

Preface

During a time of no movies, television, radio, or Internet, celebrities were different. In the nineteenth century, most cities and towns had opera houses, where entertainers would put on a variety of shows; however, much of the talent was local, not being known in locations much over a hundred miles away.

Lewis Swift was a nineteenth-century amateur astronomer, whose dedication to searching the sky for new objects brought him numerous opportunities, including the directorship of two private observatories and many awards for his hard work. His 13 comet discoveries and his passion for giving lectures and writing on various astronomical topics, not to mention the enjoyment he gained from showing anyone the sights in the night sky, made him a national celebrity whose almost every move was tracked by the newspapers of his time. It has been said that Albert Einstein was the first celebrity scientist, but a case can be made that Swift was the first.

Swift's story is interesting in three ways. First, it illustrates the adage of being in the right place at the right time, as this amateur astronomer captured the interest of two very wealthy men who would build observatories for him. Second, Swift's writings and lectures provide a window to nineteenth century science, mostly astronomy, which includes ideas that have long since been replaced, as scientists learned more about our world and the universe. For this reason, it must be stressed that this book is primarily a biography of Lewis Swift, not about the astronomy. Those wanting to learn about Swift will certainly learn a lot, while those already familiar with astronomy may be surprised at how so many ideas have changed in a little over a century. Finally, Swift's story demonstrates the passion someone can have toward something. It was once said of Swift, "There is no man, probably, who has lost so much sleep on account of science ..."¹ Swift searched for comets on just about every clear night. For the period of about 1858 to 1883, this meant being in the open air, frequently sitting or lying on nothing more than a blanket on either the ground or a rooftop. He would bundle up in the coldest months because the temperature was sometimes around -20°F .

¹ J. S. Bliss, "Educational," *The Janesville Gazette* (1876 Jul. 3), p. 1, col. 4.

Swift was also a very religious man, and throughout his career in astronomy, he would discuss some topics from a religious point of view. Throughout this book, there are statements made by him that refer in some way to religion or his belief in God. In fact, it was this belief that made him quite certain that intelligent life existed on planets orbiting other stars.

Two excellent descriptions were published about Swift in the late 1870s. In an 1877 book called the *History of Monroe County*, Swift was described as follows:

But naturally gifted with keen observation, a retentive memory, and the power of discrimination, nature was to him an open book, and early he became remarkable for his love of natural science, which, in later years, was concentrated on astronomy, in which branch, by important discoveries therein, he has achieved an enviable fame. Passionately fond of books, and reading critically, his mind became a storehouse of knowledge, garnered from the choicest fields of literature; and hence, though he claims no college as his alma mater, he is emphatically a learned man, though possessing great simplicity of character and without ostentation.²

In a biography published in *Scientific American* in 1878, the following was written about Swift:

Mr. Swift with all his passion for science is equally a man of affairs. He is as attentive to business as he is devoted to books and the study of nature. The interests of his family are not overlooked in the indulgence of any personal taste. He is something more than a mere stargazer, being well read in all departments of literature and science, and having kept abreast with the times.³

Swift certainly had a philosophical side. He was also well aware that our understanding of the universe took a giant leap forward during the nineteenth century. In 1892, he said the following:

In other ages, and in skies yet unseen, when we are changed to dust, our names, our country, and our achievements forgotten, astronomers will still continue to assault the star gemmed skies with their glorious artillery, but they will achieve no conquests that will outvie our own in grandeur.⁴

Terminology

It is important for the reader to know that there are two terms used throughout this biography that had different meanings during Swift's time. They are "nebula" and "nova."

The word "nebula" refers to the clouds of gas and dust that astronomers have identified throughout our sky; however, in Swift's time it also referred to galaxies.

²*History of Monroe County, New York: With Illustrations, Description of its Scenery, Palatial Residences, Public Buildings, Fine Blocks, and Important Manufactories, From Original Sketches by Artists of the Highest Quality.* Philadelphia: Everts, Ensign, & Everts (1877), p. 151.

³"Lewis Swift, The Astronomer," *Scientific American Supplement* (1878 Jul. 20), p. 2118.

⁴"How Do We Know?" *Mexico Independent* (1877 Feb. 22), p. 4, col. 2.

What was then known as the Milky Way Galaxy was thought to encompass everything visible to the naked eye and telescope. It was not until the early decades of the twentieth century that it was realized that the elliptical and spiral “nebulae” in the sky were actually quite far away and quite distinct from our Milky Way Galaxy. Because of Swift’s use of the term “nebulae” throughout his life, the author has chosen to also use it throughout this book rather than having to identify each nebula that Swift found as a nebula or galaxy.

The word “nova” was used differently by astronomers, as well as other scientists, of the nineteenth century. This term is derived from the Latin word *novus*, which means “new.” Every branch of science used the term “nova” when introducing something new. Swift and other astronomers used the term to refer to a newly discovered nebula. As an example, John Frederick William Herschel published a catalog of nebulae and star clusters in 1833. In describing the format, he wrote that one of the columns contained,

*the number or name under which each nebula is to be found, either in my father’s catalogues ... or in the brief but important list furnished by Messier ..., which are indicated by the letter M. When no previous mention of a nebula or cluster could be found in the writings of former observers, it is designated as Nova.*⁵

Examples of Swift’s use of this word include, “On the evening of Sept. 30 I found three nova so near Brook’s comet that the field of the finder would include them all,”⁶ and, “The Monoceros *nova* is one of the largest nebulae visible from this latitude.”⁷

Today the use of the word “nova” refers to a star that flares many magnitudes in brightness.

⁵ J. F. W. Herschel, *Philosophical Transactions of the Royal Society of London*, **123** (1833), p. 362.

⁶ “Schreiben von Prof. L. Swift, Director des Warner Observ., Rochester, an den Herausgeber,” *Astronomische Nachrichten*, **107** (1883 Dec. 4), p. 274.

⁷ L. Swift, “The Great Nebula in Monoceros,” *History and Work of the Warner Observatory*, **1** (1887), p. 21.

Lewis Swift

Celebrated Comet Hunter and the People's Astronomer

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