

Brian George William Manning, 1926–2011

It was with great sadness to all amateur astronomers, especially those interested in photography and imaging, that we learnt of the death of Brian Manning on 2011 November 10, at the age of 85 years. He had moved from his home called 'Moonrakers' in Stakenbridge, Worcestershire, to Nightingales Residential Home following a long illness. His wife Alice, whom he married in 1964, moved into the same home but sadly died on 2010 February 4. Although he received loving care from the staff of the home he greatly missed Alice.

Brian was born on 1926 May 14, at Handsworth in Birmingham, son of a press toolmaker, and when he was six years old the family moved to Hagley in Worcestershire. After attending local schools, he later went to Stourbridge School of Art until the age of 15. From there he gained employment as a draughtsman but also attended courses on mechanical engineering. Whilst browsing Hudsons bookshop in Birmingham he came across a book entitled *Preparation of Mirrors for Astronomical Telescopes* and set about grinding and polishing a 57mm diameter mirror from a fragment of plate glass which had resulted from the German bombing of a factory. His enthusiasm for astronomy was fired up, leading to the construction of a Ramsden eyepiece and eventually the assembly of his first home-made telescope.

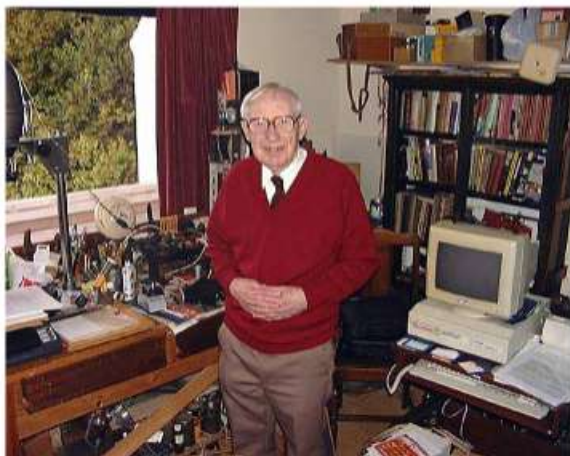
Throughout his observing career Brian had a particular passion for photographing comets and asteroids. His first image of a minor planet was (7) Iris in 1947 with a 25mm objective lens in a crude mounting driven by an alarm clock motor.

He also viewed Comet Encke using a completed 175mm mirror and portable equatorial mounting. On 1947 November 27 he was elected a member of the Association and remained so throughout his life. In 1950 he became a member of the Birmingham Astronomical Group ('Society' as it is now), which had recently been founded.

He built a 0.26m reflector which was to become the main telescope for his many high quality photographs and was also used to discover asteroids. It was initially housed in a rectangular observatory and an extremely heavy counterweight, purchased from his employers, balanced the telescope tube on an offset English mounting. The scaffold pipes used for the square tube were salvaged from his parents' house, and all this demonstrated his skills in putting together a well-made instrument from various sources.

On marrying Alice in 1964, Brian bought 'Moonrakers' in 1964, and in 1970 started the construction of another observatory comprising a 3-metre diameter dome. A detailed description appeared in the *BAA Journal* in 1975 [85(3)]. In the meantime he joined the University of Birmingham in 1968, working as a senior technician in the Metrology Laboratory, as his skills had come to the attention of staff there.

Brian's many articles in the *Journal of the Association* and *The Astronomer* (TA) cover a wide range of subjects relating to instrumentation and techniques. Fortunately, when I became editor of TA in 1975, this coincided with Brian starting to contribute articles and photographs in virtually every month's issue of the magazine and it soon became apparent that in addition to his experience as a telescope maker, he was keen to help with confirming new discoveries and following up unusual objects such as Apollo asteroids and comets. He was quickly flagged in my mind as someone who was modest and quiet but could contribute a great deal of scientific value to his hobby. My concern, as TA editor, was that I might be placing too much pressure on him with frequent requests to confirm discoveries, but Brian immediately showed that he enjoyed the challenge and recognised the value of responding to the need for photographs. Following one request Comet Chernykh was imaged,



Brian Manning in his workshop at Stakenbridge, 2000 April 26. Guy Hurst.

constructed his own measuring engine with remarkable results. He also taught himself, with help from Peter, how to apply the mathematical reduction procedure. This all led to his receiving the well-deserved TA Annual Award in 1978, voted for by his peers.

Following years of study, Brian wrote a comprehensive account in the *Journal* in 1982 April about diffraction gratings and provided encouragement to many other people engaged in building their own spectrohelioscopes. He performed an interesting experiment to measure the Doppler shift in spectral lines between the east and west limbs of the Sun, and hence determine the equatorial rotation speed. Building a ruling engine for diffraction gratings was a great achievement, the culmination of over 20 years of work on the project; very few people have ever attempted such incredible precision outside of professional laboratories.

On 1988 February 2, Minor Planet Center Circular 12809 was received by the author and I was astonished to find that I had the privilege of appearing on the same page as Brian when Ted Bowell named two of his discoveries as (3697) Guyhurst and (3698) Manning. A copy remains on my study wall as a reminder of this special occasion. Brian's citation, prepared by Brian Marsden, mentioned how even at that stage his astrometric measures, including those from the International Halley Watch, 'had been consistently timely and of the highest accuracy'.

His volume of images was extraordinary and covered almost every type of object in the heavens, but it was the discovery of asteroids for which



made on astrometry of asteroids but there was a perception in the UK that discoveries now needed a 'professional class' of equipment. Inspired by this article and the challenge of an 80-year gap since the previous numbered English asteroids, when Brian took photographs of periodic comet Schwassmann-Wachmann on 1989 October 4 with a follow-up on October 5, he rang me with the news he had found four asteroids on the first picture, three of which also appeared on the follow-up image! It was soon established that Brian had made two observations that were classed as discoveries, which were given the temporary designations of 1989TE (now 7239 Moberley) and 1989TN1. The third asteroid recorded on both nights was a recovery of one previously discovered in 1968, and the fourth was considered lost for the time being.

I recall transmitting details using STARLINK, an early form of communication to professionals (when many people had not even heard of the 'Internet'). Brian Marsden responded commenting that the last numbered minor planet discovered in the UK was found at Greenwich in 1909 January, though another potentially numberable object was A909 TF discovered on 1909 Oct 5, exactly 80 years before Brian's con-

firmatory image of his discoveries on 1989 October 5 a remarkable coincidence!

This led to many such discoveries by Brian using his 0.26m reflector at Stakenbridge (station 494) and initially listed in TA for 1990 April. Some were later termed 'recoveries' after links to others recorded earlier but also others which could eventually be numbered as Brian had principal detection with positions leading to a firm orbit.

This success in the discovery of asteroids as well as his many other achievements led in 1990 to Brian's being the first recipient of the Association's Horace Dall Medal and Gift. A main belt asteroid, 1991 BG was also named after his wife by Brian as (4751) Alicemanning, recognising her long-standing support. Six years later the University of Birmingham awarded him an honorary degree of Doctor of Science at the age of 70 in recognition of his scientific achievements.

In June 1998 Brian's 11th asteroid, 1995 YP2, was numbered, which was one more than the record of the English discoverer J. R. Hind. Hind's record had stood for an amazing 141 years as Brian first observed 1995 YP2 on Christmas Day, 1995 and Hind's last discovery was in 1854! Not only this, but Brian's first photograph of an asteroid was of (7) Iris, also Hind's first asteroid

discovery found by him in 1847 August.

Even though Brian excelled at building equipment and securing images of the highest quality during the photographic age, he embraced the CCD revolution without hesitation. My memory of some of his earliest photographs which he showed me from his archives during visits by myself and my wife Anne to Stakenbridge, were of two comets in 1957, and in particular that of Comet Arend-Roland with its marvellous anti-tail. We have fond memories of our visits and were made most welcome by a wonderful and friendly couple.

Brian was always a most modest man who had developed amazing skills in making equipment which to some would have been too great a challenge. However it was his ability to use the devices and telescopes to their full potential which made him an outstanding amateur astronomer. His help in confirming other people's discoveries and the investigation of their queries will always be remembered.

I am grateful to Colin Anderton who provided much personal background detail about Brian from the early years.

Guy M. Hurst