

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  $26^{\circ}$  in August, to  $58^{\circ}$  in March. In the year 1880 these numbers varied from  $25^{\circ}$  in August to  $53^{\circ}$  in both April and May ; in 1881 from  $29^{\circ}$  in both July and September to  $51^{\circ}$  in May ; in 1882 from  $25^{\circ}$  in August to  $47^{\circ}$  in November ; in 1883 from  $25^{\circ}$  in July to  $62^{\circ}$  in March ; in 1884 from  $24^{\circ}$  in February to  $51^{\circ}$  in April ; in 1885 from  $22^{\circ}$  in July to  $52^{\circ}$  in March ; in 1886 from  $26^{\circ}$  in August to  $55^{\circ}$  in June ; and in 1887 from  $27^{\circ}$  in July to  $54^{\circ}$  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,  $61^{\circ}7$ , is in January. In the years 1884, 1885, 1886, and 1887, the lowest was in January as in this year ; in 1881, 1882, and 1883 in February, and in 1880 in December. The highest,  $88^{\circ}5$ , is in July, whilst that in August is of nearly the same value, viz.,  $88^{\circ}4$ . In the year 1880, the highest was in May ; in 1881, 1883, 1884, 1885, 1886, and 1887 in August, and in 1882 in September. Of the low night temperature, the coldest,  $44^{\circ}9$ , was in January ; in the years 1880, 1882, and 1884 the coldest was in January as in this year ; in 1883, 1885, and 1887 in February, and in 1881 and 1886 in December. The warmest,  $70^{\circ}3$ , was in August ; in the year 1885 the warmest was in July, and in the years 1880, 1881, 1882, 1883, 1884, 1886, and 1887, the warmest was in August as in this year. The average daily range of temperature is shown in column 10 ; the smallest,  $15^{\circ}6$ , is in December ; in the years 1880, 1883, 1885, 1886, and 1887, the smallest was in January, and in 1881, 1882, and 1884, in February. The greatest range of temperature in any month,  $24^{\circ}4$ , was in March ; in the years 1884 and 1887 the greatest was in April, in 1880 and 1885 in May, in 1881 in June, in 1883 in September, and in 1882 and 1886 in October.

In column 11, the mean temperature of the air is shown, as found from observations of the maximum and minimum thermometers only. The month of the lowest temperature,  $53^{\circ}3$ , was in January. In the years 1880, 1884, 1885, 1886, and 1887, the lowest was in January, as in this year ; in 1881 and 1882, in February ; and in 1883, in December. That of the highest,  $79^{\circ}4$ , was in August, as in the eight preceding years. The mean temperature of the air for the year was  $67^{\circ}7$ , and of the eight preceding years, viz., 1880, 1881, 1882, 1883, 1884, 1885, 1886, and 1887, were  $66^{\circ}4$ ,  $66^{\circ}7$ ,  $65^{\circ}5$ ,  $65^{\circ}7$ ,  $65^{\circ}7$ ,  $65^{\circ}9$ ,  $66^{\circ}8$ , and  $66^{\circ}5$  respectively.

The numbers in columns 12 and 13 are the monthly means of a dry and wet-bulb thermometer, taken daily at 9 a.m. In column 14 the monthly temperature of the dew-point, or that temperature at which dew would have been deposited, is shown. The elastic force of vapour is shown in column 15. In column 16 the water present in a cubic foot of air is shown ; in January it was as small as  $3\frac{1}{2}$  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

MONTHLY METEOROLOGICAL TABLE DEDUCED FROM OBSERVATIONS TAKEN AT SARONA BY HERR J. DREHER IMMEDIATELY NORTH OF THE GREAT ORANGE GROVES OF JAFFA, SYRIA,  $1\frac{1}{2}$  MILE 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, 1888.	Pressure of Atmosphere in Month. Corrected to $32^{\circ}$ Fahrenheit.					Temperature of the Air in Month.					Mean Reading at 9 a.m.			Vapour, 9 a.m.			Degree of Humidity.	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.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm, or nearly Calm.	Number of Days on which it fell.	Amount Collected.				
	in.	in.	in.	in.	°	°	°	°	°	°	grs.	grs.	grs.	grs.	grs.	grs.	grs.	0	1	3	1	13	2	0	2	9	5·6	11	ins. 4·94			
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	0	1	13	8	3	6	1·7	0	0·00
September .. .. ..	29·948	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 dryest month is 54 in March, and the largest, 83, indicating the wettest month, was in December. The weight of a cubic foot of air under its mean pressure, temperature, and humidity, at 9 a.m., is shown in column 19.

The most prevalent wind in January was S., and the least prevalent winds were N. and W. In February the most prevalent were S.W. and S., and the least were N.E. and N.W. In March the most prevalent were S. and S.W., and the least were N., E., and N.W. In April the most prevalent were W. and S.W., and the least were N. and N.E. In May the most prevalent were N.W., W., and S.W., and the least were N.E., S.E., and S. In June, July, and August the most prevalent were W. and S.W., and the least were N., N.E., E., S.E., and S. In September the most prevalent were S.W. and N.W., and the least were N.E., E., and S.E. In October the most prevalent were S.E. and N.W., and the least was N.E.; and in November and December the most prevalent was S., and the least were N. and N.W. The most prevalent wind for the year was S.W., which occurred on 86 different days in the year, and the least prevalent wind was N., which occurred on only six times during the year.

The numbers in column 29 show the mean amount of cloud at 9 a.m. The month with the smallest is June, and the largest February. Of the cumulus, or fine weather cloud, there were 106 instances in the year, of which 24 were in September, 16 in July, and 15 in June. Of the nimbus, or rain cloud, there were 63 instances, of which 15 were in December and 10 in both January and November, and only 5 from May to September. Of the cirrus there were 64 instances; of the cirrocumulus 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.