Results of Meteorological Observations Taken at Jerusalem in the Year 1887

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These long centuries of watching in the darksome cave have not wearied them, nor hath the age-long fast in any degree impaired their natural force.

Belief in these stores of hidden treasure is kept alive by occasional discoveries of coin. Only a few months before my visit, a workman, digging for a foundation in Bozrah, came upon a jar full of old silver and golden coins. Several who were working near him heard of his find, and gathering round him, a promise of silence was exacted from each, and the treasure trove was divided among them. But there were too many to keep a secret. By and bye the Government got wind of the affair, and all suspected of connection with it were promptly arrested. The erewhile fortunate men were soon detected, and, as the price of freedom, had to disgorge their share of the treasure. One man, however, stoutly maintained his innocence of the whole concern, and he was still being afforded leisure to revise his declaration in one of his Imperial Majesty's prisons. This was all decidedly discouraging. Yet every man of these folk trusts that one day he will stumble across concealed wealth, which will make him independent of work during the rest of his natural life.

A very long-winded fellow now took up his parable, and retailed to the company, who listened with breathless eagerness, a tale, which was simply an Arabic variant on the old Greek story of the fair but faithless Helen and the beautiful but unworthy Paris. The variations were eminently to the Arabian taste. I gathered myself quietly into my "shoe"; the sound of the tale-teller's voice, in its monotonous half-chant, acted as a lullaby, and soon I was far away in the land of dreams, where the supernatural is ever at home.

(To be continued.)

RESULTS OF METEOROLOGICAL OBSERVATIONS TAKEN AT JERUSALEM IN THE YEAR 1887.

By JAMES GLAISHER, F.R.S.

THE numbers in column 1 of this table show the highest reading of the barometer in each month; of these the highest appear in the winter, and the lowest in the summer months. The maximum for the year, 27·709 inches, is in February. In column 2 the lowest reading in each month is shown; the minimum for the year, 26·978 inches, is in January. The range of readings in the year was 0·731 inch. The numbers in the 3rd column show the range of readings in each month, the smallest, 0·129 inch, is in July; and the largest, 0·730 inch, is in January. The numbers in the 4th column show the mean monthly pressure of the atmosphere, the highest, 27·478 inches, is in October; and the lowest, 27·248 inches, in August. The mean pressure for the year was 27·381 inches. At Sarona the mean pressure for the year was 29·822 inches.

MONTHLY METEOROLOGICAL TABLE

(To face p. 184)

Deduced from observations taken at Jerusalem, by JOSEPH GAMBL, in a garden well within the city, about 2,500 feet above the level of the Mediterranean Sea, open on all sides.
Latitude, 31° 46' 40" N., Longitude, 35° 13' 30" E.

Months.	Pressure of atmosphere in month.				Temperature of the air in month at 9 a.m.										Mean readings at 9 a.m.			Vapour at 9 a.m.			Direction of Wind. Relative proportions of.							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 of vapour in a cubic foot of air.	Additional weight required for saturation.	Degree of humidity.	Weight of a cubic foot of air.								Mean amount of cloud.	Number of days on which it fell.	Amount collected.	
																				N.	N.E.	E.	S.E.	S.	S.W.	W.				N.W.
1887.	in.	in.	in.	in.	°	°	°	°	°	°	°	°	°	°	grs.	grs.	grs.	°	grs.										in.	
January	27.708	26.978	0.730	27.375	62.0	27.0	35.0	50.5	34.5	16.0	42.5	46.3	42.8	38.9	.237	2.8	0.9	76	501	1	6	5	4	0	8	3	4	5.2	12	12.45
February	27.709	27.231	0.478	27.455	73.5	31.0	42.5	55.2	40.3	14.9	47.8	50.4	44.6	38.5	.234	2.7	1.5	64	499	5	3	8	2	1	2	3	4	5.2	6	4.16
March	27.567	26.995	0.562	27.416	79.8	30.5	49.3	61.9	42.5	19.4	52.2	54.3	48.0	41.9	.265	3.0	1.8	63	494	1	4	7	2	0	4	5	8	4.4	8	3.75
April	27.551	27.078	0.473	27.338	85.5	40.5	45.0	75.2	50.5	24.7	62.8	61.1	54.3	48.4	.340	4.1	1.9	68	486	0	2	5	8	5	2	4	4	5.9	2	0.85
May	27.635	27.253	0.382	27.398	94.0	38.5	55.5	76.9	52.3	24.6	64.6	70.6	55.6	44.1	.290	3.2	5.0	39	478	6	3	2	3	0	3	3	8	1.7	2	1.25
June	27.430	27.246	0.184	27.319	97.8	32.0	45.8	86.9	59.1	27.8	73.0	78.6	65.1	55.8	.446	4.7	5.7	45	469	4	1	0	0	1	4	3	8	0.8	0	0.00
July	27.315	27.186	0.129	27.254	97.8	54.0	43.8	89.0	62.0	27.0	75.5	82.0	67.5	57.7	.478	5.1	6.6	44	465	2	0	0	0	0	1	9	19	1.1	0	0.00
August	27.321	27.174	0.147	27.248	102.0	56.0	46.0	91.9	61.8	30.1	76.8	84.5	75.4	69.4	.720	7.6	5.0	60	461	3	0	0	0	0	0	16	12	1.3	0	0.00
September	27.586	27.253	0.333	27.371	96.5	51.0	45.5	87.0	57.6	29.4	72.3	79.8	70.1	63.5	.585	6.2	4.7	57	468	6	1	0	0	1	1	12	9	1.3	0	0.00
October	27.578	27.377	0.201	27.478	94.0	51.0	43.0	89.0	60.4	28.6	74.7	83.4	71.1	63.0	.574	6.0	6.1	50	467	2	7	2	5	0	3	6	6	2.1	0	0.00
November	27.576	27.339	0.237	27.462	82.5	38.0	44.5	70.7	46.6	24.1	58.6	65.9	59.7	54.7	.428	4.7	2.3	63	483	3	4	1	3	2	3	6	8	3.8	4	0.60
December	27.615	27.263	0.352	27.452	65.0	28.0	37.0	57.0	37.4	19.6	47.2	53.1	49.6	46.1	.312	3.5	1.0	77	496	0	6	5	3	2	6	3	6	5.0	12	6.72
Means	27.548	27.197	0.351	27.361	85.9	41.5	44.4	74.3	50.4	23.9	62.3	67.4	58.7	51.8	.409	4.5	3.5	59	481	sum. 33	sum. 37	sum. 35	sum. 30	sum. 12	sum. 37	sum. 73	sum. 108	3.1	sum. 46	sum. 29.81

The highest temperature of the air in each month is shown in column 5. The highest in the year was 102° on August 21st ; on this day at Sarona the maximum temperature was 91° . The first day in the year the temperature reached 90° was on May 9th, and there were 7 other days in this month when it reached or exceeded 90° ; in June there were 9 days ; in July 15 days ; in August 18 days ; in September, 9 days ; and in October 14 days. Therefore the temperature reached or exceeded 90° on 73 days in the year. At Sarona the temperature reached or exceeded 90° on 25 days in the year ; the highest at Sarona, viz., 100° , took place on October 29th ; on this day at Jerusalem the maximum temperature was 89° ; the first day the temperature reached 90° was on April 10th.

The numbers in column 6 show the lowest temperature of the air in each month ; the lowest in the year was $27^{\circ}\cdot 0$ on the 23rd, 26th, and 27th of January ; the temperature was below 40° in January on 28 nights ; in February it was below 40° on 17 nights ; in March on 11 nights ; in May on 2 nights ; in November on 1 night ; and in December on 25 nights. Therefore the temperature was below 40° on 84 nights in the year. The yearly range of temperature was $75^{\circ}\cdot 0$. At Sarona the temperature was below 40° on only 15 nights in the year ; the lowest in the year, $32^{\circ}\cdot 5$, took place on January 28th. The yearly range of temperature at Sarona was $67^{\circ}\cdot 5$.

The range of temperature in each month is shown in column 7, and these numbers vary from 35° in January to $55^{\circ}\cdot 5$ in May. At Sarona the range of temperature in each month varied 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, $50^{\circ}\cdot 5$, is in January, and the highest, $91^{\circ}\cdot 9$, in August. At Sarona of the high day temperature the lowest, $63^{\circ}\cdot 4$, was in January, and the highest, $88^{\circ}\cdot 5$, in August.

Of the low night temperature, the coldest, $34^{\circ}\cdot 5$, is in January, and the warmest, 62° , in July. At Sarona, of the low night temperature, the coldest, $44^{\circ}\cdot 0$, was in February, and the warmest, $69^{\circ}\cdot 1$, in August.

The average daily range of temperature is shown in column 10 ; the smallest range, $14^{\circ}\cdot 9$, is in February, and the largest range, $30^{\circ}\cdot 1$, is in August. At Sarona, of the average daily range of temperature, the smallest, $18^{\circ}\cdot 5$, was in January, and the largest, $25^{\circ}\cdot 1$, was in April.

In column 11 the mean temperature of the air in each month is shown, as found from observations of the maximum and minimum thermometers only. The month of the lowest temperature is January, $42^{\circ}\cdot 5$, and the month of the highest, August, $76^{\circ}\cdot 8$. The mean temperature for the year is $62^{\circ}\cdot 3$. At Sarona, of the mean temperature, the month of the lowest was January, $54^{\circ}\cdot 1$, and that of the highest, August, $78^{\circ}\cdot 8$; the mean temperature for the year at Sarona was $66^{\circ}\cdot 5$.

The numbers in columns 12 and 13 are the monthly means of a dry and wet-built thermometer taken daily at 9 a.m., and in column 14 the

mean 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 in January and February is as small as $2\frac{3}{4}$ grains, and in August as large as 7.6 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 39 in May, and the largest, 77, indicating the wettest month 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 wind in January was S.W., and the least prevalent was S. In February the most prevalent was E., and the least was S. In March the most prevalent winds were N.W. and E., and the least was S. In April the most prevalent was S.E., and the least was N. In May the most prevalent was N.W., and the least was S. In June the most prevalent was N.W., and the least were E. and S.E. In July the most prevalent wind was N.W., and the least were E. and its compounds. In August and September the most prevalent were W. and N.W., and the least were E. and compounds of E. In October the most prevalent were N.E., W., and N.W., and the least was S. In November the most prevalent was N.W., and the least was E. In December the most prevalent winds were N.E., S.W., and N.W., and the least prevalent wind was N. The most prevalent wind for the year was N.W., which occurred on 108 times during the year, of which 19 were in July, 17 in June, and 12 in August, and the least prevalent wind for the year was S., which occurred on only 12 times during the year, of which 5 were in April, and 2 in both November and December. At Sarona the most prevalent wind for the year was S.W., which occurred on 97 different days, and the least prevalent wind was E., which occurred on only 12 times during the year.

The mean amount of cloud is shown in column 28 ; the month with the smallest amount is June, 0.8, and that with the largest amount, April, 5.9. Of the cumulus, or fine weather cloud, there were only 7 instances in the year. Of the nimbus, or rain cloud, there were 30 instances in the year, of which 8 were in January, 6 in February, and 5 in both March and December, and only 2 from May to October. Of the cirrus there were 9 instances ; of the cirro stratus, 31 instances ; of the stratus, 3 instances ; of the cirro cumulus, 68 instances, of which 12 were in February, and 10 in January ; of the cumulus stratus there were 45 instances, and 172 instances of cloudless skies, of which 29 were in August, 26 in July, and 23 in June. At Sarona there were 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 12.45 inches in January, of which 2.88 inches fell on the 23rd, 2.10 inches on the 22nd, and 2.09 inches on the 15th. The next largest fall for the month was 6.72 inches in December, of which 3.34 inches fell on the 15th. No rain fell from May 2nd till the 15th of November, making a period of 196

consecutive days without rain. The fall of rain for the year was 29·81 inches, which fell on 46 days during the year. At Sarona the largest fall for the month in the year was 5·74 inches in January. No rain fell at Sarona from May 2nd till November 14th, with the exception of September 12th, on which day 0·08 inch fell, so making periods of 132 and 63 consecutive days respectively without rain. The fall of rain for the year at Sarona was 17·06 inches, which fell on 43 days during the year.

NOTE ON THE HÆMATITE WEIGHT FROM SAMARIA.

By EBENEZER DAVIS, Esq.

PERHAPS the greatest charm of archæological study lies in the fact that fresh subjects of interest are constantly being found even in the most unpromising lines of research, and in the discussion arising therefrom. What to the uninitiated would appear to be only a few illegible and unmeaning scratches on a piece of brick or stone, will in the hands of the *cognoscenti* prove to be matter of the greatest importance for the amplification of language, science, and history. Take, for instance, the little spindle-shaped object now known as the "hæmatite weight from Samaria." Here we find a piece of stone inscribed with a few ancient characters giving rise to a prolonged and animated discussion between half a dozen scholars, each of whom has something new and important to say about it.

The stone was found to have an inscription—then arose questions as to the character and language in which the inscription was written, and lastly, its meaning, on which point much difference of opinion has arisen.

Having given considerable attention to this short text, I wish to say that it appears to me to be an undoubtedly genuine inscription in the North Semitic language and character, belonging possibly to as early a period as the 9th century B.C., if one may be allowed to judge from the similarity of the script to that of other Palestinian texts of known date.

There are eight letters on the weight, three of which are twice repeated, and all in the same style of writing, which is that of the Moabite stone and other epigraphs of a very early period. Indeed, some of the letters of this text resemble the types found on the fragments of the Baal Lebanon bowl, which are considered by good authorities to exhibit the earliest known forms of the Phœnician alphabet. Comparing the characters on the inscribed bead from Jerusalem with those of the weight, we find on the former a resemblance to the style of writing of the Siloam inscription, more especially in the zig-zag form of the Tsade, and the short curve at the bottom of the upright stroke of the Nun. I have endeavoured to show the palæographic affinities of these two short texts in the following table :—