

Reflections

Journal of the Northern Sydney Astronomical Society Inc.

Volume 26 Number 1

January 2015

President's Message

Hello all Members,
Well, we've been through another successful year and are about to embark on our 2015 journey.

Jean-Luc has been pushing for enough material for the January Reflections, which now gives me the opportunity to put down a few words, knowing as I do that the New Year is just not the same without it.

The first matter I should raise is the AGM in October; it saw a review of the year's activities, a few thoughts on the coming twelve months and the election of the new Committee. I was elected President for the third (and final) year, and the Committee Members were also re-elected, so we have excellent continuity and the group is working very well together.

Paul Byrne has work commitments and has had to resign from NSAS. He is therefore not continuing his valuable contribution with the NAG or the Committee.

Lawrie Webb has put his hand up as a Committee Member Without Portfolio, and has also volunteered to take on the Observations Officer responsibilities, following Tim Herridge's letting that role go as a consequence of family and distance pressures.

Tim's efforts have been most appreciated by the observers.

Lawrie has called upon the assistance of several other members to help out and this is an excellent outcome as the modus operandi of NSAS is precisely to spread

the load.

Other Committee positions remain largely unchanged.

HOWEVER, with Josh Zarin's unavailability on a regular basis we do need a Secretary. Please consider the need and get in touch with me if you would like to discuss.

If somebody could say "Yes, I can help, but I can't do the whole job", that's a strong start; we can then find somebody to assist, exactly as Lawrie has done with Observations.

Sub-Groups generally are travelling well, and the emergence of the Solar group has provided further solidity to the whole organisation.

There was talk as well of lunar observations but nothing's actually happening as yet. The question is: who might be interested?

It is pleasing to see the successful undertaking of the NAG.

The extra effort going into the program has paid results for the last two years and the event has become a lynch-pin of NSAS, being a quality source of education and information, and a major source also of new members.

It remains a fundamental requirement of NSAS, however, to ensure our new members are looked after and made to feel welcome, as our record in retaining our new members over several years is not that good.

As you will see, Suzanne's piece of work is quite different from the more scientific and sometimes full of mathematical equations articles we usually get.

In her own words, Suzanne wrote this recently in her need to express herself about this incredible place called planet earth.

Firstly, may I wish you all and your families all the best for this new year.

Thanks to one of our now most dedicated writers/reporters, namely Josephine Lindquist, and to one member who has just joined our Society, namely Suzanne Bellette, I've been able to put together this edition of our magazine.

In this issue

- Page 1: President's message
Editorial
- Page 2: Calendar/Communications
Star party at Lightning Ridge
- Page 3: Sun's Story
- Page 4: Christmas Party

Again, anybody with ideas how we can improve our record here, especially those new members, please let Peter Korber or me know.

A few other points:

- A "long term project" is on the agenda. This is likely to be concentrated on finding a quality, permanent home for our observations
- Gordon Ogborne has raised the prospect of NSAS being thought of in terms of bequests, something for all of us to keep in mind?
- Keep an eye out for the next BBQ, likely to be held later in March, further details to follow. This will be the proposed "other" such function for the year, together with the annual BBQ later, in September. This March event is likely to have a cost per head attached but September will remain at no cost. Stephen Hawking and Brian Cox have again asked to make a presentation but, if Lawrie and Ken do their solar again, we'll just have to say "thanks, maybe next year", they'll understand.

See you all in 2015.

*Bruce Retallick
President*

Unfortunately, I was not able to attend this year Christmas Party so also I wish to thank Peter Korber and Fred Szto for supplying the pictures you'll find on page 4.

Cheerio,

Jean-Luc Gaubicher

Calendar

General Meetings:	February 17 th March 17 th	Speaker: Dr. Irakus Konstantopoulos (AAO) Speaker: Dr Kyler Kuehn (AAO)
NAG Meetings:	In recess	
Observing Nights:	Consult NSAS' web site at http://nsas.org.au/observing/	
Deadline:	Please send your contributions to the April 2015 issue of Reflections in time to reach the editor before March 15th to nsas.editor@ozemail.com.au	

A Star Party at Lightning Ridge

When you think of Lightning Ridge you'd normally think of Opals, and indeed if the famous Black Opal hadn't been discovered at this location, I would guess that there would be little likelihood of a town springing up in this isolated, pebbly region.

My husband, Graham, and I answered a call for scopes from Bob Fuller to NSAS members for a star party at the Ridge on Saturday, 22 November 2014.

His invitation pointed out that at that time of the year it would be very hot, and the trip would take about nine hours.

Graham and I were the only ones from NSAS who took on these challenges and we can say that Bob was correct on both counts. Yes, it was hot; very hot. And yes, it was a long way. It's interesting how a nine-hour trip feels much longer as you get older!

We went the shortest route from home, via Bells Line of Road, Lithgow, Mudgee, Gulgong, Gilgandra, Walgett to Lightning Ridge.

We decided to break the trip both ways. On the way up we stayed at Gulgong, and on the way back at Mudgee.



Lightning Ridge is well-known for its Black Opals which are mined underground. Outside the "Walk in Mine", a mine open to tourists, is the "Big Hoist". Built between 1985-1988 it was one of the biggest hoists in Lightning Ridge at that time. It was able to carry a large quantity of dirt, which reduced the amount of labour and effort required in moving dirt to the surface and trucking it out.

Once we arrived at the Ridge we loved the place.



The strangely shaped Astronomers' Monument

On the Saturday morning I did a tour of the 'Walk in Mine' (it was absolute heaven to escape the 44 degree heat) and of course visited several opal vendors (I was tempted, but in the end I didn't buy).

We also stopped by a very intriguing structure called the 'Astronomers Monument'. It was built by a local, Alex Szperlak, to commemorate the great astronomers including Copernicus, Isaac Newton, Galileo, Kepler and E. Halley. The monument was built (apparently) from left-over concrete, using different sized buckets to give it a unique shape. From what we heard from the locals, no telescope was ever set up on the site. To me, it's just a very, very odd building.

On the Saturday afternoon we attended, at Bob's invitation, a "Giving Back" ceremony.

For the last couple of years Bob has been undertaking a research project into the sky knowledge of the Kamilaroi and Euahlayi peoples.

This afternoon Elders were invited to receive material prepared as part of this project. The audience was also treated to a very enlightening video made as part of the overall project and premiered at Lightning Ridge,

called "Sky Stories of the Dreaming", all about aboriginal astronomy.

A Macquarie University media release of 5 December 2014 ¹ highlighted three new areas of knowledge which came from this project:

- 1) The use of patterns of stars in the sky as "waypoints" for teaching travel to ceremonies;
- 2) The close connection between songlines ² in the sky, songlines and Dreaming tracks on the ground, trading routes, and star maps, and
- 3) The knowledge concerning the background to the cultural belief of "what's up there is (or was) down here".

A cultural performance of dancing and singing concluded the ceremony.

In the evening there was the star party. I'd forgotten what clear skies looked like, it was a phenomenal sight.

About 50 people came along, many indigenous who came to see the stars and link them with the stories they knew.

For many this was the first time they'd looked at the sky through a telescope.

The Large Magellanic Cloud (LMC) could be seen clearly with the naked eye in the SE sky.

In aboriginal lore the LMC is the campsite of an old man, whereas the Small Magellanic Cloud (SMC) is the campsite of his wife.

The couple, known jointly as Jukara, had grown too old to feed themselves, so other star beings bring them fish from the sky river we know as the Milky Way. ³

Pleiades, a star cluster known as the Seven Sisters, also raised a lot of interest.

In dreamtime stories they were seven beautiful ice-maidens.

Two were captured by a man called Wurrannah while their five sisters travelled to their home in the sky.



There were four scopes for the star party on the evening of Saturday 22 November, 2014. This photo was taken in the early evening. It was still light, and still very warm. It was nearly another hour before darkness produced amazingly clear star-studded skies.

Wurrunnah took the two captured ice-maidens to a campfire and endeavoured to melt the cold crystals from their limbs, but as the ice melted, the water quenched the fire, and he succeeded only in dimming their icy brightness.

Eventually the two sisters escaped and joined the other five in the sky, but they never regained their original brightness, and that's the reason there are five bright stars and two dim ones in Pleiades. ⁴

But the 'oohs' and 'aahs' on the night were for the two "falling stars" that many of us were lucky to see, and for the International Space Station that glided across the sky silently and purposely, directly above us at Lightning Ridge. A real treat, indeed.

All in all, a well worthwhile trip, and congratulations to Bob Fuller for completing such a great project.

Josephine Lindquist

- 1- <http://mq.edu.au/newsroom/2014/12/05/indigenous-astronomy-project-gives-back-to-the-lightning-ridge-community/>
- 2- <http://en.wikipedia.org/wiki/Songline>
- 3- <http://earthsky.org/clusters-nebulae-galaxies/the-large-magellanic-cloud>
- 4- <http://www.sacred-texts.com/aus/mla/mla03.htm>



The Pleiades fascinated many of the viewers at the star party because of the dreamtime story associated with this star cluster and which was known to many of them.

*Pictures of Lightning Ridge by the Author
Pictures of the Magellanic Clouds and the Pleiades from commons.wikimedia.org*



*The Large and Small Magellanic Clouds.
At Lightning Ridge we could see the LMC clearly with the naked eye.*

Sun's Story

I witnessed her birth, my favourite daughter, made of numerous elements, one of eight celestial beings. One day a powerful force unleashed its mercy, setting her in a spin, ripping apart her seams.

It revealed a heart of iron, sprinkled spontaneously with gold. No one could tell her story except me, her beauty and bounty was about to unfold.

She wore a liquid blue jacket that in time faded to green. It became dotted with strange and gigantic creatures that roamed over her folds and through her streams.

Then out of her jacket pockets grew a cathedral of trees, their feet planted firmly in the ground. They made way for blossoms and grasses, their seeds mutating in time, supporting a wonderful variety of life all around.

Then a visiting, long distant cousin broke the skin of her bones. Setting fire to her green jacket, leaving her acidic, desolated and alone.

After millennia, she gave birth to her own sons and daughters, who reaped the benefit of her fruits and seeds. Their children should have been her protectors but instead became selfish and greedy, with too many mouths to feed.

Today from a distance, I still bear witness to her life as it unfolds. In time, I will follow in her in her footsteps, into the abyss of an incredible story that has yet to be fully told.

Suzanne Bellette

Christmas Party 2014



Pictures by Peter Korber and Fred Szto.