

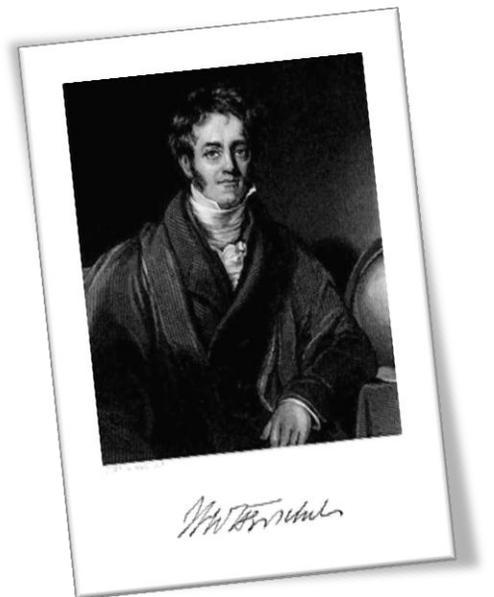
John Fredrick William Herschel

John Fredrick William Herschel was born in 1792, to his parents William Herschel, a famous astronomer who had discovered the planet Uranus, and his mother Mary. His father's work inspired in his son an interest in the same scientific field.¹

Early in life however, school was not something that came easily for John. He was raised in Observatory House, which held a 40 foot telescope. John's aunt, Caroline Herschel was his main tutor until he began attending a school in Hitcham. At the tender age of eight, John was sent off to Eton College, but suffered bullying and harsh treatment at the hands of fellow students. His time at Eton only lasted a few months. Continuing his educational pursuits at home under the tutelage of a Mr. Rogers, a mathematics instructor, who was preparing him for University. He was accepted into St. John's, Cambridge in 1809.²

In 1812, he, along with friends Peacock and Babbage, created the Analytical Society, which the three used as a platform to encourage the introduction of the Continental methods of mathematical analysis, especially used in the universities. This dynamic trio were responsible for the translation of Lacroix's work *Traité du calcul différentiel et du calcul integral* which differed in its approach to calculus from that of Newton. The society these three created didn't last long, however, and Herschel soon graduated from Cambridge, top of his class.³

1813 was a momentous year for John, not only did he graduate from university, he was elected a fellow of St. John's, and of the Royal Society. This in response to a paper he wrote on mathematics, *On a remarkable application of Cotes's theorem*. He plowed ahead in this field of study, publishing a two volume book on higher mathematics in 1820.⁴



In the year 1816 it seems that Herschel finally began to set his mind on becoming an astronomer. His path had wandered a bit in the previous two years, with him going to London to pursue training in the

¹ http://www.nahste.ac.uk/isaar/GB_0237_NAHSTE_P0327.html

² <http://www.gap-system.org/~history/Biographies/Herschel.html>

³ Ibid.

⁴ Ibid.

legal profession, despite his father's desire that John become a "man of the cloth." He wrote his friend Babbage: "... *I am going under my father's directions, to take up the series of his observations where he has left them (for he has now pretty well given over regular observing) and continuing his scrutiny of the heavens with powerful telescopes ...*"⁵

Thus the course was set. Despite studying a variety of other scientific topics during this time, Herschel's aim was astronomy. Included in this time was his invaluable help in setting up the Astronomical Society, where he was promptly elected vice-president.⁶

In 1822, Herschel published his first paper on astronomy – a paper on a new way of calculating the eclipses of the moon. He wrote more papers, several of them noteworthy, and received much notoriety from fellow scientists, and the science community. Among these was a re-investigation of his father's work on double stars: "*The parallax is the apparent change in position of a relatively nearby star against the background of very distant stars due to the change in position of the earth in its orbit around the sun.*"⁷

He traveled to South Africa in January 1834, where he observed Halley's comet (1835) with his own 20 foot refractor telescope, which he brought along. Herschel made some discoveries concerning this comet, and its make-up, but was unable to write about his findings until over a decade later.⁸

After living a full and stressful life, one made more difficult by the many demands of his work but also by his travel and baronetcy, he retired to Collingwood, where he lived out the remainder of his life until his death in 1871.⁹

*"In John Frederick William Herschel British science has sustained a loss greater than any which it has suffered since the death of Newton, and one not likely to be replaced..."*¹⁰

The astronomical community of today is the richer for the work of Sir. John Herschel, and the tireless efforts he gave throughout his life and career to discovering what the Psalmist so beautifully calls "the glory of God."

*"The heavens declare the glory of God;
And the firmament shows His handiwork.
Day unto day utters speech,
And night unto night reveals knowledge.
There is no speech nor language
Where their voice is not heard.
Their line has gone out through all the earth,
And their words to the end of the world."
Psalm 19:1-4*

⁵ Ibid; D G King-Hele (ed.), John Herschel 1792-1871 : A bicentennial commemoration (London, 1992).

⁶ Ibid.

⁷ Ibid.

⁸ <http://darwin-online.org.uk/content/frameset?viewtype=text&itemID=A276&pageseq=1>

⁹ Ibid.

¹⁰ <http://www-groups.dcs.st-and.ac.uk/~history/Obits/Herschel.html>