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978-1-108-01441-0 - Memoir of the Life and Labors of the Rev. Jeremiah Horrox

Edited by Arundell Blount Whatton

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Memoir of the Life and Labors of the Rev. Jeremiah Horrox

Jeremiah Horrox (1618–41) was one of the most interesting astronomers Britain has ever produced, and his tragically early death deprived the field of one of its most brilliant talents. In his short life he achieved much, having mastered the current state of astronomy at Cambridge University and going on to make important new calculations about the diameter and position of known planets, moons and stars. In the 1660s and 70s several prominent scientists, including Huygens, Newton and Flamsteed, took an interest in Horrox's discoveries and published his surviving treatises. This memoir of 1859 was part of a Victorian revival of interest in Horrox. It includes a translation of his major work, *Venus in Sole Visa*, a draft of a treatise on the transit of Venus, in which he describes the conjunction of Venus with the sun, which he correctly calculated and observed in 1639.

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Memoir of the Life and Labors of the Rev. Jeremiah Horrox

*To Which is Appended a Translation
of his Celebrated Discourse Upon the
Transit of Venus Across the Sun*

EDITED BY ARUNDELL BLOUNT WHATTON



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MEMOIR
OF THE
LIFE AND LABORS
OF THE
REV. JEREMIAH HORROX,
Curate of Hoole, near Preston ;
TO WHICH IS APPENDED
A TRANSLATION OF HIS CELEBRATED DISCOURSE
UPON THE
Transit of Venus across the Sun.
BY THE
REV. ARUNDELL BLOUNT WHATTON, B.A., LL.B.

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In Memoriam

PATRIS DILECTISSIMI

GUL: ROB: WHATTON, F.R.S.: F.S.A., ETC.,

VIRI LITERIS HUMANIORIBUS EXIMIE ERUDITI,

HAS EGREGII ADOLESCENTIS RELIQUIAS,

QUEM VIVUS IPSE EST MIRATUS,

CUM QUO MORTUUS, FAS EST CREDERE, CONSORS,

COLLIGENDAS ET IN LUMEN PROFERENDAS CURAVIT

FILIUS AMANTISSIMUS

A. B. W.

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PREFACE.

WHEN my father was engaged in writing the Biographical department of the history of Lancashire, he was naturally led to consider the merits of JEREMIAH HORROX, the youthful astronomer of that county; and he was so much impressed with his distinguished scientific attainments that, finding it impossible from want of space to do him justice in those pages, he proposed on some future occasion to publish his life in a separate form. Accordingly, he ascertained the precise value of his discoveries, and gathered together much interesting detail connected with his personal history; and he also set about preparing a translation of his celebrated Treatise upon the transit of Venus over the Sun. But he did

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not live to complete this work. It would appear that much material had been accumulated, but that the arrangement of it had not even been commenced. To him however belongs the credit of being the first and only person who has undertaken to supply what is acknowledged to be a deficiency in the literature of our country; and there can be no doubt that, if his life had been spared a little longer, he would have produced a most interesting and instructive volume. Professor Rigaud, of Oxford, who was his friend and associate in these pursuits, says in his "Correspondence of Scientific Men of the 17th century," that "the late W. R. Whatton, Esquire, had made considerable collections for a life of Horrox, which he intended to have prefixed to a new edition of the *Venus in sole visa*, when death in 1835 deprived the world of the fruit of his inquiries."

Since then no further attempt of this kind has been made to recognize the merits, or to perpetuate

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the memory of Horrox. Of late years, however, his name, associated with the names of other persons of distinction, has been brought before the public from time to time by various speakers at literary and scientific meetings, especially in Lancashire. Thus, in an address delivered in Liverpool on the celebration of the centenary of the birthday of Roscoe, the Rev. Dr. Hume says: “neither is Roscoe the first man of high intellectual attainments that Liverpool has numbered among her sons. More than two centuries have elapsed since Jeremiah Horrox, a native of Toxteth Park, and then only twenty years of age, observed the first transit of Venus across the Sun. His high attainments at that early period, in astronomy and pure mathematics, have been the admiration of succeeding men of science. His reputation may be said to have reached his native country from the continent, by the publication of his treatise *Venus in sole visa*, at Dantzic; and it is

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only of late years that Professor Rigaud and Mr. Whatton have laboured successfully to do justice to his memory.”

The fame of Horrox has also been disseminated through the instrumentality of the press, letters having occasionally appeared, complaining that no record of his discoveries has been published in our native tongue, and commending the subject to the attention of those competent to deal with it. One of these, taken from the columns of a newspaper, was, a few months ago, enclosed to me by a friend, in which the writer thus alludes to the remarks of Professor Rigaud already quoted : “A life of Horrox is much wanted. Very little is known indeed of his daily work, but that little is such as to create a desire of knowing as much about him as possible. The particulars gathered up by Mr. Whatton will, I trust, be heard of, and make us better acquainted with one whom Sir J. Herschel justly calls ‘the pride and boast of

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British astronomy.’ And surely the *Venus in sole visa* ought to have an English edition, for if, as Grant remarks, ‘it does not redound to the credit of England that this exquisite relic of one of her most gifted sons should have been allowed to see the light in a foreign land,’ neither does it evince a due regard for the labors of scientific men that this famous dissertation has yet to be published in our own country. I should be very much obliged for any information of the Whatton papers.” Upon receipt of this extract, I searched for anything in my possession that might be available, and found sundry memoranda, and some interesting letters from Mr. Rigaud, the perusal of which led me to prosecute the inquiry until I was enabled to carry out, in some degree, the original design, by preparing a Memoir of the life of Horrox, and a translation of his discourse upon the transit of Venus.

It is felt that this little work is a very imperfect

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substitute for what might have been achieved by abler hands ; but being in possession of the details of Horrox's personal history, I should scarcely have been justified in withholding them, as it is a hopeless task for a stranger, on the spur of the moment, to attempt to look for such particulars as may be collected from a lengthened course of general reading. My aim has been to shew the value of his labors, and to fix the place they occupy in the history of science ; and also to make his merits more widely known than they are at present, in order that he may enjoy in the estimation of the public, the rank which he already holds in the opinion of the learned. Accordingly, such letters and quotations as were written in Latin are here given in English. This will not occasion any confusion, as those which are translations may be distinguished at a glance from others which have been merely copied.

It will be observed that the name of Horrox is

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sometimes spelt *Horrocks*. I have carefully examined which orthography is the more correct, and have adopted the former, as the name is so entered upon the College Register, and was always so written by Crabtree and Wallis. Grant and some recent authors use the latter method. The difference is of no importance, and it is only noticed here by way of explanation.

In the translation of the *Venus*, I have endeavoured to adhere closely to the original, and have taken the text of Hevelius as a basis, merely correcting the punctuation from the Greenwich manuscript where it was necessary to do so, and altering the arrangement of the sentences where the difference of language required it. The Dantzic edition is accompanied by voluminous notes which are appended to the end of each chapter, and at first I thought of giving them precisely in the order in which they stand. Afterwards it occurred to me that it would be

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better to print Horrox's dissertation entire, and to collect the notes together, and put them at the end by themselves, so as to present a clearer view of the treatise, without having the attention continually called off, sometimes indeed when there is no difficulty that needs to be explained. At length, however, I decided to omit them altogether, as they contain nothing of importance connected with Horrox's personal history, and are full of error upon those points which they were designed to elucidate. The mistake that Hevelius has made in his statement of the parallaxic angle is an instance of this, and has given rise to many faulty corrections in his comment. Flamsteed noticed it, and did not consider his remarks a very valuable appendage; for in a letter to Collins, he says: "Having well perused the *Venus in sole visa*, I know not what can be added; the notes of Hevelius I find generally useless, and those on the 6th chapter absolutely

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false.” The side-notes which are found in the printed edition have also been excluded, as it is certain that they are not authentic. These accretions being removed, the tract appears in the same form, though not in the same dress, as that which it had when it came from the pen of its author; and the reader is enabled to peruse it without distraction, and to arrive at an independent opinion of its merits.

In writing what follows, I have consulted Ferguson, Delambre, Montucla, Grant’s Treatise upon Physical Astronomy, and the suggestions of Professor Rigaud contained in the manuscripts in my possession. The correspondence between Huygens and Hevelius is taken from Huygens’ papers preserved in the public library at Leyden. No doubt there is abundant room for criticism; but it may be pleaded that the task was wholly unsought, having devolved on me from circumstances over which I had no control, but from

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the obligation of which it would have been unworthy to retreat. Should these pages be deemed insufficient for the purpose which has been announced, I can only say that I shall be much gratified if some one, more competent than myself to do justice to the memory of Horrox, will make use of the material, here gathered together, to produce a better work. And I may add, as a further extenuation, that they have been penned in such brief intervals of leisure, during the last few months, as remained over and above the discharge of more important duties; so that I may fairly take refuge in Horrox's own words, "Ad majora advocatus, quæ ob hæc parerga negligi non decuit."

39, WEYMOUTH STREET, PORTLAND PLACE,

July 26th, 1859.