

THE EARLY HISTORY OF KEW OBSERVATORY

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The Kew Observatory in the Old Deer Park was founded under the personal instruction of George III. Among the many interests of the King was a passion for astronomy. He was a keen amateur and welcomed the company of contemporary astronomers in the pursuit of his hobby. His observatory was described in 1816 by a German visitor as follows:-

'The private Observatory of the King, at Richmond, is particularly distinguished by the beauty of its building, equipment and location. It was erected at the order of the present King, who himself observed the transit of Venus in 1769. The instruments here are excellent and many; a fine transit instrument, a zenith sector, mural quadrant, several good telescopes including a ten foot Herschel reflector, a large equatorial telescope under a moveable roof, two orreries, and a large collection of physical apparatus. Dr Demainbray directed the construction of the Observatory ...'

Dr Stephen Demainbray was born in London in 1710. As a young man he had acquired the reputation of being very gifted in the subject of physics. As a result of this, he was appointed in 1754 to teach the Prince of Wales (later George III) and his younger brother, the Duke of York, mathematics, natural history and philosophy. This tutoring lasted till the Prince ascended the throne in 1760. It would appear that George III acquired his interest in astronomy as a result of Demainbray's tuition.

It was the transit of Venus in 1769 that prompted the King to have the Kew Observatory built. On completion the Observatory was placed under the directorship of Demainbray in 1768. The transit of Venus, which took place on 3 June 1769, was observed by the King accompanied by Queen Charlotte, Prince Ernest and Prince George of Mecklenburg Strelitz, Dr Demainbray and the clockmakers, Benjamin and Justin Vuilliamy, using a telescope with a six inch reflector of two feet focal length.

A description of the work carried out by the Observatory during its early period has been given by Demainbray's great grandson:- 'His Majesty frequently attended at the Observatory and procured the best clocks and watches that could be made and placed them under the Doctor's care, so that by daily observations of the Sun when passing the meridian, the time was taken from the King's Observatory for the regulation of the clocks in both Houses of Parliament, at the Horse Guards, St. James' and elsewhere in London.'

When Dr Demainbray died in 1782 the directorship passed to his son, the Rev. Stephen Demainbray. William Herschel had been proposed for the post, but an earlier promise made by the King ensured the position would go to the younger Demainbray. The latter continued the work for the next fifty-eight years, the major contribution being to continue the time service for London until this task was taken over by the Royal Observatory at Greenwich.

Among the early visitors to the King's Observatory at Kew was the astronomer, James Ferguson FRS, (1710-1776). Although born a poor farm boy in Scotland and self-educated, he went on to popularise astronomy through lecturing, model-making and writing. His major work 'Astronomy Explained on Sir Isaac Newton's Principles' was to serve as William Herschel's textbook. A biographer of Ferguson wrote:-'Ferguson this year, 1768, began by command of the King, to visit his Majesty at Kew and St. James'. Indeed, from this time till his death, Ferguson had the honour of frequent invitations to converse with His Majesty on philosophical and mechanical topics, and on the turning of wood, ivory, etc.'

The most important of George III's beneficiaries was William Herschel, the discoverer of the planet Uranus. Herschel was not only a great observational astronomer, he was also the best telescope maker of his day, furnishing Kew with many instruments. He later received the title 'King's Astronomer' and was given a pension for life. This enabled him to give up his work as a musician and concentrate on astronomy.

With the death of George III in 1820 the Observatory steadily declined, and on the arrival of Queen Victoria to the throne in 1837 the Rev. Stephen Demainbray was pensioned off. By 1841 all astronomical activity at the Observatory had ceased. Fortunately this beautiful building, designed by Sir William Chambers, was taken over in 1842 by the British Association for the Advancement of Science and used for the standardisation of meteorological and other instruments.



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The writer of this article is a member of the Richmond and Kew Astronomical Society, which was founded in 1985.