THE CLIMATE OF THE UNDERCLIFF, ISLE OF WIGHT

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The climate of the Undercliff, Isle of Wight by J. L. Whitehead

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THE CLIMATE

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OF THE

UNDERCLIFF, ISLE OF WIGHT

AS DEDUCED FROM FORTY YEARS' CONSECUTIVE METEOROLOGICAL OBSERVATIONS

BY

J. L. WHITEHEAD, M.D.



LONDON J. & A. CHURCHILL, NEW BURLINGTON STREET 1881

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INTRODUCTORY REMARKS

THE object of this paper is to offer some important statistics, as also a few observations with regard to the temperature and climate of the Undercliff of the Isle of Wight, and I am indebted for such statistics to the labour of the late Dr. Martin, of Ventnor, and his brother Mr. Martin, M.R.C.S.

The meteorological observations extend over an unbroken space of forty years-namely, from 1840 to 1879 inclusive. They were commenced by the late Dr. Martin soon after his arrival at Ventnor, and his attention was the more especially directed to such observations as he was at that time engaged on behalf of his friend the late Sir James Clark in calculating and arranging for him the tables which were subsequently published in his well-known work upon Climate. Dr. Martin procured the best instruments which were to be obtained at that period, and eventually, with the kind counsel of his friend Mr. Glaisher, formed an observatory for the arrangement of his instruments, which has subsequently stood the test of comparison with other observations made at the National Consumptive Hospital, between Ventnor and St. Lawrence, as likewise with those of the Rev. Clifford Malden at St. Lawrence, at both of which places the Stevenson stand and verified instruments are employed. The result of the separate observations being so closely in accord, serves to demonstrate the reliability of the observations made at Ventnor, carried over so long a period as that previously mentioned-namely, forty years.

The Undercliff of the Isle of Wight extends from Bonchurch to Blackgang, a distance of between six and seven miles, with an average breadth of a third of a mile. It has been formed by the subsidence of the land, at some remote period, from the uppercliff, which rises between 400 and 500 feet above the level of the sea and backs it, for the most part, as with a wall. In its descent the land has fallen into natural terraces, which face the sea and front nearly due south. The consequence of such an arrangement, with

its insular position, has doubtless a marked influence with regard to its climate, obtaining for it a mildness during the winter, as also coolness during the summer, which it otherwise would not possess, the slanting and terraced condition of the land enabling the sun's rays to fall more directly on the surface than they otherwise could do during the winter; while the shade of the upper cliffs affords protection from the dwelling rays of a summer's afternoon, and with the aid of the sea breeze shutting out the hot north summer winds renders the atmosphere comparatively cool and pleasant during the warmest periods of the year, the result being a mild climate during the winter and equally cool climate during the summer. In proof of the foregoing observations it is only necessary to point to the great equability of its temperature, as evidenced by the meteorological observations carried over the very long period before alluded to.

Sudden transitions from great heat to cold and extensive range of temperature may be said to be unknown. The mean daily range for the respective seasons of winter, spring, summer, and autumn are as follows :---

Winter, 7° ·10; spring, 10°·6; summer, 10°·24; autumn, 8°·80. With regard to the mildness of its winters, reference may be had to Table XX., where the mildest and coldest winters are tabulated. The winters of 1845–46, 48–49, 50–51, 65–66, 76–77 passed with little or no frost, the thermometer never having fallen lower than 29°, and then on very few occasions; while during the winters of 1862–63 and 68–69 no frost whatever was recorded, the thermometer never descending below 33°. The cold winters were those of 1840–41, 54– 55, 69–70, 70–71, and 78–79 (some of which winters were extremely rigorous on the mainland, as also in France); the thermometer, however, did not fall below 19°, and then only during the winter of 69–70.

While considering the climate of the Undercliff reference may also be made to the difference of temperature and rainfall between Ventnor and Newport, the chief town in the island, placed near its centre. Mr. Aldridge, to whom this paper is indebted for the following observation, in a communication published by him in April 1872 says: 'With regard to the mean daily maximum temperature (or the average point at which the thermometer stands during the warmest part of the day), the two towns may be said to be fairly equal during the months of February and March, after which Newport has the superiority until October, when Ventnor takes the lead