



Volume 15, Issue 5

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President's Report:

John Rombi

A very warm welcome to our May "Prime Focus"

Last month we held our A.G.M. I would like to congratulate the members that were re-elected to their positions. I would also like to welcome Carol McVeigh; this is Carol's first stint on the committee.

The committee is here to steer MAS into the future, we are here to serve you. If you have any questions or have a suggestion, please send it to us.

After the AGM, we were entertained with "Trevor's Trivia" we set-up as teams on four tables, whilst Trevor acted as quiz master.

Questions (and answers) flew thick and fast, and I think a "swab" will have to be taken from the table at the back of the room, I think there was some "cheating" going on there. LOL.

Trevor was a gracious host and gave away many prizes of delicious chockies, yum!!

After the trivia, Marc Aragnou took us through the workings of the Starizona Imaging System, an excellent system that makes astroimaging a simpler fare than usual.

Thanks for all the images Marc. If you are entering astroimaging and would like to know more, contact him via P.M.

10 year awards, I was very privileged to present two awards this year. They were to Phillip Kidd and Michael Wells. This is for ten years of continuous service and membership, well done to you both.

(Continued on page 2)

MAS Committee

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John Rombi

Vice President

Trevor Rhodes

Secretary

Roger Powell

Treasurer

Tony Law

Merchandising Officer

Stewart Grainger

Webmaster

Chris Malikoff

Committee Members

Lloyd Wright
Stewart Grainger
Carol McVeigh

Patrons

Professor Bryan Gaensler (Syd Uni)
Doctor Ragbir Bhathal (UWS)

MAS Postal Address

P.O. Box 17
MINTO NSW 2566

Web: www.macastro.org.au

Prime Focus Editor

Geoff Young
editor@macastro.org.au

MAS Dates 2010

May 2010

15/5/10 The Forest
17/5/10 General Meeting

June 2010

05/6/10 Stargard
12/6/10 The Forest
21/6/10 General Meeting

July 2010

10/7/10 The Forest
17/7/10 Stargard
19/7/10 General Meeting

August 2010

07/8/10 The Forest
14/8/10 Stargard
16/8/10 General Meeting

September 2010

04/9/10 Stargard
11/9/10 The Forest
20/9/10 General Meeting

October 2010

02/10/10 Stargard
09/10/10 The Forest
18/10/10 General Meeting
30/10/10 Stargard

November 2010

06/11/10 The Forest
15/11/10 General Meeting

December 2010

04/12/10 The Forest
11/12/10 Stargard



President's Report:

John Rombi

Magnitude II has been released, I'm yet to see the finished product on DVD, but what I've seen is simply SPECTACULAR!!

Thank you to ALL the contributors for making this such a great product. Also a BIG THANK YOU to Chris Malloff for his expertise in putting this production together.

A.A.O. Coonabarabran, MAS is visiting the 3.9 metre Telescope facility in August.

Hopefully, if his schedule allows we may have Prof Fred Watson as our guide.

Please contact Tony Law (our Treasurer) for further details.

Art Gallery, Campbelltown. We now have an agreement with the Art Gallery to hold our exhibition in the week of October 3rd – 10th. Campbelltown Council (through the Mayor Aaron Rule and General Manager Paul Tosi) have agreed to pick up the bill for this event. I would like thank them for this very generous contribution.

On Saturday October 9th from 7pm, we will have Dr David Malin as our keynote speaker; this will be open to the public and will be held in the main 185 seat auditorium.

Our exhibition will be open Monday to Friday from

10.00am to 4.00pm. Saturday 10.00am to 8pm.

We need volunteers to man our telescope display for these times.

We will also need telescopes to place in our display, please consider this very important part of the event. As always "many hands make light work" We have lone access to the "Green Room" this area has all the facilities need for this week long event. Toilets, showers, kitchen, TV etc. everything needed to make it as comfortable as possible.

Without volunteers, this event WILL NOT succeed.

As always check our website for ANY information concerning MAS activities.

This month we are privileged to have our Patron Dr Ragbir Bhatl as our speaker.

His presentation will be on "**Aboriginal Astronomy**" For more information, please visit our website and look under "Speakers Presentations"

Until next month,

Clear Skies, John Rombi.





Secretary's Column:

Roger Powell

The Annual General Meeting was held on 19th April and I would like to say many thanks to the membership for re-electing me for a third term. This is a great Society and I am proud to have been elected to be a small part of the team that currently runs it on your behalf. The new committee has already held its first meeting for 2010-11 and I would like to mention in this column one or two of the issues that we are currently dealing with.

The MAS trip to the Australian Astronomical Observatory will go ahead in August and John will announce further details at the next meeting. However, if you have not yet registered and you want to reserve a place on the coach, you must advise the trip organiser, Tony Law, as soon as possible. Bookings will close on 17th May, the day of the meeting. If you like telescopes (and who in this Society doesn't?) you will want to take this rare opportunity to see the largest optical telescope in Australia. It is also rumoured the coach may stop in the Hunter Valley on the way, so there are many reasons to look forward to this trip.

The committee has decided to review the Society's constitution, the formal document that governs everything the Society does. This will be a big task, so a sub-committee of Trevor Rhodes, Tony Law and myself will carry out this review and we would welcome any suggestions from members on how to make improvements to the wording of the constitution. If you do have any ideas, we would like to hear about them now, rather than after we have completed the review. Send me an e-mail or Private Message.

The constitution was prepared in the formative years of the Society and we will be examining whether it is ok as it is or whether there are ways it should be modernised to suit the Society going forward. We will also be ensuring that the constitution complies with all of the requirements that the Department of Fair Trading may have introduced since it was originally approved. Of course, any proposed changes will be put to the membership for approval.

Following the letters of concern to local Mayors and MPs about the creeping light pollution in the Macarthur region, I advise that an appointment has been made to meet the Director of Planning at Campbelltown Council later this month to review our concerns. If anything positive comes out of this we will use it to seek similar action from other local councils.

Chris Malikoff has been very busy producing the Society's second DVD, called **m a g n i t u d e**][- and you definitely won't be disappointed when you see it. I have just received my copy and watched it on my screen. I found it mesmerising and I am sure you will too.

Chris is a great asset to MAS. As well producing the DVD and being a very talented astro-imager, he has given us a web site that is the envy of other societies, making it simple for John and I to make regular announcements on line without going through him each time. He is also taking control of the astronomy exhibition we are going to hold at Campbelltown Art Gallery in October. This will be a very important event for MAS and Campbelltown Council, who have agreed to meet all costs, is very generously sponsoring this event. John will no doubt fill in the details of this event.

Treasurer Tony Law reported at the last committee meeting that our current membership for 2010-11 is already 74, which is less than it was at the end of the last financial year but still a very healthy number to build on this year, so thanks to all those who have already rejoined this year. Tony has sent out reminders and the deadline for rejoining is fast approaching, so if you have not renewed by 31st May, you will have to make an application to re-join and pay the additional \$10.00 joining fee as well.

Send your cheques to me at PO Box 17, Minto, NSW 2566 or pay Tony at the meeting. If you have a PayPal account, you can pay online from our website. There are many benefits of being an MAS member and if you want a full list, go to the 'Join MAS' page on the website.



It's amazing who you meet on the Moon. Pt 4. David Jones

It Is Amazing Who You Meet on the Moon – Part 4 – Lunar Crater Gassendi David M Jones

**There is nothing in the intellect which has not been
in the senses.** (Pierre Gassendi)

The distinctive lunar crater, Gassendi, (often described as a 'diamond ring' shape) is to be found on the north bank of Mare Humorum (the "sea of moisture"). It is 107.826 km in diameter with sheer slopes on the northern side; its depth is 1.9 km. The crater on the northern rim is nominated Gassendi 'A' (the diamond in the ring), and the less significant crater to its north is Gassendi 'B'. The main Gassendi Crater is otherwise known as a "Walled Plain" reflecting its size and the flat floor. The bottom of the crater was filled with lava sometime after it was created by a large impact. The central mountains, characteristic of impact craters, are approximately 1200 metres in height. The system of rilles that criss-cross the floor, are called the *Rimae Gassendi*. (Waid, 2010)

Associate professor Antonia Lolordo, a specialist in 17th and 18th century philosophy writes: *Gassendi's first biographers more or less agree about his character. They describe him as gentle, easy-going, sociable, candid, and - importantly for someone dependent on patronage and the good will of other intellectuals - humble.* (O'Connor & Robertson, 2008)

Pierre Gassendi (1592-1655) was a French physicist and philosopher. His name is synonymous with the 'Enlightenment Period' – circa the mid-1600s until the late 1700s. This was the historical period when the Western intellectual world moved to free itself from the shackles of religious superstition and step into the light of scientific and empirical thinking. The wheels of bureaucracy moved ever slowly. Those who had exercised great political power for centuries were hard put to relinquish their tenacious hold over both 'kings and paupers'. The Catholic Church disapproved of those with original thoughts. It was quick to remove, discredit, excommunicate or even execute those who dared challenge the creed associated with the creation of the universe and all it contained. It was against this background that, often deeply religious men and women first began to challenge the scientific, religious and political status quo.

Pierre Gassendi was born at Champtercier in France. He was educated in Aix and Paris, where he gained a

doctorate in theology from Avignon in 1616, was ordained in 1617, and in the same year was appointed to the chair of philosophy at Aix. In 1624 Gassendi moved to Digne where he was provost of the cathedral until 1645 when he was elected to the professorship of mathematics at the Collège Royale in Paris, resigning because of ill health in 1648. (Maclean, 1955)

Maclean describes Gassendi's importance to science as resting with his role as a propagandist and philosopher, rather than as an experimentalist. However, Gassendi



was a scientist and an enthusiastic astronomer in his own right. Most notably, he made a number of observations of comets and eclipses. He also studied celestial occurrences such as the aurora borealis, an expression he himself introduced.

His most significant observation is recognised as the transit of Mercury in 1631 – the first transit to be observed. He recorded these observations in his *Mercurius in sole visus* (Mercury in the face of the sun) in 1632. Gassendi's observations were offered in support for the new 'Celestial Physics' being proposed by Johannes Kepler. Also, it was these observations of the transit of Mercury that, nearly 300 years later, offered the first positive confirmation in favour of Einstein's general theory of relativity, which, paradoxically redeemed Galileo's hunch that the [planetary motions are inertial](#).

Perhaps it is worth reminding ourselves at this point that this was an age in which there was no clear difference between astrology and astronomy. In spite of questioning the status quo, even these *new empirical thinkers* tried to integrate religious points of view and logic into their scientific work. Perhaps this was in part born of a desire motivated by the religious conviction that God had indeed created the universe, as decreed by the church. On the other hand, perhaps a modicum of self-preservation in the face of such overwhelming authoritarian odds also played a part. Whichever way, an air of mysticism still permeated the burgeoning new scientific and philosophical world.

As always, it is difficult, if not impossible to explore fully the exploits of one such as Pierre Gassendi in such a brief article, but it would be remiss of me not to include some mention of his exploratory work in physics. As with all such experimental work there are possibly more failures, or near misses, than successes. Gassendi had his share of failures, and in those areas in which he *proved* himself to be incorrect - he is known to have acknowledged his own failings; as befitting a representative of the new empirical world.

He did, however, have some exceptional successes - in his presentation of the Galilean test of dropping a stone from the mast of a moving ship; when dropped, Gas-



sendi showed, the stone conserved its horizontal speed, and its motion described a parabola given its downward fall. The outcome effectively refuted one anti-Copernican dispute, by demonstrating that the earth can move without superadding motion to terrestrial objects otherwise in motion. Gassendi was able to go beyond Galileo's original conclusions, and draw from the test a generalised principle of inertia. Gassendi saw that the motion of the dropped stone at a sustained speed—in the absence of any contrary force or obstacle—is an instance of inertial motion, albeit one where the motion is compositional (describing the parabola). Gassendi concluded: a body set in motion in any direction contin-

ues, unless impeded, in a rectilinear path (*that's a technical way of saying – in a straight line*). His other achievements in physics included the measurement of the speed of sound; he demonstrated that sound travels at the same speed, no matter the nature of its pitch. He estimated the speed of sound to be 1473 feet per second. This estimate was too high as sound travels at 1116.43701 feet per second. In a Pascalian barometry experiment, Gassendi proposed that variations in air pressure are relative to atmospheric conditions and altitude, as the air is an elastic gas. He also suggested that his experiment showed that a created vacuum is possible, at least as accumulated

among part of the air particles in the instrument 'sealed' by the mercury column in the experimental apparatus. (Fisher, 2009) Gassendi's works were well known in England and had significant influence on such important scientists as Robert Boyle and many others. For those with a thirst for history, astronomical or otherwise, this particular historical period can provide endless hours of joy and many great moments of revelation. In closing, I could do no better than leave the last word to the Catholic [Encyclopedia](#) which describes Pierre Gassendi as a man esteemed by all, and loved by the poor. Gassendi, a true champion of his time, died aged 63; he was buried at St-Nicolas-des-champs, Paris. The lunar features described above were named in his honour.

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Dwarf Planets are not Space Potatoes

Ursula Braatz

Poor Pluto is not a planet in our solar system anymore! It was an outcry from many astronomers in 2006, when Pluto was renamed as a dwarf planet. But Pluto is a sphere and not a space potato like the moons of Mars or the asteroids. There have been other spheres small like Pluto found in our solar system, so there are totally 13 planets: Mercury, Venus, Earth, Mars, Ceres, Jupiter, Saturn, Uranus, Neptune, Pluto, Haumea, Makemake and Eris. They are all Spheres, orbiting around the Sun, have gravitational fields. Pluto's downfall was that it overlaps with Neptune and asteroids, but Neptune also overlaps with Pluto. I think that astronomers should leave our solar system with 13 planets until they find another planet or dwarf planet. Objects in the universe take five basic shapes: Dust, Potatoes, Spheres, Disks and Halos. Spheres are the ones where can be life developed. Planets or Moons must be in their right distance to the sun, which is a very big sphere.



Treasurer Roger Powell presenting Ivan Fox with the first copy of Magnitude] [



DOIN' IT IN THE DARK:

Trevor Rhodes

Saturday 8th May at Stargard turned out quite good. A little dew, but nothing bad enough to end the night unless you forgot your battery. There were 14 scopes on the ground with two new ones I'd not seen before.

The first is similar to this one http://www.cloudynights.com/item.php?item_id=1094. In the dark it looks like the Lower Tube Assembly is sitting on the ground and one touch would have it fall over. But no, there is a small base under it that keeps it surprisingly stable. An added feature is that when the UTA is removed, it will fit inside the LTA. This makes the whole telescope extremely portable. Moving the tube around to was quite smooth without being loose. I would certainly like one of these if I was travelling around the country.

The second scope is much easier to describe. It is the baby brother to mine. I have the 12" collapsible dob and this one is the 8" variety. Way too low on the ground for ease of use, but with a stand or very stable table at the right height, it is a nice scope and very easy to use and setup. It would also make a great travel scope being so small and compact.

As for viewing, it seemed to be quite a good night. Not that I was doing much viewing myself. I spent most of the night wandering about talking and looking at scopes.

In describing the people who turn up to these viewing nights I am torn between using words such as 'strange' and 'eclectic'. I'll give you two examples of what I mean. One group were warming themselves by their imaginary fire and there was a Mars Bar awarded to a greybearded gentleman for guessing how many batteries another gentleman uses.

You can never tell what is going to happen at these nights and that is one of the drawcards for me. I hope to see YOU there next time.

(P.S. Ed. The first scope Trevor is describing is Moh's 8" Portaball. It's also up for sale!!)

Prime Focus Article Submission

Deadline for article submissions for the next edition of Prime Focus is

Monday 14th June 2010

All Articles can be submitted via email editor@macastro.org.au

Or via snail mail to the MAS Postal address

PLEASE NOTE THE CHANGE OF EMAIL ADDRESS FOR SUBMISSIONS!!!