

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

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	30·285	29·442	0·843	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