



Developing the Royal Observatory, Greenwich: 'A Universal Appeal'

From Professor Sir Martin J. Rees,
Astronomer Royal

Many readers of this *Journal* will remember their first glimpse through a 'real' telescope, perhaps at a young age, and the feelings of excitement this provoked. We were inspired to seek out further opportunities to satisfy our interest and some of us have had the good fortune to become professional astronomers. I firmly believe we should support any initiatives which create more opportunities for young people to discover the wonders of space.

The developments already underway at the Royal Observatory, Greenwich (the Time and Space project) are a fine example of this. With the establishment of three new

modern astronomy galleries, a new planetarium with live presenters, and a state-of-the-art education centre including computerised links to remote telescopes, a wonderful new environment for active public engagement in astronomy will be created. The changes will dramatically increase the Observatory's capacity to meet the high level of public interest in astronomy and space-related topics (of which there can be no doubt – the Observatory's visitor numbers for the financial year 2004/5 were up 20% on the previous year at over 880,000). Subject to the raising of the final portion of the funds, it will be finished in early 2007 and will, I



A model of the new 120-seat planetarium at the Royal Observatory. The building is in the shape of a truncated cone, angled at the latitude of Greenwich, 51.5°.

am sure, greatly enhance this historic and well-loved site.

Martin Rees

National Maritime Museum, Greenwich, London SE10 9NF

'An annular–total solar eclipse'

From Mr Darren Beard

I am writing to comment upon the letter from Mr Alex Vincent which appeared in the April 2005 *Journal* on page 109. There are two points in which the letter is in error.

Firstly, with reference to the solar eclipse on 2005 April 8 it states 'The total section is in the centre of the eclipse track because the Moon is 6000km closer to the Earth and

therefore the umbra just touches the surface'. In fact, the distance between the Earth and Moon (centre to centre) is *increasing* during the course of the eclipse. At the start of the eclipse, the Moon is 376,818km from Earth; at greatest eclipse, the Moon is 377,089km away and by the end of the eclipse the Moon is 377,371km away. The reason for the central portion of the eclipse being total is that

the Earth's surface is curved and so the section nearest to the point of greatest eclipse is nearer to the Moon.

The more significant error is in stating that the last time an annular–total solar eclipse was visible from Britain was 1858 March 15. The eclipse of 1858 March 15 was not annular–total, but was a pure annular eclipse, as stated by Jean Meeus.¹ A more recent calculation, also by Meeus,² where a list of all hybrid eclipses from 1750 to 2500 is presented, does not include the 1858 March 15 eclipse, confirming that it was not hybrid. At greatest eclipse, the 1858 March 15 eclipse gave only 2 seconds of annularity, so it was nearly total at that point.

The last time an annular–total eclipse did cross Britain was 1699 September 23 on the Gregorian calendar or 1699 September 13 on the Julian calendar, which was still in use in Britain at that time. The eclipse was total as it crossed the NE tip of Scotland. John O'Groats would have seen about 16 seconds of totality.

The date of 2545 April 12 for the next annular–total eclipse to cross Britain is correct.

Darren Beard

18 Cumberland Ave., Chandlers Ford, Eastleigh, Hants. SO53 2JX [Darren_beard@uk.ibm.com]

- 1 Mücke H. & Meeus J., *Canon of Solar Eclipses, –2003 to 2526* (2nd edn.), Astronomisches Büro, Vienna, 1992
- 2 Meeus J., *Mathematical Astronomical Morsels III*, Willmann–Bell Inc., 2004, p.48
- 3 Beard D., *J. Brit. Astron. Assoc.*, **111**(2), 88 (2001)

Lighting in Lyme Regis

From the BAA Curator of Instruments

It was interesting to note that Lyme Regis and Dorset County Council now have two CfDS Good Lighting Awards to their credit (*Journal*, **114**(3), 2004 June, p.123). However, they might be unaware that their actions have reversed the trend set by a former member of the Association. Henry Ellis (1858–1927) joined the BAA in 1892, and served as Treasurer during 1913–'22 and 1924–'27. He was also an observer, and used his 20-inch reflector chiefly for the photography of nebulae.

While serving as Mayor of Lyme Regis during 1922–'24 he introduced the town's first electric street-lights. It is gratifying to know that only eighty years later they have finally been properly installed.

R.A. Marriott

24 Thirlestane Road, Far Cotton, Northampton NN4 8HD



Mr Henry Ellis, Mayor of Lyme Regis, 1922–1924.