crop ground again before I leave. So soon as the reapers were over the ground within a few hours I had the men sinking pits all about the crop land, to test the depth of the earth. I find that the ground close to the tell is just like that all over the enclosure; only a few feet of made soil with Amorite pottery and a little later stuff, and then native clay. The town had no suburb, but was strictly limited by its walls.

A question of manners. Query, when a man greets you in a narrow path by drawing his sword, flourishing it about, and seizing you by the arm, what should you do? I had no precedents, so I fell back on intui-

tive perceptions, and *tickled him under the chin*—a light and sufficiently deprecatory way of meeting such advances, as I presume. I have made the fresh cut down the face, but found no more stone, “and never expected I should.” I have cleared the fourth doorway, and found the fourth pilaster slab, and we should have to go a long way into the 30-foot land to reach to the west end. I am doing a little tunnelling along the insides of the north and south walls, but the whole cliff is not worth clearing, I think. There is some puzzle about these pilaster slabs, as the later two I found were upside down (lining the side of the doorway), according to our notions. That the stone in the building was re-used is proved by the lion graffiti upside down in one of the door-posts, and I can only suppose that the pilaster slabs were inverted in order to get the thickest part of the stone, to cut the hole for the door lock or fastening. But it is strange that all the half pilasters are left-handed. Another point that shows they did not belong to this position originally, is that they are not nearly high enough for a whole doorway, being 3 feet 9 and 4 feet $1\frac{1}{2}$ high, so they must have been eked out by brickwork above, as their top edges are not dressed flat. The stone lintels were only facing slabs. I found one full height (though broken) shewing both the top and the under edge duly photographed (stereoscopically), measured, and buried, also a second duly recorded. I have got some notion now as to the *classes* of pottery and their range.

The Amorite pottery extends from about 1500–900 B.C., and the Phœnician and Cypriote begins about 1000 and goes to 700 B.C. Then the Greek influence begins at 700, and continues to the top of the town. I get the approximate dates, by the age of the walls, from historical presumption. This is just what might be expected from quite other considerations. The Jews were under Amorite (Canaanite) influences entirely until Solomon. Then the Phœnician trade set in 1000 B.C. with Hiram, and soon the Phœnician drowned out the native style by 900 B.C. That the Greek influence should come in by 700 is not surprising, when we know that by 670 the Greeks were stronger than the native Egyptian troops in Egypt.

I had a good illustration of how hopeless it is to excavate without constant watching. The morning my cold was worst I did not get out till 6.30, instead of 5, as usual. I found that the men had in two places been carrying off earthbanks, which I had specially made to cover over buried blocks of stone; result, labour wasted. I sat a long time watching them, feeling too bad to stand, and at last, urged by my man, I gave full directions, and went back to my tent for two hours. When I came out again I found that a man had cut right across a buttress which I had left to support the earth-face, and so not only made the buttress useless but dangerous as well. The result was that for a whole day he was occupied in getting at the almost inaccessible top of the buttress and cutting it away. The face being then 20 or 25 feet high, any undercutting below was most troublesome to remedy. All this high cliff cutting is worked into bays with buttresses between as the strongest way to leave such

earth ; and now we are tunnelling in at the bottom of the bays. The result of the tunnelling has been to find another doorway on the south side of the building, which I have marked in as "door found later" on the preceding plan. But there is only a threshold pavement, and no side posts, or pilaster slab at the side of the doorway, as in the four other doorways. It is most difficult to get these fellows to go as you tell them. I found a bit of brick face in a man's hole, showing where the wall came, and specially told him to leave it, and deepen the hole elsewhere ; in five minutes he had hacked away the very brick I wanted kept. Another man's work I marked out expressly to follow the line of a wall, and explained to him. When I came round again he was cutting away the wall, according to a whim of his own that it ran in a totally different way. I have been racing the work as hard as I can the last three days to track the great wall through the crop land, and I have just about done it. But the face twists and turns, with bends and buttresses, so that it is very difficult, and the bricks are all but the same as their washed down *debris* against them. I only get on by laying out feeler pits in advance, so that wherever it turns we are sure to get at it. This saves time, though it does not save labour.

I have now finished up, and shall pack in the next few days, and then travel round the country for a week to Jaffa, as I hope, my cold being much better, and the weather fairly bearable—80°–90°. So no more letters need be expected till I arrive, which will, I suppose, be a fortnight later than this letter.

1st to 27th June, 1890.

I was reckoning on sending one of my village guards with the baggage to Jaffa, and taking the other with me as a walking companion, leaving my man to go with my camel man. But all my plans dissolved mercilessly. First one guard and then the other said they must go off to harvesting. Then the Arab guards did not stay by day, and when my man went off (as he was fond of doing) I was left entirely alone to look after three tents, some way apart, and to do my packing.

Not a man could I get out of all my workers to come and fill in the holes in the crop-land, everybody went to harvest. Then the difficulty came to get anyone responsible to send with my baggage to Jaffa. At last I agreed to send 30 miles to Jimzu for the first camel-man I had. But no one would go ; so I had to send one of my Arab guards. When the camel-man came he was alone, for no one would come with the second camel.

So he had to be sent to Jaffa with the baggage, in which there was a large sum in gold, surplus funds, which I thought that the best way to get back safely ; I put it in the bottom of a tin box full of photographic plates, the weight of which would prevent thieves suspecting anything

below them, and of course no one had a notion about it. Then my Arab guards refused to go with me to the next village eastwards—Dawaimeh—as they had a feud there and dare not show themselves. So I had to give up my zigzag exploring, and stick by the camel with my man, Muhammed, only. In fact, not a single one of the villagers or of the Arabs could I get to go a mile with me, one because of harvest, the others because of their squabbles. The other day I saw dozens of sheikhs all riding past to go and see the Pasha at Gaza. They fell out by the way, and at a village, Beit Hanun, two were killed.

We slowly wound our way up from 300 to 900 feet into the hills, and the only sites I could visit were er Resûm, where there are large ruins of stones, but Roman age by a tablet, and a bit of moulding. Then close to Dawaimeh I saw Mejdeleh, where a building of largish stones, five courses in part, remains. Stones are drafted, and probably Herodian; Roman pottery lay about.

On the way I was astonished at the hills being covered with an emerald crop of young durra (maize), which grows here without any rain in dryish ground.

The Dawaimeh folk are a decent lot, but their water supply is tea ready made; when poured out in a thin stream from a kettle it is dark brown, strong tea colour. The guards were most troublesome, however, about talking at night; they had talked all their lives, and the pernicious habit clung to them. I only got stray dozes, until about 3, in despair, I rolled up some blankets and walked off down the valley, and found a cave where I settled; there was a hole at the end suggestive of jackals or wolves, but I got some sleep there. I was not astir till the sun was high, and so lost my time for looking over the ruins about there.

I went to Mejdeleh again, and looked at the tombs there. Then after breakfast we packed up, and moved on to Edh Dhâherîyeh. After starting Muhammed went back and asked a man to come as guide, as the road was of a very slight and rough kind over the hills. After some time we reached Deir el 'Asl, and a huge well, Bir el 'Asl, now all but dry. I went up the hill to look about it, but, as might be expected from the name, it is all Roman. Muhammed and the guide stayed by the well, and some of the men harvesting there from Dura were inquisitive as to my baggage. We went on up the hills, a rugged trace of a path, where the camel and donkey could hardly get footing. At the top the guide said he would not go further, as he had objected at first to going all the way, and Muhammed tried to persuade him to come on, yet strange to say he did not clamour for his pay. We went a little farther on the top of the hills, the camel straggling on in advance, I next, and Muhammed riding the donkey behind.

Suddenly I saw a man, with his face tied across up to the eyes, pass from one bush to another over the road, and I guessed mischief. Then two, three, and at last four, showed themselves, all with faces tied across.

They seized the camel and threatened to fire; I also threatened, being about 30 yards behind, and two of them tried to close behind me, but I backed up a slope to one side, revolver in hand. I then reckoned that there was nothing worth much on the camel, but as I had eight or ten pounds in my pocket, I had better get rid of it. Meanwhile Muhammed had run back to fetch up the guide (whom he found quietly sitting down), and it was no use for me alone to tackle four, as there was a pistol and four swords among them, and stones all about handy and continually doing duty. So I backed away towards cover, and when Muhammed and the guide appeared they and the camel load completely occupied the four men, and I dropped my purse and bag of change into two bushes; leaving by accident, rather fortunately, a roll of $\frac{1}{4}$ -mejidis in my pocket, about 8s. or 10s. worth, and there was nothing worth the risks of bloodshed on either side. The men were Fellahin and not Arabs, and not at all bent on stripping us, but only on some small loot. They did not attempt to search all the baggage, but grabbed out a new suit and a couple of flannel shirts from my portmanteau, and got hold of a waistcoat of Muhammed's, which had about 30s. of his and, unluckily, about 50s. which the camel man had entrusted to him for safety, and which I did not know of. My revolver was the main attraction, and all four made a rush for me; as the money was safe I took it quietly, and let them find that it was quite needless to grab me by the throat. They were immensely disgusted that I had hardly any money (the $\frac{1}{4}$ -mejidis were enough for a show), and they turned my pockets inside out, felt me all over, and searched for a money-belt, but in vain. The elder man particularly returned to me my note-book, measure, and handkerchief.

Altogether I think the business was conducted quite as pleasantly as such affairs ever are. They then made off down the road we had come, to Deir el 'Asl. I had some difficulty in making Muhammed collect his mind to the needful business of roping up the camel again, tying the cut ropes, &c. I sat down to make notes of what was gone, by where my money lay, so that if the robbers were watching to see if I picked up anything they should not detect it. I then pocketed it, and we went on. I had forgotten to take off my watch, and one of the robbers was much disposed to have it, but I immediately reminded him that it was numbered, and that decided them to leave it. The whole affair was much of a scuffle and there was not time to be too precise in one's arrangements. Happily all my note books and papers are safe. We soon found our guide-man gone on ahead. What share had he in it? He could not have conspired at Dawaimah, as he was only picked up suddenly at Muhammed's choice at the last moment. He cannot have conspired at Deir el 'Asl, as he was with Muhammed all the time. But I think he saw the men go off before us at Deir el 'Asl, and suspected mischief, and hence his reluctance to go on. That he went on afterwards all the way looks, on the one hand, as if he was not really anxious to return, on the other hand, as if he had no thought of being charged with complicity. On the whole I should not

accuse him. The thieves were almost certainly not from Dawaimch, as I had there said to everyone that I was going by a different road to that which the guide took.

We reached Dhâherîyeh about an hour before sunset, owing to the delays, and pitched in a high north wind. The cold wind, after being heated in the valleys, gave me a sore throat. Really the result of the robber's grip, as I had it for weeks after. I wrote a full account and inventory of stolen goods to the acting Consul, W. H. Kayat, a Syrian, at Jerusalem, Mr. Moore being gone to England; and a line to the Halls, as I thought they would hear some exaggerated report of it, and also asking them to order a new suit for me at Jaffa. These I send off by a horseman as soon as the moon rose, and expect now to hear of soldiers, &c., in the next few days. The messenger was to be paid at the Consulate; he is a wild maundering-looking *sherif* with long locks.

It is a very hot day with east wind and burning sun, so I shall do very little until the evening. Everything feels hot to the touch, showing that it is well over 98° , and here I am, 2,000 feet above the sea, so what it is in the plain, I cannot guess. After, a cool west breeze sprang up and blew hard, it was still 97° by the clinical thermometer. This is well named Dhâherîyeh, as it is at the back of the world in both senses, being on the high ridge between the Dead Sea and Philistia, and being at the end of all things without any settled habitation south of this, away, away, right down to Arabia.

Three coins were brought to me, none worth buying as they had been much ground down by the finders, and as I could see at a glance what they were. Two were potin of Antioch under Trajan, and the other a denarius of Trajan. They are good historically, as, being all of one time, they point strongly to the buildings about here being of that reign, when there was a great consolidation in the East, as witness the only coins of Nineveh, under Trajan. There is a fine stone building just by my tent, and a very civil man asked me to go round into a courtyard to see more of it: arched passages, two great chambers and a staircase.

The people here are far from agreeable, quite a different manner to the Dawaimch folks. There is only one pleasant and intelligent man I have yet seen, who showed me the coins and the building. The others are always prowling and peering about as if trying to see if they could steal. When I went only a mile from the village, among the harvesters of the place, I was cursed and threatened with a big stone, and now the night guards began to refuse to come, although well paid. This is all so nasty that I have buried what gold I have, and packed all my irreplaceable note books and papers together, clear of my other baggage, and ready to save them if nothing else. I can't expect every thief to return my note books. The Sheikh is away harvesting, and every man seems to do what is right in his own eyes. Happily, I can always get up to Hebron on foot in four hours from here, in case of a row, and there is the German inn to fall back on there. The people here refuse us water, except for payment. I went all over the hills about this village, and though there

are plenty of natural cave dwellings, &c., yet there is not a bit of Amorite or even Jewish pottery ; what little there is, is Greek or Roman. Then I went on a round walk with a native, but he did not know much of the country. However, he got great faith in the map, from my predictions, and was willing to go as I wanted. We went to Shuweikeh (Socoh) but all the buildings are late, and the main one is a mosque. Then on to Deir es Shems, but, as the name shows, it is Roman, late pottery and tesserae abound. Then on to Es Semua (Eshtemoah), which is still inhabited ; but Roman work all over the place, and a large castle which they attribute to Mamun, and probably is Arabic. Then to Ra-fat, but again a mosque and late buildings. Then to Attir (Jattir), where the buildings seem again late. Then to Zânûta (Zanoah), where again there is a ruined mosque. In short, none of these Jewish sites show a trace of remains older than the Roman rule of the district, and the active civilization which seems to have remained here into early Arabic times. I suspect that the Jews here were a skin-and-wood-using people, and did not make pottery any more than the modern people. Though there was a good breeze all day, it was hot wind ; and I only took one bottle of water, and was fearfully thirsty. At Zânûta I lay flat on my back for half an hour, done for ; the thirst made my heart so troublesome up the hills ; for though the actual distance was only about 16 miles, the hills were certainly equal to half as much again.

The harvesting of the ants is everywhere to be seen ; and how anyone can have doubted that the ants (either grubs or mature) do use grain, seems impossible. Not only are the tracks leading out of the cornfields converging all on to the mouths of the ant holes, but every ant hole has about it a fringe of husks and chips carried out as waste material. The *débris* is proof positive that the useful material has been consumed. At the present moment there is a line of ants, each struggling with a grain of barley which they are carrying off from what is spilt from the donkey's food

At last, after nearly three days, my messenger returns from Jerusalem, with a reply from Mr. Kayat that he will make a strong representation to the local authorities on the subject.

I want the soldiers to appear about here before I move to Hebron, for otherwise I expect to be robbed again. My camel man (who has safely delivered my boxes at Jaffa) was stopped between Hebron and here, and searched for valuables, on his way down this morning. I hear also that the Arabs are busy, and have carried off sundry cattle, horses, donkeys, &c., in a raid.

I went on a short day's round with a man again, feeling rather lazy in the morning after yesterday. I went first to Somerah (Shamir), where there are many ruins, but all late apparently, with Roman pottery about, and some very debased moulding. On two slabs I saw curious basin hollows, with grooves, altogether too small for collecting rain-water ; perhaps for clothes-washing, where water was scarce. Thence to some wide-spread ruins called, altogether, 'Anab. A mosque remains there

entire ; but there is a puzzling point in the lintel having ornamental crosses on it. Is it possible for Muslims to have not objected to putting them up prominently thus ? Yet the kibla niche is certainly the same age as the building. A short way off are the foundations of a church, with a regular apse, and two pillars remaining. If Tiberias is the palace of the king of the fleas, assuredly 'Anab is a "hunting box" of his. While I was just measuring the mosque I welcomed a large population, insomuch that I afterwards picked off 20 from the outside of my clothes ; and how many more were inside, I will not venture to guess. From 'Anab, I went to 'Aseilah and Resm el Muketat, where are very similar ruins, but the latter probably Herodian by the bossing of the stones.

Then to Umm Deimnah (Madmanneh) where there are many more ruins, with two lintels bearing crosses, which prove the late date.

At Umm Kusab there were again similar ruins. Nowhere to-day did I see a fragment of Amorite or Jewish pottery. The old Sheikh of the village has turned up at last, very civil and pleasant, and will keep folks in order, I hope. All my country of to-day is sown with *durra*, and we did not meet a single person or see any one on the hills, from leaving to returning to Dhâheriyyeh ; the corn harvest in the other valleys occupies every one.

Next day I made another round to Dômeh (Dumah), where there are Roman building and pottery and another early mosque. Then to Kûrza, where there are some more Roman buildings and a spring half way up the hill, far above the level of innumerable caverns lower down. The water is reached by a well about 20 feet deep, very narrow, lined with rough blocks, and my guide went down and drank and washed and refreshed himself for some time. Then on to Râbûd (? a Rablath) ; the west part Roman, but the main hill is the first pre-Roman place I have seen about here ; the pottery is mostly about 600 B.C. and some perhaps 800 B.C. : but nothing Greek or Roman. Rabîyyeh near it is nearly all Roman. Here my guide—whom really I guide—stuck behind, praying, *he* says, sleeping, I think, and didn't follow me up to Es Simia, and I saw nothing more of him until long after I had got back to my tent. Es Simia is a large place—streets of buildings of drafted stones. Tesserae and Roman pottery show the late date of it. This morning a lad came and said he heard I was packing up ; if not, when was I going ? This evening a man lounges up, puts his head in, and cross-questions me persistently as to when I am going, is it to-morrow, or in two days ? or in four days ? All this looks as if some one was intending to overhaul our baggage on the way. There is no sign of soldiers, nor any result of the "strong representation" from the acting Consul, though it is three days since, and this is only 9 hours' ride from Jerusalem. I rather think of quietly going off to Hebron and telling the Kaimakam that he must send a soldier to escort the camel and baggage.

Next day I determined to go up to Hebron with an escort of villagers. So after packing the things all ready quietly in the tent, I suddenly sent

for the Sheikh, who came, very reasonable and polite as before, and appointed three men to go with us. Another man, a pedlar with a donkey, was also going, so with the camel driver, Muhammed, and myself we were seven. I got off as quickly as possible after letting out that we were going, so as to leave less time for any party to waylay us. What with the crops, and not going far from the party, I could see but little of the ruins on the way. The two springs at Ain Dilbeh and Ain Hejeri make a beautiful green patch of cultivation, and it seems to me almost certain that they are the "upper and the nether springs" which Caleb gave to his daughter. From the account they must have lain between Hebron and Dhâheriyeh, and nearer to Hebron probably, and one being much higher up than the other exactly agrees to the upper and nether. Khurbet Kan'an I went over, but it is Roman.

As soon as I had pitched tent at Hebron, by the spring on the Jerusalem road, I went off to see the Kaimakam as to my robbery, since Dura is all in his district. He was not in the office so late in the afternoon, but no letter whatever had come about the business. Here is Thursday, and Mr. Kayat's "strong representation" was to be made on Monday. If I had disregarded the consulate altogether and sent to the Kaimakam direct, I should probably have had all my things by this time. As it is nothing has been done. The suspicious guide had told his niece (who lives at Dhâheriyeh) that if I would give a little I could have all my things again; this proves that he does know the thieves, and, moreover, that it only needs a touch of Government force to make them restore the clothes, &c.

Next morning I went over to the Beit Khülîl, the early ruin which I saw with Dr. Chaplin. There I caught sight of an inscription, and then remembered how we had hunted for one said to exist by the well. This is

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but very weathered. I presume it records one Domna, daughter of Demetrius. The slip of *Δημετρι* for *Δημητρι* being a provincialism. This lady must have been born about 210 A.D. (being named after Julia Domna) and the inscription cut about 240 A.D. as a medium date. Moreover, it was cut in its present place, as the inscription is on the edge of the block which runs deep into the wall, and cannot therefore be a re-used tomb-stone, as I at first supposed. This shows that the building, &c., and the relining (in which this is) existed before the time of Constantine, and cannot be his basilica. So far satisfactory; as my impression was and is that the building is Amorite or early Jewish, and the relining is Herodian. I found the dressing marks on the stones, and they are pre-Herodian being cut with a small pick (*long stroke dressing* I should call it) and *not* a comb pick. There

are traces of a second inscription on a block by the side of Domna's: this is **BY IC**.¹

I then went off after breakfast to look for the Kaimakam, but found, contrary to what I had been told, that he would not come, being Friday. So I made up my mind to stop a day and see him to-morrow. I let off Muhammed and the camel man to go to the Haram, and wished that I could have changed places with one of them, but it would be much as one's life is worth to be caught inside.

Muhammed tells me that the masonry of the wall inside is like the outside, but much finer. Some day, when the French or Russians come, the Hebronites will have their claws cut, and we shall be able to go all over the place.

I then went off in the afternoon to see some other sites, but they all proved Roman. I heard a new variant on the regular Syrian curse. *Ikra beitat*, "May your house be ruined;" this was *Ikra beit abuk ala netfit*, "May the house of your father be ruined to bits." The Egyptian *ibn el kelb*, "Son of a dog," is here amplified to *ibn sitash kaleb*, "Son of sixteen dogs," i.e., back to the great-great-grandfather, all were dogs. I wonder if any one will write a comparative history of *Curses*; this is a fine subject to let, properly studied with reference to countries and habits of the people. I can imagine comparative tables, showing the racial proportion of (1) personal, (2) ancestral, (3) possessional, (4) actional, (5) extra mundane, &c. Of course the blessings must be treated with them as their nature is similarly direct or indirect. "The comparative study of reflective wishes," is a neglected branch of Anthropology.

I had another look over Beit Khülil, but did not see anything fresh. I measured the old lintels and door sills built in *on edge* in the relining; the door was bivalve, each half $4\frac{1}{2}$ feet wide, 9 feet in all, and each half was fastened by two bolts on the sill.

From the lintel being slightly shorter between the pivots than the sill is, I suspect the doors swung to by their own weight, rising slightly when pushed open. Next morning, at ten, I went again to the Governorate, but neither Kaimakam, nor any other officials were there, nor would be there till some time after noon. I could not stay indefinitely in Hebron in this way, so I had to leave the matter to the "strong representation" of H.B.M. Consular Agent.

We then went off to Beit Jibrin, over no sort of a road in some part of the hills. I looked up one or two Khurbahs on the road. Beit Jibrin is essentially Roman, with mediæval rebuilding, and all the places around, so far as I have seen, are Roman also, with one great exception. Tell Sandahannah (mediæval name Sant' Yohanna) is a high commanding mound, all the surface of which is Seleucidan, so far as can be seen, with only single scraps of Roman pottery. But at the north-west side, where

¹ A copy of this inscription, forwarded by Rev. J. E. Hanauer, was published in the *Quarterly Statement* for October, 1889.

it joins to the ridge of Khurbet Merash, there is a large tract of Jewish pottery back to the earlier kings, I should say.

My belief is that this is only an outcrop of the Jewish pottery not buried by the Seleucidan town, and that the whole mound is Jewish beneath. It is too high to have been all the accumulation of Greek times. Now this joining Merash (which was evidently a great place, as the battle (2 Chron. xiv, 9-12) was named after it), I take it that this Sandahannah is the original Marasheh, the name of which has only clung to a spur of the hills. This seems to have been a great fort commanding one of the main roads into the hill country and Jerusalem; and the tactics of Asa seem to have been to let the Egyptians enter a valley past the fort, and then attack them with the army in front, and the garrison in the rear, thus taking them so that their numbers were useless.

I think it would be well to cut into Sandahannah and see what there is under the Seleucidan. There are plenty of Greek buildings to clear, the walls of which show all over the surface, and they might give some inscriptions. It is a good point finding the early date of at least a part of this great mound, especially as it links on to history.

It is curious how very short the Syrians are as to thirst. In Egypt I do not remember any difference between the natives and myself. Here they are wanting water every hour or half-hour; not that they take much at a time, only half a pint or so. On the contrary, I go quite happily for four or five hours, by which time I am a quart in arrear and begin to be thirsty. Two quarts in arrear, I feel bad, and three quarts gone, I can hardly stir. But these fellows are utterly miserable before they need a quart. One would have thought that Ramadan would have trained them.

From Beit Jibrin we went on to Akir (Ekron). I looked over Tell Bornât, which seems to be later Jewish on the surface, certainly not Roman.

Next at Dhikerîn, though there are pieces of Roman and Arab pottery about, I found some Amorite pottery on the top, showing that it is nearly all early. I then came to Tell es Sâfi (supposed to be Gath), which is a large mound on the top of a ridge of chalky limestone; a village now covers one side of it. Here I found Amorite, or early Jewish pottery, up to nearly the top, and no Greek or Roman. A polite inhabitant showed me a place where they have uncovered an ancient wall of drafted blocks, which they were gradually quarrying away for stone. From the method of the stone dressing I should suppose it to be Jewish.

Hence I went to Mekennâ (Meconna), where the slight mound appears to be of the later Jewish and Persian period, but there was no Roman nor later Greek pottery. At Umm Kelkah there is another of those strange bottle-shaped caves, which I have not yet mentioned. They are common all over the district of Beit Jibrin, and in fact wherever the rock is of the firm, yet soft, white limestone. The usual form is thus about 25 feet deep, and 20 to 25 feet across. They are probably early, but were certainly used, and made down to Roman times, as some have rows of columbarium

niches. Some, I presume the later ones, have a winding staircase down the side, entering by a side cut apart from the top hole. There is very little pottery at Umm Kelkhah, probably both Jewish and Roman.

'Akir is entirely modern, apparently; there is no mound, the village lying in a slight hollow by the well, and it cannot have been a city of much size. I rather think that it had its reputation and importance from the oracle of Baal-zebub, and was not a political or commercial place. The only ancient thing I saw was a large mortar of black trachyte, with handles pierced so as to turn it over on pivots to empty it. On one side is a design, apparently the Egyptian *tut*, with the sun and moon on each side, and palm branches above. The well at 'Akir is a pretty spot; a large wide spreading tree stands over it, a waterwheel with a band of rope, with jars fastened on to it, is worked by a mule, and raises a constant stream of water; this flows into a tank, from which the cattle are watered, and all the women and girls of the village bring their jars to fill at the stream.

I have had a constant difficulty all this trip in getting sufficient sleep at night; what with guards, dogs, donkeys, and villagers, I have been cut down sometimes to four hours, and I have been all day nearly falling asleep on my donkey, and with a miserable headache. This is a disadvantage in going about in the summer, the nights are only ten hours, and there is not much time left out of that if you are disturbed.

At Dejan the ground is being dug into for quarrying, and I could see by a clean section that there is only 3 or 4 feet of stuff, and that is Roman.

I then reached Jaffa and found Mr. Hall at home and most kind in every way. I turned over the baggage, put together what should go into store, and sent it off by the camel-man to Dr. Wheeler at Jerusalem.

I saw a very interesting sight at Jaffa. On a piece of waste ground, almost out of the town, were five miserable tents, and in them, or rather under their shadow, were some of the wandering iron-workers, the descendants of the primitive smiths, who went from place to place.

They were not at all of the Arab or Syrian types. Most of the men were away, looking for jobs, but I noticed one with a close thick short beard. The women varied much in type, one was of sallow complexion, with very rounded features, another was of a European type, with fairish skin, and a handsome intelligent face, with an enormous luxuriant head of black hair. She was blowing double bellows of goat skins. They reminded me more of gipsies than of any Semitic people.

I arranged with Mr. Hall about the sets of photographs of Syrian types, of which he had sent out some already for me. They will go to Dr. Elliott, at Gaza; Revs. C. T. Wilson, Jerusalem; H. Sykes, at Salt; T. F. Wolters, at Nazareth; Dr. Torrance, at Tiberias, all of whom are photographers, and one set remains at Jaffa for any one else to see.

I drew up suggestions to these gentlemen for selecting and photographing groups of natives, classified according to the ancient race types in such a way as to get statistical percentages of the different types in each place, and made six copies of the paper to go with the photographs. If this succeeds we may learn a great deal as to the distribution of the Amorite, Hittite, Hyksos, and other races in Palestine.

HERR SCHICK'S REPORTS FROM JERUSALEM.

1.

THE NEW ROAD NORTH OF THE CITY.

IN one of my reports made during last year, I spoke of some discoveries made when the new carriage road along the northern wall of the City of Jerusalem was constructed. This report was published in the *Quarterly Statement*, 1889, page 63. It comprised the *western* part, and now I have to report on the *eastern* part—namely, from Damascus Gate to the north-east corner of the city.

The sill of the Damascus Gate is 2,471 feet above the Mediterranean, and 200 feet north of it the ground on the Ordnance Survey Map, scale $\frac{1}{25,000}$ is 2,481 feet, giving a slope of 5 per cent. This slope is now greater, as the crossing-point of the new road is made about 5 feet higher, or 2,486 feet above the Mediterranean. It was made higher in order that the new carriage road coming from the west should not descend so much and ascend so much again. On both sides the hills of rubbish were cut through, so that the carriage road is much more level than the former road. South of Jeremiah's Grotto it was raised about 6 feet by filling up the depression, and at the south-eastern foot of the Jeremiah's Grotto Hill, where there is a little "tomb" building, lowered and cut through the rubbish, so that at the crossing-point, where the road comes out from Herod's Gate, or Bab ez Zahiré, and goes northwards on the eastern slope of Jeremiah's Grotto Hill, the level of the new road is about 6 feet deeper than that of the old one. By this it was seen that there is *no* "Roman road," as Dr. Merrill supposes in his little pamphlet, "The Site of Calvary." If such had been here, it would have been cut through; but no traces of such a road were met with. Further east, in the depression of the ground, the new road was elevated by filling up, forming a dam or causeway, with a small bridge for the water to go through under it. Then, further east, in the fosse, it was lowered, by which means it was shown that there is much earth in the trench, which originally was much deeper. The real bottom was not seen in any place, so the exact depth cannot be stated. By this lowering of the road, the wall, and especially the rock scarp, was laid more bare, and it was

seen that at the eastern part the ancient wall formerly stood several feet further out, and ran more straight; and the same is the case for 240 feet along the eastern wall. There are also some indications that the ancient corner tower was somewhat longer and wider than the present one. It seems also that before the fosse was made there had been a pool sunk into the rock, which became destroyed when the fosse was excavated. This pool had sides of unequal length and unequal angles, like the pool of "Sitti Maryam," on the east side of the tower; the latter is somewhat larger than the former one had been. I always had an idea that if excavations were made at the angle of the fosse, a door or outlet for the water accumulating in the fosse might be discovered; but unhappily in making the road the neck of the rock had to be cut through, and a bridge built over it for the road on a higher level which crossed it, so that no excavations were possible. East of the said neck is a continuation of the trench, the bottom of which forms the bed of the new road for about 100 feet, and at the end, on the northern side, is some masonry on the top and edge of the cliffs, which I consider to be the remains of an ancient gate (*see* Ordnance Survey Map, $\frac{1}{25000}$).

Here the new road makes a bend and runs south and south-east on a course where much filling up was necessary. Lower down, in widening the old road, rock-cut tombs were laid bare, and partly destroyed. They are the usual smaller kind of Jewish rock-cut tombs, and of no particular interest. I counted five small chambers. So far the road was finished at my last visit. In my next I will report what has been done further. The level is, at the corner tower, 2,456 feet, and at its lower part, where it meets the old road coming down from Stephen's Gate, or "Bab Sitti Maryam," 2,351 feet—hence a difference of 105 feet in 1,400, or $7\frac{1}{2}$ per cent.

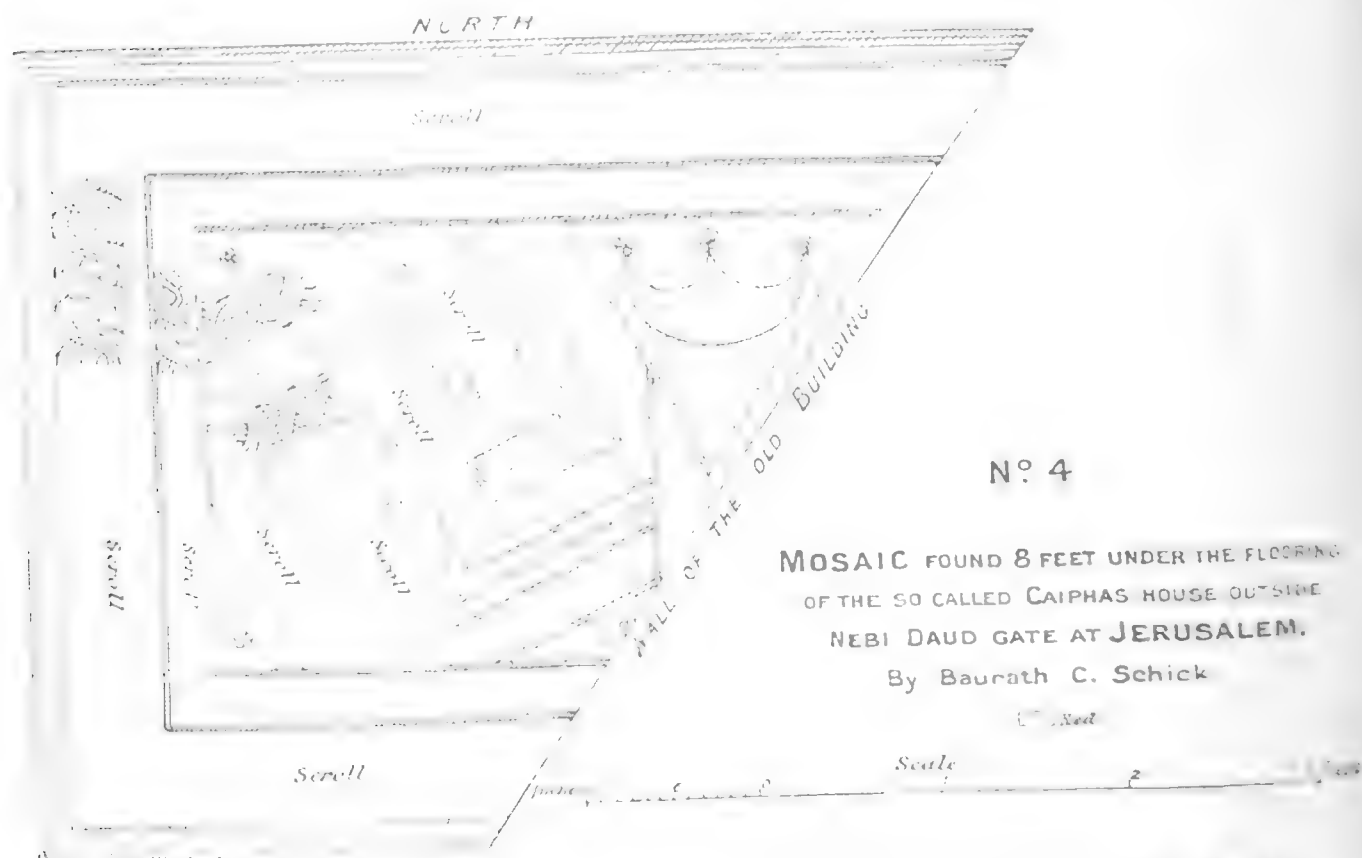
II.

NEW DISCOVERIES AT THE HOUSE OF CAIAPHAS, ON THE SO-CALLED MOUNT ZION.

The so-called "House of Caiaphas," outside the southern part of the city wall, and 150 feet distant from it, belongs to the Armenians. It consists of a little church, a small convent, and rooms embracing a small court, the whole being enclosed by a high wall, without any windows or openings, except a little entrance door on the north side. This wall had been for a long time defective, and one day the eastern and part of the southern side fell down.

In digging foundations for a new wall and other additional buildings, an underground passage was found, and in the court under an arch, which is also to some degree unsound, there was found, 5 feet deep under the present floor, an older floor, laid throughout with fine Mosaics, of which

I give a pattern, as I could not find time to draw out the whole. The Mosaic cubes are of three colours—white, black, and red. At other



points, also on the same level, similar Mosaics were found, proving that some building of importance once stood here.

III.

A NEWLY-DISCOVERED ROCK-CUT TOMB AT ACELDAMA.

In one of my former reports I spoke of a newly-discovered rock-cut tomb near Aceldama, at a place called Es-Shamma. It was illustrated by a plan and section, and a copy of the inscription found there. The piece of ground in which this tomb and some other things (which I reported at the time) were found was soon afterwards sold to the Latin Convent, and is now their property. They went on excavating the ground and found some more rock-cut tombs, of which I send plans and section.

The newly-discovered one was certainly made in a quite different time from that in which the others were made. The workmanship is rather rough, and the floors and ceilings are slanting down, according to the decline of the strata. Some of the *kokin* are rather wide and high, especially one, which is also unusually long (8 feet), so that one gets the

impression they were not intended to be for one corpse only, but for several. At the door was found a very large stone with broken corners, so that it might be rolled more easily when the tomb was to be opened or shut, but it was far from being circular.

Another tomb, a short distance east of the former, has rather a large court hewn out in front, with an elevated table of rock. This, and also the inside, gives the appearance of being unfinished. The door is a usual one, but the room is in every respect irregular. The inner room is only 7 feet 6 inches by 7 feet wide, and about 6 feet 6 inches high, without any mark of *kokim* or bench, but has in the floor a kind of pool, 3 feet wide each way and 2 feet deep. This tomb also seems to be unfinished, and was very likely used as a collective tomb, dead bodies being put one upon the other. I saw no bones in it.

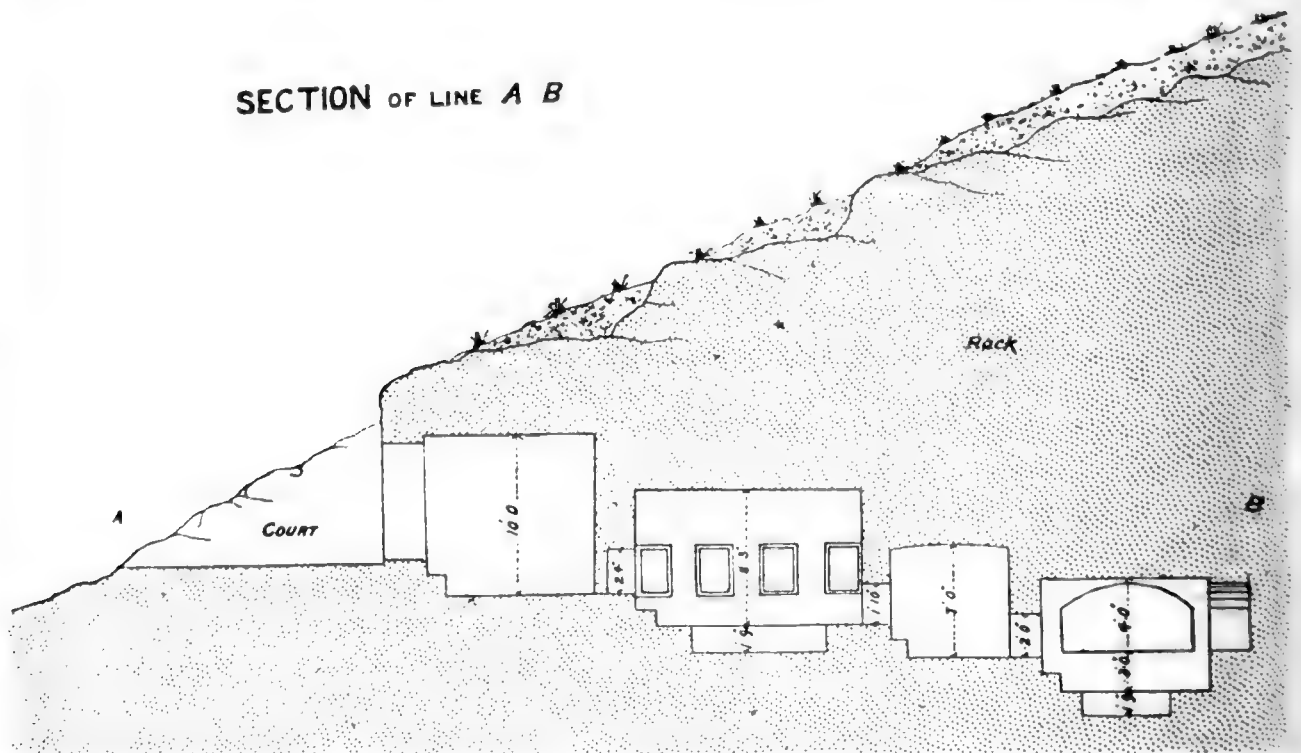
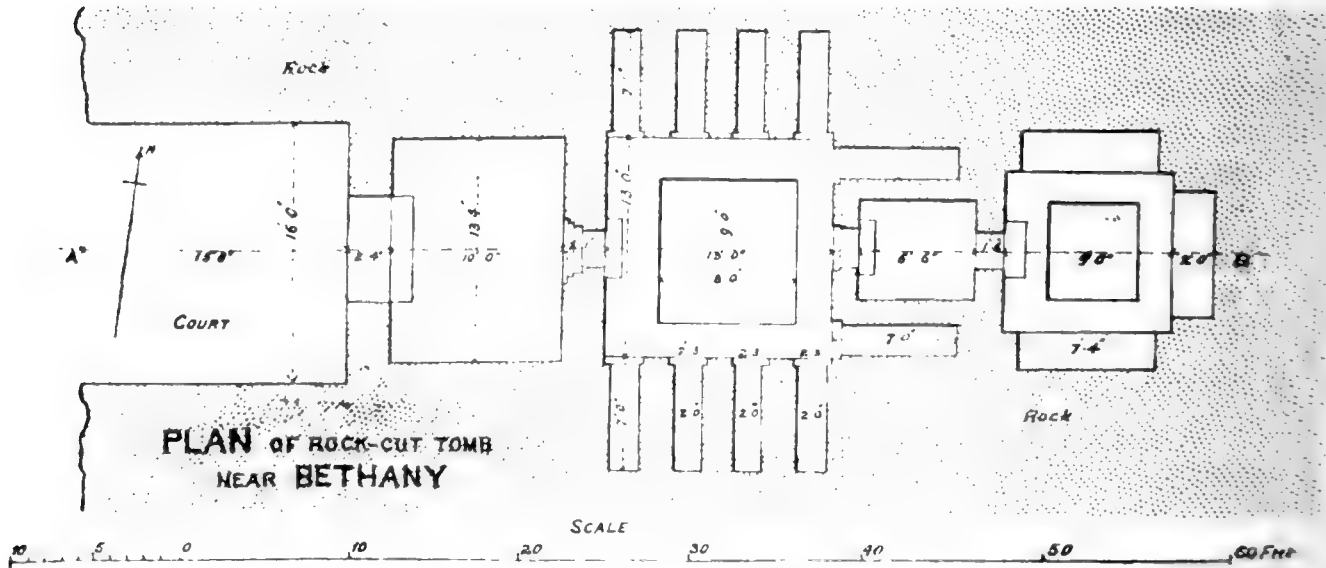
IV.

NEWLY-DISCOVERED ROCK-CUT TOMB NEAR BETHANY.

When the road from Jerusalem to Bethany and the Jordan was made, people had to gather not only small stones, but also material for covering them—"hower," as it is called in Arabic. "Hower" is a kind of chalk, and very good for roads. When digging to find such they came to an opening, and on going in, found several chambers, all hewn in the rock. When I heard of it I went there, examined and measured, and made the adjoining plan. The tomb is in the valley which runs from near the top of Mount Olivet southwards down to the Wády en Nâr, or Lower Kedron. The road to Bethany crosses this valley, making a large bend. The newly-discovered tomb is south of the road on the eastern slope of the valley, just opposite the lower quarry where stones are broken for buildings in Jerusalem. All this neighbourhood is of a soft or chalky limestone, and in this the tomb is hewn very exactly and regularly, the lines being straight with exact angles, as is seldom seen. First, on the decline of the hill, the rock is cut down perpendicularly so as to form a court 16 feet wide and long. On the eastern side of this court a doorway, 6 feet wide and 7 feet high, is hewn in the rock, the partition wall being 2 feet 4 inches thick, and two steps downwards lead into a square chamber, 13 feet 4 inches wide and 10 feet deep and high. Flooring and ceiling horizontal. On the eastern side, and close to the bottom, is a doorway 2 feet square in a wall 2 feet and a few inches thick. Towards the west, or outside, the door is widened by three rebates, the outer one forming a kind of cornice and arch over the entrance.

Creeping through this doorway and downwards two steps, one comes into a similar, but larger room, exactly square, 13 feet by 13 feet, and more than 8 feet high; looking round one sees on three sides exactly equal-sized *kokim* in the walls, and at the same height as the doorway.

There are four in the northern and four in the southern wall, each 7 feet deep, and three in the eastern wall. Of the latter the one to the right and

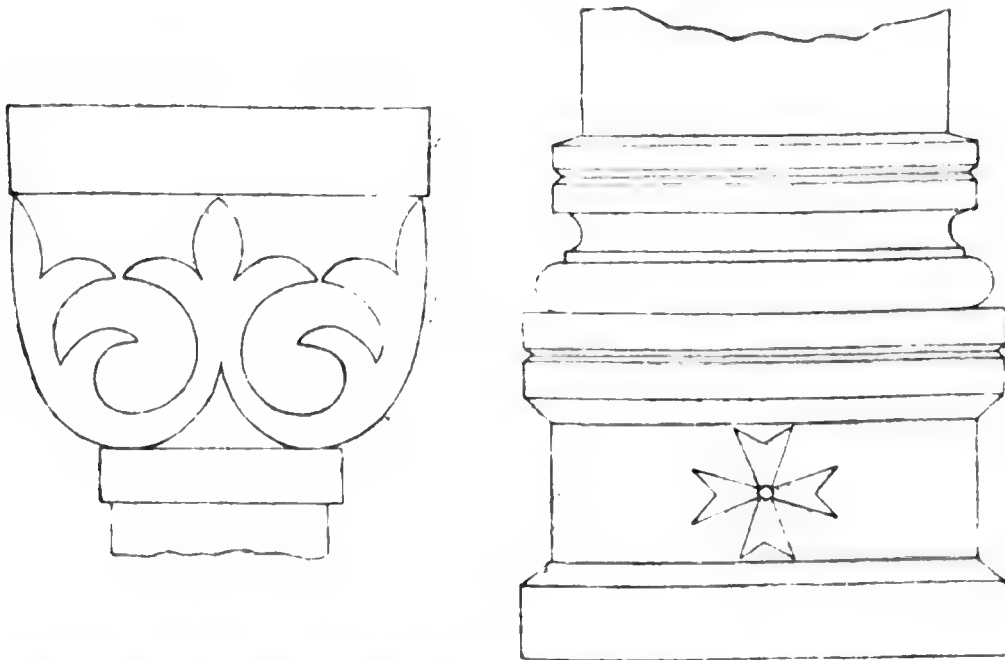


to the left are similar to the others and of the same dimensions, but the middle one is a doorway (opposite the former) in a wall only $1\frac{1}{2}$ foot thick. Each of the ten *kokim* has on its outer end a cutting or fold around it into which a stone slab was fitted, and so the hole shut up. I found these slabs no more before the holes, but lying about, showing that the tombs had been rifled; also I could not see any bones, or inscription, or marks. On the floor of the room there is sunk a pool about $1\frac{1}{2}$ feet deep, and 9 feet by 8 feet wide

Passing through the last-mentioned doorway, and also two steps downwards, one comes to a small and lower room, a kind of ante-chamber, without any receptacle for dead bodies, $6\frac{1}{2}$ feet deep and 6 feet 2 inches wide. Seeing on the eastern wall an opening, the explorer gets the impression that there will be no end of rooms, one behind the other, but on creeping in, and also two steps downwards, he finds himself to be in the last, which is a regular tomb-chamber with three alcoves or niches for dead bodies, on each side one, except the door side. These niches are benches, covered with an arch of rock, as shown in the section. The rest of the ceiling is exactly horizontal. On the bottom there is a pool about $1\frac{1}{2}$ feet deep, $4\frac{1}{2}$ feet by 6 feet wide. The room itself, without the recesses, is 10 feet by 9 feet wide, and 7 feet high. It is remarkable that the floor of each room is about 20 inches lower than that of the one before it, for which there must be some reason. All the rooms could have been made on one level, and with the same effect if the doors had been put 20 inches higher, except perhaps for one thing: in the afternoon the sun's rays can fall even in the innermost chamber as it is now, but if all were on one level this could not be, or at least only at sunset.

Note.—When reporting on the eastern part of the north wall of the city and the new road going down to Gethsemane, I omitted to mention that the rock on which the north-east tower once stood was laid bare. It extends as far west as the bend-point of the modern wall. The present tower, or Burj Lac Lac, is only 37 feet wide, whereas the old one was about 76 feet, or nearly the same size as "David's Tower" and the one found by M. Maus east of the Church of St. Anne. These observations are against the idea that the old city did not extend so much to the north-east, but that the Moslems added this quarter to the old city.

In building shops outside the Jaffa Gate the foundation of the present



town wall was laid bare at another point, and shown also here to stand on

earth and not on the rock, as I reported in a former communication. I observed also a capital and a pillar base which had been found at this spot, built into the modern building, of which I give sketches one-tenth of the real size. The pedestal is of red mizzy stone, but the capital of a whiter and better sort of stone.

V.

ANOTHER ROCK-CUT CHAPEL AT SILWÂN.

About ten days ago I was told that more rock-cut chambers had been found in Silwân, the walls of one being covered with old inscriptions. As soon as possible I went down with two of my men, in order to see and examine them. But it was a harder task than we expected. The people told us no such things had been found, or, at least, that they had not heard of it. Going through the village and inquiring, we had already come without result to its other end, and I had become convinced that the chambers which I some time ago examined and reported upon must be meant. However, a man, very likely hoping to get *bakshesh*, at last said he would show us such a place, and so our examination began, and I will now describe the results.

Below the Tomb of Zacharias, in the Kidron valley, the road divides, one branch going down the valley to the Virgin's Fountain, &c., the other eastward and upwards, to the threshing-floor of the village. This is an even horizontal terrace of some size, situated between the lower or western cliff and the eastern and higher one. At its southern end the main road or street of the village begins, having houses on both sides. On the second house on the eastern side there was pointed out to me a depression or niche in the wall, caused by cutting out a large piece of stone bearing an inscription, which had been sold by the proprietor. As the spot is so exposed, that any explorer visiting the village must have seen it, it is probably one already known, and perhaps published. The man went with us a little further, and then in a lane branching off eastwards from the main road, and near its end, showed us a door in the southern wall, passing through which we came into a court, having on its eastern wall, which was formed of the upper rock cliff, a door, which stood open. A child was crying inside, and the mother, appearing at the door, allowed us to enter and see the caves. The child became quiet when taken up, and so we could examine the cave at leisure. It is a double room, one part behind the other, of no special interest. The rooms were never tombs, but chambers for habitation; as people now live in them, so it was from the beginning. They are entirely cut in the rock; the outer 12 feet by 10 feet wide and 8 feet high, the partition wall about $2\frac{1}{2}$ feet thick, with a door in the centre. As there was much "nettish," or brushwood for fuel in it, I could not get its dimensions exactly.

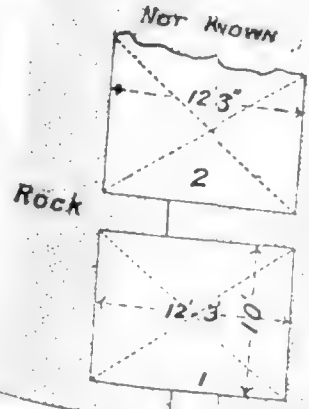
In order that this and my further explanations and descriptions



PLAN OF CHAPELS

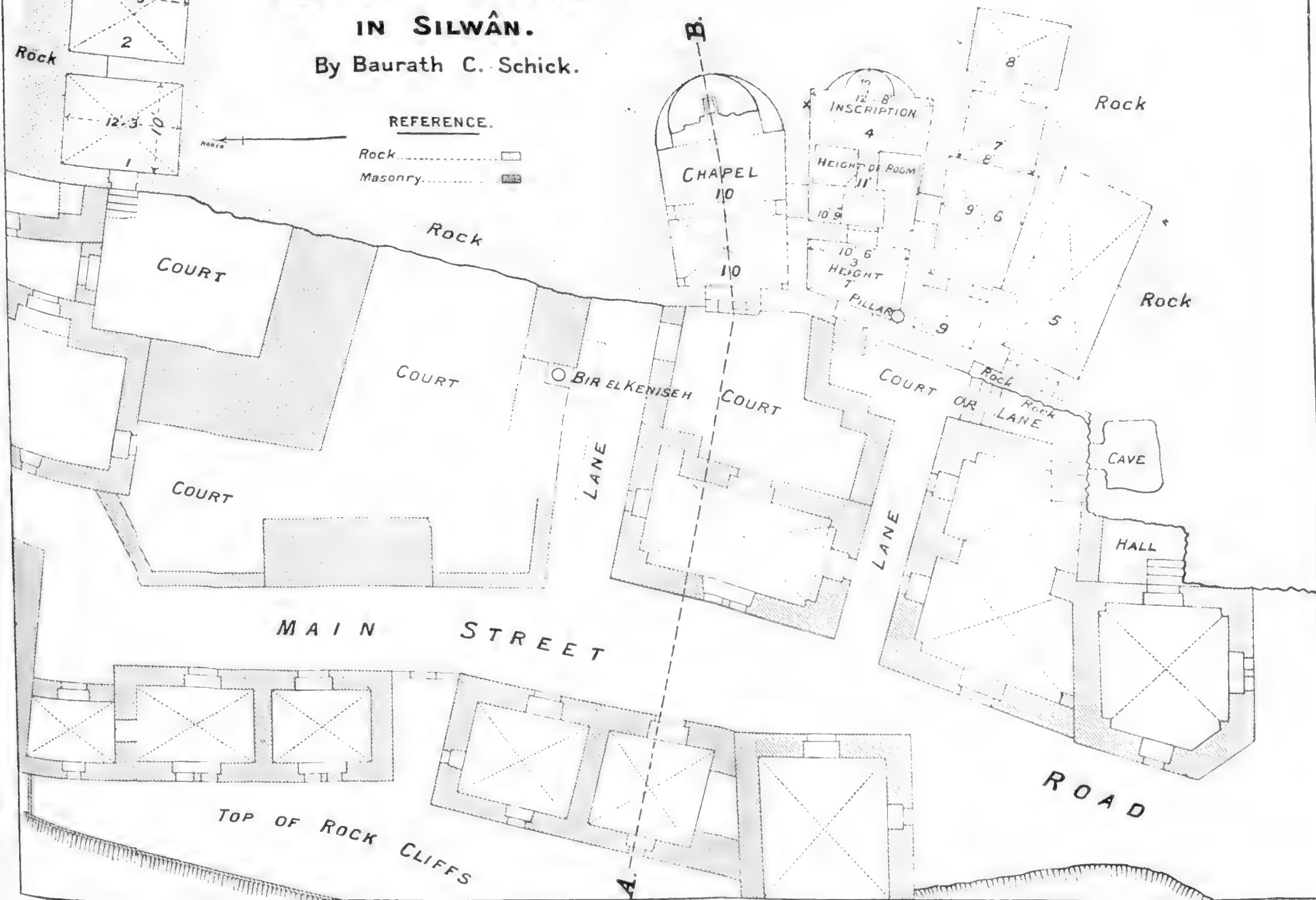
IN SILWÂN.

By Baurath C. Schick.



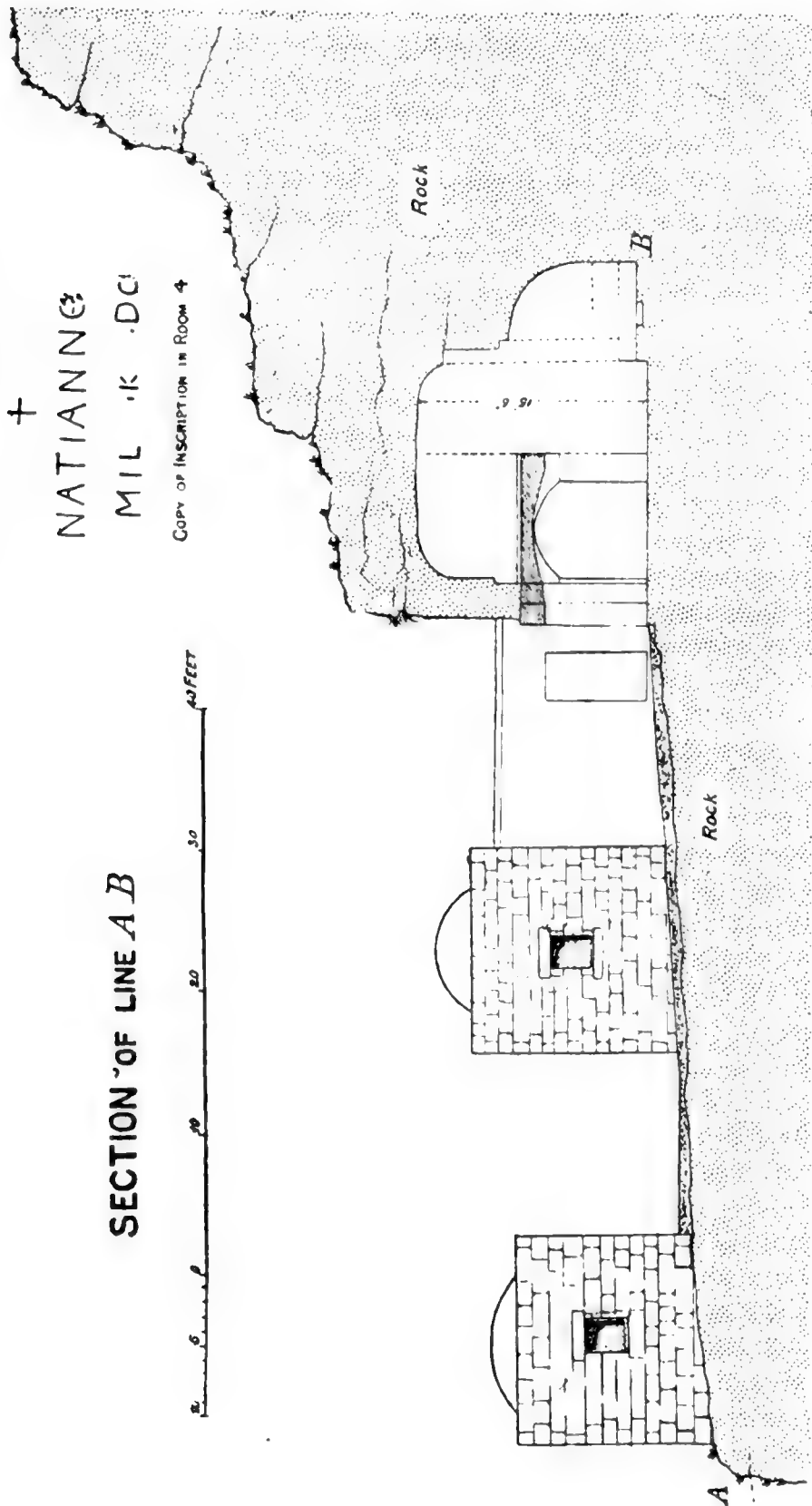
REFERENCE.

- Rock.....
- Masonry.....





may be better understood, I prepared the adjoining plan of the caves and surrounding houses, also a section and view of one part of



them. As I told the old man this was not what I wanted to see, he said there are some others, not recently discovered ones, but

inhabited, and one of them with an inscription. So we went back into the main road, and about 70 feet southward, in another lane which branches up eastward, we found near the end in its southern wall a door leading into a similar court, and with an opening in the cliff, or eastern wall of the court. This door was locked, so we went back to the main road, and in it, 25 feet further south, came to another lane which branched off eastward (the fourth when counting from the north). This lane ends at the cliff, or high scarp of the rock, in which several doors or openings were visible. Along the cliff is a kind of passage, in the northern corner a few steps lead up to the door of a room, inhabited by a fellah family. On entering, we found this to be a double chamber, entirely cut in the rock, but the outer part arched or vaulted by masonry. The reason of this I could not learn, but very likely it was because of unsoundness of the rock ceiling, for I found this room only a little more than 7 feet high, whereas the inner is much higher. The vault rests for the greater part on the rock walls, but at the south-western corner, on a piece of a granite pillar-shaft. This room is rather small, averaging about 10 feet by 7 feet, of an irregular shape; very likely it had once a door near the pillar leading to the adjoining room, but as the wall is plastered I could not ascertain whether this was so. In the centre of its eastern (the partition) wall is a door like all the inner doors, and the curiosity is that immediately inside the door there is on the floor a pit, 4 feet by $3\frac{1}{2}$ feet wide and 3 feet deep, and close to it further in two similar ones, as will be seen in the Plan. The purpose of these pits is not clear. They were not tombs or graves, being too short and too wide. They were either for keeping water, or storing other things, when the rooms were used as lodging-places, or, perhaps, when for a time this inner one was used as a chapel, bones - not corpses—might be placed there. When the rooms were inhabited these pits required coverings, which must have been of wood, as I found no indication of their having been of stone. The inner room is (without the apse) 14 feet long, $10\frac{1}{2}$ feet wide in the west and $12\frac{1}{2}$ feet in the east, and about 10 feet high. The eastern wall had a regular half-circled apse of 3 feet radius, which at a later time has been much damaged by rock being broken off in the north and south, as shown in the Plan. The floor of the apse is smooth, and about 8 inches above the main floor of the room. The rock looks rather unsound, and is full of small cracks, and, it having been recently white-washed, these cracks and marks of the chisel, or other unevenness, being dark, give the appearance of *writing*. I explained to the proprietor the real state of things, but he still believes the marks to be writing, which only I do not understand. On the north wall, near its eastern end and 7 feet above the ground, there is really a small Latin inscription, which I copied (*see* section), as it was impossible to make a squeeze, owing to the unevenness of the surface.

On the southern wall I could see that there was once a door communicating with the next room, No. 6. The question arises whether this room

has once been a special Christian chapel, as the apse seems to indicate? One is inclined to say, yes! although it cannot be definitely proved, as even a dwelling, or a place where bones were stored, might have a shrine. To me it seems that in the middle ages, or even later, a Convent or Laura of Monks or Anchores may have been here, using already existing Jewish and Canaanite rock-cut chambers.

When we came out I was told that the key for the southern door had been brought, so we went to it and found the door itself and surrounding masonry to be quite new. A few rock-cut steps lead up from it to a higher ledge, while the way goes horizontally into the room No. 5, which is on an average 9 feet wide, 20 feet long, and about $7\frac{1}{2}$ feet high. It is connected with another room, No. 6, which is on an average 13 feet long, 9 feet wide, and about 9 feet high—a good deal higher than the former. The partition between is only observable on the ceiling; there is not an arch but a kind of ledge projecting a little downwards, and immediately under the ceilings of both rooms there is a cornice all round, the workmanship of which is excellent. On the north wall there is a door, now walled up, which led to No. 4, and also one in its western wall, once leading to No. 9. As I could not go into the latter I give its size on suggestion. On the eastern side of room No. 6 there is a large recess, No. 7, about 8 feet wide, 7 feet deep, and 8 feet high, somewhat lower than No. 6, also this recess has a cornice all round under the ceiling. On its eastern wall is a door leading into another room, No. 8, done in the same way, and 10 feet by 8 feet wide, and about 8 feet high, without any apse or recess. That all these rooms were once human dwellings is without question, and that Christians once lived in them is shown not only by the Latin inscription with a cross over it, but also by a larger cross chiselled into the rock, over the door of chamber No. 5. The cross is that of the Knights of St. John, with 8 sharp points, standing in a double ring, the largest nearly 2 feet in diameter. Over it, on the top of the scarp, there is another room, made of masonry in a partly natural cave. To climb up to it was dangerous for me, and it seemed to be without further interest.

South of room No. 5 the cliff (or scarp) forms a kind of projecting angle and here also a chamber of minor interest and smaller form is cut into the rock. A few steps lead up to another corner now used as a kind of hall or ante-chamber for the next house (*see* Plan). When leaving this place and coming into the main road, followed by a number of people, I was told that the door of No 10 was now open; so we went there. On the north side of the lane and partly under it, there is a cistern, called—as the people told me—Bir el-Keniseh, *i.e.*, the “Well of the Church;” it is cut into the rock or built into a cleft, and the arching stones project above the surface of the road. East of its mouth there is a block of masonry of considerable height, its purpose I could not learn, but think it is the covering of a stair leading down into the cistern. Opposite the latter is a door leading to the court already mentioned. Its level is nearly the same as that of the threshold of the door in the cliff leading to No. 10.

This door was also made lower and narrower by masonry. On entering one finds himself in a room 12 feet wide and $7\frac{1}{2}$ feet high, vaulted by masonry, its four legs or resting points on small pieces of masonry, but further in there is a part much higher, $15\frac{1}{2}$ feet, and at the same time also wider, the east wall rounded as a large and regular apse; but in some degree slanting. The floor of the apse is 8 inches higher than the floor of the room, but it is partly broken away now. It had in the centre a square hole about $1\frac{1}{2}$ feet long, 10 inches wide, and 8 inches deep, with groove all round for letting in the cover, which is gone. The apse has on the ground a diameter of 10 feet, but about 1 foot higher, 13 feet 6 inches, with a radius of 6 feet 9 inches, an arrangement which I observed here for the first time. Also its ceiling is unusual, as will be seen from the Section. I found no inscription; perhaps, if the room were whitewashed, some might appear. The people told me there was, formerly, also a communication between these rooms and the others, the whole forming a "Monasterion," as they said. It may be so, but I observed no indications of a door. That this chamber, No. 10, was a chapel, is quite clear.

VI.

SOME EXCAVATIONS ON MOUNT OF OLIVET.

An English gentleman, Mr. Gray Hill, has recently bought a piece of ground on the northern top of Mount of Olivet, or perhaps already belonging to the Scopus. He intends to make a cistern and to build a house there, also to make a wall round about the land; stone quarrying and excavations are, therefore, going on, and some old remains have been found. First, a small square pool, only 5 feet by 5 feet wide, and about 4 feet deep, hewn in the rock, with its "musfaih," or filter, at the side; further, two caves, hewn in the rock, which were originally Troglodite dwellings; the northern one is a square room, 7 feet 3 inches by 8 feet 6 inches wide, and somewhat over 7 feet high; the roofing no more exists, and its northern wall, in which was the door, is also for the greater part destroyed; in the western and eastern walls are small recesses. The southern chamber is about 105 feet distant from the latter, the pool mentioned above being between them. It is not so regular as the other, is rather larger and of a rounder form; there are also two recesses in the wall, but much larger, and of irregular form; one of these formed the fire-place, as there is a chimney. A stair, forming a kind of trench, led downwards to a square door, nearly 5 feet high, and 2 feet 4 inches wide; three of the steps are preserved. On the western side of this trench, which is about 4 feet 6 inches wide, is a ledge of rock, in which is cut a small channel to carry the surface-water to a small pool 2 feet 10 inches by nearly 2 feet wide, and about the same deep, situated partly

on the side, partly over the room close to the door. These arrangements were made to avoid the surface-water running down into the room, and at the same time to gather it as a supply. The greater part of the roof being gone, the room became in course of time full of earth and *débris*. When this was cleared there were found a pillar-shaft, 13 inches in diameter, and 2 feet $1\frac{1}{2}$ inches long, and many hewn stones of peculiar shape. Further were found pieces of Mosaic flooring, the tesserae being of white stones, and still holding together; also jar handles and many pieces of pottery, a small metal vessel, some old coins, &c.

VII.

RECENT EXCAVATIONS AT SILOAH.

1.—*Searching for a second Aqueduct.*

The idea of a "second" aqueduct from the Virgin's Fountain to the Pool of Siloah met with several opponents, although I had found such a one, or at least the southern part of such a one, for a length of about 400 feet, which I reported at the time and referred to on several subsequent occasions (*see especially Quarterly Statement, 1886, page 197, illustrated with plan and sections*). As it was desirable to look for traces of this more to the north, and the Secretary wrote to me: "the Committee hope that you will do something in the way of excavation," I made the necessary arrangements and started work in the middle of April, although with only a small number of men, in order to keep down the expenses. As the Committee had not fixed the actual points where I had to dig, I chose them to the best of my judgment, commencing high up on the slope of the Ophel-hill, where I might be in some degree sure to find the rock on a level a few feet above the bottom of the famous aqueduct of the Virgin's Fountain. The point fixed upon is about 190 feet north of my former shaft, C (*see Quarterly Statement, 1886, page 198, and plan*), and at the contour of the present ground, 2,125 feet above the Mediterranean (*see Sir C. Wilson's Plan of Jerusalem, scale $\frac{1}{2500}$; or Sir C. Warren's portfolio, plate iii*).

On sinking a shaft there was found earth for 4 feet, then for about 4 or 5 feet small stones and small stone chippings, so that it was necessary to put in wooden cases; after this, at a depth of 8 or 9 feet, the earth was hard, and we could go down to any depth, the earth being mingled sometimes with stones and boulders. At 27 feet the rock was found at a level of 2,098 feet, falling towards the east, with a decline of 12° , but on the north-west corner of the shaft a scarp was visible 2 feet 6 inches high, and opposite there was masonry, so one might think there had been here an open channel from 2 feet 6 inches to 3 feet wide; but seeing no traces

of any cementing, and at the same time the level being too high, I decided to fill up the shaft, and to make another one 23 feet lower down, as we could not drive a gallery. This second shaft, on a level 2,117 feet, is a little more south, and only 55 feet west of the road in the valley. The nature of the ground was similar to that at the first shaft, and the rock was struck at 35 feet deep, level 2,082. It had a decline towards the east of 25° , which seems to be the average decline of the eastern slope of Ophel-hill. The earth being hard, the workmen undertook to make a gallery towards the site of the first shaft, but as the rock rises rapidly, they had to make the gallery higher and higher, and so gradually filled the shaft again for about 8 feet. Having worked westwards for about 10 feet they came to a rock scarp, on the bottom of the gallery, so the latter was driven further on the surface of the rock to a distance of 16 feet, where a massive wall was met with which the workpeople, without having cased the gallery, would not try to break through. If it is the same which was met in the first shaft it must have a thickness of 5 or 6 feet. I wished now to descend on the scarp, which was rather a difficult work, going on very slowly, and when at 6 feet deep small boulders appeared I had to give up the work. As in this ground, from level 2,082 to 2,094 feet, no trace of an aqueduct was found, I thought very likely the wall above-mentioned, which is situated at the desired height, might be the very aqueduct, and that the scarp might be the wall of a pool, into which the water from the Virgin's Well came; so I thought it best to make a third shaft, south of both, in the position where the wall would be if it went straight, and so come upon the wall, and find the aqueduct, if really there is one. Unhappily no wall was found, nor any aqueduct, but at 30 feet 6 inches deep, on a level 2,091, the rock was met horizontal! Disappointed, I made short galleries on three sides of the shaft, but without success. Convinced that what I looked for was not to be found here I gave up the work, and filled the shafts again.

2.—*Searching for Gate of City of David.*

During the time these three shafts were being made, four others were also sunk, much more to the north, and not in connection with the aqueduct, but rather with a view to find out the old gate of the city of Jebus, the gate at the end of the road coming up from the Virgin's Fountain to the fortress of the Jebusites and the City of David. As in the *débris* on the eastern slope of Ophel many pieces of old pottery are found, the fellaheen sometimes dig in the ground in order to find them for making "hamra" (pounded bricks), which is used for cementing cisterns. Whilst doing this they came to a place where there were walls on two sides, and having observed that further up the hill traces of walls were seen in the same line, I thought that probably this once formed a kind of tunnel, with door at each end, and forming an underground access to the City of David. I wished, therefore, to find out (1) if there were on the bottom steps hewn into the rock; and (2) if there were openings in both

end walls. Shafts were therefore sunk, and the locality carefully examined, but neither steps nor doors were found.

The tunnel is situated just where we should look for one, and runs in the desired direction. It very likely formed an underground approach to the city, which became destroyed, and was not properly restored in later times, but became converted into a pair of rather poor cisterns, which in turn got out of repair and fell to ruins.

C. SCHICK.

SCULPTURED FIGURES NEAR KÂNÂ.

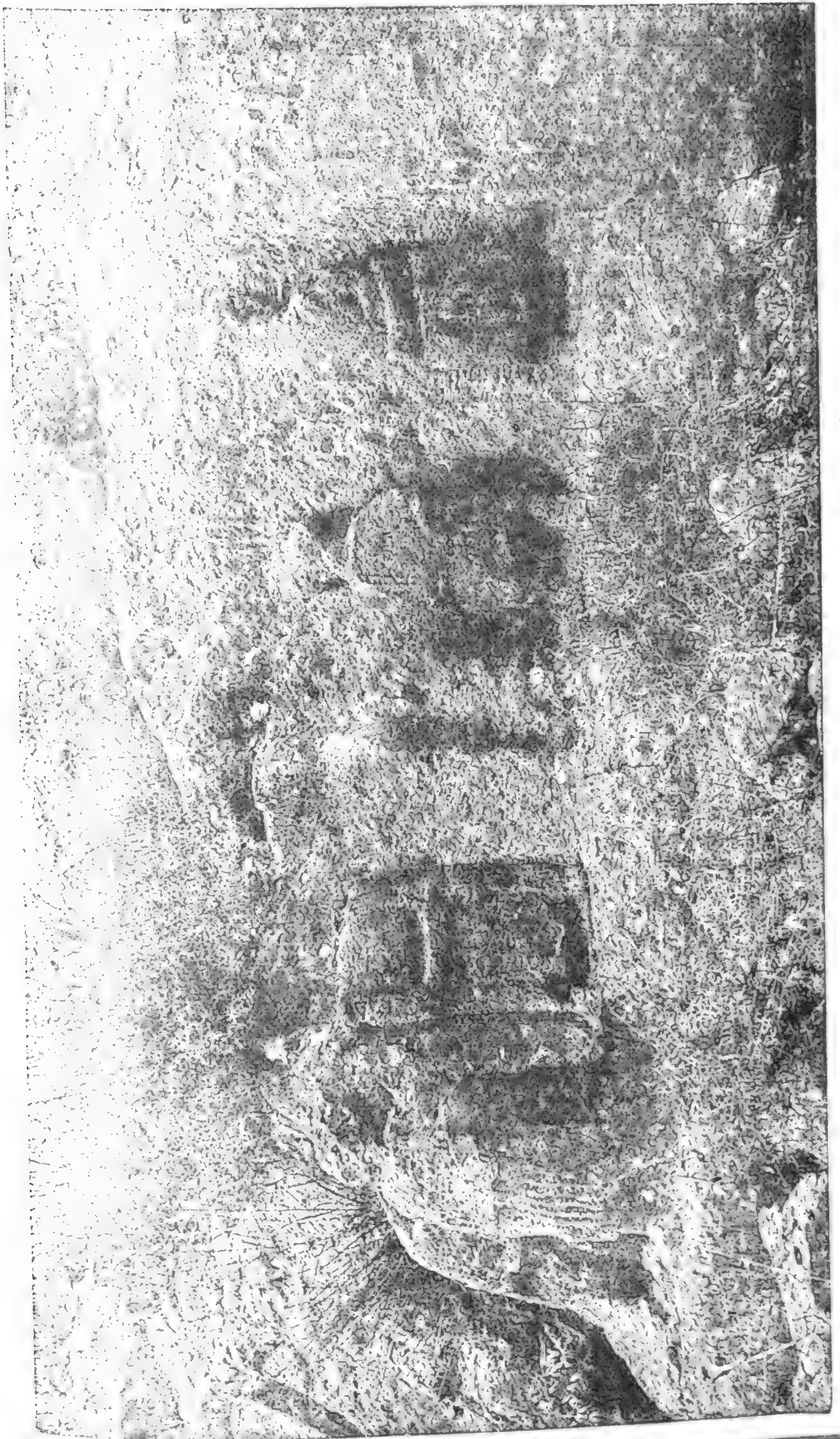
LAST Saturday (24th) I returned from my trip to near Tyre, where, in accordance with the desire of the Committee, I had proceeded to photograph the ancient figures mentioned by Guérin and Rénan.

I started at six in the morning from the new Khân Skanderûna, a tolerably clean native inn built close to the sea shore on the site of ancient Alexandroschene, near Râs el Bayâda, and proceeded to the white "ladder of Tyre." This narrow defile, above the steep rocks of Râs el Bayâda, is becoming a rather dangerous path on account of the crumbling rock masses of which roll down to the road from the overhanging cliffs above and partly narrow the path, partly in their fall ruin its borders on the sea side. It is, too, becoming again a hiding place for highwaymen, who, as I hear, lately committed several crimes here; unfortunately the new "chaussée," which would avoid the Bayâda road entirely and cross the mountain higher up, is not yet finished. I continued the usual road to Tyre along the sea coast, and arrived at Râs el 'Ain at 8 o'clock in the morning. From here I took a directly eastward course, passed the column 'Amud el Atrash, followed the wâdy up to the brackish 'Ain Furâwiyat, left the small village Beit Hâlêi to my right, and arrived in a terrible sirocco heat at the "Kabir Hirâm" at about 9 30. This ancient monument has not been in any way destroyed; the proprietor of it and of the surrounding ground has excavated on the north of the Kabir, and opened a rock-hewn tomb-cave, but the Governor of Tyre stopped his work, so that nothing as yet can be said of the interior disposition of the cave. It seems as if it had a communication with the monument, its entrance not being more than about 3 yards to the north of the Kabir Hirâm. I encouraged the proprietor to continue excavating, but he declared he was not able to do so without a firman. A few minutes later I passed the well-built and populous village of Henâweh, leaving it on the right hand, and continued my road in a south-easterly direction across the rocky shoulder lying between Henâwei and Kânâ, on which here and there remains of wine or olive presses, basins and cisterns, are found. The ride along the rocky road from Henâweh to Kânâ took me 50 minutes.

My object now was to look for the curious figures above mentioned. I enquired, but not one of the exceedingly suspicious and fanatic sect of the Metâweli natives, with whom these mountains abound, would know anything of them. I therefore examined, first, the slopes lying right of the road and west of Kânâ (or Âna, as the natives pronounce it), following thus the guidance of Rénan, as given in the "Memoirs" (vol. i), who says: "turning to the right in the valley," &c.; but I discovered nothing else but cisterns, presses, and round holes in the rocks of the upper slopes which now are used as stone quarries. I also examined the Wâdy Kânâ, north of Kânâ, but without effect. Finally, an old Moslem had an idea that somewhere to the east of the road leading from Henâwei to Kânâ he had seen "tasawîr" (figures) on the rocks, but he was not able to indicate their exact position. I continued nevertheless my researches, and was finally lucky enough to find a large ancient quarry, and below this, along a rock wall bordering the second third of the heights of the steep Wâdy el 'Akkâb, strange figures cut into the rock. The spot where they are found lies, therefore, in following the road from Kânâ to Hanâwei, about one mile north-west of the village of Kânâ, and 200 yards off the road from this spot eastwards down the slope of Wâdy el 'Akkâb.

The vicinity of the antiquities is a very rocky, wild one; the rock walls are built up in great terraces one above the other. I proceeded without delay to photograph the figures, and succeeded in doing so. The figures are carved on the perpendicular and sloping sides of a worked limestone rock *facing east*; all look towards the rising sun. The figures are found on two different rock walls; the first wall above has a length of about 40 yards, along this figures of a very strange appearance are found one by one standing in an upright position; some are shown to the breast, others show merely the head and a long neck. One figure, probably a chieftain, is stretching out his arms as if he was commanding or uttering a benediction; two figures are worked in a corner of the rock and stand on a small pedestal; three others are folding their hands. Every figure, or every group of two or more figures, is surrounded by a round or cornered niche 2 to 3½ inches deep, the relief work on an average projecting 3 inches from the rock. Special attention was paid to a female figure, the only one among all of which the sex can be made out with certainty. It has a female dress falling in folds, the left arm is stretched as if holding a cane, the right arm is hanging down, the head is mutilated as in all the figures. To the left of it, on another portion of rock, there is a probably unfinished figure—perhaps a hieroglyph.

There is another figure, which I hold to be also female. Unfortunately it is worked on a detached piece of rock and is almost entirely weatherworn and broken; but the contour lines of the left arm seem to show a higher skill and art than some of the remaining figures. Among these figures, generally, as above said, surrounded by a niche, we find others which evidently are unfinished; such incomplete figures are seen on nearly every photo., especially on Nos. 5 and 6, and on the general view, No. 7. This upper row represents 20 finished figures and 11 un-



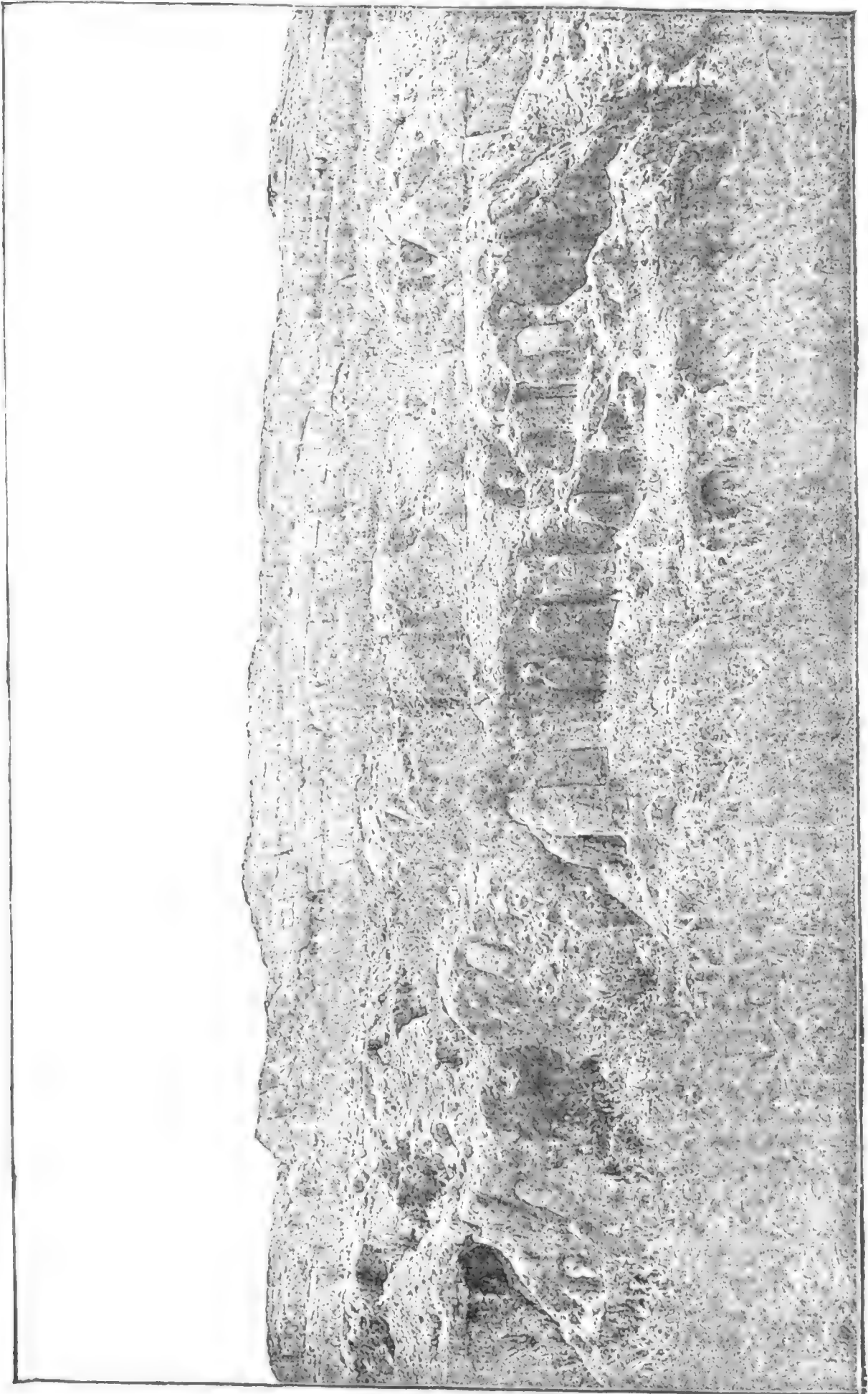
FIGURES CUT IN ROCK NEAR KANĀ. (From a Photograph.)

finished ones. The figures vary in height from 2 to $2\frac{1}{2}$ feet, most are 2 feet 2 inches high. The work is very rude in general, only two or four figures show a more developed art, but the principal obstacle which prevents a thorough study of these highly interesting figures is the fact that they are without exception almost entirely defaced; the heads, feet, and fingers broken by human hands, and, as the limestone rock is not very compact, also greatly weatherworn. Most of the figures do not show anything more than outlines; no physiognomy whatever is discoverable, therefore my thorough search for inscriptions and hieroglyphs was not rewarded by any favourable result. Above the central part of the upper line of figures I discovered on the rock a smooth portion framed by a simple cornice, which may once have contained inscriptions, but now none are discoverable.

The second series of figures is found on a rock wall 25 yards below the above-mentioned; this rock wall is not straight like the other, but the figures are hewn on the perpendicular sides of a rock of round shape. They face east and south. Whilst we found among the upper row figures showing some skill and art, we could not discover any such art on the figures below; they all without exception show merely a round ball, representing the head, and a long straight neck placed on the remainder of the body formed by a simple quadrangle. This quadrangle often is not broader than the head, and therefore of a very primitive appearance. Most of the figures are in a niche; they are in relief of 2 inches to 3 inches. Most of these lower figures are evidently unfinished, and like the upper ones entirely weatherworn.

On photo. No. 9 we find several figures close to each other; none of them have any peculiarity, only the middle figure is higher than all the rest; it has a height of 4 feet 3 inches, and stands in an own niche. One figure on photo. No. 8 seems to be of the following shape, but I must confess that I could not make out whether it originally was like all the others of the lower row and defaced by the influence of the weather, or whether it really was of a different kind. Photo. No. 10 shows also some figures of the lower row, which contains in all 15 finished and 12 unfinished figures. I venture to think that the figures of the lower row represent a more ancient period than those of the upper, but it is very difficult to state at what epoch they may have been created. I think Guérin is right in calling them anterior to the Greek-Roman epoch, probably Egypto-Phœnician. The bearing of the upper straight wall is due north-south; the spot is, according to the barometer, 70 feet lower than Kânâ.

Réan speaks of a third series of figures hidden in the bushes. I found, 35 yards below the second row, a large natural cave, with a smoothed rock covering it, but no sign of any sculpture; in fact, I explored the whole vicinity without finding any other works than the above-described. Bushes, in fact, exist no more in this part of the country, the slopes are bare, naked rocks. I also could not find any "sitting divinity," "towards which three men and a woman march in procession," as Guérin



FIGURES CUT IN ROCK NEAR KĀNĀ. (*From a Photograph.*)

states ("Galilee," ii, p. 402), unless the corner figure (photo. No. 1) with the neighbouring figures with folded hands are meant.

My road homewards by the Wâd er Rasâs, the village el Keneiseh, and Mutniyeh, offered nothing of general interest.

SCHUMACHER.

Haifa, *May 29th*, 1890.

THE FIGURES NEAR KÂNÂ.

IT is satisfactory that this point has been cleared up: but the expectations raised by M. Guérin's account have not been fulfilled. I do not think that these figures can be assigned to a very remote period. In size and character, and in their arrangement in niches, they resemble other figures which I have drawn in various parts of Syria.

It is to be observed that they are all full-face, which may be taken as an indication of late date. The Egyptian, Hittite, and Assyrian *bas reliefs*, almost without exception, represent figures in profile.¹ On the other hand, the busts carved on rock of the Greek and Roman period are usually full-faced. If any inscriptions had been found, they would probably have been Greek.

At Abila of Lydianas I copied several such busts over tombs with Greek inscriptions, not earlier than the second century A.D. Near Amman such a bust, but better executed, has been noted in the "Memoirs." The figure from Wâdy et Tin, near Tyre (*see* "Syrian Stone Lore") is of the same type, but rather better executed. Near Es Salt I found a similar pair of busts inside a tomb which had been used as a Christian chapel. The tomb had *loculi* and not *kokim*. Another bust of the same class was found on a tomb of about the second century A.D., which I discovered at *El Kahf*, in Moab.

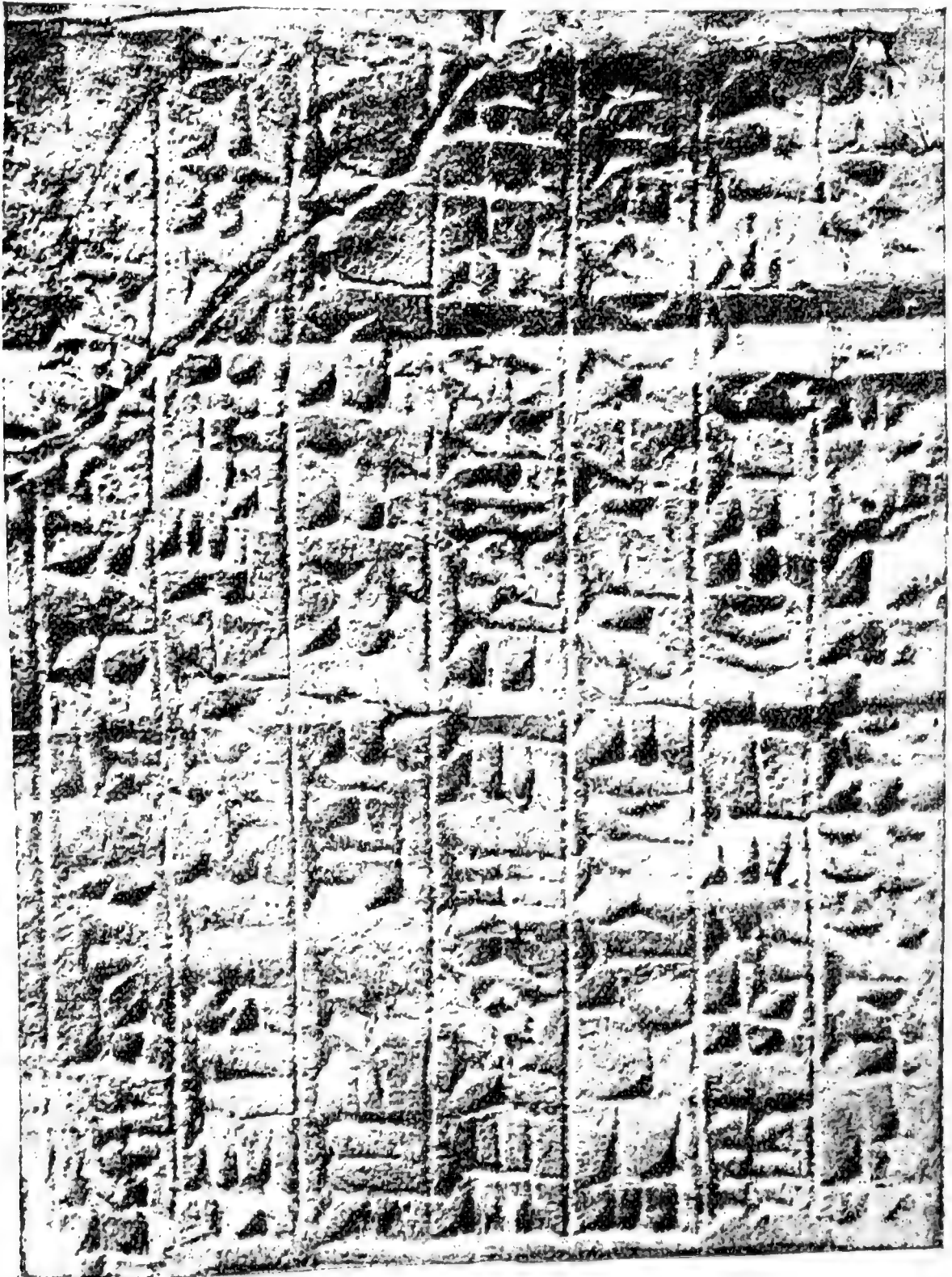
I should suppose that these, as well as the figures lately found at Sairs, belong to the Roman period and represent native work. The Palmyrene statues of the second and third centuries A.D., though much more considerable as works of art, are of the same class of rude native attempts to reproduce classic types, and the great figures found at Tell Nemrûd, on the Upper Euphrates, represent the same style, but are more considerable as art productions dating from the century before Christ. The size of the busts above mentioned is about the same as that of the figures. Still rougher examples of this class were sketched in 1877 by Sergeant Malings, R.E., at the *Mughâret esh Shahl*, near 'Almân ("Memoirs" i, p. 108), over a tomb, and at *Khûrbet Yârîn* ("Memoirs" i, p. 185), also near a tomb with *loculi*. These busts may have been intended to represent persons buried in the tombs, and they have no connection with Hittite or true Phœnician art. They may even be as late as the Byzantine age. I found a small statue of the same class at Kadesh, on the Orontes.

C. R. CONDER.

¹ Sir C. W. Wilson reminds me that the Niobe of Mount Sipylos is full-faced. So is one face on the Karnak Monument.

AN ASSYRIAN TABLET FROM JERUSALEM.

I SEND herewith a "squeeze" of an Assyrian inscription, with a translation



of it, which has been kindly made for me by Mr. E. Wallis Budge, of the British Museum.

He states that it is a fragment of an inscription of Sargon (B.C. 721, 705), and comes from that monarch's palace at Khorsabad.

The tablet from which the inscription was taken was found at Jerusalem at the Convent of the Sisters of Sion; and Miss Amy G. Smith, who procured the squeeze of it for me, was informed by them that it had been found many years ago (they thought more than fourteen), when the sisters were making excavations near the Viâ Dolorosa. From that time until last autumn it had been laid aside and neglected. When found it was perfect, but is now broken in half.

T. HAYTER LEWIS.

76. as-kup-pi abnu pi-li [kabuti daadmi kišitti kâtâ-ia]
 77. ši-ru-uš-šun ab-rig (?) [ma a-šurru-šin ušaashira ana tabraati]
 ušalik 4 saru 3 niru [1 šuššu 1½ ša 11 amtu mišiiḫti dūri-šu
 78. aškun ma ili šadi-i zak [ri ušaršid timîn-šu]
 79. ina ri-e-ši [u] arka[ati ina sili killallân miḫrit VIII šârî]
 80. VIII bâbî apte-ma ilu [Samšu mušakšid irnittia ilu Rammanu
 mugin]
 81. higallia šunu abullu

“With large slabs, hewn out of blocks of stone, upon which I had chiselled representations of the prisoners I had captured in war, I lined the walls, and I set them forth for admiration (or marvelling).

“I made the mass of their walls 16,280 cubits, and I laid their foundation stones upon a rocky bed; in front, and behind, and on both sides towards the eight winds I made eight doors open.

“Samas makes my strength to conquer (?)” and “Rimmon the establisher of my kingdom,” called I the names of the doors, &c.”

ZOAR.

It has not been noticed in the *Quarterly Statement* that the Septuagint seems to have considered the Zoar of Gen. xiii, 10 a different place from the Zoar of Gen. xix, 22. In the former passage we read—*ἕως ἐλθεῖν εἰς Ζόγορα*; in the latter—*εἰσῆλθεν εἰς Σηγώρ*. I take it that neither name is declinable, and that Zogora and Segor are not the same place.

This, as far as it goes, confirms the identification of the Zoar of Gen. xiii with Zar. But there is no authority for suggesting that Zar or Zor should be read in Ps. lxxviii, 12, 43. The Septuagint translators must have known the localities in Egypt perfectly well, and in this psalm they read Tanis or Zoan.

J. H. CARDEW.

AN ANCIENT HEBREW WEIGHT FROM SAMARIA.

WHEN recently at Samaria, I purchased from a peasant boy a hæmatite weight of the size and shape here represented. It is flattened on one



ANCIENT WEIGHT FROM SAMARIA.

side, so as to stand on a smooth surface without rolling, and on the upper part there is an inscription in two lines of ancient Hebrew characters.

In the "Athenæum" of August 9th, Professor A. Neubauer writes respecting this weight :

"Professor Sayce has communicated to me the following inscription on a small weight found on the site of Samaria, and purchased by Dr Chaplin last spring : Face 1, רבעשל ; face 2, רבעננע ; which seems to read רבע של רבע ננע, 'a quarter of a quarter of a quarter of a quarter.'

"Mr. Flinders Petrie, to whom Professor Sayce communicated this interpretation, writes that he has discovered from other sources that the standard weight of Northern Syria amounted to 640 grains, of which the quarter of a quarter would be 40 grains, that is, exactly the value of the Samaritan weight in the possession of Dr. Chaplin. Whether ננע is derived from the root ננע cannot be decided yet, but the use of של is important at the probable date of the eighth century B.C., which the forms of the characters indicate, and in the northern kingdom. של which is a contraction of אשר ל=ל, is found in Canticles, which is considered a production of the Samaritan kingdom, in Jonah, and in Ecclesiastes. The early use of של might perhaps help to bridge over the gulf which Professor Margoliouth has found between classical Hebrew and that of Sirach."

Mr. Petrie adds :—

"In discussing the weights which I found at Naukratis in 1885, I found a standard of 80 grains in common use, and suggested that it might be an eighth of the 5 Assyrian shekels ; again, at Defenneh, in 1886, I found the same standard, and I then proposed its identity with the standard indicated by the tribute of the Hittites and Syrians on the Egyptian monuments ('Nebeshah and Defenneh,' pp. 91-2). The weights showed a variation of 77 to 83 grains, and by the tributes I deduced 77 to 80 grains. I concluded that it was five Assyrian shekels halved successively into 320, 160, and 80 grains, and used in Syria and imported thence to Egypt.

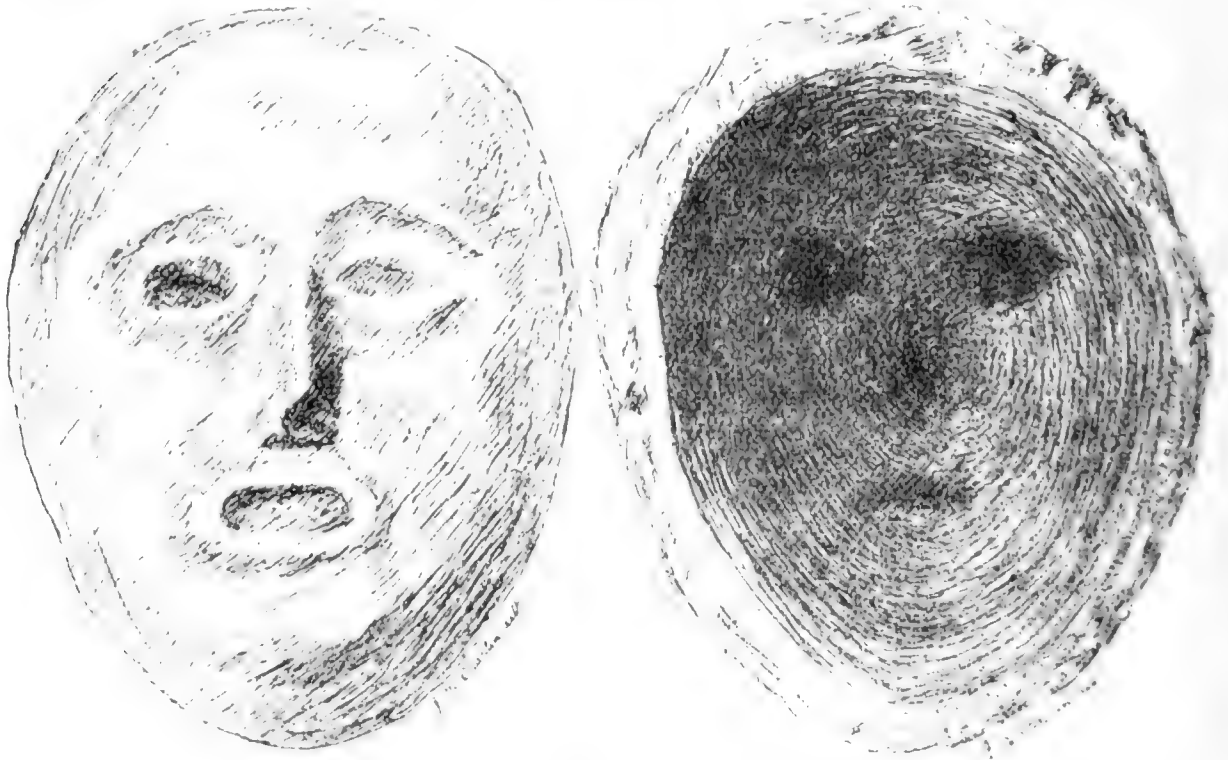
"Now all this, which was a tentative deduction, is exactly confirmed by Dr Chaplin's weight, and explains that weight. It is 39·2 grains,

and is said to be 'quarter of a quarter of a Netzeg.' The Netzeg was, therefore, 627 grains, which is well within the variations of 5 shekels; and it was divided by halving down to a sixteenth. The one-eighth is 73·4 grains, which agrees with the 77 to 80 grains which I had previously reduced for this Syrian standard. So we now know that the Syrian (or Hittite ?) name for 5 shekels was Netzeg."

THOMAS CHAPLIN, M.D

A STONE MASK FROM ER-RÂM.

As I was riding through Er-Râm one day and enquiring for "antiques," a woman brought me a very curious stone mask, which I immediately purchased for a small sum. It seemed, however, that the object was regarded in the village as a sort of talisman which it would not be well to part with, so a number of men ran after me with their guns and demanded it back. Fortunately the Arab is always open to argument, and I had not much difficulty in persuading the men that it was to their own interest, if not for the good of the village, to let me take



STONE MASK FROM RAMAH.

the thing away; and I was soon permitted to ride off with my prize. It is of the variegated reddish limestone of the country, of the shape represented in the drawing, and measures about 7·3 inches by 5·7 inches



Y HEF

50 FE

By J

Mean Re

Dry Bulb.

55°·7

58·9

65·8

69·3

75·9

79·5

83·8

84·7

81·2

82·9

65·1

57·0

71·7

MONTHLY METEOROLOGICAL TABLE DEDUCED FROM OBSERVATIONS TAKEN AT **SARONA** BY HERR J. DREHER IMMEDIATELY NORTH OF THE GREAT ORANGE GROVES OF **JAFFA, SYRIA**, $1\frac{1}{2}$ MILES FROM THE SEA SHORE, ON SANDY SOIL, AND ABOUT 50 FEET ABOVE SEA-LEVEL. LATITUDE $32^{\circ} 4' N.$, LONGITUDE $34^{\circ} 47' E.$

By JAMES GLAISHER, F.R.S.

Months, 1889.	Pressure of Atmosphere in Month. Corrected to 32° Fahrenheit.				Temperature of the Air in Month.								Mean Reading at 9 a.m.			Vapour at 9 a.m.			Degree of Humidity.	Weight of a Cubic Foot of Air.	Wind.									Mean Amount of Cloud.	Rain.	
	Highest.	Lowest.	Range.	Mean.	Highest.	Lowest.	Range.	Mean of all Highest.	Mean of all Lowest.	Mean daily Range.	Mean.	Dry Bulb.	Wet Bulb.	Dew Point.	Elastic Force of Vapour.	Weight in a Cubic Foot of Air.	Additional Weight required for Saturation.	Relative Proportion of									Calm, or nearly Calm.	Number of Days on which it fell.	Amount Collected.			
																		N.			N.E.	E.	S.E.	S.	S.W.	W.					N.W.	
																		ins.														
January	30·073	29·748	0·325	29·921	72·0	42·0	30·0	64·2	49·0	15·2	56·5	55·7	52·7	49·8	·361	4·0	0·9	82	537	0	2	4	4	13	1	1	2	4	7·1	18	5·85	
February	30·090	29·656	0·434	29·939	80·0	41·0	39·0	67·2	47·8	19·4	57·5	58·9	53·9	49·5	·354	4·0	1·6	71	534	0	0	0	6	9	3	2	0	8	6·2	7	0·66	
March	30·059	29·571	0·488	29·872	97·0	42·0	55·0	73·8	52·3	21·5	63·0	65·8	58·3	52·2	·391	4·3	2·7	61	525	3	3	0	1	5	8	2	1	8	5·8	3	0·80	
April	30·051	29·679	0·372	29·859	102·0	44·0	58·0	74·1	51·5	22·6	64·3	69·3	60·6	53·9	·415	4·6	3·5	58	522	1	0	0	1	5	3	7	6	7	4·2	3	0·57	
May.. ..	29·918	29·559	0·359	29·752	100·0	50·0	50·0	82·2	60·8	21·4	71·5	75·9	65·9	58·8	·497	5·4	4·3	55	513	2	0	1	2	0	7	6	6	7	6·2	1	0·02	
June	29·942	29·583	0·359	29·770	100·0	59·0	41·0	84·4	64·0	20·4	74·2	79·5	71·1	65·4	·624	6·7	4·1	62	509	0	0	0	1	3	14	3	2	7	2·6	0	0·00	
July.. ..	29·823	29·494	0·329	29·648	92·0	65·0	27·0	88·4	69·5	18·9	79·0	83·8	75·1	69·4	·717	7·6	4·7	62	502	0	0	0	1	1	21	2	0	6	2·2	0	0·00	
August	29·788	29·587	0·201	29·665	90·0	67·0	23·0	88·3	70·3	18·0	79·3	84·7	75·6	69·7	·727	7·7	5·0	60	502	0	0	0	3	2	21	1	0	4	3·1	0	0·00	
September	29·882	29·622	0·260	29·770	90·0	62·0	28·0	86·8	69·7	17·1	78·2	81·2	72·4	66·5	·649	6·9	4·4	61	507	0	0	1	0	4	7	7	2	9	3·9	2	0·33	
October	30·019	29·790	0·229	29·893	98·0	56·0	42·0	86·8	63·0	23·8	78·6	82·9	71·8	64·5	·605	6·4	5·6	54	508	3	0	3	0	3	1	2	2	17	2·2	0	0·00	
November	30·136	29·800	0·336	29·967	86·0	40·0	46·0	70·3	50·2	20·1	60·3	65·1	57·7	51·4	·383	4·2	2·6	61	528	1	2	3	1	6	3	0	0	14	2·8	6	1·81	
December	30·185	29·643	0·542	29·953	82·0	38·0	44·0	66·6	48·9	17·7	57·8	57·0	52·5	48·4	·339	3·8	1·4	72	536	1	2	6	2	11	1	0	0	8	6·7	10	3·46	
Means	29·997	29·644	0·353	29·834	90·8	50·5	40·3	77·8	58·1	19·7	68·4	71·7	64·0	58·3	·505	5·5	3·4	63	519	Sum. 11	Sum. 9	Sum. 18	Sum. 22	Sum. 62	Sum. 90	Sum. 33	Sum. 21	Sum. 99	4·4	Sum. 50	Sum. 13·50	
Number of Column	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	

Its thickness to the broken tip of the nose is 3 inches. The back is hollowed, and the sockets representing the eyes there are very deep, particularly that on the right side. The place of the mouth also is scooped out behind, but there is no mark for the nose there. The mask seems to have been handled a great deal, as its edges are worn very smooth. Mr. Flinders Petrie thinks it is probably of Canaanite origin.

THOMAS CHAPLIN, M.D.

METEOROLOGICAL OBSERVATIONS.

SARONA, 1889.

THE numbers in column 1 of this table show the highest reading of the barometer in each month; the maximum was 30·185 ins. in December. In the years 1880, 1881, 1884, and 1887, the maximum was in January in 1882 in February, and in 1883, 1885, 1886, and 1888 in December as in this year. The maximum, therefore, has always been in the winter months. The highest reading in the ten years was 30·285 ins. in 1887. The mean of the nine preceding highest pressures was 30·223 ins.

In column 2, the lowest reading in each month is shown; the minimum for the year was 29·494 ins. in July. In the years 1883 and 1887 the minimum was in January, in 1881 and 1888 in February, in 1880, 1884, 1885 and 1886 in April, and in 1882 in July, as in this year; the lowest reading in the ten years was 29·442 ins. in 1887. The mean of the nine preceding lowest pressures was 29·510 ins.

The range of barometric readings in the year was 0·691 inch; in the nine preceding years the ranges were 0·780 inch; 0·711 inch; 0·704 inch; 0·579 inch; 0·757 inch; 0·680 inch; 0·621 inch; 0·843 inch; and 0·743 inch. The mean for the nine years was 0·713 inch.

The numbers in the 3rd column show the range of readings in each month; the smallest was 0·201 inch in August; in 1883 the smallest was in June; in 1882, 1886, and 1888 in August, as in this year; and in 1880, 1881, 1884, 1885, and 1887 in October. The mean of the nine preceding smallest monthly ranges was 0·172 inch.

The largest monthly range was 0·542 inch in December; in the years 1883, 1884 and 1887 the largest was in January, in 1882 in February, in 1881 and 1886 in March, in 1880 in April, in 1885 in September, and in 1888 in December, as in this year. The mean of the nine preceding largest monthly ranges was 0·628.

The numbers in the 4th column show the mean monthly pressure of the atmosphere; the greatest, 29·967 ins., was in November. In the years 1880, 1881, 1882, and 1884 the greatest was in January; in 1883 and 1887 in February; and in 1885, 1886, and 1888 in December. The highest mean monthly reading in the ten years was 30·060 ins. in 1882. The

smallest mean monthly reading was $29^{\circ}648$ ins. in July, this being the smallest reading in any month in the ten years. In the years 1880, 1882, 1883, 1886, and 1888 the smallest was in July, as in this year; and in 1881, 1884, 1885, and 1887 in August.

The highest temperature of the air in each month is shown in column 5. The highest in the year was $102^{\circ}0$ in April; the next in order was 100° in both May and June. The first day in the year the temperature reached 90° was on March 4th, and on four other days in this month the temperature reached or exceeded 90° . In April on three days, the highest in the year, viz., 102° , took place on the 20th; in May on four days; in June on four days; in July on six days; in August on five days; and in September on four days, when the temperature reached or exceeded 90° ; therefore, the temperature reached or exceeded 90° on 31 days during the year. In the nine preceding years the temperature reached or exceeded 90° on 36, 27, 8, 16, 14, 24, 16, 25, and 39 days respectively. In the nine preceding years the highest temperatures were 103° , 106° , 93° , 106° , 100° , 103° , 112° , 100° , and 105° respectively.

The numbers in column 6 show the lowest temperature of the air in each month. The lowest in the year was 38° on December 30th; and on both the 26th and 30th of November the temperature was as low as 40° ; thus on only three nights in the year the temperature was as low or below 40° . In the preceding nine years the temperature was below 40° on 13, 2, 13, 2, 9, 3, 3, 15, and 2 nights respectively. In the preceding nine years the lowest temperatures were 32° , 39° , 34° , 35° , 32° , 38° , 37° , $32^{\circ}5$, and 37° respectively.

The yearly range of temperature was $64^{\circ}0$; in the nine preceding years the yearly ranges were 71° , 67° , 59° , 71° , 68° , 65° , 75° , $67^{\circ}5$, and $68^{\circ}0$ respectively. The mean of the nine preceding yearly ranges was $67^{\circ}9$.

The range of temperature of each month is shown in column 7, and these numbers vary from $23^{\circ}0$ in August to $58^{\circ}0$ in April. In the year 1880 these numbers varied from 25° in August to 53° in both April and May; in 1881 from 29° in both July and September to 51° in May; in 1882 from $25^{\circ}0$ in August to 47° in November; in 1883 from 25° in July to 62° in March; in 1884 from 24° in February to 51° in April; in 1885 from 22° in July to 52° in March; in 1886 from 26° in August to 55° in June; in 1887 from 27° in July to 54° in April; and in 1888 from 26° in August to 58° in March.

The mean of all the highest by day, of the lowest by night, and of the average daily ranges of temperature are shown in columns 8, 9, and 10 respectively. Of the high day temperatures, the lowest monthly value was $64^{\circ}2$ in January. In the years 1884, 1885, 1886, 1887, and 1888 the lowest was in January, as in this year; in 1881, 1882, and 1883 in February, and in 1880 in December. The highest, $88^{\circ}4$, is in July, whilst that in August is of nearly the same value, viz., $88^{\circ}3$. In the year 1880 the highest was in May; in 1888 in July, as in this year; in

1881, 1883, 1884, 1885, 1886, and 1887 in August, and in 1882 in September.

Of the low night temperature, the coldest or lowest monthly temperature, $47^{\circ}8$, was in February; in the years 1880, 1882, 1884, and 1888 the coldest was in January; in 1883, 1885, and 1887 in February, as in this year; and in 1881 and 1886 in December. The warmest, $70^{\circ}3$, was in August; in the year 1885 the warmest was in July; and in 1880, 1881, 1882, 1883, 1884, 1886, 1887, and 1888 in August, as in this year. The average daily range of temperature is shown in column 10; the smallest, $15^{\circ}2$, is in January; in the years 1880, 1883, 1885, 1886, and 1887 the smallest was in January, as in this year: in 1881, 1882, and 1884 in February; and in 1888 in December. The greatest range of temperature in any month was $23^{\circ}8$ in October; in the year 1888 the greatest was in March; in 1884 and 1887 in April; in 1880 and 1885 in May; in 1881 in June; in 1883 in September; and in 1882 and 1886 in October, as in this year.

In column 11, the mean temperature of the air is shown as found from observations of the maximum and minimum thermometers only. The month of the lowest temperature, $56^{\circ}5$, was in January. In the years 1880, 1884, 1885, 1886, 1887, and 1888 the lowest was in January, as in this year; in 1881 and 1882 in February; and in 1883 in December. That of the highest, $79^{\circ}3$, was in August, as in the nine preceding years. The mean temperature of the air for the year was $68^{\circ}4$, and of the nine preceding years, $66^{\circ}4$, $66^{\circ}7$, $65^{\circ}5$, $65^{\circ}7$, $65^{\circ}7$, $65^{\circ}9$, $66^{\circ}8$, $66^{\circ}5$, and $67^{\circ}7$ respectively.

The numbers in columns 12 and 13 are the monthly means of a dry and wet-bulb-thermometer, taken daily at 9 a.m. In column 14 the monthly temperature of the dew-point is shown, or that temperature at which moisture would have been deposited. The elastic force of vapour is shown in column 15. In column 16 the water present in a cubic foot of air is shown; in December it was as small as $3\frac{3}{4}$ grains, and in August as large as $7\frac{3}{4}$ grains. In column 17 the additional weight required for saturation is shown. The numbers in column 18 show the degree of humidity, saturation being considered 100; the smallest number, 54, indicating the month with the driest air is October; and the largest, 82, indicating the month with the wettest air is January. The weight of a cubic foot of air under its mean pressure, temperature, and humidity, at 9 a.m., is shown in column 19.

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

most prevalent were N., E., and S., and the least were N.E. and S.E.; and in November and December the most prevalent was S., and the least were W. and N.W. The most prevalent wind for the year was S.W., which occurred on ninety different days in the year; and the least prevalent wind was N.E., which occurred on only nine days during the year.

The numbers in column 29 show the mean amount of cloud at 9 a.m.; the months with the smallest are July and October, which are of the same value, and the largest is January. Of the cumulus, or fine weather cloud, there were 109 instances, of which 29 were in August, and 18 in both July and September. Of the nimbus, or rain cloud, there were 52 instances, of which 15 were in January and 11 in December, and only 7 from May to October. Of the cirrus, there were 43 instances. Of the cirro-cumulus there were 23 instances. Of the stratus, 35 instances. Of the cirro-stratus, 9 instances. Of the cumulus-stratus, 2 instances; and 92 instances of cloudless skies, of which 15 were in October, 14 in November, and 13 in July.

The largest fall of rain for the month in the year was 5.85 ins. in January, of which 0.95 inch fell on the 7th, and 0.86 inch on the 26th. The next largest fall for the month was 3.46 in December, of which 0.63 inch fell on the 25th, 0.59 inch on the 22nd, and 0.57 inch on the 11th. No rain fell from the 25th of May till the 21st of September, making a period of 118 consecutive days without rain. In 1880 there were 168 consecutive days without rain; in 1881, 189 consecutive days; in 1882 there were two periods of 76 and 70 consecutive days without rain; in 1883, 167 consecutive days; in 1884, 118 consecutive days; in 1885, 115 consecutive days; in 1886, 171 consecutive days; in 1887 there were two periods of 132 and 63 consecutive days; and in 1888, 118 consecutive days without rain. The fall of rain for the year was 13.50 ins., being 15.18 ins., 3.99 ins., 8.59 ins., 16.56 ins., 5.23 ins., 6.56 ins., 6.59 ins., 3.56 ins., and 15.34 ins. respectively, smaller than the falls of the nine preceding years. The number of days on which rain fell was 50; in the nine preceding years rain fell on 66, 48, 62, 71, 65, 63, 66, 43, and 62 days respectively.

JAMES GLAISHER.

RELATION OF A VOYAGE TO TADMOR
IN 1691.

By Dr. William Halifax, of C.C.C., Oxford, Chaplain to the Factory at Aleppo, from the original manuscript in the possession of Mr. Albert Hartshorne.

THE following *Relation of a Voyage to Tadmor* is an exact reprint of a manuscript now in the possession of Mr. Albert Hartshorne, which was obtained in Rome in 1774 by Mr. Thomas Kerrich, afterwards Principal Librarian to the University of Cambridge, and a well-known antiquary and connoisseur of his day.

It appears to be the earliest exact account of Palmyra in modern times that has been preserved. Since it has been set in type, a MS. copy, similarly written, was found in the possession of Mr. E. G. Western. In Mr. Western's copy the following note appears:—"Published in ye Philosophical Transactions of 1695, by Dr. William Halifax, of C.C.C., Oxon., Chaplain to the Factory at Aleppo."

On comparing Mr. Western's copy with the Philosophical Transactions of 1695, it was found that some of the inscriptions in Mr. Hartshorne's MS. were not included in the Transactions. It has, therefore, been decided to reprint the MS., together with all the inscriptions in facsimile.

A RELATION OF A VOY^E TO TADMOR BEGUN Y^E
29TH SEPT. 1691.

THE Name of Tadmor occurring in Scripture among y^e sumptuous buildings of K. Solomon, and y^e aect. of ruines of an extraordinary Magnificence still remaining there, having bin brought to Alep^o partly by y^e inhabitants of y^e countrey and partly by those who had occasionally passed by y^t place, together wth its vicinity not being s^d to be above .3. or .4. dayes distant from hence, excited y^e curiosity of some of our Merch^{ts}, together wth D^r Huntington, An^o 1678, to make a voy^e thither: But these Gentlemen were no sooner arrived there at Tadmor, but they fell unhappily into y^e hands of a Comp^e of Arabian Robbers, comanded by one Melham, to satisfy whom they were constrained to part wth their very clothes; w^{ch} great los & y^e ffright together so palld their curiosity y^t

they staid not to take a more exact survey of y^e ancient ruines, but imediately returned home & glad to escape so. Since y^t misfortune tho y^e voye had bin often discoursed of yet none had y^e courage to undertake it, til having obtained a promise of security from Assine K. of y^e Arabs, & one of his own people to shew us y^e way, on y^e .29th. Sept. 1691, we ventured upon it a second time, making in all ffrankes and serv^{ts} about 30 men, well armed. The first day of our road pointed S. & by E. & in .4. hours we came to a fountain called Caphor Abiad, leaving old Alep^o about an hour on y^e right hand : here we made but a very short stay, but proceeded to a better fountain at y^e foot of a very high hill covered wth loose stones, y^e Ruines of a village called Broeder, of w^{ch} there was not one house remaining, & dining there, we advanced in 1 $\frac{1}{2}$ hours more in y^e afternoon, through a fertile open plain to a place called Emghire, famous for y^e best wheat y^t is brought to Alep^o. This we made our first stage, & mount^s again in y^e morning about .5. a clock in les than $\frac{1}{2}$ hour past by an uninhabited village called Urghee, our road pointing as before through y^e same fruitfull plain even & pleasant : But when we came to ascend y^e Hills, when I reckoned we entered y^e Desert & were to take our leave of Mankind, at least of an inhabited countrey for some dayes, we had a troublesom passage over loose gr^t stones w^{thout} any appearance of a road. Our Guide had promised to conduct us through pleasant groves & fforests, but no such thing appeared unless we would bestow y^t title upon some low withered shrubs y^t grow in y^e way : only one tree we saw w^{ch} was of good use to us, serving as a landmarke, & when we were come up wth it, being left at a little distance on y^e right hand, we gained y^e prospect of a remote ridge of hills before us, & on y^e top of one of them an old castle, w^{ch} we were told was known by y^e name of Gazur Eben Wordan, but what it anciently was, or in what condition it is at present, I could not learn ; therefore not unwillingly I turned mine eyes from it to a little round hill more on y^e left, by w^{ch} we were to direct our course, & about $\frac{1}{2}$ hour from w^{ch} stood a Shekes house called Sheck Aitha, where we were to bait, and a well of water by it ; but such y^t we had but little gusto to tast, though it served our horses ; all y^e countrey thereabouts is stored with gazells, and there is a barbarous sort of people there, y^t have nothing hardly else to live upon, but what of these they can kill ; & necessity hath taught them to be no mean artists in their way, for they lie down behind y^e stones, & as y^e poor harmles creature passeth by, shoot them, & though their guns be ordinary, exceeding heavy & thick, wth match locks, & instead of bullets they have only round stones covered wth a thin plate of lead, yet are such excellent marksmen y^t they kill many. This morning we travelled about .5. hours to reach Sheck Aitho's, yet finding nothing to invite our stay there, though there were .4. or .5. tombs not ill made according to y^e Turkish mode ; about .1. a clock we mounted again, bending to y^e S.E. or somewhat more E. In our way we had 2 remarkable Prospects, one on y^e right hand, of y^e ruines of an ancient citty called Andrine and sometimes Londrine, w^{ch} we were told had bin formerly inhabited by ffrankes, & y^e

there¹ many inscriptions there, but it was too far out of our way, & too dangerous too, for Rogues, for to take a view of them. The other on y^e left hand was another Tree, not far from w^{ch} our Guide assured us of good water, where we designed to take up our lodging. Y^e hopes of y^t water made us slight a well we past by, at w^{ch} we afterwards repented we had not staid : for when we came up wth y^e tree from w^{ch} we had declined a great way to y^e right, but found our water still at a very great distance, & were constrained to take new directions from a white chalky hill, almost as far as we could see, & yet not much beyond y^e place y^t was to be our stage : on therefore we proceeded, til sunset very weary, & almost w^{thout} hope of coming to water y^t night, tho at y^e same time near dead wth thirst, & what y^e more surprised us, our guide was advanced a great way before, out of our sight, upon w^t design we knew not : but upon his return we found it was only to assure himself y^e better of y^e way, & in an hour or two he brought us to y^e side of a Bog called Zerga, where such as it was we had water enough ; but it was neither palatable nor wholesom, neither did y^e ground seem proper to sleep on, yet we were forced to be content, there being no removing hence y^t night.

Oct. 1st.—We dep^{td} from Zerga about .2. hours before sunrise, & as soon as it was light had y^e Prospect of a very high hill, w^{ch} was to be y^e bounds of our travell y^t day : to this we made as directly as we could look, finding nothing in our way observable, except a multitude of holes made in y^e sandy earth by ratts, serpents, & other animalls, w^{ch} rendred our riding a little troublesom, as we had found it on y^e same acct y^e afternoon before about .2. hours short of our Stage we were shewn .3. little round hills lying to y^e right in a direct line, known by y^e name of Tenage, where we were told there was good water, & it is for y^t reason only they deserve y^e notice of those y^t travel throw such a thirsty desart : y^e place to w^{ch} we directed our course was called Ezree, where we found to our great satisfaction y^t our guide had not deceived us in his promise of excellent water : here we could discern y^e foundations of a spacious citty, & a piece of a thick wall built of a chalky stone was standing, w^{ch} we judged to be y^e remaind^r of a Castle situate of a hill, so as both to defend & comand y^e citty : on y^e top of y^e hill above y^e Castle stands y^e ruins of a ffabrick in appearance very ancient, built of a hard stone, yet exceedingly worn out by y^e weather : it is of an oblong figure pointing near to y^e N.E. & S.W. wth only one door in y^e E. end, w^{ch} was once adorned wth extraordinary good carvings, of w^{ch} some yet remain, but y^e greatest part is either worn away or purposely defac'd, & those markes of antient beauty y^t rem^e are very obscure ; the outside of y^e wall is beautified wth Pilasters quite round, wth their Pedestalls & Capitalls regular & handsom ; but y^e roof is all fallen down, & w^{thin} appears nothing w^{ch} lookes like either great or beautiful y^e situation & placing of y^e door hindreth one from conjecturing it to have bin a Christian oratory or chappel, & therefore in probability it must have bin a heathen temple ; & if so, then y^e piece of

¹ were, evidently omitted : M.S. p. 3 ; line 9 from top.

y^e Castle being of a softer stone must be much more modern. The goodnes of y^e water brings y^e Arabs w^{ch} rove up & down this Desart, & y^e Turkmen frequently hither, w^{ch} hath occasioned a great many graves about this temple, & some have had leisure, & what is more difficult to be imagined skill enough to scartch in y^e walls y^e first letters of their Names, & many other words in Arabick characters, w^{ch} we could make nothing of no more then of an Arab Inscription w^{ch} lay hard by, but appeared not ancient.

Oct. 2d.—We dep^{td} from Ezree about 1½ hour after midnight, and in 6½ hours arrived at .2. wells of water .18. fathom & .2. foot deep known by y^e name of Impmalea giub : through y^e greatest p^t of this Stage we had a beaten road, & where y^t was not discernible we guided our selves by a ridge of chalky Hills under w^{ch} y^e wells lay. The water we found exceeding bad, of so noisom a scent y^t we could not endure it so much as at our noses : w^{ch} made our guide laugh at us, who told us y^e Arabs, and even y^e K. himself used to drink freely of it, w^{ch} I am sure our horses would not doe, though they were under a necessity of drinking y^t or none : as for our selves we had brought sufficient from Ezree for one day at least : in our way hither we were shown y^e true Plant w^{ch} they burn for soap ashes, w^{ch} has no leaves, but a soft juicy stalk shooting into several branches & something resembling our Sampierre, only it is more round then y^t. Y^e ashes likewise we saw w^{ch} were made not far from y^e wells, w^{ch} in burning run into cakes, not much unlike y^e cinders of a forge, only they are heavier, not so full of pores nor so hard as they. In y^e afternoon we proceeded on our voye 2½ hours to a place called Almyrrha, passing rather between then over y^e Hills, tho we had something of an ascent too : this we did to shorten our stage next morning, for we were told before hand we should find no water on those mountains, so for our selves we lived y^t night upon our old stock, & our horses were constrained to pass y^e night wthout water ; our journey had bin hitherto altogether southerly, & but little varying to y^e E. of y^e S.

Oct. 3d.—We mounted from Almyrrha between .5. & .6. in y^e morning, making to y^e point of a high ridge of mountains through an uneven Desart way, frequently interrupted wth guts & channells, probably made by y^e descent of sudden rains : we came to y^e ascent after about .4. hours travell, w^{ch} we found not difficult, & when we were on y^e top we had a pleasant prospect of y^e Countrey, & what we rejoyced in most, we were shewn a little hill behind w^{ch} we were told lay Tadmor : this mountain was covered on both sides wth great plenty of Turpentine trees, w^{ch} was an object very pleasing, having seen but very few greens in our whole journey. This tree growes very thick & shady, & some of them we saw loaden wth a vast abundance of a small round nut, y^e greatest use whereof is to make oil (tho some eat them & acc^t them as great a regalio as Pistachee) their outward husk is green & more oily then y^t of Pistachees, & wthin a very thin shell is containd a kernell both in color & rellish very much resembling them, but those y^t eat them seldom take y^e pains to search for y^e kernell but eat husk, & shell & kernell & all together

w^{ch} have no ungrateful tast : from this hill we had a tedious descent, & coming at y^e foot met a narrow gut, winding this way & y^t way between y^e Mountains ; our passage seemed long, hot & tiresom : our want of water however obligd us to proceed, whereof we now began to be in great necessity, especially for our horses & mules, w^{ch} had had none y^e night before nor all y^t day : wth this we had hopes of being supplied .2. different wayes : having had a showr of Rain y^e night before, we hoped to have found water in y^e Hollowes of y^e Rockes, but either y^e Rain had not reached so far, or not in such plenty, as to fill those naturally hewed cisterns : our other expecta^{co}n was from y^e Wells y^t were in y^e road, but these, our guide advancing before & examining met us wth y^e unwelcome newes y^t they were all dry, & y^t y^e best advice he could give us was to pitch where we were, & content our selves wth y^e remains of what we had brought .2. dayes in our Caravelts til our horses & mules might be led to a fountain .2. hours out of y^e way, & being watered there y^mselves bring a fresh supply for us : this was wth some difficulty assented to as most eligible : we resolved therefore to send our guide first wth one or .2. of our serv^{ts} in search of y^e water, & afterwards others wth our horses, while in y^e mean time we pitched our Tent, it being then about .2. in y^e afternoon : As soon as they were gone, a small drisling rain w^{ch} we had had for $\frac{1}{2}$ hour increased to a very plentiful shower, w^{ch} put us on producing all y^e vessels we had to catch it as it fell from y^e heavens, or ran down y^e skirts of our tents, our horses at y^e same time greedily sipping it from y^e ground ; but we might have spared our pains, for in les then an hours time, our camp was in a manner afloat, & we were furnished wth water not only for us sufficient, but for an army of .20/000. men : those hollow gutts we passed over wthout y^e least appearance of moisture, were by y^e cataracts w^{ch} descended from y^e mount^s become rivers, & a cavity w^{ch} those servan^{ts} we had sent out passed over dry, was swoln to such a torrent, y^t they were put to some difficulty to repas it ; so plentifully was God pleased to provide for us in our greatest strait : & what increaseth both y^e wonder & y^e mercy, y^e next morning when this quantity of rain was past away, in about .2. hours riding we could hardly discern y^t they had had any rain at all. This memorable place is known by y^e name of Al withal.

Oct. 4th.—ffrom Al withal we proceeded for Tadmor, some of y^e ruines of w^{ch} we pswaded our selves we could see y^e day before, phaps it might be y^e Castle, w^{ch} is more than $\frac{1}{2}$ hour distant from y^e citty : our way lay S^d, but y^e gut in w^{ch} we travelled, would not pmit us to keep a direct course : however, in about .1. hours walk we passed by y^e Anter Mountains (our guide called them Tul Anter) through a gap or Rent, both sides of w^{ch} so exactly answered one to y^e other, they would tempt a man to believe they were separated by art for an Entrance into y^e Countrey ; but it must have bin a work of prodigious labor & charges to cut through such vast Mount^s : & if any one was so hardy as to attempt it, he must certainly have grown weary of his undertaking, for y^e ground is levelled but a very little way & almost as soon as we were well got wthin y^e open

space, we were obliged to ascend another hill ; & so our road continued through hills & valleyes interchangeably all y^e way. On y^e left hand, at some distance from y^e road, we saw a Shecke's house on y^e top of a high hill, w^{ch} made a better shew then usually those buildings doe ; but being assured by our guide it was a modern structure, and eager too to come to y^e principal place we aimed at, we would not prolong our stage so much as to turn out of y^e road to see more of it ; so pressing still forwards we hardly proceeded .4. hours, when we came to y^e brow of a rocky Mountain, separated from y^t whereon stands y^e Castle of Tadmor, but by a narrow valley : In w^{ch} hill by y^e way appeared some quarryes of very fine stone w^{ch} probably might afford Materials for y^e curious buildings in y^e Citty. Our guide here according to his accustomed diligence advanced some few paces before, & having espied .3. or .4. countrey fellows driving asses towards us, he caused us to make a short halt, to give them opportunity to come nearer to us, resolving to speake wth them to know whether y^e coast was clear or any of y^e Mountain Arabs then at Tadmor or not : after a little space, wth our arms in our hands, we marched in as good ord^r as y^e way would pmit, down a rocky & steep precipice into y^e valley, & our guide making greater speed then we could, galloped after y^e poor affrighted countrey fellowes who seeing such a comp^e unexpectedly descend y^e hill, left their asses, & fled towards y^e citty with all speed possible : But they were soon overtaken & brought again to us, to whom they related y^e good newes y^t there was no force at all in Tadmor, y^t we might proceed wth courage & see what we would wth all safety, w^{ch} newes obtained them their liberty to return again to their asses, & we continued on our way in good ord^r. As soon as we came under y^e Castle, we could easily discern y^t it was no old building, retaining no footsteps of y^e excellent workmanship & ingenuity of y^e antients, & upon enquiry we were informed y^t it was built by Man Ogle, a Prince of y^e Druses in y^e reign of Amurath y^e 3^d, who florished An^o. 1588, but I know not how to give cred^t to y^e story, because I find not this Man Ogle or any Drusian Prince was ever powerful in these parts, their strength lying in Mount Lebanas, & along y^e coast of Sidon, Barute, &c. It is a work of more labor than art, & y^e very situation alone is enough to render it almost impregnable, standing on y^e top of a very high hill enclosed wth a deep ditch cut out of y^e very rock, over w^{ch} there was only one sole passage by a draw bridge : its bridge too is now broke down, so y^t now there is no entrance remaining except you will be at y^e pains to clamber up y^e rock, w^{ch} is in one place feasible, but wthal so difficult & hazardous y^t a small slip endangers yo^r life ; nor is there any thing wthin it to be seen sufficient to recompence y^e trouble of getting up to it, y^e building being confused, & y^e rooms very ill contrived ; upon y^e top of y^e hill is a well of a prodigious depth, as certainly it must be a great way to come to water from y^e top of such a rock, y^e ditch y^t surrounds it not having y^e least appearance of moisture therein, w^{ch} made it therefore seem more strange y^t a wild Boar should rush out thence amongst our horses when we rode up to take a more par-

ticular view of y^e place. This Castle stands on y^e N. side of y^e town, & from hence you have y^e best prospect of y^e countrey al about: you see Tadmor under you enclosed on .3. sides wth long ridges of Mountains w^{ch} open themselves towards y^e E. gradually to y^e distance of about an hours riding; but to y^e S. stretcheth a large plain beyond y^e reach of y^e eye: in y^e plain you see a large valley of salt affording great quantity thereof, lying not above an hours distance from y^e citty, and this more probably is y^e Valley of Salt, mentioned 2 Sam. 8. 13, where David slew .18000. Syrians then another w^{ch} lyes about 4 hours from Aleppo, w^{ch} has sometimes passed for it. The air is good, but y^e soil exceeding barren, nothing green to be seen therein save some few Palm trees in y^e gardens here and there above y^e Town, & from these trees I conceive it obtained y^e name, both in Hebrew, Tadmor w^{ch} signifies a palm tree, & in Latine, Palmyra, & y^e whole countrey is from thence denominat Syria Palmyrena. & sometimes Solitudines Palmyrenæ, or y^e desarts of Palmyra, so y^t y^e Latines did not change, but only translate y^e old name, w^{ch} therefore still obtaines in these Eastern parts, and y^e more modern is wholly unknown.

The Citty it self appears to have bin of a large extent, by y^e ruins y^t lie scattered here & there at a good distance one from y^e other but there are no footsteps of any walls discernible, nor is possible to judge of y^e antient figure of y^e place. The present inhabitants as they are poor miserable dirty people, so they have shut themselves up to y^e number of about 30 or 40 families in little huts made of dirt w^{thin} y^e walls of a spacious court, w^{ch} inclosed a most magnificent heathen Temple. Hereinto also we enterd, y^e whole power of y^e village if I may so call it, being gathered at y^e door, whether to stand upon their defence in case we proved Enemies, for some of them had their guns in their hands, or meer curiosity to stare upon us I know not: however our guide being a man known among them, we had an easy admittance, & wth a great many welcomes in their language, were conducted to y^e Shecke's house, wth whom we were to make our abode & to mention here what y^e place at first view represents, certainly y^e world it self canot afford y^e like mixture of y^e remains of y^e greatest state and magnificence together wth y^e extremity of filth & poverty: ye nearest parallel I can thinke of is y^e Temple of Baal destroyed by Jehu, & converted into a draught hous 2 Kin: 10, 25, and if, what is not improbable, this was a temple of Juppiter Belus y^e similitude will run upon all four. Being thus lodged in this place I shall begin wth y^e description thereof, & then proceed to what observed remarkable w^{thout}. The whole space enclosed is a square of 220 yards each side encompass wth a high and stately wall, built of large square stones & adorned wth Pilasters w^{thin} & without to y^e number, as near as could be computed of w^t is standing of y^e wall w^{ch} is much y^e greater part, of .62. on a side, & had not y^e barbarity of y^e Turkes, Enemies to every thing y^t is splendid & noble, out of a vain superstition purposely beat down these beautiful cornishes both here & in other places, we had seen y^e most curious and exquisite carvings in stone,

w^{ch} phaps y^e World could ever boast of, as here and there a small remaind^r w^{ch} has escaped their fury doth abundantly evidence. The West Side wherein is y^e entrance is most of it broken down, & near y^e midle of y^e space, another higher wall erected out of y^e ruines w^{ch} shewes to have bin y^e ffront of a Castle, strong but rude, y^e old stones, & many pillars broken or sawed asunder being rolled into y^e ffabrick & but ill cemented. W^{thin} were to be seen y^e foundations of another wall, w^{ch} probably might answer y^e ffront, & y^t y^e Mamalukes, whose workmanship it is most likely it must have bin, built y^e Castle here for y^e security of y^e place. Before y^e whole length of this new ffront except a narrow passage, w^{ch} is left for an Entrance is cut a deep ditch, y^e ascent whereof on y^e inner side is faced wth stone to y^e very foot of y^e wall, w^{ch} must have rendered it very difficult to assault it. The passage to, & y^e door it self, is very narrow, not wider than to receive a loaded camel, or y^t .2. footmen may walke abreast, & as soon as you are w^{thin} y^e first door, you make a short turn to y^e right & pas on a little further to another of y^e like bignes w^{ch} leads into y^e Court: but all this is but a new building upon an old, & by y^e outward wall is quite shrouded y^e magnificent entrance w^{ch} belonged to y^e first ffabrick, of y^e statelines whereof we were enabled to judge by y^e 2 stones y^t supported y^e sides of y^e great gate, each of w^{ch} is .35. foot in length, & artificially carved wth vines & clusters of grapes very bold and to y^e life: they are both standing in their places, and y^e distance between them, w^{ch} gives us y^e wideness of y^e gate, is .15. foot. But all is now walled up to y^e narrow door before mentioned. Over this little door there is an Inscription in Greek, & also another in another language & character, w^{ch} I never saw til in Tadmor: from y^t we hoped for some information; but it will be evident to any y^t reades it that y^e stone was brought from another place & casually put in there; it is thus—

ΤΟ ΜΝΗΜΕΙΟΝ ΤΟΥ ΤΑΦΕΩΝΟΣ ΕΚΤΙΣΕΝ
 ΕΞΙΔΙΩΝ ΣΕΠΤΙΜΙΟΣ ΟΔΑΙΝΑΘΟΣ ΟΛΑΜΠΡΟ-
 ΤΑΤΟΣ ΣΥΝΚΛΗΤ[ΙΚΟΣ] ΑΙΡΑΝΟΥ ΟΥΑΒΑΛΛΑ-
 ΘΟΥ ΤΟΥ ΝΑΩΡΟΥ ΑΥΤΩ ΤΕ ΚΑΙ ΥΙΟΙΣ
 ΑΥΤΟΥ ΚΑΙ ΥΙΩΝΟΙΣ ΕΙΣ ΤΟ ΠΑΝΤΕΛΕΣ
 ΑΙΩΝΙΟΝ ΤΕΙΜΗΝ.

Underneath this was y^e unknown character as well as it could be taken—

3244338 'H4YX H6 YH 43 4,4& & 2Y X3 3 & 4Y //
 & H 4 4 Y X 3 5 Y & 2 Y 3 X 3 3 Y 3 3 Y 3 3 3 Y

The **Ε** in **MNHMEION** is not upon y^e stone, but was doubtless omitted by mistake, & y^e Inscription nothing else but y^e inscription of a Sepulture, y^e like to which we saw several, & shall have occasion to mention some of them hereafter; & as for y^e other character, it being added almost under every Greek inscription we saw, & very rarely found alone, I am apt to believe it y^e native character & language of y^e place, & y^e matter it contains nothing else, but what we found in y^e Greeke. As soon as you are entered w^hin y^e Court, you see y^e remaind^{rs} of .2. rows of very noble marble pillars, 37 foot high, w^h their capitalls of most excellent carved work, as also must have bin y^e cornishes between them, before by rude & supstitious hands they were broken down: of these there are now no more than 58 remaining intire, but must have bin a great many more for they appear to have gone quite round y^e whole court, & to have supported a most spacious double Piazza or Cloyster of this Piazza y^e walk on y^e west side, w^h is opposed to y^e ffront of y^e temple, seems to have excelled y^e other in beauty & greatnes & at each end thereof are .2. niches for statues at their full length, w^h their pedestals, borders, supporters, & canopies carved w^h y^e greatest artifice & curiosity. The space w^hin y^e once beautifull inclosure, now filld with nothing but filth and vermin, I conceive to have bin an open court, in y^e midst whereof stands y^e Temple, encompassed w^h another row of pillars, of a different ord^r & much higher than y^e former, being about .50. foot high: of these remain now but .16., but there must have bin about double y^t Number, w^h whether they inclosed an inner Court, or suported a Cloyster is uncertain there being nothing of a roof remaining, only one great stone lies down w^h seems to have reached from y^e row of pillars to y^e wall of y^e Temple. The whole space contained w^hin these pillars we found to be .59. yards in length, & in breadth near .28. In y^e midst of this space is y^e temple, containing in length more than .33. yards, & in breadth about .13. or .14. it points N. & S., having a most magnificent Entrance on y^e W. exactly in y^e middle of y^e building, w^h by y^e small remaines yet to be seen seems to have bin one of y^e most glorious structures in y^e world: I never saw clusters of grapes cut so bold, so lively, so natural in any place; and we had doubtles seen things abundantly more curious, if they had not bin maliciously broken to pieces: Just over y^e door we could make a shift to discern p^t of y^e wings of a large spread Eagle, extending y^e whole widenes thereof, y^e largenes of w^h led me at first to conjecture it might have bin a Cherubin overshadowing y^e entrance there being nothing of y^e body remaining to guide ones judgm^t, & some little angells or cupids appearing still in y^e corners of y^e same stone: But afterwards seeing other Eagles upon other stones w^h were fallen down, I conclude this must have bin one likewise, only of a much larger size. Of y^e temple there is nothing now but y^e outward wall standing: in which it is observable y^t as y^e windowes were not large, so they were made narrower at y^e top than below. W^hin these walls y^e Turkes have built a roof suported by small Pillars & arches, but a great deal lower as well as in all other respects disproportionable

& inferior to what y^e ancient covering must have bin, & have converted y^e place into a Mosque, and to y^e S. end of this they have added new ornam^{ts}. after their manner wth Arab inscriptions, & sentences out of y^e Alcoran written in flourishes & wreaths and not without art. But at y^e N. end of y^e building w^{ch} is shut out of y^e Mosquee, are reliques of much greater artifice and beauty: whether they were in y^e nature of Canopies placed over y^e altars there, or to w^t other use they served I am not able to conjecture: they are beautified wth most curious fretwork & carvings in y^e midst of w^{ch} is a Domo or Cupola above .6. foot diameter, w^{ch} we found above to be of one piece, whether hewed out of a rock intire, or made of some artificial cement or composition by time hardened into a lapideous substance, seems doubtful, tho I am rather inclined to believe y^e latter: It is in fine a most exquisite piece of workmanship, & on what I could have bestowed more time in viewing then what was allowed us, hastning to other sights.

Having taken a survey of y^e Temple we went abroad, where our eyes were presently arrested wth an amazing sight of a multitude of marble pillars, standing scattered up & down for near a mile of ground this way & y^t, but so dispersed as to afford no solid ffoundation to judge what sort of ffabricke they formerly made. I past by y^e ruines of a mosquee w^{ch} directing our course N.ward, was y^e first thing occurred to our view, after we came out of y^e court of y^e Temple, w^{ch} tho of a more artificial frame & composure then many I have seen yet is not worthy to stop us in y^e way to things both of greater antiquity, & every way more noble and worthy of consideration. Having therefore past this, you have y^e prospect of such magnificent ruines, y^t if it be lawful to frame a conjecture of y^e original beauty of y^e place by what is still remaining I question whether any citty in y^e world could have chalenged precedence of this in its glory: But it being impossible to reduce them to any regular method, I must be forced to give you a rude acc^t of them as they come in sight, and w^{ch} will fall much short of y^e greatnes & statelines w^{ch} they shew. Advancing then towards y^e N. you have before you a very tall & stately Obelisk or Pillar, consisting of .7. large stones besides its capital, & a wreathed work above it, y^e carving here as in all other places being extraordinary fine: y^e height of it is above .50. foot, & upon it I conceive may have stood a statue, w^{ch} y^e Turkes (zealous Enemies of all Imagery) have thrown down and broken in pieces. it is in compas just above y^e pedestal .12.½ foot. On each hand of this towards y^e E. & W. you see .2. other large Pillars, each a quarter of a mile distant from you, w^{ch} yet seem to have some correspondence one to y^e other, & there is a piece of another standing next to y^t on y^e E. w^{ch} would incline one to believe there was once a continued row of them. The height of this to y^e E. I tooke wth my quadrant & conclude it to be more then .42. foot high, & y^e circumference is proportionable. upon y^e body thereof is this following inscription

Η ΒΟΥΛΗ ΚΑΙ ΟΛΗΜΟΣ ΑΛΙΛΑΜΕΝΑ ΠΑΝΟΥ
 ΤΟΥ ΜΟΚΙΜΟΥ ΤΟΥ ΑΙΡΑΝΟΥ ΤΟΥ ΜΑΘΘΑ ΚΑΙ
 ΑΙΡΑΝΗΝ ΤΟΝ ΠΑΤΕΡΑ ΑΥΤΟΥ ΕΥΣΕΒΕΙΣ ΚΑΙ
 ΦΙΛΟΠΑΤΡΙΔΑΣ Κ[ΑΙ] ΠΑΝΤΙ ΤΡΟΠΩ [ΕΥ]ΣΕΙΜΩΣ
 ΑΡΕΣΑΝΤΑΣ ΤΗ ΠΑΤΡΙΔΙ ΚΑΙ ΠΑΤΡΙΟΙΣ ΘΕΟΙΣ
 ΤΕΙΜΗΣ ΧΑΡΙΝ ΕΤΟΥΣ Ν̄ Ῡ Λ̄ ΜΗΝΟΣ ΞΑΝΔΙΚΟΥ.

& under this was y^e character & language before mençoned, w^{ch} not being understood was neglected. I pswade my self it would be but lost labor to spend time in making reflections upon this or y^e foll ; inscriptions, as for y^e knowledge they may exhibit to y^e world, yo^r own thoughts will more happily lead you into it, then any thing I am like to suggest : it seems however evident they were a free State, governed by a Senate & people, tho phaps under y^e protection of greater Empires, y^e Parthians first & afterwards y^e Romans, who for a long time contended for y^e mastery here in y^e East : & this governm^t might continue among them til about y^e time of Aurelian, who destroyed y^e place, & led Zenobia, wife to Odenatus, captive to Rome, who tho shee be called Queen, yet I find not y^t ever her husband had y^e title of King,(a) but was only one of y^e chief inhabitants, a leading man in y^e Senate (as it is probable this Alilamenes & Airanes were afore him) who while y^e Romans were busied in Europe made himself great here, & by his own force repelled y^e Parthians, who having mastered whatever was held by y^e Romans on y^e other side of Euphrates, made an incursion into Syria, but were by Odenatus beaten back beyond y^e river. In y^e course of these warrs Odenatus was slain, but his wife Zenobia being a woman of a masculine spirit, not only kept her ground against her enemies abroad, but maintained her authority at home, keeping y^e government in her hands : afterwards, out of a desire to cast off y^e Roman yoke, she caused y^e whole garrison, w^{ch} was left there by Aurelian, to be barbarously cut of, w^{ch} bringing Aurelian back wth his army, he quickly tooke y^e citty & destroyed it, putting y^e inhabitants to y^e sword, & carrying Zenobia captive to Rome. This custom of theirs, of running their pedigrees up to y^e .4.th or .5.th generation, shewes them to have borrowed some of their fashions from their neighbors y^e Jewes, wth whom they had doubtles of old great commerce, & prhaps many of them were descended from y^t people, Zenobia her self being said to have bin a Jewesse ; or else this must have bin y^e manner of all y^e Eastern nations. Their æra, or acct of

(a) He was saluted Cesar by y^e army in his warrs ag^t y^e Parthians, & was one of those 30 Tyrants who usurped y^e Empire under Galdenus, & were suppressed by Fl. : Claudius.

time, they begin from Alex^r y^e Great, as y^e Syrians generally doe, y^e very Xans at this day foll. y^e same usage : yet tho they marke y^e date of y^e year by Greek numeral letters, you may observe they place y^m a different way from y^e Greekes, setting y^e lesser number first, as if they were to be read backward from y^e right hand to y^e left ; as **N.Y** here denoting .450. The 3^d letter, **Λ** I take to stand for y^e day of y^e month vist y^e .30.th of y^e month Xandicus, y^t is wth us April. this & other names of months w^{ch} are found in other inscriptions being borrowed from y^e Macedonians wth very little variation. That they were idolaters is plain by y^e mention of their Countrey gods, both here & in other places so y^t their commerce wth the Jewes did not it seems bring them to y^e knowledge of y^e true God, or else they must have degenerated therefrom, & relapsed into Idolatry. The other pillar towards y^e W. in height & circumference answers this, & hath upon y^e side engraven y^e foll. inscription.

**Η ΒΟΥΛΗ ΚΑΙ Ο ΔΗΜΟΣ ΒΑΡΕΙΧΕΙΝ ΑΜΡΙCΑΜ-
CΟΥ ΤΟ ΙΑΡΙΒΩΛΕΟΥC ΚΑΙ ΜΟΚΙΜΟΝ ΥΙΟΝ
ΑΥΤΟΥ ΕΥCΕΒΕΙC ΚΑΙ ΦΙΛΟΠΑΤΡΙΔΑC ΤΕΙΜΗC
ΧΑΡΙΝ**

the date of this is not legible, neither doth one know what judgm^t to make of y^e thing it self : y^t such a Pillar should be erected only to support y^e Inscription, & convey these mens names to after ages, wthout particularizing what they did to deserve y^e honor is something strange unles we may suppose it was a prevailing vanity in these Eastern countries thus to endeavor to eternize their fame : an instance whereof we have in Scripture, in Absalom's setting up a pillar .2. Kin. 18, 18. and phaps before him in Saul y^e .1. Sam. 15, 12. otherwise it may appear no improbable conjecture y^t y^e pillar was erected long before upon some other occasion, & afterwards made use of to this end, & I looke upon it as past all doubt y^t several other inscriptions w^{ch} we saw were much more modern then y^e Pillars on w^{ch} they were engraved.

Proceeding still forward directly from y^e Obelisk about .100. paces, you come to a magnificent entrance vastly large, & for y^e exquisitenes of y^e workmanship, nothing inferior to any thing before described, I wish I could ad y^t it had not suffered y^e same fate wth y^e rest, & then we might have seen a rare piece of y^e antient beauty of y^e place. This entrance leads you into a noble Piazza of more than $\frac{1}{2}$ a mile long .938. yards according to our measuring, & .40. foot in breadth, inclosed wthin .2. rowes of stately marble pillars .26. foot high, & .8. or .9. about : of these remain standing & intire .129., but by a moderate calculate there could not have bin les at first then .560. Covering there is none remaining, nor any pavem^t at y^e bottom unles it be buried under y^e rubbish : but upon almost all y^e pillars we found inscriptions both in Greeke & y^e language unknown, of w^{ch} we had time to take very few, & those not very

instructive: But such as they are I'll present you them here, w^hout observing any other ord^r than as they hapned to be transcribed

ΙΟΥΛΙΟΝ ΑΥΡΗΛΙΟΝ ΖΕΒΕΙΔΑΝ ΜΟΚΙΜΟΥ
 ΤΟΥ ΖΕΒΕΙΔΟ ΑΣ ΘΩΡΟΒΑΙΔΑΟΙΣΥΝ Α[Υ]ΤΩ
 ΚΑΤΕΛΘΟΝΤΕΣ ΕΙΣ ΟΛΟΓΕΣΙΑΔΑ ΕΝΠΟΡΟΙΑΝ
 ΕΣ ΤΗΣΑΝ ΑΡΕΣΑΝΤΑ ΛΥΤΟΙΣ ΤΕΙΜΗΣ ΧΑΡΙΝ
 ΞΑΝΔΙΚΩ ΤΟΥ Η Ν Φ ΕΤΟΥΣ.

I give you these inscriptions, as those before, just as I found them w^hout any amend^{mts} so much as of literal faults, only when a letter or a piece of a word was not legible, where I could make a probable gues what it ought to be, I have ventured to ad it w^h this inclosure []. This seems to have bin put up in memory of an Embassy pformed by those men y^e are named therein, for settling commerce & traffic, w^h was to their satisfaction accomplished; but w^h whom til I can find what place is meant by ΟΛΟΓΕΣΙΑΔΑ I must remain Ignorant. I am unwilling to entertain any thoughts of Getia, in Macedonia, or of Olgassus a place mentioned by Strabo in Bythinia, w^h comes a little nearer y^e name, being both so remote, & y^e citty of Tadmor so ill contrivd for a place of trade being far from y^e sea, & w^hout y^e advantage of a river: yet y^e magnificence of y^e place shews they wanted not riches among them, & their salt is a com^e which stil brings them considerable advantage. The ord^r of y^e numeral letters you may observe is again inverted, but taking them y^e right way y^e yeare .558. falls in w^h y^e last year of Alex^r Severus, w^h is of our Lord .284.

About y^e middle of y^e Piazza, on another pillar, was this foll: inscription

Η ΒΟΥΛΗ ΚΑΙ Ο ΔΗΜΟΣ ΙΟΥΛΙΟΝ ΑΥΡΗΛΙΟΝ
 ΖΗΝΟΒΙΟΝ ΤΟΝ ΚΑΙ ΖΑΒΔΙΛΑΝΔΙΣ ΜΑΛΧΟΥ
 ΤΟΥ ΝΑССΟΥΜΟΥ ΣΤΡΑΤΗΓΗΣΑΝΤΑ ΕΝ ΕΠΙ-
 ΔΗΜΙΑ ΘΕΟΥ ΑΛΕΞΑΝΔΡΟΥ ΚΑΙ ΥΠΕΡΕΤΗΣΑΝΤΑ
 ΠΑΡΟΥΣΙΑ ΔΙΗΝΕΚΕΙ ΡΟΥΤΙΛΛΙΟΥ ΚΡΙΣΠΕΙΝΟΥ
 ΤΟΥ ΗΓΗΣΑΜΕΝΟΥ ΚΑΙ ΤΑΙΣ ΕΠΙΔΗΜΗΣΑΣΙΣ
 ΟΥΗΞΙΛΛΑΤΙΟΣΙΝ ΑΓΟΡΑΝΟΜΗΣΑΝΤΑ ΤΕ ΚΑΙ
 ΟΥΚΟΝΙΣΩΝΑ ΦΕΙΔΗΣΑΝΤΑ ΧΡΗΜΑΤΩΝ ΚΑΙ
 ΚΑΛΩΣ ΠΟΛΕΙΤΕΥΣΑΜΕΝΟΝ ΩΣ ΔΙΑ ΤΑΥΤΑ
 ΜΑΡΤΥΡΗΘΕΝΤΑ ΥΠΟ ΘΕΟΥ ΙΑΡΙΒΩΛΟΥ ΚΑΙ
 ΥΠΟ ΙΟΥΛΙΟΥ ΤΟΥ ΕΞΟΧΩΤΑ ΤΟΥ
 ΕΠΑΡΧΟΥ ΤΟΥ ΙΕΡΟΥ ΠΡΑΙΤΩΡΙΟΥ ΚΑΙ ΤΗΣ
 ΠΑΤΡΙΔΟΣ ΤΟΝ ΦΙΛΟΠΑΤΡΙΝ ΤΕΙΜΗΣ ΧΑΡΙΝ
 ΕΤΟΥΣ Δ Ν Φ

This is one of y^e most p^{er}fect inscriptions y^t I met wth, by y^e help of w^{ch} we may make a judgm^t of all y^e rest, at least thus far, y^t they were put up in memory of some who had behaved themselves in those publick offices w^{ch} they bore, either in their own Republick, or under y^e Romans wth comendation, this being a publick place where their names & publick actions were recorded & so transmitted to Posterity. W^t I further observed was y^e want of y^e name after **ΙΟΥΛΙΟΥ**. and tooke notice of a like space vacant in y^e Inscriptions of y^e other language under it: & in both places it seemed to be not worn out wth time but voluntarily scratcht out, w^{ch} confirms me in y^e opinion y^t they are both one, & y^t y^e unknown was y^e vulgar & y^e greek y^e learned language of y^e place upon another pillar in y^e same wall was this

ΣΕΠΤΙΜΙΟΝ ΟΥΟΡΩΔΗΝ ΤΟΝ ΚΡΑΤΙΣΤΟΝ
ΕΠΙΤΡΟΠΟΝ ΣΕΒΑΣΤΟΥ ΔΟΥΚΗΝΑΡΙΟΝ ΚΑΙ
ΑΡΟΑΠΕΤΗΝ ΙΟΥΛΙΟΣ ΑΥΡΗΛΙΟΣ ΕΑΛΜΗΣ ΚΑΣ-
ΣΙΑΝΟΥ ΤΟΥ Μ. . ΛΕΝΑΙΟΥ ΙΠΠΕΥΣ ΡΩΜΑΙΩΝ
ΤΟΝ ΦΙΛΟΝ ΚΑΙ ΠΡΟΣΤΑΤΗΝ ΕΤΟΥΣ Η Ο Φ. .
ΜΗΝΕΙ [Ξ]ΑΝΔΙΚΩ.

under w^{ch} was another in y^e other language, of w^{ch} for another specimen thereof I have set down a part, tis to be read by those y^t are able, towards y^e left.

⊗ ∫ϣ⊗3ϣ63⊗ ∫26∫67∫-2ϣ2∫2⊗63ϣ
... ∫⊗∫ ∫23∫∫∫⊗⊗6∫∫⊗2

the rest of this we took not, nor I suppose will any one ever find so much in this, as to be troubled for y^e want of y^e other part from another pillar in y^e same Piazza was transcribed this broken inscription w^{ch} followes, w^{ch} I have endeavored to make up from y^e preceding, believing them in substance y^e very same wth some little alteration of names.

ΣΕΠΤΙΜ[ΙΟΝ ΟΥΟΡΩΔΗΝ]
ΤΟΝ ΚΡΑ[ΤΙΣΤΟΝ ΕΠΙΤΡΟ]
ΠΟΝ ΣΕΒΑΣ[ΤΟΥ ΔΟΥ Κ]Η
ΝΑΡΙΟΝ ΚΑ[Τ ΑΡΟΑΠΕ]ΤΗΝ
ΙΟΥΛΙΟΣ ΑΥ[ΡΗΛΙ]ΟΣ Ε[ΑΛΑΜΗΣ]
ΠΥΛΙΣΟΣ Μ[ΕΛΕΝΑΙ]ΟΣ ΜΑΛΩ
ΧΑ ΝΑССΟΥΜΟ[Υ] Ο ΚΡΑΤΙ
ΣΤΟΣ ΤΟΝ [ΦΙΛΟΝ] ΚΑΙ ΠΡΟ
ΣΤΑΤΗΝ ΤΕΙΜΗΣ ΕΝΕΚΕΝ
ΕΤΟΥΣ . . . [ΜΗΝΕΙ Ξ]ΑΝΔΙΚΩ

wthout further notice, be pleased to walke on in y^e same Piazza, to another inscription w^{ch} is as foll^s.

Η ΒΟΥΛ[Η ΚΑΙ ΟΔΗΜ]ΟΣ ΣΕΠΤΙΜ] * ΙΟΝ ΤΟΝ
 ΚΡΑΤΙΣΤΟΝ Ε[ΠΙΤΡΟΠΟΝ Σ]ΕΒΑΣΤΟΥ ΔΟΥ
 ΚΗΝ]ΑΡΙΟΝ . . .] ΕΟΔΟΤΗΝ ΤΗΣ ΜΗΤ[ΡΟΚΟΛΩ]
 ΝΕΙΑΣ ΚΑΙ ΑΝΑΚΟΜΙΣΑ[Σ]ΑΣ ΣΥΝΟΔΙΑΣ ΕΞΙ-
 ΔΙΩΝ ΚΑΙ ΜΑΡΤΥΡΗΘΕΝΤΑ ΥΠΟ ΤΩΝ ΑΡΧΕΜ-
 ΠΟΡΩΝ ΚΑΙ ΛΑΜΠΡΩΣ ΣΤΡΑΤΗΓΗΣΑΝΤΑ ΚΑΙ
 ΑΓΟΡΑΝΟΜΗΣΑΝΤΑ ΤΗΣ ΑΥΤΗΣ ΜΗΤΡΟΚΟΛΩ-
 ΝΕΙΑΣ ΚΑΙ ΠΛΕΙΣΤΑ ΟΙΚΟΘΕΝ ΑΝΑΛΩΣΑΝΤΑ
 ΚΑΙ ΑΡΕΣΑΝΤΑ ΤΗ ΤΕΛΟΥΤΗ ΒΟΥΛΗ ΚΑΙ ΤΩΔ-
 ΗΜΩ ΚΑΙ ΝΥΝΕΙ ΛΑΜΠΡΩΣ ΣΥΜΠΟΣΙ ΑΡΧΟΝ
 ΤΩΝ ΤΟΥ ΔΙΟΣ ΒΗΛΟΥ ΙΕ[Ρ]ΩΝ ΤΕΙΜΗΣ
 ΕΝΕΚΕΝ ΕΤ ΞΑΝΔΙΚΩ.

this affords a sufficient confirmation of what I before observed, y^t there were Honorary Inscriptions in memory of those y^t had behaved themselves well in publick offices, of w^{ch} there are several mentioned here, whereof some are very well known, and y^e others not easy to be met wth in Bookes. By the word **ΜΗΤΡΟΚΟΛΩΝΕΙΑ** we may be assured, y^t tho y^e citty was reduced by y^e Romans into y^e form of a colony, yet it had a peculiar mark of Honour set upon it, to signify y^t it was y^e cheif of their colonies in these Oriental parts. that y^e authority also of their Senate & people was continued to them, & besides y^t there was a Society of men either curators of y^e Temple of Juppiter Belus (to whom y^e Temple before described p^haps was dedicated) or overseers of y^e sports & festival solemnities, w^{ch} were celebrated in honor of him : of w^{ch} Sodality this Septimius was, when this inscription was made y^e Symposiarch, p^haps their chief and governor : By this too we find they did not wait for y^e deaths of those they thus honored, before they provided for y^e preservation of their memories : but famous men were thus registered for after ages, even while they were alive. upon one of those little Pedestals before I described, not far from y^e former was this foll: inscription, w^{ch} I valued y^e more for y^e little remaind^r. it has preserved of y^e name Palmyra, by w^{ch} y^e place was known to y^e Romans

* Brackets so arranged in M.S.—(Copyist).

ΥΠΙΛΙΟΝ ΟΥΟΡΩΔΗΝ [CYNKΛ]ΗΤΙΚΟΝ ΚΑΙ
 ΒΟΥΛΕΥ ΤΗΝ ΠΑΛΜΥΡΗΝΟΝ ΒΗΛΑ ΚΑΒΟCΑΡ-
 CΑΤΟΝ ΦΙ[ΛΟΝ] ΤΕΙΜΗC ΧΑΡΙΝ ΕΤΟΥC Ο Φ

The upper end of this spacious Piazza was shut in by a row of pillars, standing somewhat closer then those on each side, & p̄haps there might have bin a kind of banquetting house above, but now no certain foot-steps remain thereof: But a little farther to y^e left hand, & it may be once continued wth y^e former, by y^e ruines of a very stately building, W^{ch} I am apt to beleive might have bin for such an use: it is built of better marble, & hath an air of delicacy & exquisiteness in y^e work beyond what is discernible in y^e Piazza: the pillars w^{ch} suported it are of one intire stone, & one of y^m that is fallen down, but so firm & strong, y^t it has received no injury thereby, we measured & found .22. foot in length, & in compos .8. & .9. inches. In these ruines we found y^e only latine Inscription we saw in y^e place, & y^t so imp̄fect there is but little of it intelligible

. . . Es orbis Sui, & propagatores generis humani D. D. N. N. Dioclesianus. . . simi Imp̄p. & Constantini, & Maximianus nobb. Cess: castra foliciter condiderunt.

And upon y^e same stone, a little lower

. . . nets ossiano Hieroclete . V. P. Praes. Provinciae. D. N. M. O. eorum.

The name of Maximianus who was partner in y^e Empire wth Diocletian, w^{ch} should have followed in y^e inscription, seems to have bin on purpose scratched out & defaced, for what reason I canot gues. The rest is lost by y^e breaking of y^e stone. In y^e W. side of y^e greater Piazza are several openings for gates leading into y^e court of y^e palace, two whereof one would easily believe, when they were in their p̄fection were y^e most magnificent & glorious in y^e World, both for y^e elegance of y^e work in general, & particularly for those stately Porphyry pillars wth w^{ch} they were adorned. each gate had .4. not standing in a line wth y^e others, but placed by couples in y^e front of y^e gate facing y^e palace, .2. on one hand & .2. on y^e other: of these remain but .2. intire, & but one standing in its place They are about 30 foot in length, & 9 in circumference, of a substance so exceeding hard y^t it was wth great difficulty we broke of a few shivers to bring home wth us for a patten̄ of y^e stone, y^e art of making w^{ch} I thinke is quite lost. We saw several other broken pieces of Porphyry, but neither of so accurate a mixture & composition nor so large as y^e former: the hard fate of one I could not but regrett, when I saw it debased to suport y^e corner of a little Hutt, scarce good enough for a Dog kennell or a Hogsty. The Palace it self is so intirely ruined, y^t no judgm^t can be made w^t it was in its ancient splendor, either for y^e figure or workmanship thereof: there is only here and there a broken piece of a wall remaining, beat into pieces by violence, and consumed by time to y^t degree, y^t without y^e help of tradition we could

be hardly well assured y^t a Royal Palace did once fill y^e space : we may gues however y^t it fronted ye famous Piazza before mençoned, & was surrounded wth rowes of pillars of different ord^s, many of w^{ch} are still standing, some plain and some wrought & channelled as those in y^e Temple, & upon those little Pedestals in y^e middle of some of them, I observed several Inscriptions, but could not conveniently take any more then one, w^{ch} together wth y^e pillar y^t supported it was fallen to y^e ground. it was thus

ΜΑΡΘΕΙΝ ΑΛΕΞΑΝΔΡΟΥ ΤΟΥ ΚΑΠΑΔΗΤΟΥ
ΟΥΑΒΑΛΛΑΘΟΥ ΤΟΥ ΣΥΜΩΝΟΥ ΣΟΡΑΙΧΟΣ
ΑΙΡΑΝΟΥ ΑΝΗΡ ΑΥΤΗΣ ΜΝΗΜΗΣ ΕΝΕΚΕΝ
ΜΕΝ[ΕΙ] ΔΥΣΤΡΩ ΤΟΥ Η Υ ΕΤΟΥΣ.

If y^e rest were of a like nature wth this, we have lost no great matter by not taking them, this being only a memorial w^{ch} a kind husband caused to be set up in honor of his Wife. The month Dystrus answers our March, & y^e year .490. from y^e death of Alex^r. y^e great y^t of our L^d 166. I omitted to mention before y^t under y^e long walke, runs a current of hot sulphureous waters, & there is a well & other passages down to them, but whatever they may have bin of old, they are not now so convenient as another about $\frac{1}{2}$ a mile W. ward from hence, where there is a very good descent into y^e Waters, and it is still used by y^e people of y^e countrey to bath in, near to w^{ch} upon y^e Pedestall of a broken pillar (or p^haps it might be an altar) remains this foll. Inscription

ΔΙΙ ΥΨΙΣΤΩ ΜΕΓΙΣΤΩ ΚΑΙ ΕΠΗΚΩ ΒΩΛΑΝΟΣ
ΖΗΝΟΒΙΟΥ ΤΟΥ ΑΙΡΑΝΟΥ ΤΟΥ ΜΟΚΙΜΟΥ ΤΟΥ
ΜΑΘΘΑ ΕΠΙΜΕΛΗΤΗΣΟΝ ΑΙΡΕΘΕΙΣ ΕΦΚΑΣ
ΠΗΓΗΣ ΥΠΟ ΙΑΡΙΒΩΛΟΥ ΘΕΟΥ ΤΟΝ ΒΩ[forsan
ΒΩΜΟΝ]* ΕΞΙΔΙΩΝ ΑΝΕΘΗΚΕΝ ΕΤΟΥΣ Δ Ο Υ
ΜΗΝΟΣ ΥΠΕΡΒΕΡΕΤΑΙΟΥ Κ

I am pretty confident y^t y^e word I have marked wth a line under it is rightly taken, & therefore believe it to be a proper name of y^e fountaine. & upon y^t suposition y^e Inscription is easily intelligible, shewing y^t Bolanus son of Zenobias &c^a. being elected overseer or Curator of y^e fountain under Iaribolus built this altar to Juppiter in y^e year of Alexand^r .474. i.e. of our Lord .150. & on y^e .20. Oct., if y^e last K. be a numeral as I suppose it

* Bracket not closed in MS.

must. But who this Iaribolus was, on whom they bestow as generally on y^e Roman Emperors, whose names occur in their inscriptions y^e title of **ΘΕΟC** is not so facil a conjecture. They were under y^e Parthians before y^e Romans fell in among them, but y^e date shows this to be after y^e time of Hadrian, & so after their coming may & in an Inscription before mentioned w^h is of a later date then this by .80. years we have y^e name of y^e same p^{erson}. Hot sulphureous bathes are things very frequent in this countrey, & thence it was y^t it obtained y^e name of Syria Salutifera. The scent of y^e Waters here is much like those of y^e Bath in England, but not so strong, neither is y^e tast so offensive on y^e contrary when they have run in y^e aqua-duct so far from y^e fountain as to become cold, they are very potable, & are y^e only waters y^e inhabitants use. But we during our stay there, sent to a fountain of very excellent water about an hour distant from y^e citty. On y^e E. side likewise of y^e long Piazza stands if I may use such an Expression, a wood of marble pillars, some p^{erfect}, & others deprived of their beautiful Capitalls, but so confused, y^t it is not possible to reduce them into any ord^r, so as to conjecture to what they served. In one place are .11. together in a square after this manner

..... paved at y^e bottom w^h broad flat stone, but w^hout any roof or covering, & at a little distance from y^t, stands y^e ruins of a small Temple w^h by y^e remains seems to have bin for y^e workmanship very curious, but y^e roof is wholly gone & y^e walls very much defaed & consumed w^h time. Before y^e entrance w^h lookes to y^e S., is a Piazza supported w^h .6. pillars, .2. on one hand of y^e door & .2. on y^e other, & at each end one, & y^e Pedestalls of those in y^e front have bin filled w^h inscriptions in both y^e Greek and y^e other language, but they are now so obliterated & worn out as not to be intelligible. See an instance of y^t next y^e door on y^e right hand as you enter

ΛΟΥΚΙΟΥ ΑΥΡΗ[ΛΙ]ΟΥ ΗΛΙΟΔΩΡΟΥ
 Ο [ΤΕΙ]ΜΗΣ ΧΑΡΙΝ ΕΤΟΥC
 [ΜΗΝΟC ΑΠ]ΕΛΛΑΙ[ΟΥ]

you see where I thought I might venture I have filled up y^e vacancy y^e rest I am forced to leave im^{perfect} as I found them, there being .3. whole lines wanting together, except this single o. in y^e middle of one of them. The month Apellaus answers our Dec^r. upon y^t to y^e left hand opposite to y^e former, is this.

ΜΑΛΗΝ ΤΟΝ ΚΑΙ ΑΓΡΙΠΠΑΝ ΙΑΡΛΙΟΥ ΤΟΥ
 ΡΑΛΙΟΥ ΓΡΑΜΜΑΤΕΑ ΓΕΝΟΜΕΝΟΝ ΤΟ ΔΕΥ-
 ΤΕΡΟΝ ΕΠΙΔΗΜΙ[Α] ΘΕΟΥ ΑΔΡΙΑΝΟΥ ΑΛΙΜΜΑ
 ΠΑΡΑΣΧΟΤΑ ΞΕΝΟΙC ΤΕ ΚΑΙ ΠΟΛΕΙΤΑ[ΙC]

upon another stone in y^e same ruine were y^e foll: Greek and other characters

....ΑΡΣΕΣΙΕΠΙ ΤΩ ΚΑΤΑΜΗΔΕΝ ΑΤΡΟΠΟΝ Κ....

ⲓⲃⲧⲃⲃ ⲒⲘⲘⲘ Ⲓⲗⲗⲗ Ⲓⲗⲗⲗ Ⲓⲗⲗⲗ Ⲓⲗⲗⲗ Ⲓⲗⲗⲗ Ⲓⲗⲗⲗ
Ⲓⲗⲗⲗ

Upon another piece of stone in y^e same ruin were these

ΗΕΤΩΚΑΥΙΟΙC ΚΑΙΥΙΩΝΟΙC

If y^e first word were to be changed into .ΑΥΤΩ ΚΑΙ &c., it would agree wth some other inscriptions we find upon these monum^{ts}, but at present I can make nothing of it. Several others there were as much gone to decay as this, w^{ch} therefore we past by to goe to two w^{ch} stood almost opposite to one another & seemd most pfect of any, tho not w^{thout} markes of y^e Turkish malice: they are .2. square towers rather larger than an ordinary steeple, & .5. stories high, y^e outside being of common stone, but y^e partitions & floors w^{hin} of marble, & beautified too wth very lively carvings & paintings, & figures both of men & women as far as y^e breast & shoulders, but miserably defacd & broken: under these statues, or by their sides are, in y^e unknown character probably y^e names of y^e psons there buried or by them represented or else some other memorial of them; but these, not understanding we did not transcribe. we entred one of these by a door on y^e S. side, from w^{ch} was a walk cros y^e whole building just in y^e midle but y^e floor was broke up, & so gave us y^e sight of a vault below divided after y^e same manner. the spaces on each hand were again subdivided into .6. partitions by thick walls, each parti^{on} being capable of receiving y^e largest corps, & piling them one above another, as their way appears to have bin, each of these little spaces might contain .6. or .7. bodies, for y^e lowest, 2^d. & .3^d. stories these partitions were uniform & altogether y^e same, save from y^e 2^d floor, w^{ch} answered y^e main Entrance one parti^{on} was reserved for a stair case, higher than this y^e building being something contracted towards y^e top, would not afford space for y^e continuation of y^e same method, therefore y^e .2. uppermost rooms were not so parted, nor phaps ever any bodies laid therein unles it was y^t of y^e founder alone, whose statue wrapt in funerall apparel & in a lying posture is placed in a Nich or rather window in y^e front of y^e Monum^t. so as to be visible both w^{hin} & w^{thout}. Near to y^e statue is y^e foll. inscription.

TO ΜΝΗΜΕΙΟΝ ΕΚΤΙCΑΝ ΕΛΑΒΗΛΕC ΜΑΝ-
 ΝΑΙΟC CΟΧΑΙΕΙC ΜΑΛΧΟC ΟΥΑΒΑΛΛΑΘΟΥ
 ΤΟΥ ΜΑΝΝΑΙΟΥ ΤΟΥ ΕΛΑΒΗΛΟΥ ΑΥΤΩ ΚΑΙ
 ΥΙΟΙC ΕΤΟΥC Δ Ι Υ ΜΗΝΟC ΞΑΝΔΙΚΟΥ.

it is a little doubtful whether **ΑΥΤΩ** should not rather be read **ΑΥΤΟΙC** because of y^e verb plural, or else there must be a fault in y^e verb, & all those are but y^e names of one single pson I leave every one to chuse w^{ch} likes him best. the other monum^t on y^e other side y^e way is very much like this, only y^e front & Entrance are towards y^e North, & it is not altogether so polite nor so well painted, but y^e carvings are as good, & shews altogether as magnificent and stately as y^e former : besides it has y^e advantage in age of a whole century of years, as appears from y^e date of y^e foll. inscription : tis placed above a Nich in y^e stone adorn'd wth handsom borders & cornishes y^e place doubtles of some statue, & probably y^t of y^e founder

ΜΝΗΜΕΙΟΝ ΑΙΩΝΙΟΝ ΓΕΡΑC ΩΚΟΔΟΜΗCΕΝ
 ΓΙΧΟC ΜΟΚΙΜΟΥ ΤΟΥ ΚΑΙΛΚΙΑΛCΙCΟΥ ΤΟΥ
 ΜΑ ΟΥΕΙC ΤΕ ΕΑΥΤΟΝ ΚΑΙ ΥΙΟΥC ΚΑΙ
 ΕΓΓΟΝΟΥC ΕΤΟΥC Δ Ι Τ ΜΗΝΕΙ ΞΑΝΔΙΚΩ.

this is y^e most ancient inscription I met wth in Tadmor. y^e .314. year from y^e death of Alex^r y^e great preceding y^e birth of our blessed Saviour .7. or .8. years. the other also is between .20. & .30. years before y^e time of Hadrian, & consequently both of them before y^e Romans got footing here, & from these sumptuous structures these costly Mausolœa, we may reasonably conclude they were a potent & opulent people, before they became subject to y^e Roman Empire, & were not obliged to them for their greatnes & now I beleive I have wearied you sufficiently, by leading you up & down this famous & antient city of Tadmor, & giving you such a dry acc^t of our employm^t for y^e .3. or .4. dayes we abode there we had at least tired our selves in y^e time, roving from ruine to ruine & rumaging among old stones from w^{ch} little knowledge was to be obtained ; for this reason & wthal thinking it not safe to linger too long in a place, where should y^e mountain Arabs who are enemies to Assine Abas our friend, have intelligence of us, they might either fall upon or endeavour to intercept us in our return, for w^{ch} reason also we had all along conceald our intended course, under a pretence of proceeding for Damascus on Thursday

Oct. 8th.—About $\frac{1}{2}$ hour after .4. in y^e morning we dep^{td} from Tadmor, being well satisfied wth what we had seen, & glad to have

escaped so dreaded a place wthout any trouble or pretence upon us, but else wth some regret for having left a great many things behind w^{ch} deserved a more particular & curious inspection. our road lay almost due E. or a little inclining to y^e N. & on y^e left hand a ridge of hills stretched along for a great space, sometimes about $\frac{1}{2}$ hour distant from y^e road, & sometimes opening wider these hills, we were told were stored wth rich veins of divers mineralls, & afforded all y^t vast quantity of marble, y^e remains whereof we had seen at Tadmor, & it was from a fountain called Abul-faras at y^e foot of one of them y^t they fetcht our water w^{ch} we drank there, y^e inhabitants contenting themselves wth y^t w^{ch} runs from y^e hot springs. To y^e right hand lay a vast barren plain, p^{fectly} bare, & hardly any thing green to be seen therein except it were a few gourds, w^{ch} our servan^{ts} found on y^e side of a little rising ground, where there was no shew of any thing moist to feed them: our way being plain we had y^e sight of Tadmor especially y^e castle for above $\frac{1}{2}$ ye stage, til we came to an old Caphar house. We made indeed but a short dayes journey in y^e whole, finding a fountain of excellent water in about $5\frac{1}{2}$ hours riding, w^{ch} as it was a most wellcome refreshm^t to us in such a thirsty desart, so was y^e only good water we met wth, til we came to Euphrates, w^{ch} was not til y^e 3^d day from y^s place. at y^s fountain we pitched near to w^{ch} is a village, but almost wholly ruined & deserted: twas some time before any body would be seen, for they were afraid of us: at length .3. men came to our tent, spectacles of a miserable Poverty, occasioned by their being frequently pillaged by y^e mountain Arabs, & to a great duty they pay to Assine their King for his protection. Three hundred dollars they pay him annually, when one would think y^e whole village could not make up y^e sum of q^{rs}.100. yet being y^e remotest place y^t way under his jurisdiction, they often suffer by y^e inroads of y^e other. The name of y^e place is Yarecca, a name it received, as we were informed, from a victory obtained thereabouts by y^e Turkes over y^e Mamalukes.

Oct. 9—From Yarecca we mounted early & travelling N.E. or thereabouts in .7. hours arrived at Souckney: y^e road we found much like what we had y^e day before, lying over a barren plain, only we had hills on both sides, & sometimes closing wthin $\frac{1}{2}$ an hours riding one of y^e other. The village has its name from y^e hot waters (for so y^e word imports) w^{ch} are of y^e same nature wth those of Tadmor. herein they bath frequently, y^e same little dirty hole serving both for men and women, only they have so much modesty remaining that they have different hours for one & y^e other, & to say y^e truth it was y^e only marke of modesty I could observe amongst them. In other respects they seemed a confident or rather impudent genera^{cion} of people: before we could pitch our tents they flockt about us in multitudes, men, women, & children, and of y^e last many of them as naked as ever they came into y^e world, & so numerous they appeared y^t if we had reason to think Yarecca wanted inhabitants, we had no les to conclude Souckney overstockt. At this place usually resides an officer of Assine's, who is

ther Sub Basha or Governor; he whom we found there was called D'or of a good family among y^e Arabs, to whom we made a Present, & he civilly returned it in barley for our horses: afterwards he came under our tent, & invited us to an entertainm^t w^{ch} considering y^e circumstances of y^e place was very splendid, tho it was nothing but Pilaw at last a little diversified by dressing, & to speake seriously I judge we could not have les then a bushel of rice set before us: his palace indeed was not stately there being few cottages in Eng^d but might vye wth it. to y^e room wherein we were entertained, w^{ch} doubtles was y^e best, if not y^e only one he had, we were forced to clamber, rather then ascend, by broken steps made of stone & dirt; but when we were got in & comodiously seated after y^e Turkish mode, it seemd large enough for about .12. or .16. people. At y^e upper end was a little space separated from y^e rest by a ridge made up of earth w^{thin} w^{ch} I suppose he slept. The walls were mean, but y^e roof much worse, having no other covering but faggots, so y^t certainly it could not be proof agst a shower of rain w^{ch} fell y^t night, & forced us out of our tent, into an old ruined Cave for shelter: however it served well enough for our afternoon's collation, & we had come away wth a good opinion of y^e gentlemans civility, had he not afterwards endeavoured to make a pretence upon us, & so would have forced us to pay dear for our rice: he pretended to a customary duty of a chicqueen a head for all ffrankes y^t past y^t road, tho probably neither he nor his grandfather before him had ever seen a ffranke there before: but when he understood by our guide y^t we were not easy to be so imposed upon, & w^{thall} y^t we were Assine's ffreinds, & in our way to his tents, & especially our Trēar a pson he very much esteemed, who therefore would be sure to acquaint him wth any exaction or injury offered us, his mouth was quickly stopt & he grew so sensible of his error y^t he sent to excuse it, and presented our Trēar wth a fan of black Ostriche feathers; & not only so but in y^e morning came himself, and begg^d pardon desiring y^t nothing might be s^d of what was past, & so conducted us about an hour on our way. this village payes to Assine q^o 1500 a year.

Oct. 10.—Continuing our voyage still to y^e N.E. or somewhat more Easterly, we found it another pleasant, & easy stage to another village called Tiebe, so called as they say from y^e goodnes of y^e waters, y^e word signifying good, but we found them not so over excellent, they had y^e tast, & were doubtlesly tinctured wth y^e same minerall wth those of Suckney & Tadmor, tho not so strong, but y^e village it self made a better shew than usuall, & y^e people appeared of something better fashion & more civilized then those we had left: it is peiasantly situated, & makes a good appearance as one comes up to it, y^e prospect being helped by a well-built steeple, to w^{ch} is now adjoined their mosquee: but I am apt to beleive it y^e remaind^r of a Christian church, being built with more art & Beauty then you shall easily find in Turkish ffabrickes. There are also several ruines about it, w^{ch} speake it to have bin a more famous place then now it is. Within y^e Mosquee, w^{ch} we were permitted to enter

w^hout any disturbance there is a stone clapt y^e wrong way into y^e wall, w^h y^e foll. Greek inscription upon it :—

ΔΙΙ ΜΕΓΙΣΤΩ ΚΕΡΑΥΝΙΩ ΥΠΕΡ ΣΩΤΗΡΙΑΣ
 ΤΡΑ: ΑΔΡΙΑΝΟΥ ΣΕΒ: ΤΟΥ ΚΥΡΙΟΥ ΑΓΑΘΑΝ-
 ΓΕΛΟΣ ΑΒΙΛΗΝΟΣ ΤΗΣ ΔΕΚΑΠΟΛΕΟΣ ΤΗΝ
 ΚΑΜΑΡΑΝ ΩΚΟΔΟΜΗΣΕΝ ΚΑΙ ΤΗΝ ΚΛΙΝΗ
 ΕΞΙΔΙΩΝ ΑΝΕΘΗΚΕΝ ΕΤΟΥΣ Ε Μ Υ ΜΗΝΟΣ
 ΛΩΟΥ

& under this was another in y^e same strange language & character w^h we had seen at Tadmor. I was surprised to find such an Inscription in this place, nor can any way gues how they should come by it, & y^e mention of Decapolis makes me still more in y^e darke. if one extend y^e bounds of Decapolis as some are s^d to have done as far as all Cœlosyria, & comprise under this name again all Syria, Phœnicia only excepted, then need it not be brought from elsewhere, but set up first in y^s place : but this will not be allowed by those who make Decapolis only a part of Palestine. The matter of fact it containes is only an acc^t of y^e magnificence of this Agathangelus Abilenus whoever he was, who for y^e safety of y^e Emperor Hadrian, erected at his own charges, & dedicated to Juppiter the thunderer a royal banquetting house (for so I take **ΚΑΜΑΡΑ** to signifie) & a bed of State, for after **ΚΛΙΝΗ** there is doubtles a letter omitted, and it ought to be **ΚΛΙΝΗΝ**. the date, .445., agrees to y^e year of our L^d .123., w^h was y^e .7.th of y^e Reign of Hadrian, & y^e month **ΛΩΟC** is our Aug^t. this village lyes in one of y^e roads from Alep^o to Bagdat & payes to Assine an annual tribute of q^{rs} .1,000. from hence we mounted again in y^e afternoon & proceded about .2½. hours further to shorten our next daye's stage having travell'd y^s day in all between .7. & .8. hours. the place we pitched at was a fountain known by y^e name of Alcome but neither town nor house near it, neither was y^e water fit to be drunk being of y^e same nature w^h those of Souckney, & almost as warm

Oct. 11. From Alcome we rose about 1½ hour after midnight our guide grooping out of y^e way by y^e help of y^e stars, w^h now bended more to y^e north then formerly. As soon as it was light enough to look about us, we found our selves in a wide open desart, y^e ground in some places covered w^h a sort of Heath, & in others quite bare, nor had we marched long after y^e sun was up, before by y^e help of a rising ground we discovered Arsoffa y^e place whither we were bending, w^h gave us hopes we should be quickly there; but having a dry tiresome plain to traverse, & y^e hot sun causing our Mules a little to slacken their pace it was after .10. a clock ere we reached it, & what was more vexatious still, finding no water any where near, we were necessitated to proceed forward

to y^e river Euphrates w^{ch} we found .4. hours distant from hence. Arsoffa or as y^e Arabs call it Arsoffa Emir, seems to be y^e remains of a Monastery, having no town nor village near it, & being one continued Pile of building, of an oblong figure, stretching long wayes E. & W. and inclosing a very spacious area, at a distance it makes a very glistering shew, being built of Gypsine stone, or Rock Izinglasse resembling Alabaster, but not so hard, severall quarries of w^{ch} we past by in our way to it. where y^e sun shines upon it, it reflects y^e Beams so strong y^t they dazle y^e eyes of y^e Spectator. Art or accuracy in y^e Workmanship you find none, & but very little carved stone, & y^t mean enough, nay the very cement they made use of is but little better then dirt, so y^t it is no great wonder to find it in ruins, though it hath not the appearance of any great antiquity. Round about were y^e little apartm^{ts} or chambers for ye monkes, built archwise, only one story above ground; but underneath are several cells or vaults, larger then y^e chambers, w^{ch} p^haps might serve for their schools or working houses. In y^e midst of y^e area stand y^e ruins of several buildings some of w^{ch} seem to have bin cisterns for water, & it may be bathing places; but y^e most remarkable was one w^{ch} was probably y^e Abbot's or Bishop's house, there having bin something more pains bestowed upon it, then y^e rest, & another w^{ch} was y^e Reliques of their Church. This was formerly no unhandsom structure, being built in y^e form of our churches, & distinguished into .3. Isles, of w^{ch} y^e midle one is supported wth .18. well turned marble Pillars wth Capitalls upon them, not of Marble, but of a sort of clay cast into y^e shape they are in, but of a color exactly resembling y^e pillar it self. That w^{ch} persuades me to beleive them cast is a Greeke Inscription to be seen upon all of them, y^e letters whereof are not made by incision in y^e stone, but seem to be stampt standing out higher then y^e distances between them, & in one of them by Mistake they are so placed as to be read after y^e manner of y^e Oriental languages from y^e right hand to y^e left y^e words are these wth y^e Crucifix before as foll :

⊕ ΕΠΙΣΕΡΓΙΣ ΕΠΙΣΚ. ΤΩ ΣΥΝΓΕΝ̄ ΜΑΡΟΝΙΩ ΤΩ
ΧΩΡΕΠΙΣΚ.

The name of Maronius made me conclude it a monastery of y^e Maronites, who were formerly very numerous in Syria & inquiring of one of their flathers here, I find they had a monastery of this Name, but he apprehended it to be beyond y^e river Euphrates: but y^t is an easie Mistake, & tis more probable it was this place, w^{ch} is but .4. hours from y^e river. Our guide lead us to y^e river by y^e assistance of .2. little hills w^{ch} are known by y^e name of Affdien our way lying to y^e N., a little bending to y^e east. the sight of y^e river was a pleasing prospect, & to our great comfort we found y^e water very clear, hapning to be there before y^e rains & after y^e snow waters, w^{ch} swell & disturb it in summer time, were all past, and our hapines seemed y^e greater having had so tedious

& thirsty a journey of at least .14. hours, & neither our selves nor horses touched a drop of water all day. We pitched upon a reach of y^e River where it was not very broad, not being above $\frac{1}{2}$ a Musket shot over.

Oct. 12. This morning about Sun rise we proceeded on our voy^e keeping along y^e bankes of y^e River, w^{ch} for y^e main led us W. or N.W. & here we had pleasant travelling, having y^e river on y^e right hand, & hills of Marble on y^e left or other fine stone, & delightful groves of Tamarisk, Mulberry & other trees to pas through : here every thing about us looked fresh and verdant, & we met frequently men & women passing on their occasions, a thing to w^{ch} in our former travells we had not bin accustomed. Wee had also a Prospect of y^e opposite shore, & could see a great way into Mesopotamia, but could meet wth no convenience to crosse y^e river, w^{ch} we were very desirous to have done. There are no places of note remaining on y^e River, either on one side or y^e other, only on y^e farther side we saw an old Castle called Giaber, w^{ch} made a good shew, being situate on y^e top of an high hill, & both for y^t & y^e way of building very much resembling y^t of Alep^o, only y^t is y^e larger & in y^e midst of a citty, this les & has neither town nor house about it. On y^e other side we past by a Sheekes house called Abul Rarra & y^e ruines of a town a little further where there was a square tower built of very ordinary brick, but pretty intire. after we had left these ruines we rested to bait under y^e Shadow of a rock wherein were many apartm^{ts} & conveniences cut to lodge in, w^{ch} I supose are made use of in y^e winter by y^e people who during y^e summer pitch among y^e trees by y^e river side. In y^e afternoon we continued our journey as before keeping allwayes at a little distance from y^e river, till a little before sunset, we came to a very convenient place upon y^e bankes, where we took up our lodging for y^e Night, having travell'd between .7. & .8. hours y^e whole day

Oct. 13. This day we had y^e same satisfaction as y^e day before proceeding as near y^e river as y^e road would p^{er}mit, & having made a stage of about .6. hours, we rested under y^e shade of y^e Tamarisk trees by y^e river side, hoping to have found conveniences to have crost it ; but we could not. In our way we saw nothing observable, but y^e ruines of a citty called Baulus, where y^e Turkes had formerly a Sangiacke but now there is never an inhabitant in y^e place, nor house standing, nothing but y^e ruines of houses, & an octagonal tower of a considerable height viz. .107. steps & beautified only outside wth flourishes & an Arabick inscription round about it. it is a handsom structure, & probably y^e worke of y^e Mamalukes since whose time little has bin done to adorn, but much to destroy & wast y^e countrey. After dinner we mounted sooner then usual because, hoping to reach y^e tents of Assine, we were unwilling it should be late when we arrived, yet we made it near sun set before we got to Fay, a fountain by w^{ch} he lay. We had travelled still by y^e same point N.W. & had y^e prospect of y^e river y^e greatest p^t of y^e way, y^e nearest reach thereof being not above .1. hour's riding from y^e fountain. On y^e road we met several Bandieras of y^e Emirs soldiers, who knowing our guide & understanding we were going to him, gave us

a very courteous Salam, who else p̄haps might have treated us wth another sort of civility. The Kings tents spread over a very large plain, & tooke up so vast a space y^t though we had y^e advantage of a rising ground, we could not see y^e utmost extent of them: His own peculiar tent was pretty near y^e middle of y^e rest, w^{ch} were pitcht about it not in a circular manner, but stretching out in length as y^e plain opened for y^e better convenience of a current of water, w^{ch} form y^e fountain ran through y^e midst of them. It was not all distinguished from y^e rest but by its bignes, & a little more company about it, being all made of a sort of hair cloth w^{ch} seemed hardly a defence agst either rain or sun: But certainly they must find otherwise else their necessity spending their whole lives in such moveable habitacōns, would have taught them to have contrived something better. It canot well be doubted but they are descended from y^e old Arabes Scenitæ seeing they live just after y^e same manner, having no settled abode but removing from fountain to fountain, as they can find gras for their sheep & camells, & water for them & themselves. They themselves love to derive themselves from Ishmael y^e son of Abraham, & it may be they are descended from him, but I beleive they would be hard put to it to prove their pedigree. As soon as we alighted we were attended by y^e officers of y^e Emir, & conducted to a very noble tent built after y^e Turkish mode, & pitcht next to his own. hither he sent to bid us wellcom & to inquire how we past in our voyage, & presently after we had a repast of several dishes of meat set before us to stay our appetites till a more plentiful supper could be got ready: But before supper y^e King himself made us a visit in person bidding us wellcome to Fay, & asking what we had seen in our travells y^t pleased us? how we liked Tadmor? & whether we had found a treasure there? for this notion stickes in y^e heads of all these people, y^t the Frankes goe to see old Ruines only because there they meet wth Inscriptions w^{ch} direct them to some hid Treasures, & therefore tis no unusuall thing wth them, when they find a stone wth an inscription on one side to turn y^t down to y^e ground, y^t it might not be seen or read of any: But we assured him we went with no such Expectation, but only out of a desire to see y^e place; neither had we brought any thing away wth us but a piece of Porphyry stone w^{ch} upon his request we shewed him: we let him see, too, a rude draught, w^{ch} we had taken of y^e place w^{ch} he seemed to like: he made his visit y^e shorter y^t he might not incommode us after our journey, but desird y^t we would live after our own pleasure, & to our satisfaction & command freely whatever y^e Camp would afford, ordering some of his people constantly to attend upon us. When there was mention made of our design to be gone next morning, he answered it must not be, himself was invited y^e next day to a great entertainm^t by one of his Grandees, & we should accompany him; but y^e day foll: he would goe out wth us & hunt p^t of our way towards Alep^o. When supper was brought in, there was victualls enough for .3. times our number. A large dish of pilaw in y^e middle & .12. or .15. dishes of severall sorts of meat about it, all drest after their manner but exceeding good, & such as one

might have fed heartily upon, had he not spoiled his appetite before. after we had eat & drank what wee pleased, we rose up & y^e serv^{ts} sat down in our places it being y^e custom of y^e Arabs & Turkes too, from y^e highest to y^e meanest, all to eat at y^e same table : The best sort sit down first, & so in ord^r till all are satisfied, & then what remaines is carried away. we might if we had pleased, lodged in y^e same Tent where we eat, but, having tents of our own pitcht, some of our comp^e chose rather to retire thither, to avoid being disturbed by too many visitants

Oct. 14.—The next morning about .10. a clock we were told y^e King was gone to y^e entertainment & expected we should follow him, & y^t .2. young camells were killed to furnish y^e sumptuous feast, w^{ch} is y^e highest piece of Magnificence & greatnes, to w^{ch} these people whose greatest riches consists in camells can arrive. The tent was above a furlong from us, so mounting our horses we rode to it, & found it surrounded wth a numerous train of Guests, .300. at least, of different sorts & qualities : it was very large of it self, & still to be more capacious it was left open to y^e West : The King was seated at y^e N. end, about y^e midst of y^e Tent upon a place raised wth Cushions, & quilts, & carpets before him, neither did he sit cros leggd, as all y^e rest of y^e Comp^e were obliged to doe, but in a leaning posture. they seemd to observe an exact ord^r in their places, & when any pson of note enterd, those y^t were near his place rose up, & stood til he was seated : But y^e far greatest p^t could not come wthin ye compas of this Ring, but stood behind y^e backes of y^e rest, leaving a spacious area in y^e midst. When we entred they made room for us on y^e Kings left hand, w^{ch} here is esteemd y^e more honorable, where we sat down in y^e same position wth those about us cros leggd upon a thin Carpet. Before midday a Carpet being spread in y^e midle of y^e Tent our dinner was brought in, being served up in large wooden Bowles born between .2. men, & truly to my aprehension load enough for them. Of these great Platters there were about .50. or .60. in Number, perhaps more wth a great many little ones, I mean such as one man was able to bring in, strewed here & there among them, & placed for a border or garnish round about y^e Table. In y^e midle of all was one of a larger size than all y^e rest, in w^{ch} were y^e camell Bones & a thin broth in w^{ch} they were boiled : y^e other great ones seemd all filld wth one & ye same sort of provision, a kind of plum Broth made of rice, & y^e fleshy part of y^e Camells, wth currans & spices being somew^t of a darker color, then what is made in our countrey, the lesser were for y^e most p^t charged wth rice, dressed after severall Modes, some of them having Leban a thick sour milk poured upon them. This Leban is a thing in mighty esteem in these hot countries, being very usefull to quench thirst, & truly we had need of it here, for I did not see a drop of any sort of liquor except a dish of Coffee before dinner drunk at this splendid feast. Knives, forkes, spoons, trenchers, &c^a. are silly impertinent things in y^e esteem of y^e Arabs ; however we being known to make use of such things, had large wooden Spoons laid before us. when y^e table was thus plentifully furnished, y^e King arising from his seat, went & sat down to y^e dish w^{ch} was directly

before him, & so did y^e rest as many as it could contain, w^{ch} could not be much short of .100. & so w^{thout} further ceremony they fell to, thrusting their hands into y^e dishes & eating by handfulls, neither was there any occasion of carving, only, because y^e dishes in y^e middle were too remote to be reached, there was an officer on purpose who stepping in among them, & standing in y^e Spaces designedly left for y^t end wth a long ladle in both his hands, helped any one according to his desires. when y^e K. had eaten what he thought fit, he rose up, & washt, & retired back to his former seat, & we also did y^e like, others being ready for to fill our places: nor did we continue much longer under y^e Tent in y^t numerous crowd: for Assine perceiving y^t we were a little uneasy, & suposing y^t we had now sufficiently satisfied our curiosity, tho not our appetites, told us we might take our liberty, & if we thought fit retire to our tents. This favor we gladly accepted, & w^{thout} any Ceremony returned, several of his attendants waiting on us back. Here we* [had another] dinner set before us, & having some of our own [wine &] water to drinke wth it, it went down better wth me [than] y^e famous camell ffeast. In y^e evening y^e K. mounted to [see] y^e flight of a new Hawke, & stayed abroad very late, his Hawke flying away; but shee was afterwards taken up by his ffaulkenor: otherwise he had not bin in a good humour y^t night, being a man y^t delights very much in Sport: after his return from Hawking we went to wait upon him at his own tent to return him thanks for his most courteous & Royall acception of us, & to desire leave to depart next morning. here we found him surrounded wth y^e chiefest of his people, & being placed again on his left hand, he entertained us wth a great deal of pleasant discourse & asked such questions, as shewed him to be a p^{erson} of extraordinary capacity & judgm^t. As for learning, they have no such thing among them and therefore it is not to be expected y^t he should be a scholar; but were he not a p^{erson} of more then common prudence & understanding, he could never have managed y^t wild and unruly people, as he has done ever since his advancem^t to y^e throne, w^{ch} must therefore have bin y^e more difficult, because as he came to it by y^e deposing of his ffather (tho not imediately) who now lives wth him as a private man, so has he never wanted competitors. To his ffather he payes a great deal of outward respect, but is forced to keep a very watchful eye over him. After about an hours discourse we were dismiss, &

Oct. 15.—In y^e morning Assine not being at leisure to goe out a hunting, we proceeded on our voyage homewards wth a great [& joyful] alacrity, & finding nothing remarkable in our [way, after] about .3½. hours arrived Serag, & hence, after a sh[ort] repast, we continued our journey to Shirby fountain, [w^{ch}] took us up y^e like space of time here we accounted our selves as good as at home, being at a place wth w^{ch} we were well acquainted, & to w^{ch} several times in y^e year, some or other of our nation usually resort, either for Gazell or Hog-hunting,

[* M.S. torn away; words in brackets supplied by copyist.]

according to their seasons, nor had we hence above .7. or .8. hours to Alep°.

Oct. 16.—Getting up pretty early in y^e Morning, we resolved to hunt y^e greatest part of our way home, as we did, & dining at y^e famous round Hill, whereon has bin spent by y^e English more money then would purchase y^e fee simple of it & a noble Estate round about it. In ye afternoon we arrived safe and sound at Alep°. God be praised for His gracious Protection and Providence over us.

NOTES ON THE VOYAGE TO TADMOR.

THE discovery of Palmyra by the English from Aleppo in 1678 is the first hasty visit mentioned in this account. Already, in 1714, Reland (p. 526) published two Palmyrene texts, but it was not until 1751 that Dawkins and Wood made good copies (published in their standard work on Palmyra—Paris, 1812). In Reland's time, however, the Palmyrene alphabet was already recognised to be a Semitic alphabet of 22 letters. It is, however, unknown to our travellers.

With four exceptions, all the texts given in this early account occur in Waddington's collection; but the early copies are interesting, and made by a careful student who understood well both the language and the history connected with them. The differences from Waddington's text are few, and of no great importance. The unknown characters are Palmyrene, and these texts are given by De Vogüé. Being unknown to the earlier writer they are, as he admits, imperfectly copied, but he was quite correct in supposing these texts to be the bilingual translations (in native letters and language) of the Greek. The dates, however, do not, as he supposes, reckon from the death of Alexander (324 B.C.), but from the era of the Seleucidae (26th September, 312 B.C.), which era was used at Palmyra and in Syria with the Macedonian calendar, the same found in the works of Josephus. The native calendar was at Palmyra the same as among the Jews, except that Marchesvan was called Kanun as among the Syrians.

The first text dates about 230 A.D. (Waddington, No. 2621), being the monument of Septimius Odenathus, who was the father-in-law of Zenobia. The Palmyrene version has been given by De Vogüé (No. 21). There is no date. The Greek agrees letter by letter with that of Waddington, including the word **MNHMION** for *μνημειον*. It was copied by Waddington, and found in the same position over the door. The original is in two long lines.

The second text, also bilingual, is No. 2586 of Waddington, and the Palmyrene is No. 1 of De Vogüé. Waddington gives the date as **NY** or April, 139 A.D. The third numeral can hardly be the day of the month, as in that case it would stand after the month name, and the date seems, therefore, to be really 169 A.D. The proper name is **AAIAMEIS**

and there are two other inscriptions of this personage, one (Wadd. 2617) in which he is also called Zenobius, and another (Wadd. 2571 *c*) in which as Zenobius he raises an altar in 162 A.D. This seems to show that the date in the present text (169 A.D.) is more correct than that of Waddington. Zenobius was a priest of the moon god, as we shall see later.

This text appears to have several errors; for **Α ΠΑΝΟΥ** we should no doubt read *Αίράνου*, and for **[ΕΥ]ΣΕΙΜΩΣ** Waddington has *Φιλοτείμως*, the *τοῖς* appears to have been omitted before *πατρίοις* according to Waddington's copy. The original is written in seven lines of Greek, and is complete, the last line ending with a leaf.

The third text is Waddington 2587, and the Palmyrene version is De Vogüé's No. 2. The Greek has no date, but the Palmyrene gives Nisan 450, or a generation earlier than the preceding, viz., 139 A.D. The pillar was raised in honour of Bareiches by the Council and people. The text is in four lines, and apparently complete.

The fourth text is 2599 of Waddington, and is also bilingual, the Palmyrene being No. 4 of De Vogüé. The letters of the present copy are correct, but the spacing is incorrect. The Greek in the original occupies seven lines, and is complete. The date is April, 247 A.D. The column was raised by his caravan companions to Julius Aurelius Zebeidas. He appears to have been the leader of one of the regular caravans to Vologesias near the Tigris (Ptol. v, 20, 6). This shows the extent of Palmyrene trade in the time of Zenobia. For **ΑΣ ΘΩΡΟ** Waddington reads *Ἀσθώρον*. The speculations on this text would have been controlled had the traveller found Waddington's 2589, which shows that trade and not "an Embassy" is intended, and mentions Vologesias with another place in the same region, and with the title *εὐνοδιάρχης* or "chief of caravan," as early as 142 A.D.

The fifth text is Waddington, No. 2598, and the Palmyrene version is De Vogüé's No. 15. It dates 242-3 A.D. The original is in 19 lines. The name which has been hammered out after Julius and is so described by our author, was Philip according to Waddington—the prefect of the Pretorium. The inscription is raised by the Council and people in honour of Julius Aurelius Zenobius, serving under Rutilius Crispinus (with others) in the army of Severus Alexander, who, in 229 A.D., marched through Palmyra against the Persians. This Zenobius is thought to have been the father of Zenobia. He merited well, it appears, of his country, and of the god Yaribol, who, as his name shows, was the moon god—Lunus. For **ΜΑΡΤΥ ΠΗΘΕΝΤΑ** Waddington reads *Μαρτορηδῆναι*. There are, as before, several errors of spacing in the early copy, but the rest of the lettering is correct.

The sixth text is Waddington's No. 2609, and the Palmyrene is De Vogüé's No. 27. The date is April, 267 A.D. The Greek of the original is in nine lines, the last with the month name having two small leaves, showing that the text is complete. This with the next is one of several in honour of a Palmyrene named Worod, and with the Roman

name Septimius. The word **ΑΡΟΑΠΕΤΗΝ** should be Ἀργαπέτην, and, according to De Vogüé, means commandant of the fortress.

The seventh text is Waddington's No. 2608, erected two years earlier to the same Worod. The Palmyrene version is illegible, and the upper lines of the Greek (ten in all) are injured. In both this and the preceding for **ΕΛΛΜΗΣ** we must read *Σάλλμης*, and for **Ε** (**ΑΛΜΗΣ**) *Σεπτίμιος*. The first is evidently more probable, the latter (in 2608) is a more careful copy. In the former case (2609) also we are controlled by the Palmyrene. In the present text (2608) Waddington asserts that the engraver has written *Σεπτιμιος* in error.

The next text, No. 8, is Waddington's 2600, and the Palmyrene version is De Vogüé's No. 22; it is the most important of all, being in honour of the brother of Odenathus II, husband of Zenobia, called in the Greek, Epiarch of the Palmyrenes, and in the Palmyrene, "Head of Tadmor." It dates from October, 251 A.D. The Palmyrene supplies several lacunæ in the Greek, and allows of a much better copy than that given by our traveller. The Greek in the original occupies nine lines, but is much damaged towards the centre. Odenathus is here called "Stratitôtês, of the Cyrenaic Legion," but in the Palmyrene, "of the Legion of Bostra"—Bostra being the head-quarters of the third Cyrenaic Legion, as we learn from a Latin text (Waddington, 1942), and another, also Latin (1956), which have been copied at Bostra itself. It appears that Odenathus I died in 251, and was succeeded by this Heiran or Heremius, the elder brother of Odenathus II, who succeeded him as early, at least, as 258 A.D. (Waddington, No. 2602).

The next text, No. 9, is Waddington's No. 2606*a*, consisting of 17 lines of Greek, and is in honour of Worod, according to Waddington. The month is April, but the year is erased. The copy by Waddington contains minor improvements. There are four other inscriptions in honour of Worod, dating 262, 263, 265, and 267 A.D. He was one of the principal inhabitants, a caravan leader, and subsequently procurator for the Emperor and Judge of the City.

The next text, No. 10, appears not to be in Waddington's collection. It carries on the history of the same Worod to the year 268 A.D., as a Palmyrene Senator.

Text No. 11 is Waddington's No. 2592, and is nearly a century earlier, *i.e.*, March, 179 A.D. Instead of **ΚΑΠΑΔΗ** Waddington reads *καὶ Ἰαδῆ*. The Greek in the original occupies six lines and is complete.

Text No. 12 is Waddington's No. 2571*c*, and written on an altar of *Yarhibol*, the moon god; it has already been noticed under No. 2, being by Aailmeis Zenobius, dating from 20th October, 162 A.D. The altar was a gift from Zenobius to the deity at his own expense. The spring of Ephka, mentioned in the text, might perhaps be the famous Afka fountain in Lebanon, or (as the name in Syriac means "spring") some other nearer Palmyra.

Text No. 13 is Waddington's No. 2581. It has a Palmyrene text on

the other side of the base, now illegible. The Greek occupied eight lines, which would not be guessed from the copy of our traveller. It is in honour of Lucius Aurelius Heliodorus, but the date of the year is lost. The month is December.

Text No. 14 is Waddington's No. 2585, and has a Palmyrene version (De Vogüé's No. 16) which gives the date 130-1 A.D. This text fixes Hadrian's visit to Palmyra as having already occurred, a statue of the Agrippa here mentioned being raised in memory of his services to the Emperor. The *naos*, according to Waddington, was consecrated to Helios—the sun. The original Greek occupies twelve lines. The first part of the text, Ἡ Βουλὴ καὶ ὁ δῆμος, is not given by our traveller.

Three short texts, 15, 16, 17, which follow, are not given by Waddington, and are too imperfect to be of any great value.

No. 18 is Waddington's No. 2615. He reads Μάλιχος for ΜΑΛΧΟΣ and αὐτοῖς for ΑΥΤΩ. This is the tomb of the family of Elabel, and dates from 103 A.D. The Greek occupies four lines.

No. 19 is the tomb of Iamlichos, one of the finest at Palmyra, dating 83 A.D. It is Waddington's No. 2614, and the Palmyrene is No. 36 *a b*, of De Vogüé. Both Greek and Palmyrene are twice repeated. The Greek occupies five lines.

The text (No. 20) from the village of Taiyibeh is Waddington's No. 2631; it dates from 134 A.D., and is in honour of Hadrian, by a certain Agathangelus, of Abila, in the Decapolis. This text is now in the British Museum. The Palmyrene text, which accompanied it, appears to have been lost. Waddington has Καμέραν for ΚΑΜΑΡΑΝ. The Greek is in nine lines.

The last text (No. 21), from Risaffa, is much later. It is Waddington's No. 2631 *a*, and is Byzantine and Christian.

The Palmyrene Greek texts being dated show us how early the uncial forms of the Greek letters were used in the East, sometimes side by side with more classic forms.

In spite of his diligence, our traveller did not exhaust the riches of Palmyra. Some 100 Palmyrene texts are said to remain in the ruins, and of Greek ones more than 60 have been copied, out of which he gives only 18, including, however, some of the most important.

C. R. CONDER.

INSCRIPTION FROM THE CHURCH OF ST. STEPHEN.

THE inscriptions on page 158 of the July number just received, from the Church of St. Stephen at Jerusalem, are clearly the opening words of Psalms lxxi and xci (lxx and xc in the Septuagint), only very roughly and incompletely written.

The first begins—

ἐπι σου (= σοι) κ(υρι)ε ηλπισα μη κατ(αισχυν)θειην εις τον αιωνα).
 “O Lord in thee have I trusted, let me never be confounded.”

The second—

† ο κατοικω(ν) εν βο(ηθεια) του υ(ψιστο)υ.
 “Whoso dwelleth under the defence of the most high.”

Possibly some of your readers may have collected similar Christian inscriptions in Palestine tending to show the liturgical or general use of certain psalms.

Faithfully yours,
 JOHN SARUM.

THE NATIVE NAME OF PALMYRA.

THE revised version has given us Tamar for Tadmor (1 Kings ix, 18), but retains Tadmor in 2 Chron. viii, 4. Tadmor in the Wilderness, according to the detailed account of Josephus (8 Antiq. vi, 1) was the later Palmyra, and the name Tamar signifies “Palm,” yet it is allowable to doubt whether the reading Tadmor to which we are accustomed is not the true one, for we have a bilingual text of Herennius, son of Odenathus I, dating about 251 A.D. In the Greek he is called *ἐξάρχων παλμυρηνῶν*, and in the Palmyrene **רש תדמור**. Thus down to the middle of the 3rd century A.D. the Palmyrenes called their city Tadmor. The alteration might therefore very well have been dispensed with, being contrary to the balance of even literary evidence.

C. R. C.

THE MOABITE STONE.

IT is much to be regretted that attempts have been made to cast discredit on one of the most important of the monuments of Palestine, and even countenanced by a learned Hebraist, though not by any other scholar. I have not had the opportunity of reading M. Clermont Ganneau's recent paper in defence of the stone, but it seems to me that there can be no two opinions as to its genuineness, for many reasons. It was found before the forgeries of Jerusalem forgers began to multiply, and by a missionary whose character sufficiently attests its genuineness. It is carved on hard basalt, difficult to engrave and heavy to transport, and the worn surface of the stone could only be produced by age.

The cavils are of three classes: 1st, as regards the letters; 2nd, as regards the language; 3rdly, as regards the history of the conquest and the geographical names.

1st, as regards the letters. If the photograph of the stone is placed side by side with that of the stone of Jehumelek, king of Gebal, it will be seen that it presents the same appearance of antiquity. It has been argued that the letters are sharp, and may have been engraved on an old monument by a forger. Such sharpness of incised letters is common on other genuine texts which I have found in ruins. It is due to the mud which fills the letters, and thus preserves them while the face of the stone remains exposed.

2nd. As regards the language, it seems to have been supposed that at so early a date the Moabite should coincide with Hebrew. The objectors have called the dialect Chaldee, and "full of grammatical blunders." It is clear that they have given little attention to Phœnician inscriptions, and have not been acquainted with Assyrian grammar. The Moabite peculiarities it shares with these two dialects, as for instance, 𐤀 , "I," as in Phœnician; 𐤁 , "this," Phœnician and Assyrian. The plural masculine is Aramean. The verbal forms to which exception has been taken, as not being ancient, occur in Assyrian. There is not a single objection that has been urged against this inscription that cannot be met by comparison with yet older texts.

3rd. The date given by the objectors for the stone is too early by half a century, and is not founded on any solid basis. The objections are also in some cases due to following the earlier and less correct translations of the stone, and they disappear when more correct renderings are followed. The word *Aral* does not mean a "champion," but an "altar." Whether we are to understand an altar of the god Dodo (well known to the Assyrians as a Phœnician god), or whether we understand by *Aral Dodo* Ariel of David, a town conquered, it is equally certain that the term does not apply to human beings.

Difficulty has been made as to the notice of Machærus in the text. It seems to me very doubtful if Machærus is mentioned at all, and possible grammatically that the word so rendered only means "afterwards."

If a forger had attempted such a work he would probably have written in Hebrew; at all events, he would not have used verbal forms only known in Assyrian, unless he was himself a good scholar. Nor would he have invented the peculiarities of the alphabetical forms on the stone, which are of the greatest value, or the name Istar-Chemosh, which preserves the old Akkadian form *Istar* instead of the Biblical Ashtoreth, another most important note of antiquity.

It will be highly interesting to compare the newly-found Aramean text of Panammu with the Moabite Stone. Language and lettering alike will then be elucidated further, for the text shortly to be published is even older than that of King Mesha. Meanwhile, it may be asserted with confidence that the genuineness of the stone is only disputed by those whose monumental studies are not far advanced, and who forget that Moabite is not Hebrew.

C. R. CONDER.

A PASSAGE ON THE MOABITE STONE.

ON the Moabite Stone the word **אשב** has been taken in two senses: Line 12, "I carried off;" and line 13, "I caused to dwell." Is it not possible that in both it answers to the Hebrew **ישב**, "I turned" (*cf.* 1 Sam. xv, 31, from the root **שוב**). In Assyrian the aorist takes *a* as a prefix (*cf.* *asib*, "I sat"), and the Moabite dialect approaches Assyrian in some particulars (pronouns, plural, and verbal forms). This change, if there is, as I suppose, no real grammatical objection, makes a great difference in the historical meaning of the text—

ואשב משם את אראל דודה ואסחב(ה) לפני כמש בקרית
ואשב בה את אש שרן א . . מחרת

"And I turned thence (from Ataroth) to Ariel of David, and I pulled it down before the face of Chemosh by war, and I turned by it to the men of Sharon (and . . .) afterwards."

The fourteenth line records the taking of **נבה**, either Nebo or Nob, where the altars of Jehovah" were pulled down, but this word is used in the Bible of pulling down the walls of a city (2 Sam. xvii, 17).

In this case if, as is generally supposed, the Ariel of the Bible is Jerusalem, King Mesha claims to have taken Jerusalem and to have gone on to Sharon, and to have overthrown Nob in the time of Omri's son Ahab, or more probably later, after his death (*cf.* 2 Kings, iii, 4). The victories of Mesha would follow Jehoram's attack, and in the same reign (2 Kings, viii, 16-22) there was a general revolt from Edom to Libnah, which would agree with this rendering. But we do not know for certain where Ariel—the "city where David camped" (Isaiah xxix, 1, 2, 7) should be placed, and the term Sharon was applied to other grazing plains besides that near Jaffa—notably to one near Tabor.

C. R. C.

THE BATTLE OF KADESH.

(3rd Sallier Papyrus, "Records of the Past," II, pp. 67-78.)

THE conquest of Kadesh by Rameses II was preceded by a surprise nearly fatal to the king. He was told that the Hittites had retired to Aleppo, and riding alone to the north-west of Kadesh, was cut off from his army by the Hittites, who were in ambush, and who came out by the ditch south of the town west of the Orontes.

The position of the Egyptian army in rear is minutely described. The legion of Amon was behind the king (*i.e.*, towards the south), the legion of Phra was by the ditch, west of the town of Sabatuna, divided by a long distance from the legion of Ptah "in the midst," which was

near the town of Arnama. The legion of Sutekh was on the road, apparently at the "Lake of the Land of the Amorites," or of "*Amuli*." They were all at a considerable distance from Kadesh and from Rameses, on their way from the south.

This account is easily explained if Kadesh be placed at *Kades* close to Tell Neby Mendeh. Arnama will then be *Hirmil* in the Orontes valley, Sabatuna, *Zaban* further south, and the Lake of Amuli, the great lake of *Yammâneh* on the east slope of Lebanon. All these places I have visited. They lie on the direct road between Kadesh and the Lebanon Pass to Afka. This agrees also with the statement in the poem of Pentaur, "He marched through the valley of the River Orontes." The Egyptian corps were each 14 miles or a day's march apart.

C. R. CONDER.

16th June, 1890.

CONQUESTS OF RAMESES IN GALILEE.

IN his eighth year Rameses II attacked Galilee, and took the towns of Shalama (Shunem), Marona (Merom), Ain Anamin (probably Engannim), Dapur (Tabor), and "the town Kalopu on the mountains of Beitha Antha."

This last is apparently Beth Anath in Upper Galilee, which Sir C. W. Wilson fixed at 'Ainitha. Looking at the map, I see that the ruin *Shelabun* is on the hill to the west of Ainitha. The site (Mem. I, p. 245, Sheet IV) is ancient and important, and may very well be the Kalopu of this campaign.

C. R. C.

JEWS AND GENTILES IN PALESTINE.

To draw a picture of Palestine about the Christian era, it is necessary not only to understand the Jews, but to know also all that can be known of the non-Jewish population of the country, and to judge their relations to the Jewish population. Outside the New Testament we have no literary aid except in the works of Josephus; though the Mishna, put into its present form about 190 A.D., no doubt represents the conditions of Jewish society before the destruction of Jerusalem. Our monumental information is confined to a very few inscriptions in Hebrew and in Greek, but it is here proposed to show what light can be thrown on the subject by the occurrence of foreign words in the language of the Talmudic books; and to carry down this inquiry as late as 500 A.D. This philological inquiry may be divided into three parts: First, as regards the words used in the Mishnah in the second century A.D. Secondly, those occurring in the Jerusalem Gemara, the Bereshith Rabba, and the Targums in the third and

fourth centuries. And thirdly, the additional foreign vocabulary of the Babylonian Talmud in the fifth century A.D.

The Greeks in Palestine are mentioned in the New Testament (John xii, 20 ; Acts xi, 19) ; but without the aid of philology and of inscriptions we should hardly be able to discover how important an element of population the Greek-speaking people of the country must have been.

Greek first appears in Palestine on the coins of Alexander and the Seleucidæ, then on those of the later Hasmoneans, of the Herods, of the Procurators, and down to the reign of Titus, after which the inscriptions of the imperial coinage are Latin. Greek architectural ideas form the basis of all the Syrian styles from the second century B.C. to the third century A.D., or for five hundred years.

As regards other inscriptions, we have in Syria, as yet, none of the time of the Seleucidæ in Greek, but at Hosi Suleiman, in the mountains west of Homs, there is a Latin text of the second century A.D., which includes a decree in Greek of one of the Antiochuses. The discovery of texts written in cuneiform and in Greek (bilingual), shows us that the use of this language early spread much further east than Palestine, and the recent discoveries of Hamann and Puchstein show that about 70 B.C. Greek was the court language of the kings of Kommagene near the Euphrates. Antiochus the First already calls himself about that date "the friend of the Romans and of the Greeks ;" but though he places Rome first, and was himself half Persian by birth, the language of his inscriptions is Greek.

That Greek was extensively understood in Palestine in the days of our Lord, is proved by the Greek inscription from the Court of Herod's Temple, discovered by M. Clermont Ganneau, and by the inscriptions of Herod's Temple at Siah, in the Haurân, which are of special importance,¹

¹ See Waddington, Nos. 2364, 2365, 2366, 2367, 2368, 2369. They belong to the time of Herod the Great and Agrippa II :—

Βασιλεῖ Ἡρώδει κυρίῳ Ὀβαΐσατος Σαύδου ἔθηκε τὸν ἀνδριάντα ταῖς ἑμαῖς δαπάναις

Ἐπὶ βασιλείῳ μεγάλῳ Ἀγρίππα φιλοκάισαρος εὐσεβοῦς καὶ φιλορωμαίου τοῦ ἐκ βασιλείῳ μεγάλῳ Ἀγρίππα φιλοκάισαρος εὐσεβοῦς καὶ φιλορωμαίου Ἀφαρέυς ἀπελεύθερος καὶ Ἀγρίππας υἱὸς ἀνέθηκεν

Ὁ δῆμος ὁ τῶν Ὀβαιοσηνῶν ἐτείμησεν Μαλείχαθον Μοαίρου ὑπεροκοδομήσαντι τὸ ἱερὸν ἀρετῆς τε καὶ εὐσεβείας χάριν

Σεισηνῶν τὸ κοινὸν ἀνέθηκεν Μαλειχάθῳ Αὔσου τοῦ Μοαίρου ὅτι κατεσκευάσας τὸ ἱε[ρὸν καὶ το]ν περὶ αὐτ[ὸ πάντα κόσ]μον

Μαλείχαθος Αὔσου τοῦ Μοαίρου

Μαλείχαθος Μοαίρου.

as showing no less than others of later date that Greek was understood by a native population, and Greek texts carved by people to whom the language was not entirely familiar. The longer text in honour of Malichathus, son of Ausus, at this pagan temple of Herod's east of the sea of Galilee is bilingual, the other script and language being the Aramaic, which in the time of Christ was the native speech of Palestine.

Immediately after the destruction of the Temple, we find the power of Rome recognised by the Palmyrenes in 79 A.D., when a tribe, called the "Claudian tribe," after the Emperor Claudius, existed in the city. Another Greek text from Palmyra dates from 83 A.D. The trade of Palmyra with the East is witnessed as early as 240 A.D. by a Greek text. In the third century the Palmyrenes assumed Roman names, but the texts are bilingual, the native Aramaic being the language of the populace, and Greek apparently that of the rulers and traders.

Under the great Emperors, Greek was the literary language not only of the East, but even in Rome itself. The inscriptions of Roman governors and military chiefs in the Haurân are in this age all written in Greek, and among these the most remarkable is the decree attributed to the Emperor Anastasius, which regulates trade and military affairs (Waddington, 1906). After the separation of the Empire, the language of Christianity in all parts of Syria continues to be Greek, though we have evidence that the native tongue and script continued also in use, and that Cufic was found in use among the Christian princes of the Haurân when the Moslems broke in from Arabia.

Latin was much less frequently used in inscriptions by the Roman rulers of Palestine than was Greek. A Latin text of Vespasian's at Beirut dates about the time of the fall of Jerusalem. The Roman milestones of the second century are also inscribed in Latin, and Roman funerary texts are in the same language. So too are the texts describing the making of the military road at Abila, and the dedication of the Baalbek temple; at Jerusalem the statue of Hadrian also bore a Latin inscription; two other texts occur at Husn Suleiman, and at Nejha (Wadd., 2720a, 2559); but the first of these, though headed with the Imperial order in Latin, whereby Valerian and Galienus confirm the ancient rights of the inhabitants of the town, contains the details of those rights in Greek. There are also two Latin texts at Bostra of the time of Marcus Aurelius. Hence it appears that Greek must have been much better known to the native population than Latin, and indeed it was evidently used much as French is now used in Turkey, as the diplomatic language.

It is evidently natural therefore that the Gospel, intended for Gentiles as well as for Jews, should have been written in Greek; and Josephus in like manner uses Greek in writing for the information of the Romans. As regarded the use of this language and character among the Jews themselves, we have various indications in the Talmud, which show considerable differences of opinion. According to the Babylonian Talmud

(Sota, 49 *a*) it was forbidden during the war against Titus to teach children Greek or "Ionian" (יוונית), but in the Jerusalem Talmud (*see* Buxtorff, col. 942) it appears that notes on the Scriptures were to be written in Greek, no doubt to prevent such notes from being copied afterwards as part of the text. The Rabbis allowed children to be taught Greek where it was necessary, and a knowledge of Greek was esteemed an accomplishment for girls. Even the phylacteries might, according to another account (Megella, 9, *a*), be inscribed in Greek. On the other hand, the more prejudiced view is expressed in the words, "cursed is he that rears swine, and he who shall teach his son the wisdom of the Greeks" (T. B. Sota, 49 *b*). Yet logic, arithmetic, and astronomy might be learned from Greeks. It appears even that the Greek translation of the Scriptures was used in Palestine in some synagogues. Rabbi Levi went to Cæsarea (which was reckoned to be outside the Holy Land) and found the Jews reading the *Shema* ("Hear, O Israel") in Greek. He desired to prevent this but Rabbi Jose approved it (Tal. Jer. Sota, vii). Another Rabbi said it was lawful to teach Greek wisdom (הבנית יוונית) to a son, in a time which should be neither day nor night—because of Psalm i, 2.

From such passages we may judge that the old hatred of the Greeks which dated from the days of Judas Maccabeus continued down to 500 A.D., yet that it was found impossible entirely to forbid the study of the Greek language.

It is now proposed to inquire what were the classes of society in contact with the Jews who must have spoken Greek even before the destruction of Jerusalem. Our guide in this matter is found in the foreign words used by the Jews.

The Rev. A. Löwy ("Proceedings Soc. Bib. Arch.," April, 1884) gives a good many such words, not all here enumerated, but he apparently includes very late Rabbinical writings not here mentioned. He classes as follows the technical words of the Hebrew Scriptures :—

Artificers' work	....	....	160 words.
Building	....	....	140 "
Implements	....	....	130 "
Garments	....	....	50 "
Food, drink, ointments	....	....	40 "
Weights and measures	....	....	35 "
Colours	....	....	15 "
Weaving...	....	....	130 "
			<hr/>
	Total	....	700
			<hr/>

The language of the Mishna is the literary language of the Jews of Palestine in the 2nd century of our era. It is much purer than that of later centuries, yet at least forty Greek and Latin words used in the

Mishna will be found in Buxtorff's great Lexicon. These which I have there noted are as follows¹ :—

אנסידרא	Ἐξίδρα	"Porch" (of the Temple), Middoth, i, 5.
אנגריא	Ἄγγαρος	"A porter," Baba Metzia (78, 1) cf. Mark xv, 21.
אינובלין	Ἰνωμελι	"Wine and honey," Sabbath (39 b).
אנפוריא	Amphora	"Wine jar," Baba Metzia, ii, 1.
אסטדיא	Stadium	"A city square," Aboda Sara (16).
איסטוא	Στοὰ	"A cloister," Nidda (59 b).
אכטרובלין	Στρόβιλος	"A millstone," Baba Bathra (65 a).
אכטרטיא	Στρατεία	"A name list," Kiddushin (76 a).
אכבלא	Ἐσχάρα	"A cooking pot," Pesakhim, vii, 1.
אסקוטלא	Scutella	"A dish," Moed Katon, iii.
אכר	Ἀσσάμοι	"A farthing," Cholin (end), Matt. x, 29.
אפיקומן	Ἐπίκωμος	"Dessert," Pesakh (119 b).
אפיקורוס	Ἐπικουρεὺς	"An Epicurean," Sanhedrin, xi, 1.
ברסיה	Βυρσεὺς	"A tanner," Ketuboth, vii.
זיתוס	Ζύζος	"Egyptian beer," Pesakh, iii, 1.
טבלא	Tabula	"A tablet," Erubin, v.
טופס	Τύπος	"A type," "copy," Gittin (26 a).
מלוגביא	Μάλαγμα	"A plaster," Shebiith, viii.
מרקולים	Mercurius	"Mercury," Aboda Sara, iv, 1.
נימוס	Νόμος	"Law," Gittin, vi.
ננס	Νάνος	Nanus, "dwarf" (pillar), Middoth, iii, 5.
סיטון	Σιτώνης	"A provisioner," Demai, ii, &c.
ספוג	Σπόγγος	"A sponge," Sabbath, xxi.
סרד	Συρικόν	"Syricum" (red colour), Kelim, xv.
פילא	φιάλη	"A vial," or "bowl," Sota, ii (Rev. xvi, 2).
פולמוס	Πόλεμος	"War," Parah, viii, 9.
פרגול	Περίγυρα	"Compass," Kelim, xxix.
פרקליטא	Παρακλήτος	"An advocate," Pirke Aboth, iv, 11 (1 John, ii, 1).
קטיגור	Κατηγορος	"An accuser," Pirke Aboth, iv, 11 (Rev. xii, 10).
פרוזבול	Προσβολή	"Defence," Sabbath, x, 3.
קולא	Κόλλα	"Paste" (for books), Pesakhim, iii, 1.

¹ Those cases in which [the chapter and verse is quoted I have, as a rule, verified in the Hebrew of the Mishna.

קולבון	Κόλλυβον	"Discount," "agio," Bechoroth, ix.
קוליים	Κολίας	"A species of fish," Sabbath, xxii.
קמוליא	Cimolia	"A kind of earth," Sabbath (89, 2).
קנון	Κανοῦν	"Basket," "sieve," Kelim, xvi.
קרדיקוס	Καρδιακός	"Heart disease," Gittin, vii.

These thirty-five words, to which others may perhaps be added, refer to government, law, medicine, coins, trade, and in two cases only to the Roman philosophy and religion. We may fairly conclude that the upper and middle classes with whom the Jews came into contact spoke Greek, and, as has been noted, some of the words are used in the Greek of the New Testament.

The relations of the Jews with Gentiles may be gathered from many passages in the Mishna which agree with the deductions thus reached. The tract on "strange worship" (*Aboda Sara*) contemplates trade with idolaters, but precautions were to be taken lest the Jew should even seem to encourage or take part in any idolatrous custom. The feasts of the idolaters are explained (1, 3) to be "the Kalends, the Saturnalia, and the Quartesima." Certain things were not to be sold to idolaters (1, 6), because they would be used for idolatry, but Jewesses were allowed to have pagan nurses for their babies (ii, 2). Medicine might be bought of pagans (ii, 3), but not for human disease, only for "property." Food might be prepared for them under certain restrictions (ii, 6), and cooking vessels bought from them (v, 12) if purified before use. It would seem, therefore, that the relations between the non-Jewish and Jewish population of the country must have been intimate.

The Jews themselves were engaged in trade. The most famous and honoured Rabbis were artisans or traders in many cases. The Jews are described in the Mishna (*Sheviith*, v, 6) as agriculturists; also (*Sabbath*, vii, 2; *Pesakhim*, iv, 6) as bakers, shearers, dyers, weavers, butchers, tanners, scribes, builders, goldsmiths, porters, tailors, barbers, washers, and shoemakers.¹ Many of these trades (especially as dyers) they continued to follow in the Middle Ages, and down to the present time in Palestine. A Jewish colony of traders was established in Palmyra in Zenobia's time, and their descendants were found there by Benjamin of Tudela about 1160 A.D. The trade with India and the East was as old as Persian times (*cf.* Ezek. xx, 19), and Josephus ("Contra Apion," 1-12) says that trade was carried on along the coasts. This is probably why the word Canaanite, or "lowlander," takes the meaning of "merchant" in certain passages of the Bible (*Job*, xl, 30; *Prov.*, xxxi, 24; *Isaiah*, xxxiii, 5; *Ezek.*, xvii, 4; *Zeph.*, i, 11). Yet it was not only by trade relations that the Jews came into contact with Gentiles, for we learn that "astronomy and geometry are ornaments of wisdom" (*Pirke Aboth*, iii, 18), and these

¹ In the twelfth century, Benjamin of Tudela speaks of the Jews in Palestine as shipowners, glass-makers, and dyers.

sciences we see that they were allowed to learn from the Greeks, though Josephus complains that his "nation does not encourage those that learn the languages of many nations" ("Antiq.," xx, xi, 2).

II.

We may next consider the foreign words, Greek and Latin, found in the Early Targums in the *Bereshith Rabba* (before 400 A.D.) and in the Jerusalem Talmud (*circa* 370 A.D.), of which about 200 are noted in Buxtorff's Lexicon. The large majority are Greek, as in the Mishna also. We have here to deal with a period when the capital had been removed from Rome to Constantinople; yet the use of Latin words is not entirely discontinued, and trade with Italy continued to exist. The words to be studied related to (1) government and the army; (2) medicine and disease; (3) trade; (4) the sea and sailors; (5) objects bought or sold, furniture, &c.; (6) the Pagan customs and idolatry; (7) philosophy, science, literature, and architecture; (8) names of trees and plants; and a few other words connected with the lower classes and with various other matters. These will be considered in order.

In this list it seems unnecessary to give references, since they can be found in Buxtorff, and since I have not the opportunity of verifying his citations, which, though in the case of the Mishna I have found generally correct, are here and there misprinted. The star put to certain words indicates that they also occur on the contemporary or earlier monuments of Palestine and Syria, due to the Romans and to the native Greek writing population.

GREEK WORDS.

1. *Government, Law, and the Army.*

אנדיקום	*Ἐνδικος	"Legal."
אותגטיא	Αὐθεντία	"Authority."
אטימיטון	*Ἀτίμητος	"Precious."
אכסיומא	*Ἀξιόμα	"A pleading or axiom."
אנטלר	(Ἐντελλω)	"A prefect."
אנטידיקום	*Ἀντίδικος	"An adversary."
אספיר	Σπείρα	"A cohort" (Matt. xxvii, 27).
אפופסין	*Ἀπόφασις	"Judicial sentence."
אפוקליט	*Ἐπικριτής	"A Judge."
איפרכיא	*Ἐπαρχία	"Prefecture"
* אפרכוס	*Ἐπαρχος	"Governor."
* אורכניס	*Ἀρχώνης	"Prince."
ארכיון	*Ἀρχεῖον	"Archives."

* בולושים	B. υλευτής	"Councillor."
* בסיליוס	Βασιλεὺς	"King."
גנים	Γενὰς	"Noble."
גינוסא	Γένεσις	"Birth."
הוגניסים	Ἐυγενεία	"Nobility."
הגמונא	Ἡγεμων	"A chief."
הגמוניא	Ἡγεμονία	"A prefecture."
זמי	Ζημιόω	"To fine."
זימין	Ζημία	"A fine."
טקסא	Τάξις	"Order," "arrangement."
טורנא	Τυράννος	"A ruler."
ארביודקי	Ἀρχίδικος	"Chief judge."
* מגיסמי	Μέγιστοι	"Magnates."
* מטרופולין	Μητρόπολις	"A metropolis."
מרגן	Μάραγγαν	"A scourge."
פרגול	Φραγελλιον	"A scourge" (Matt. xxvii, 26)
סנהדרין	Συνέδριον	"Sanhedrin" (also in Mishna).
כנקתדרון	Συγκάθεδρος	"An assessor."
פולימרכוס	Πολέμαρχος	"A captain."
פלסון	Φυλάσσω	"A guard."
פרוטגמא	Πρόσταγμα	"An edict."
קוזמוקרטור	Κοσμοκράτωρ	"Prince of the world."
* קורים	Κύριος	"Lord."
קלוסין	Κέλευσις	"A precept."
קלמין	Κάλλιμος	"Noble."
קלסטר	Κολαστής	"A torturer."
קומנטריסין	Κομενταρήσιος	"A criminal judge."
קריטיס	Κριτής	"Judge."
קתוליקוס	Καθολικιστὸς	"A treasurer."

2. *Medicine, Disease, and Doctors.*

אנדרלומוסיאה	(Ἄνδρὸς and λοιμὸς)	"Pestilence."
אסטומכא	Στόμαχος	"The stomach."
אסטניס	Ἄσθενης	"Ill."
אספרמקין	Φάρμακον	"Spices."
אפיפיטרוס	Ἴππίατρος	"A horse doctor."

בולמוס	Βούλιμος	"Diseased hunger."
גגדריופס	Κυνάνθρωπος	"Melancholy."
מיטוא	Μήτρα	"The matrix."
מלניא	Μελανία	"Melancholy."
תרפיון	Θεραπεία	"Medicine."
צפדינא	Σηπεδών	"Gangrene."

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3. Trade, Coins, and Weights.

אבריון	*Οβρυζον	"Fine gold" (Pliny, H.N. xxxiii, 3).
איניתא	*Ωνησις	"Sale."
אולוכריסון	*Ολόχρυσον	"Pure gold."
אמפורין	*Εμποροι	"Merchants."
דניסטס	Δανειστής	"Creditor."
דורון	Δῶρον	"Gift."
הבינין	*Ημίνα	"A coin" (tenth of sextarius).
טסברון	Θησαυρός	"Treasure."
כרכומא	χάλκωμα	"Ore," "bronze."
כריסון	χρυσόν	"Gold."
ברוספלה	χρυσοπέδιλος	"A gold anklet."
מילתא	Μηλωτή	"Lambs' wool."
סגוס	Σάγανον	"A seal."
ספרגוס	Σφαγίς	"A woollen dress."
* פונדיק	Πανδοκεῖον	"An inn."
פרגמטיס	Πραγματεὺς	"A merchant."
פרגמטיא	Πραγματεία	"Merchandise."
פרזביס	Πρέσβυς	"Messenger," "interpreter."
פורנא	Φέρνη	"Profit" (LXX, Exod. xxii, 15).
פראפרנון	Παράφερνα	"Bridegift."
קסטא	Ζεστῆς	"Sextarius, a coin."
קפילא	Κάπηλα	"A market."
תריטא	Τρίτη	"A third."
אנטיכריסיס	Αντίχρησις	"A kind of usury."

4. *The Sea and Sailors.*

אוקינוס	᾽Ωκεανὸς	"The ocean."
ארגסמוס	Ἄργεστος	"A storm."
גליני	Γαλήνη	"Smooth sea."
לבוס	Λευκός	"White" (fish).
למין	Λιμὴν	"A port."
נוטא	Ναυτῆς	"A sailor."
ניסא	Νῆσος	"An island."
פילגוס	Πελάγος	"The sea."

5. *Objects Bought and Sold.*

אטטולי	Στολή	"A robe."
גלוסקמא	Γλωσσόκομον	"A basket," or "box."
דיאטריטין	Διάτρητον	"A glass cup."
דיסקוס	Δίσκος	"A dish."
טרפניא	Τράπεζα	"A table."
לונבא	Λόγχη	"A lance."
מיטבסא	Μέταξα	"Silk material."
מילוטמיה	Μελίτωμα	"A sweetmeat."
פוטיריון	Ποτήριον	"A goblet."
פלכין	Πελέκυσ	"An axe."
פיקויל	Φάκελλος	"A cap."
קולרין	Κολλάριον	"A collar."
קילורין	Κολλῦριον	"Eye salve" (Rev. iii, 18).
קולבוס	Κολώσιον	"A kind of dress."
קובקוס	Κουκούμιον	"A pot."
קונבא	Κύναμον	"Cinnamon."
קרטייל	Κάρταλλος	"A basket."
קרובא	Καρούκα	"A chariot."

6. *Pagan Customs and Idolatry.*

אטליטין (Pl.)	Ἀθλητῆς	"Athlete."
אוקונין	Ἐικῶν.ον	"Image."
באן	Βαλανιὺς	"A bathman."
לונטיה	Δέντιον	"Towel" (John xiii, 4, 5).
מומוס	Μῶμος	"Comic mask."

מנמכוס	Μονομάχος	"A gladiator."
מסתורין	Μυστήριον	"A mystery."
נמפי	Νύμφη	"Nymph," "bride."
סיבנא	Σάβανον	"A towel."
פרוטגמיא	Προγαμέια	"A wedding gift."

7. *Philosophy, Science, Literature, Architecture.*

אוסיא	᾽Ουσία	"Substance."
אימירא	Ἡμερα	"Day."
אנדרוגינינוס	᾽Ανδρόγυνος	"Androgyne."
אנטיגרפא	᾽Αντιγραφη	"A copy."
אנגקי	᾽Αναγκη	"Fate," "necessity."
אסטרוולוגיס	᾽Αστρολόγος	"An astrologer."
אסכולי	Σχολή	"A school."
ארכיטוקטוס	᾽Αρχιτέκτων	"Architectus," "architect."
אורולוגין	᾽Ωρολόγιον	"A clock."
אתנסיאה	᾽Αθανασία	"Immortality."
בסיליון	Βασιλείον	"Royal."
כסילקי	Βασιλική	"A Basilica."
גריפוס	Γραφεύς	"A scribe."
דוגמא	Δείγμα	"Figure."
דיוטגמא	Διάταγμα	"A copy."
דונמיס	Δύναμις	"Power" (Gnostic term).
הדרוולה	᾽Υδραυλος	"An organ."
טטריגון	Τετράγωνος	"A tetragon."
כמרוסא	Καμάρωσις	"A vault."
קרקומין	Χαράκωμα	"A fortress."
מטכסא	Μεταξύ	"The centre."
מלתרא	Μέλαθρον	"A beam."
מנגנון	Μάγγανον	"A machine."
מיסון	Μέσον	"The middle."
סיסמא	Σύσσημον	"A sign."
סופיסטא	Σόφος, Sophista	"A wise man."
פדגוגא	Παιδαγωγός	"A schoolmaster."
* פילא	Πύλη	"A gate."
פנטגון	Πεντάγωνος	"A pentagon."
פנקס	Πίναξ	"A book."

פרדוקוס	Παράδοξος	"Paradoxical," "incredible."
קוזמיקון	Κοσμικὸς	"Ornaments."
קילון	Κήλον	"A canal."
קמין	Κάμινος	"Chimney."
* קמרון	Καμάρα	"A vault."
קפלא	Κεφάλαιον	"Capital" (of a pillar).

8. *Trees and Plants.*

אסמיוס	Ἰσάτις	"A purple flower."
אסמקטון	Στακτὴ	"Balm."
איסטרוביל	Στρόβιλος	"Pineapple," "fir cone."
אספראגוס	Ἀσπάραγος	"Asparagus."
בלסמין	Βάλαμον	"Balsam."
זנבילא	Κινναβαίς	"A kind of cedar."
טרגימא	Τραγήματα	"Fruits."
טרוקסימא	Τρωξιμός	"Endive."
מלפפוניא	Μηλοπέπωνες	"Melons."
פוליוטריכון	Πολύτρεχον	"A kind of herb" (Pliny, xxii, 21).
פיקטיון	Πύξινον	"Box wood."
פקסיון	Πυξὸς	"Box tree."
קיק	Κίκι	"Castor-oil tree."
קנבוס	Κάναβις	"Hemp."
קינרס	Κινύραρος	"Artichoke."
קקיל	Καυκαλὶς	"An herb."
קרינשון	Κέρινθον	"A kind of flower."
תורמוס	Θέρμος	"Lupine."
גוגידין	Γιγγίδιον	"An herb" (Pliny, xv, 5).

9. *The Lower Classes.*

אגריון	Ἄγριος	"Peasant."
אוכלוסא	Ὀχλος	"A mob."
דימוס	Δῆμος	"The people."
הדיוט	Ἰδιώτης	"A fellow."

10. *Other Words.*

אישימוס	Ἔτοιμος	"Prompt," "ready."
אימירון	Ἥμερος	"Tame."
אסיט	Ἄσωτος	"A guest."
אספטי	Σπάθη	"A sword."
איקונומוס	Οικονόμος	"Steward" (Luke xii, 42, &c.).
דימוס	Δεῖμος	"Fear."
המיונוס	Ἰμίονος	"Mule."
זומית	Ζωμός	"Juice."
כילוי	Χέλυς	"Tortoise shell."
כלינוס	Χάλινος	"A bridle."
למפד	Λαμπά(δος, gen.)	"Lamp" (Dan. v, 5, lxx).
לסטיוס	Ληστής	"Robber."
לוקוס	Λύκος	"Wolf."
מגוש	Μάγος	"Magian" (of Persian origin).
מגיריון	Μαγειρείον	"Kitchen."
מונטר	Ἄμυντήριον	"Armour."
סלפינגא	Σάλπιγξ	"Trumpet."
סימן	σημείον	"A sign."
סמרון	Σήμερον	"To-day."
סוניתא	Συνήθεια	"Custom."
סיס	Σῆς	"Small worm."
פיגוי	Πήγη	"Spring" (cf. عَيْن فَيْجِي <i>'Ain Fijî.</i>)
אפנטי or פנטי	Ἀπάνθησις	"Meeting."
פסנטרין	Ψαλτήριον	"Psaltery" (Dan. iii, 5).
אקלידא	Κλεῖς (Κλειδος)	"Key."
קתרוס	Κίθαρις	"Harp" (Dan. iii, 5).
סבנא or סבנא	Σαμβύκη	"Sackbut" (Dan. iii, 5).

With regard to the Greek in this list, the words are not always native to the Greek tongue. Suidas says that *Ἀγγapos* was a Persian word used by Greeks, and as the Talmudic **אנגריא** has not the Greek ending, it may have been separately derived. *Μάγος* also appears as *Magush* on the Persian monuments, and as the Talmudic **מגוש** is not spelt with **ס**, which usually represents the Greek **σ**, it is perhaps more probably derived straight from the Persian. *Ζύθος* may be an Egyptian word for beer, and *Σαμβύκη* is said by Strabo to have been a foreign word in Greek. But these represent a very few exceptions compared with the large majority

of true Greek words used by the Talmudic writers. χρυσόν for "gold" in Greek (*cf.* Sansk. *hiranya*, Zend. *Zaranya*) is believed to be of Semitic origin (Assyrian *hurasu*), the Hebrew being קָרִיץ (Ps. lxxiii, 14; Prov. iii, 14, viii, 10, xvi, 16; Zech. ix, 3), but the Talmudic כְּרִיסוֹן is clearly only a transliteration from the Greek.

LATIN WORDS.

אגוסטוס	Augustus	For an Emperor generally.
אסטרט	Strata (Italian <i>Strada</i>)	"A road."
לברניא	Liburne (pl.)	"A light vessel."
דומינוס	Dominus	"Lord."
טורמנטין	Tormenta	"Siege machines."
לימצא	Limax	"Snail."
מוניטה	Moneta	"Money."
מקילון	Macellum	"A meat market" (1 Cor. x, 25).
מרמר	Marmor	"Marble."
סודר	Sudarium	"A towel."
סטיוניר	Stationarius	"A sentinel."
ספוקלטור	Spiculator	"A satellite."
פלאטיון	Palatium	"A palace."
פוליטיקון	Politicum	"Civilised" (not rustic).
פולר	Folleralis	"Small coin."
פפיליון	Papilio	"A pavilion."
קלמריון	Calamarium	"An instand."
קולקס	Colocasia	"A plant so called."
קמיליא	Camella	"A kind of vase."
קנדייל	Candela	"A candle."
קנקל	Cancelli	"Rails."
קסיטוליון	Castellum	"A castle."
קדרינטס	Quadrans	"A coin."
קורליון	Corallium	"Coral."

There are other Latin and Greek words which might be added, but chiefly from late writings.

III.

The additional words of interest found in the Babylonian Talmud now follow, but do not represent the language of Palestine.

GREEK WORDS.

ἄηρ, "air" (also Targ. Jon.); Ξύλινος, "wooden"; Ξενός, "guest"; Ὀψώνιον, "military pay"; Στατήρ, "a coin"; Ορυζα, "rice"; Γαστήρ, "a pot"; Γύψος, "gypsum"; Διάγων, "diagonal"; Δάφνη, "laurel"; Τόμος, a "volume"; Τρυάνη, "a weight"; Τρισκελής, "a table"; Ιάσμη, "jasmine"; Μάχαιρα, "a sword"; Μέλιαν, "the ash-tree"; Μαλακία, "softness"; Μῶλος, "a weight"; Μομή, "an ulcer"; Συνήγορος, "an advocate"; Ἀμυλος, "unground"; Ποδαγρός, "Podagrosus"; Πίθος, "a vase"; Φολλίς, "a small coin"; Πομπή, "a pomp," or "ceremony"; Φανός, "lantern"; Παράδεισος, "a paradise"; Πρόσωπος, "face"; Κυβερνήτης, "rudder"; Κέδρος, "cedar"; Κώμη, "hair"; Κηρός, "wax"; Κώθων, "cup"; Κυνηγία, "hunting"; Καθέδρα, "chair"; Κρατός, "mighty"; Θήκη, "box."

LATIN WORDS.

Evangelium, "gospel"; *Stabula*, "stable"; *Castra*, "camps"; *Tribula*, thrashing machine"; *Notarius*, "notary"; *Polyypus*, "polyp"; *Familia*, "family"; *Furnus*, "oven"; *Comes*, "Count"; *Culamus*, "pen"; *Calathus*, "a vessel"; *Contus*, "a club"; *Costus*, "a sweet root"; *Velum*, "a veil"; *Patronus*, "master" (Midrash, Ps. 4); *Triclinium*, "table."

PERSIAN WORDS.

As might be expected in the literature of the Babylonian school, Persian words also occur, of which the following are instances:—

טונס, Tunny, Chelm, 66 *b*, said by R. Solomon to be Persian, and דנקא דאנ'קה, a coin known in Persian. The word שלטונה (سلطان) *Sultân*, used in the Targum, also comes from the East, and appears to be non-Semitic, though very ancient in Mesopotamia.

IV.

The language of the lower classes was not Greek. The עם הארץ, "sons of the soil" (a term also used in Phœnician for the populace), spoke an Aramaic dialect not very remote from that of the Jews of the same age. They have left us monuments of this speech in the Palmyrene, Nabathean, and Sinaitic inscriptions of the 2nd, 3rd, and 4th centuries, and in the Christian Cufic text of Harrân in the 6th century, before the Arab invasion.

It is interesting to note that some of the words above mentioned still survive in the peasant dialect of Palestine. The following are known to me as in common use:—

طاولا	"table"	טבלא	<i>Tabula</i>
اسفنج	"sponge"	ספוג	<i>Σπόγγος</i>

وقيه	"ounce"	אונקו	Ὄγκια
اصطبل	"stable"	אצטבלא	Stabulum
المينه	"port"	למין	Λιμὴν
תרעס	"lupine"	תורמוס	θήρμος
מרמר	"marble"	מרמר	Marmor
صابون	"soap"	ספון	Sapo (saponis)
صوفى	"wise man"	סופיסטא	Σόφος
بقس	"boxwood"	פקסינין	Πυξὸς
فردوس	"paradise"	פרדס	Παράδεισος
قمقه	"a pot"	קומקום	Κουκούμιον
قنديين	"candle"	קנדיל	Candela
خارطا	"map"	קרטים	Χάρτης, Charta
فانوس	"lantern"	פנס	Φανὸς
فندق	"inn"	פונדיק	Πανδοκείον
قلقس	"colocasia"	קילקס	Colocasia
قلم	"pen"	קולמוס	Calamus
فلوس	"small coin"	פולסא	Φόλλις

Though remarkably free from foreign words, considering the conditions, the Fellah dialect has absorbed Turkish, Persian, and Italian words in a few instances. Words relating to the Government and the Army are naturally Turkish. Other examples are:—کاشان "summer house" (Persian); کاورک "cucumber" (Persian); يَزَك "sentinel" (Turkish); سكملا "stool" (*scamnum*, also Persian and Turkish); طواد "pot" (Turkish); رشته "macaroni" (Persian); علقيق "wages" (Persian); زط "gypsy" (Persian جت = gitano); ستف (*stivare*, Italian); ميزا "sweetmeat" (Persian); طنجرد "a copper" (Turkish); سرمايه "slipper" (Persian); اوجباري "workman" (Persian اجبرم); اوجبا "room" (Turkish); برتقانه "orange" (Portugallo, Italian); برج "tower" (Italian, *Borgo*); مناجريا "food" (Italian *mangiari*, "to eat"). The weights مد *Modius*, وقيه "ounce," رتل *Διτρα*, are of more ancient

origin, as noted by Mr. Guy L'Estrange ("Palestine under the Moslems," p. 48). These foreign words have, as we see, in many cases come down among the peasantry from the time of our Lord. In others they denote the influence of later civilisation, Persian, Greek, Turkish, and Italian, on the peasantry, exactly as foreign influence on the Jews is marked by the 280 words detailed in this paper.

C. R. CONDER.

MONUMENTAL NOTICE OF HEBREW VICTORIES.

MOST of the Tell Amarna tablets refer to affairs in the north of Syria, but three appear to refer to the south of Palestine, as rendered by Professor Sayce ("Proc. Soc. Bib. Arch.," June 4, 1889, and June 5, 1888). These letters are as follows:—

"To the King my Lord and my father I speak, T . . . thy servant. *Arudi* . . . seven times and eight times I smote . . . when he made a raid, *Milki*, son of *Maratim*, against the country of my Lord the King, commanding the forces of the city of *Gaturri*, the forces of the city of *Gimti*. He took the country of the city of *Rubate*, (belonging) to the country of the King for the *Abiri* people. And again entirely the city of the Hill of *Ururusi*, the city of the House of Baal, whose name is *Marru*, (belonging to) the place of the men of the city of *Kilti*. And twelve cities of the King he led into revolt and . . . (belonging to) the country . . . of the men of the race of the *'Abiri* . . ."

The second letter—

"To the King my Lord, my God, my Sun, by letter I speak, Suardaka, thy servant, the dust of thy feet, at the feet of the King my Lord, my God, my Sun, and seven times seven I prostrate myself.

"The King of the Land of . . . gave command to make war. In the city of *Kilti* he made war against thee the third time. A complaint was brought to me. My city belonging to me (. . . to me). *Ebed Tob* sent to the men of *Kilti*. He sent 14 pieces of silver, and they marched against my rear, and overran the domains of my Lord the King. *Ebed Tob* removed my city from my jurisdiction. The . . . of my Lord the King and the fortress of *Baal Nadanu*, the fortress *Emeri* from him and his justice he removed. *Lubapi* (or perhaps *Laaba*, "the lion") with (wicked) speech he, together with *Ebed Tob*, occupied the fortress of . . .
nu . . ."

The third letter—

". . . and again the city of *Pir* . . . a fortress which is east of this country, I made faithful to the King. At the same time the city of *Khazati* (or *'Azati*), belonging to the King, which is on the shore of the sea west of the land of the city of *Gimti* *Kirmila* fell away to *Urki*, and the men of the city of *Gimti*. In . . . I rode a second time, and then we marched up and *Labapi* (or *Labaa*), and the country which thou holdest revolted a second time to the *'Abiri* people with *Milki-Aril*, and he

took the sons as (hostages). Also he makes request to the men of the land of *Karti*, and then we defended (or perhaps "became free") the city of *Urursi*; all the men of the garrison whom thou hadst left in it, *Khapi*, my envoy collected. *Addasirakan* (is) in his house in the city of *Khazati* (or 'Azati)"

With regard to these letters, Professor Sayce has recognised the names of several of the towns as places in the south of Palestine as follows:—

Kirmila is probably Carmel of Judah, south of Hebron.

Ginti, mentioned with Ashdod by Sargon, is supposed by Dr. Delitzsch to be Gath.

Kilti—the Hebrew Keilah, now *Kila*.

Karti, one of the places called Kirjath.

Gaturri, probably Gedor or Gederah.

Khazati, or 'Azati, Gaza. In this case the cuneiform *Kha* stands for the Hebrew guttural *Ain*.

Urursi is a doubtful reading, and Professor Sayce is tempted to read *Eru-sha-lim*, or Jerusalem.

Aril is the Hebrew Ariel, "the Altar of God."

As regards the people of the 'Abiri, Professor Sayce reads *Khabiri* "confederates," but, as above noted, the cuneiform *Kha* stands in the name of Gaza for the Hebrew *Ain*, and indeed 'a is one of the values of this sign.

It is evident that there was a general outbreak of people from the Judean mountains into the plains, even Gaza being taken from the Egyptian governor. What I would now urge is that the 'Abiri are the Hebrews (Hebrew 'Abri'), and that this account represents the victories of two Hebrew chiefs called Arod and Ebed Tob. The first is a Hebrew name, "the wild ass" (Num. xxvi, 17), which belonged to an important family of the tribe of Gad. *Ebed Tob*, "the servant of the Good (or just) One," might also be a Hebrew name. Labapi, or Labaa, was apparently a deserter who joined them. If this explanation be correct, we have in these letters the earliest notice of the Hebrews in existence, and a contemporary account of the wars of Joshua, or of his successors, in the Philistine plains.

The objection which will be taken to this view is that the letters belong to an age before the Exodus. They were written either to Amenophis III, or to Amenophis IV, about 1450 B.C., and scholars as a rule have accepted, unquestioned, the date of the Exodus given by Dr. Brugsch, about 1300 B.C., but the argument on which this is founded is of the most unsatisfactory nature, and several scholars of late have rejected this late date, and have placed the Exodus earlier.

¹ The word *Abiru*, plural *Abiri*, means the people from beyond; either referring to the Abarim or regions beyond Jordan, whence the Israelites came, or, as is more generally supposed, to a derivation from beyond the Euphrates (see Gesenius' *Lexicon*).

In the 1st Book of Kings (vi, 1) it is stated to have been 480 years from the 4th year of Solomon to the date when "the children of Israel were come out of the Land of Egypt." The 4th year of Solomon dates about 1014 to 1011 B.C., and is fixed by the date of Necho, King of Egypt.

If we accept the Bible account, the Exodus, according to the Hebrew version, must have occurred either 1480 B.C. or 1520 B.C., approximately, according as we understand the 40 years in the wilderness to be included in the 480 years. Consequently the conquest of Palestine coincided with the latter years of the reign of Amenophis III, and the reign of his weak successor Amenophis IV, who, as we see from these letters, were not able to resist the rebellion in South Palestine, while in North Syria their Governors were being attacked successfully by the Hittites.

The Baal whose name was *Marru*, recalls the word *Mara* or *Marna*, "Lord" or "our Lord," applied by the people of Gaza to their chief god. The Melech, son of Marratin, might perhaps be the "King ruler (*mar*) of Marrati, which recalls the town of Maarah, now Beit Ummâr, in Judah.

Milki Aril might mean "King of Ariel," which appears to have been a name for Jerusalem (Isaiah xxxiii, 7). "The city where David encamped," as in the Bible Melech Arad is "the King of Arad."

Gaturri I should suppose to be *Gederothaim*, near Beit Jibrin and Gath, now *Khurbet Jedîreh*.

The country east of Gaza is described as that of Gath and Carmel, two of the most important towns of that region.

Karti I should suppose to be either Kirjath Jearim, or Kirjath of Benjamin (Kuriet el 'Anab).

As far as I am aware, this suggestion as to the 'Abiri being Hebrews is new, and I am not aware of any objection that can be raised against it, except that of date, which is not really tenable. It seems to me that we have to do with the time immediately following the death of Joshua, and before the bondage under Sisera, who lived in the days of Rameses II, and whose name appears to me to be Egyptian, viz., *Ses-ra*, "the servant of Ra," who oppressed Israel with iron chariots. Iron was known in Egypt in this age.

It is a very important fact that the Egyptian Governors of this period, whose names are Semitic—apparently Assyrian or Babylonian—use the cuneiform character in writing. It was apparently used by the educated class in Phœnicia, and among the Hittites also in one instance at least, as well as by this unfortunate Governor, whose name Suardaka is also Assyrio-Babylonian.

It seems to me that we may thence deduce that the alphabet was not invented in 1450 B.C., and when we reflect that the earliest alphabetic texts yet known are not older than about 900 B.C., this seems to be probable. About the time of David the power of both Assyria and Egypt had declined, and it is about this time that the alphabet begins to appear, as a native script of the Hebrews, Phœnicians, Moabites, and Arameans, who were then subject neither to Assyria nor to Egypt.

The three letters here quoted are thus the earliest monumental notices of the Hebrews, carrying back our history to the time of the conquest; while Hittite history is carried back even to 1600 B.C. in the annal of Thothmes III.

SOUTHAMPTON,
16th June, 1890.

C. R. CONDER.

NOTES ON THE QUARTERLY STATEMENT,
JULY, 1890.

Identifications.—Mr. Flinders Petrie says that in fixing ancient sites we have been obliged to “trust to names,” but such a method is not safe by itself. I have often pointed out that ancient remains must also occur. We have trusted mainly to the *form of tomb*, which has now been established in consecutive periods. I regard this as perhaps safer than deductions from pottery; which are apt to mislead.

Pillar at Tell el Hesi.—It is important to have a drawing of this. Pillars such as Mr. Flinders Petrie seems to describe were used by the Romans in Palestine. Still the volute was used in Assyria (or in Elam) about 600 B.C., and in later times in Phœnicia.

Isaiah's Chapel.—This illustrates the mediæval notice of Isaiah's Tomb (traditionally so-called) by the Bordeaux Pilgrim, speaking of the Kedron Valley: “in unum positus est Isaias Propheta et in alium Ezechias rex Judæorum.”

John of Wirzburg places the Quercus Rogel at Siloam, where Isaiah was said to have been slain. Isaiah's tomb is also mentioned in the “Citez de Jherusalem.”

Drafted Masonry.—No monument is known in Phœnicia with such masonry before the Greek period. The old part of the Tyre aqueduct, which is pretty certainly Phœnician work, is not drafted. It is curious that so little is ever said in considering this question of the palace at Arak el Emir, which is described in the “Eastern Survey Memoir.” Here we have masonry very like that of the Jerusalem Haram, dating from 176 B.C.

It is also curious that all writers assume the marks on the lower courses of the temple wall to be Phœnician letters. That Dr. Deutch thought they were so is well known, but when he wrote we knew very little of such matters. The chief group of these markings does not recall any Phœnician shapes, and another mark H is certainly not an early Phœnician form. It is the form of the letter H , as used about the Christian era, or it might be the Greek H . The only other distinct sign, † is most like the Greek Γ (*Gamma*). There is not a single clearly Phœnician letter among the marks on the wall. Greek mason letters occur at Baalbek.

Lachish.—There is no reason for accepting Umm Lakis as Lachish on

account of name. It is spelt *أم لقس*, and the letter *ق* is the Hebrew *ק*. The place is the *Mulagues* of the Crusaders, so that the *M* is not a modern addition. On the other hand, *מ* and *נ* are often interchanged, and consequently *Elhesy* is much closer to Lachish as a word than any other name in the region. Robinson's errors, unfortunately, survive as well as his great discoveries.

Sun-Birds.—The sun-birds of Jaffa are mentioned in "Tent-work in Palestine."

Sutekh.—Mr. St. Clair seems to forget that we have a statue of this god. He is represented with a head resembling that of an ass, and *Set* was ass-headed, according to the Patristic writers. *Set Ra* also has the *Set* head, apparently of an ass. For this reason I have supposed that the ass-headed god of the Hittite hieroglyphs was Sutekh or Set.

THE GUTTER (Tsinnor).

In Mrs. Finn's identification (*supra* 195) of the "Gutter" (ii. Sam., v. 8) with the great aqueduct under Robinson's arch, two points seem to call for notice.

1. The wall that cuts through the rock-hewn cistern connected with that aqueduct is *Herodian*, not Solomonic. In "Jerusalem Recovered," p. 319, Sir C. Warren writes, "A square of 300 feet at the south-west angle I suppose to have been built by King Herod." The cistern is only 150 feet north of that angle, so that only by a misapprehension can it be said to be demonstrated that the aqueduct existed before Solomon built the Temple.

2. Two passages are quoted from Josephus ("Wars" V, iv. 1, and "Ant." VII, iii. 1), and are said to establish the identity of Zion, the city of David, with the Upper City, or Market-place. But if here, in the "Wars," Josephus practically in one instance speaks of the Upper City as being the fortress which Joab entered, still in his later work, the "Antiquities," he *four times* distinctly describes the very same fortress as the Acra; and every reader of the "Wars" will know that the Upper City and the Acra were two distinct hills. It is most unreasonable to suppose that Josephus, who was well acquainted with Jerusalem, should repeatedly in the "Wars" give the existing title of Acra to one hill, and afterwards in the "Ant." give the very same title to the other. To do so would be utterly to bewilder, and not to instruct his readers. If, however, he found out the error of his solitary statement in the "Wars," that "the Upper City was called the Citadel (*φρούριον*) by David," he would, like an honest writer, correct his mistake in his later work.

Again, if here, in the "Wars," Josephus practically places the city of David (in whole or part) on the Upper hill, it must also not be overlooked that 1 Maccab. recognises Acra alone as the site of the city of David, and that in the Biblical passages, in four cases at least out of the five, the

part of Jerusalem described as the city of David must be that which was afterwards called the Acra.

As I stated in *Quarterly Statement*, 1888, 108, the City-of-David question is really as clear as a sunny noon, and as easy as A B C, until Josephus' guesses at truth are weakly taken to be truth. It is certainly remarkable that generations of writers should, in this one instance in the "Wars," accept Josephus as infallible, and shut eyes and ears alike to all the counter evidence in the "Antiquities," 1 Maccab., and the Bible. Surely it is time to cease doting over one casual observation, and to take in the new idea that Josephus could change his view as well as his side.

W. F. BIRCH.

GIHON.

REFERRING to the Rev. W. F. Birch's remarks on my paper respecting Gihon : (1) I cannot share his view that it is "most unsatisfactory to have to take 1 Kings i, 33, 45, as speaking proleptically." Such prolepsis in connection with names of places is repeatedly met with in the Old Testament. Thus, in Gen. xii, 8, we read that Abraham "pitched his tent, having Bethel on the west and Hai on the east;" although from Gen. xxviii, 19, we learn that the place got its name of Bethel from his grandson a century and a half later. Unless, indeed, there were two Bethels. In 1 Sam. iv, 1, we read that the Israelites "pitched beside Ebenezer;" whilst from 1 Sam. vii, 12, it appears that the place was not so named until many years later. Unless, indeed, there were two Ebenezers. (2) The date of the construction of the tunnel is a point upon which I did not venture to speculate, there being so few data from which to form an opinion. That such "a gigantic work," as Mr. Birch justly calls it, should have been constructed in haste I find it hard to believe, as for the greater part of its extent only two men could have worked at the same time, namely, one at each end. And if relays of labourers were employed so that the work might go on without intermission, a very long time must still have been consumed in completing the task. I am rather inclined to think that Hezekiah's work of stopping the upper outflow and bringing down the water to the west side of the City of David only involved the short side tunnel and Warren's shaft. Perhaps the same king may have excavated the whole canal in the peaceful days which preceded and followed Sennacherib's invasion. (*Ecclesiasticus* xlvi, 17.)

THOMAS CHAPLIN, M.D.

NOTE ON FIGURES IN THE CAVE OF SARÍS.

WITH reference to the figure on the *east* wall (*Quarterly Statement*, April, 1890, p. 71), presumably that of our Blessed Lord on the Cross, I venture to suggest that the ornament on the face represents only incisions in the rock wherein to impress the features, probably worked out in plaster. The whole figure seems flat, and may originally have had the *bodily* form worked out in the same medium.

The eight lines above the head may represent the nimbus.

R. F. HUTCHINSON, M.D

"MÁLULÁ AND ITS DIALECT," BY F. J. B.

THIS interesting paper would have been more valuable if the sounds of the vowels had been accented, as a guide to pronunciation. Without marks we are in doubt.

Thus on page 88, *hsôn* (my horse) the circumflex does not tell us exactly whether the word is *hsôn* or *hsõn* or *hsñn*.

The close resemblance of many of the (?) Málulá words to their analogues in Híndústání is curious. Thus on page 89--

M.	E.	H.
Raisha.	Head.	Rás Ráis-lōgh (head people).
'Aina.	Eye.	Āinā (<i>lit.</i> , glass).
Furshta.	Bed.	Fārsh.
Sejratha.	Tree.	Shājār.
Hwoya.	Air.	Hāvá.
Ara.	Ground.	Ārází.
Shoptha.	Week.	Hāftāh.
Shimsha.	Sun.	Shāms.
Nura.	Fire.	Nūr (lustre).
(Page 91) Kutal.	He killed me.	Qātlkiya.

I might multiply examples, but these will suffice to illustrate my position.

R. F. HUTCHINSON, M.D.

20th July, 1890.

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