

hospital, was, according to Tobler, built in 1417, and Sir John Maundeville, in 1322, does not speak of a mosque there, which he certainly would have done if one had been situated so very near the hospital. It is now a three-storied one, as shown in Section No. 9. The upper one was built during my residence in Jerusalem. The mosque in David Street, just east of the entrance to Crown Prince Frederick Street, is rather an inferior one, and the burying place of a Moslem sheikh. It is used for prayer by the people of the Bizar. This tomb is the reason why the new street has got such a slanting line.

13. *Plans and Sections.*—All these are based on the line 2,425 feet above the sea, as about the deepest point in the whole area, and the highest is 75 feet more, or at the level of 2,500 feet. Hence at the Muristan the deepest point of the valley is only about 57 feet below the bottom of Hezekiah's Pool.

RESULTS OF METEOROLOGICAL OBSERVATIONS TAKEN AT JERUSALEM IN THE YEAR 1900.

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, as usual, are in the winter, and the lowest in the summer months; the maximum for the year was 27·757 inches, in January, and the next in order 27·566 inches, in November. The highest reading in the preceding 39 years, viz., 1861 to 1899 inclusive, was 27·816 inches, in December, 1879, and the next in order 27·800 inches, in November, 1870.

In column 2 the lowest reading of the barometer in each month is shown; the minimum for the year was 27·043 inches, in February, and next in order 27·163 inches, in March. The lowest reading in the preceding 39 years was 26·860 inches, in March, 1898, and the next in order 26·970 inches, in March, 1896.

The numbers in the 3rd column show the extreme range of readings in each month; the smallest was 0·094 inch, in July, and the next in order was 0·145 inch, in August; the largest was 0·516 inch, in February, and the next in order 0·468 inch, in

January. The mean monthly range for the year was 0·279 inch. The mean for the preceding 39 years was 0·312 inch.

The range of barometer readings in the year was 0·714 inch. The largest range in the preceding 39 years was 0·935 inch, in 1898; and the smallest 0·491 inch, in 1883.

The numbers in the 4th column show the mean monthly pressure of the atmosphere; the highest was 27·509 inches, in January, and the next in order 27·476 inches, in November; the lowest was 27·267 inches, in July, and the next in order 27·303 inches, in August. The yearly mean pressure was 27·379 inches. The highest mean yearly pressure in the preceding 39 years was 27·442 inches, in 1863; and the lowest 27·357 inches, in 1894. The mean yearly pressure for the 39 years was 27·390 inches.

The temperature of the air reached 96° on May 6th, and there was 1 other day in May when the temperature reached 90°. In the preceding 18 years the earliest day in the year the temperature was 90° was on March 25th in the year 1888; in June it reached or exceeded 90° on 6 days; in July on 5 days; in August on 5 days; and in September on 1 day, viz., the 1st, and this was the last day in the year of a temperature as high as 90°. In the preceding 18 years the latest day in the year this temperature reached 90° was on October 23rd in both 1887 and 1898. The temperature reached or exceeded 90° on 19 days during the year. In the year 1898 the number of days of this high temperature was 12, and in 1887 was 73; the average for the 18 years was 35. The highest temperature in the year was 98°·0, on September 1st; the highest in the preceding 18 years, viz., 1882 to 1899, was 108°·0, in June, 1894.

The temperature of the air was as low or lower than 40° in January, on 8 nights; in February, on 4 nights; in March, on 4 nights; and in December, on 2 nights. Thus the temperature was as low or lower than 40° on only 18 nights during the year. In the year 1892, the number of nights of this low temperature was 19, and in 1894 was 113; the average of the 18 years was 55. The lowest temperature in the year was 35°, on both December 19th and 20th. The lowest in the preceding 18 years was 25°, which occurred on 2 nights, viz., December 31st, 1897, and on January 1st, 1898.

The highest temperature of the air in each month is shown in column 5. In January it was 60°·8, being 1°·0 above the mean of

the 18 high day temperatures in January. The high day temperature was also above its average in March, April, May, June, September, November, and December, and below in the remaining months. The mean for the year was $84^{\circ}5$, being $0^{\circ}9$ above the average of 18 years.

The lowest temperature of the air in each month is shown in column 6. In December it was $35^{\circ}0$, being the lowest in the year, and $1^{\circ}9$ above the average of the 18 low night temperatures in December. The low night temperature was also above its average in January, February, March, April, May, July, August, September, October, and November, and below in June. The mean for the year was $47^{\circ}9$, being $3^{\circ}4$ above the average of 18 years.

The range of temperature in each month is shown in column 7; the numbers vary from $23^{\circ}8$ in January to $45^{\circ}8$ in June. The mean range for the year was $36^{\circ}6$, being $2^{\circ}6$ less than the average of 18 years.

The range of temperature in the year was $63^{\circ}0$. The largest in the preceding 18 years was $81^{\circ}0$, in 1894, and the smallest, $63^{\circ}5$, in the year 1885.

The mean of all the high day temperatures in each month is shown in column 8. The lowest was $52^{\circ}7$, in January, being $1^{\circ}9$ higher than the average. The highest was $84^{\circ}8$, in August, being $3^{\circ}6$ lower than the average. The mean for the year was $71^{\circ}7$, or $0^{\circ}2$ below the average of 18 years.

The mean of all the low night temperatures in each month is shown in column 9. The lowest was $43^{\circ}0$, in January, being $4^{\circ}8$ higher than the average. The highest was $65^{\circ}7$, in both July and August, and this mean was $1^{\circ}3$ higher than the average in both July and August. The mean for the year was $55^{\circ}4$, or $2^{\circ}8$ above the average of 18 years.

In column 10 the mean daily range of temperature in each month is shown; the smallest was $9^{\circ}7$, in January, and the next in order, $11^{\circ}5$, in February; the greatest was $20^{\circ}2$, in June, and the next in order, $19^{\circ}9$, in May. The mean for the year was $16^{\circ}3$, being $3^{\circ}1$ less than the average. The smallest ranges in the preceding 18 years were $9^{\circ}3$, in January, 1883, and $9^{\circ}4$, in December, 1897; the greatest were $33^{\circ}8$, in August, 1886, and $30^{\circ}1$, in August, 1887. The smallest mean for the year was $16^{\circ}4$, in 1897, and the greatest, $24^{\circ}3$, in 1886.

The mean temperature of the air, as found from the mean of the maximum and minimum temperatures only, is shown in each month in column 11. The lowest was $47^{\circ}\cdot8$, in January, and the next in order were $49^{\circ}\cdot4$, in February, and $52^{\circ}\cdot1$, in December; the highest was $75^{\circ}\cdot2$, in August, and the next in order were $74^{\circ}\cdot9$ in July, and $73^{\circ}\cdot6$, in June. The mean for the year was $63^{\circ}\cdot5$, being $1^{\circ}\cdot3$ above the average of 18 years. The lowest mean temperatures in the preceding 18 years were $39^{\circ}\cdot8$, in January, 1890, and $41^{\circ}\cdot1$, in January, 1898; the highest were $81^{\circ}\cdot2$, in August, 1890, and $81^{\circ}\cdot1$, in July, 1888. The highest mean for the year was $63^{\circ}\cdot5$, in 1892, and the lowest, $60^{\circ}\cdot0$, in 1894.

The numbers in column 12 are the mean readings of a dry-bulb thermometer. If those in column 12 be compared with those in column 11, it will be seen that those in column 12 are a little higher in every month, the difference of the means for the year being $2^{\circ}\cdot1$; the mean difference between the mean temperature of the air, and that at 9 a.m., for the 18 years was $3^{\circ}\cdot2$.

For a few days in the winter months the dry and wet-bulb thermometers read alike, or nearly so, but in the months from March to October the difference between the readings often exceeded 15° , and was as large as $25^{\circ}\cdot0$ on June 8th.

In column 13 the mean monthly readings of the wet-bulb thermometer are shown; the smallest differences between these and those of the dry-bulb were $2^{\circ}\cdot5$, in February, $2^{\circ}\cdot7$, in December, and $4^{\circ}\cdot7$, in January; the largest were $10^{\circ}\cdot4$, in October, $10^{\circ}\cdot3$, in April, and $9^{\circ}\cdot8$, in both June and July. The mean for the year was $58^{\circ}\cdot3$, and that of the dry-bulb $65^{\circ}\cdot6$.

The numbers in column 14 are the mean temperature of the dew-point, or that temperature at which the air would be saturated by the quantity of vapour mixed with it; the smallest difference between these numbers and those in column 12 was $5^{\circ}\cdot1$, in February, and the next in order were $5^{\circ}\cdot4$, in December, and $9^{\circ}\cdot7$, in January. The mean temperature of the dew-point for the year was $52^{\circ}\cdot4$; the mean for the 18 years was $50^{\circ}\cdot0$.

The numbers in column 15 show the elastic force of vapour, or the length of a column of mercury in inches corresponding to the pressure of vapour; the smallest was $0\cdot248$ inch, in January; and the largest $0\cdot546$ inch, in August. The mean for the year was $0\cdot407$ inch; the average for the 18 years was $0\cdot374$ inch.

In column 16 the weight in grains of the water present in a cubic foot of air is shown; it was as small as 2·8 grains in January, and as large as 5·9 grains in September. The mean for the year was 4·4 grains; the average of the 18 years was 4·1 grains.

In column 17 the additional quantity of water required to saturate a cubic foot of air is shown; it was as small as 0·7 grain in February, and as large as 4·4 grains in July. The mean for the year was 2·9 grains; the average for the 18 years was 3·3 grains.

The numbers in column 18 show the degree of humidity, saturation being represented by 100; the largest numbers appear in January, February, and December; and the smallest in April, May, and October; the smallest of all was 51, in April. The mean for the year was 64; that of the 18 years was 60.

The numbers in column 19 show the weight in grains of a cubic foot of air, under its mean atmospheric pressure, temperature, and humidity. The largest number was 500 grains in January, and the smallest 461 grains in June. The mean for the year was 480 grains; the average of the 18 years was 483 grains.

The most prevalent winds in January were N.E., E., W., and N.W.; and the least prevalent wind was S.; in February the most prevalent was S.W., and the least prevalent was N.; in March the most prevalent was N.W., and the least was N.; in April the most prevalent were N.W. and N., and the least was E.; in May the most prevalent were S.W. and N.W., and the least was S.; in June the most prevalent were N.W. and W., and the least prevalent was S.; in July the most prevalent were N.W. and W., and the least were S.E. and S.; in August the most prevalent were W. and N.W., and the least were N.E., S., and S.W.; in September the most prevalent were N.W. and W., and the least were S.E. and S.; in October the most prevalent were N.W. and W., and the least was S.; in November the most prevalent was N.W., and the least were S.E. and S.W.; and in December the most prevalent wind was S.W., and the least was E. The most prevalent wind in the year was N.W., which occurred on 113 times, of which 15 were in September, 14 in July, and 13 in both October and November; and the least prevalent wind was S., which occurred on only 13 times during the year, of which 3 were in April and December, 2 in each of the months of February, March, and November, and 1 in August.

The total number of times of each wind are shown in the last line of columns 20 to 27; those winds less in number than the average of the preceding 18 years were:—

N.	by	3
N.E.	„	9
E.	„	4
S.E.	„	1
N.W.	„	4

and those winds greater in number than the average of 18 years were:—

S.	by	4
S.W.	„	1
W.	„	16

The numbers in column 28 show the mean amount of cloud in each month; the months with the smallest amount are August and September; and the largest is February. Of the cumulus or fine-weather cloud, there were 2 instances; of the nimbus or rain cloud 24 instances; of these 10 were in February, 4 in March, and 3 in December, and only 5 in the months from April to November; of the cumulus stratus there were 76 instances; of the cirro cumulus 71 instances; of the cirro stratus 34 instances; of the cirrus 4 instances; and 154 instances of cloudless skies, of which 21 were in July, and 20 in both August and September.

The largest fall of rain for the month in the year was 10·72 inches, in February, of which 1·48 inch fell on the 13th, 1·40 inch on the 21st, 1·32 inch on the 28th, and 1·25 inch on the 18th. The next largest fall for the month was 5·32 inches, in December, of which 1·87 inch fell on the 20th, and 1·50 inch on the 19th. No rain fell from May 9th till October 5th, making a period of 148 consecutive days without rain. The total fall of rain for the year was 21·20 inches, being 5·11 inches below the average of 38 years, viz., 1861 to 1899. The number of days on which rain fell was 52, being 3 less than the average.
