



Alumni News

SUMMER 2007

There's a Moon in the Sky

John O'Byrne

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City lights have dulled the public perception of the night sky; they make it hard to see celestial events and sometimes the weather is uncooperative. Perhaps some of us are spoiled by large screen TVs, action replays and special effects. As an astronomer I get used to public disappointment with exciting events in the sky. Do you remember Halley's Comet in 1986? A bit of a fizzer for the public, although pretty much exactly as predicted by the astronomers. (However, if you saw Comet McNaught in January—Wow!)

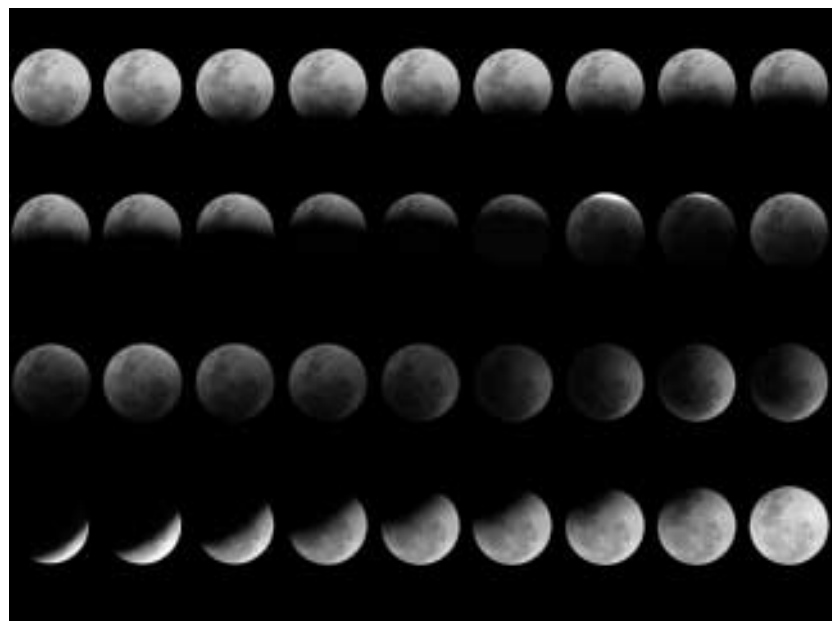
But on Tuesday 28 August the Earth and Moon put on a display that did impress the public as the eclipse of the Moon that night was perfectly timed for evening viewing in Australia – proving to be a great sight for all. Even the weather was good for many of us. Simple geometry suggests that the eclipsed Moon should be completely dark. However, some red sunlight is scattered onto the Moon by the Earth's atmosphere. As a result, it presented a colourful, easily viewed spectacle for the public.

From Sydney, the Full Moon started sliding into the Earth's shadow just before 7:00pm on a mild, clear evening. Then, just over an hour later at 7:52 pm, the last sliver of the Moon's disk dimmed and the Moon was totally eclipsed for the next 91 minutes. By 10:24 pm the spectacle was over and the Moon resumed its normal role illuminating the night.

The evolution of the event is shown in a montage of pictures taken by David Tobin from his Sydney backyard, using his digital camera zoomed at 24x, available in colour on our Alumni web pages at <http://www.physics.usyd.edu.au/alumni/events.shtml>. The varying shades of red of the fully eclipsed moon captured most people's attention. This arises because of dust in the Earth's atmosphere scattering away the blue light.

This montage of images was one of several sets of images that came to me via students in my classes (although David isn't himself a student). I

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The lunar eclipse Tuesday 28 August 2007 (David Tobin)

MyScience

A Primary Science Initiative to Watch

Alex Viglienzone

First piloted in 2006, MyScience is a new initiative aimed at developing skills in authentic scientific investigation within the primary school environment. This environment is often constrained by competing curricular interests, often resulting in the teaching and learning of science being marginalised.

MyScience is a collaborative program between the Science Foundation for Physics, IBM, Australian Catholic University (ACU), and the Western Sydney Region of the NSW Department of Education and Training (DET). MyScience aims

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MyScience is aimed at developing skills in authentic scientific investigation within the primary school environment



House Parents ISS 2007 John Bright & Karen Palmer



Two weeks of early mornings and late nights as we attempted to keep up with 140 creative and intelligent teenagers from nine different countries and many different cultures! Who would want to be a House-parent? We would! Sometimes being a substitute Mum and Dad, sometimes being a friend and sometimes getting fascinating insights into how others live – it was worth every minute of sleep deprivation for the opportunity to share the wonderful experience of ISS 2007 with these amazing young people! We know that many will have formed friendships and taken home memories that will last a lifetime and we wouldn't have missed it for the world.

Calling 1985 ISS Alumni

Dr Jacqueline Phillips who attended the 1985 ISS (theme – The Study of Populations) would like to hear from you. If you would like to catch up please contact her directly – her contact details are below.

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Dr Phil Dooley, Science Communicator, working with primary students

to inspire an enthusiasm for science and improve outcomes in Science and Technology education within primary school communities.

The MyScience program begins with professional development for teachers in authentic scientific investigation, including aspects of experimental design, data collection and analysis, and scientific reporting. Teachers then introduce these skills to their students over a number of weeks using the TryScience website (www.tryscience.org) as a launching pad, with continued support from trained facilitators.

In the final phase of the program students apply their newly acquired skills to their own scientific investigations based around a class theme or topic (in 2007 these themes included Energy, Communication, Natural Disasters and Plants). This phase also involves at least two visits to the classroom by Scientist Mentors who are currently sourced from the school's local community—including teachers from local high schools—and from ACU, IBM and The University of Sydney. Face-to-face mentoring sessions are complemented by ongoing communication between students and mentors via a secure online environment (IBM's MentorPlace).

The Scientist Mentors receive a training session giving them a project overview and guidance on how to support primary students with scientific and technical advice during their projects.

Another aim of MyScience is to sustainably position schools for two years after they are initiated into the program, so they can establish their own network of Scientist Mentors from their local communities.

Following a school celebration, student projects are appraised and submitted to the Young Scientist awards conducted by the Science Teachers' Association of NSW.

During the 2006 pilot the MyScience program was run with 2 primary schools: Quakers Hill Public School and Beecroft Public School, with over 130 students (Years 3 to 6), and 15 scientist mentors from the University of Sydney. Three of ten Young Scientist award winners in 2006 were students who had gone through the MyScience program.

In 2007, MyScience expanded to four schools: Quakers Hill East Public School, Beresford Road Public School, Quakers Hill Public School and Beecroft Public School, with over 510 students from Years 1 to 6, 40 scientist mentors from the University of Sydney, the Australian Catholic University, IBM, parents and teachers from other local schools, and 12 apprentice scientist mentors (Year 10 students from Quakers Hill High School).

Survey data from teachers and students consistently praises Scientist Mentors for their generous gift of time and expertise. One teacher from this year's program said that having Scientist Mentors involved with the program was a great benefit to the students, who learned so much from the experience. She said: "The input from the mentors has been fantastic – the students have really enjoyed having a real scientist both in the classroom and online helping them".

The collaborators of MyScience are planning to expand into more schools in the Western Sydney Region of the NSW DET and interstate to Melbourne.

For more information on MyScience visit the website: <http://myscience.com.au/>

If you are interested in becoming a Scientist Mentor please contact Ms Alex Viglienzona, Education and Administration Officer, The Science Foundation for Physics
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