

## Summary of the 7<sup>th</sup> ASSA Symposium

Gerrit Penning

All photographs by Hannes Pieterse unless otherwise stated

### Introduction

The 7<sup>th</sup> ASSA Symposium was held from 28 to 30 September 2006 in Bloemfontein. It was hosted by ASSA Bloemfontein Centre, in association with Boyden Observatory. In total, 68 people attended. Activities during the first two days took place at Boyden Observatory, 26 km east of Bloemfontein near Maselspoort. All three days of the Symposium saw sunny and clear skies.



Gerrit Penning officialy opening the Symposium

### Thursday 28 September 2006 – Boyden Observatory

Participants arrived from 9h00 on Thursday morning, old astronomy friends and e-mail acquaintances meeting around the coffee table at the auditorium's reception area. At 10h00 everyone moved into the auditorium for the first session. Welcoming speeches were delivered first by Ger-

rit Penning on behalf of the organising committee, followed by Pat Booth (ASSA Council), ending with Dr Matie Hoffman welcoming the participants on behalf of Boyden Observatory and the Boyden Science Centre.

The first speaker was Phillip Coetzer (ASSA Bloemfontein), delivering a presentation entitled "The New Amateur Astronomer". Phillip showed the audience what today's amateur astronomers have at their disposal, with emphasis on technology. He also gave an introduction to the workings of the Discovery Space Network of Robotic telescopes. Through his presentation it was evident that amateurs now have access to equipment that puts the execution of professional-type field work in their backyards.



The Boyden Auditorium proved an ideal venue for the Symposium

After a tea break, participants received



Panel members, Dr Patric Seitzer, Brian Fraser and Tim Cooper during the pro-am discussions an overview of the history of Boyden Observatory, presented by Dawie van Jaarsveldt. Using his special style and witty humour, Dawie took the audience through the auspicious history of one of the first international observatories in the world, ending with a toast to the successful future of the Observatory.

Dawie's presentation was followed by a panel discussion on the collaboration between amateur and professional astronomers. The theme, "Serious Amateur Astronomy: Linking with Professionals" came under the spotlight when the panel members, Brian Fraser, Tim Cooper and Dr Patrick Seitzer aired their personal opinions on what pro-am collaboration means to them. It was evident that amateur astronomers have a need to contribute scientifically and that there are clear opportunities provided by professionals for collaborative projects. Although the Symposium could have benefited from the presence of more professional astronomers, various channels were identified, including international, through which

South African amateur astronomers can make worthwhile scientific contributions

Lunch was enjoyed in the future Science Hall of the Observatory, neatly arranged by the caterers. The atmosphere was relaxed and it was obvious that lunch times of ASSA symposia should provide ample time for discussions and social interaction! The lunch also saw the announcement of South Africa's short listing to host the SKA project, to the cheering applause of everyone present.

After lunch, Tim Cooper presented a keynote address entitled "The Contribution of Southern African Amateur Observations to Professional Astronomical Studies". The focus was on variable stars, comet observations, meteors and asteroids. His



Margie Rehbrock and Kobie van Zyl being shown one of the AW Roberts records by Brian Fraser (right). The vastness of the Roberts records becomes evident when seeing the row of box-files on the bottom shelf behind them, stretching past the ends of this picture by Willie Koorts

paper made clear the efforts of the prolific South African observers of the past and our task to follow in their footsteps. His address was both inspirational and a great motivation to serious amateur astronomy.

Magda Streicher then amazed us with sketches of deep sky objects she drew. Going through each type of object, Magda displayed bullet-proof passion for her interest in those “faint little fuzzies” that amateur astronomers so much adore and gave tips and techniques on how to perform deep sky observations.

After the afternoon tea break participants re-entered the auditorium for the final talks of the day. Astrophotography was the topic up for discussion and the speakers were Pat van Heerden (University of the Free State) giving an introduction to CCD operations, Hannes Calitz (Boyden



Participants busy collecting clues at the historic Metcalf telescope during the Boyden Treasure Hunt

Observatory) talking on CCD image processing and Chris Middleton (ASSA Johannesburg / Sky Owls) presenting guidelines in the use of astrophotography hardware. Astrophotography is obviously not for the faint-hearted and even though technology has enabled amateurs to take stunning pictures, accumulate unspoilt raw data, it still takes time, dedication and a lot of trial-and-error before you reach the stage where you feel satisfied with your efforts.



Philip Coetzer (left) operating the Boyden “open air planetarium” on the auditorium roof which is specially designed for public shows

A Boyden Treasure Hunt followed. Hunters received a map and their first clue after which they dispersed on the Boyden Hill and explored the Observatory’s decades-old facilities on their own. It was a relaxed session and it enabled Symposium participants to directly experience Boyden’s unique and classic character.

After a break and the evening meal, everyone was sitting on the roof of

the auditorium. Gerrit Penning and Phillip Coetzer gave participants a taste of what the Boyden Science Centre is capable of offering its visitors. The audience was taken on a tour through the night skies, with star stories of African origins thrown in between. Green lasers blazed and Stellarium did its unbelievable part as always. A guided tour of the Boyden facilities followed during which participants were taken between the old Boyden offices and historic library (main building), the Alvan Clark 13-inch, the Metcalf 10-inch and the 60-inch UFS-Boyden reflector telescopes. The last session was called "Astronomy in Action" and was orientated in such a way as to equip participants with some practical knowledge about astronomy. Hannes Calitz and Pat van Heerden demonstrated planet-search and state-of-the-art astrophysics with the 60-inch, the 13-inch unmasked the beauty of the deep sky under the capable enthusiasm of Magda Streicher and amateur astronomers from all over the country shared experiences and know-how on the observation platform between



**It may take a while for the Boyden observing platform to see such a number and assortment of amateur telescopes again**

a plethora of telescopes. It was a sight to behold, with instruments of all types and calibers peering into the sky.

### Friday 29 September 2006 – Boyden Observatory

The first session on the Friday morning was called "Popularisation of Astronomy", which aimed to inform participants about the importance and rewards of educational and public outreach. Starting the session was Kevin Govender of the SAAO with a presentation entitled "Astronomy: A tool to inspire". Gerrit Penning then gave some tips about the "Power of PowerPoint". Dr Matie Hoffman tested the professional and amateur astronomers' knowledge in a quiz with Boyden's Personal Response System and talked about the educational program of the Boyden Science Centre. Dr Patrick Seitzer was the session's last speaker and gave an opinion "from the north" – how



**The usefulness of a PRS (Personal Response System) was demonstrated by first hand experience of this handy little device**



**Andrie van der Linde, Peneas Nkundabakura and Edward Jurua in conversation during tea**

popularisation takes place at the University of Michigan and sources of funding in the United States for educational projects amongst others.

After a tea break and group photo, the high profile session started, with the first speaker being Chris de Coning giving an overview of the “ASSA Future Directions”. Following Chris was Dr Adrian Tiplady presenting a keynote talk on the massive SKA and KAT projects. The Square Kilometer Array will be the largest radio telescope on Earth and will further add to South Africa’s growing importance as an astronomical research hub on the world stage. Dr Phil Charles (SAAO) then presented a keynote speech entitled “SALT: the First Year”. Dr Charles gave an overview of SALT and its instrumentation, talked about the science drivers behind the telescope, the short-timescale capabilities of the instrument for astrophysical research and the first science results of the past year.

A special media event took place during lunch where speakers and personnel of the UFS/Boyden were peppered with questions by journalists. Stories appeared in newspapers, on the radio and even on national television after the event.

The first talk after lunch was presented by keynote speaker Prof David Block (WITS) and was entitled “The Wonders of Carbon Stars and Cosmic Dust”. He gave a fascinating account into cosmic dust research, as Director of the Anglo American Cosmic Dust Lab at WITS. The obstruction caused by cosmic dust presents a challenge for astronomers wanting to peek into the deepest corners of a galaxy, but with special techniques and instrumentation the veil is slowly being lifted.

The afternoon tea break was followed by a speech called “The Forgotten Star in SA Astronomy” and was presented by Jacques van Delft (director of ASSA’s solar section). Jacques not only informed the audience about the impact that the Sun has on the Earth, but also entertained them with



**Dawie van Jaarsveld and Prof Block**

some neat video clips and interesting solar graphics. He encouraged people to do solar observations and took them to Boyden's 20 cm Coelostat afterwards where the sun was projected onto a white screen. He also gave them a peek through his Coronado solar telescope. Participants then went home for a relaxed late-afternoon before the evening's dinner.



**Chris Steward, Alexander Mullinos, Andrew Helsdon and Chris Middleton at the gala dinner**

The dinner started at 19h00 at Kopano Nokeng Country Lodge, not far from Boyden. 65 people attended. Several ceremonies took place through the buffet meal, with the focus on the 10 year anniversary of the Friends of Boyden Observatory society. They included an ASSA award session where certificates were handed out, the 10-year report by the chairman of the Friends of Boyden, recognition of the patrons of the Friends (Prof Francois Retief and Dr

Patrick Seitzer), an international message by Dr Seitzer as well as announcement of Project 27 and an asteroid naming ceremony conducted by Brian Fraser. Four asteroids discovered from Boyden in 1966 were given names (named after Uriah A. Boyden, Senator Alexander W Roberts, Dr John S Paraskevopoulos and Mark Shuttleworth - see news item, on p.171). Prizes sponsored by FOTON Optoelectronics and Eridanus Optics were also handed out to competition winners.



**Nico Scholtz (left) and Prof Marian Tredoux during their meteorite talk at the University**

### **Saturday 30 September 2006 – Bloemfontein City**

The Saturday morning's program started at the Geology Department on the campus of the University of the Free State. Participants were treated to some refreshments while they had the opportunity to walk through a geology museum and look at a meteorite collection. Prof Marian Tredoux presented "The Real ETs and what they tell us about our Planet". She gave an informative speech about meteorites and what scientists learn from these special visitors from space. Nico Scholtz proceeded to give an account of the Thuathe meteor

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**Pieter Laubscher (left) pointing out meteorites to his son while Koerien Deacon and Sandra Bishop (right) look on**

fall which occurred in Lesotho; numerous meteorites hitting the ground in 2002 and what geologists learned afterwards.

Brian Fraser, as new director of ASSA's variable star section, then called for more observers to take part in variable star research through short but powerful presentation. He was followed by Jabie Bruwer giving an account of the activities of the ASSA Garden Route Centre. Not only were the Centre's successes evident through his presentation, but he also showed what an ASSA Centre can attain through the motivation and participation of its members.

The symposium then moved to the historic Lamont-Hussey Observatory on Naval Hill, situated in a game reserve (virtually in the centre of the city!) The building is now a unique drama theatre which became the "Observatory Theatre" after the University of Michigan closed down Lamont-Hussey in the

mid 1970's. The speaker who had the honour of delivering an astronomy speech here was Dr Patrick Seitzer of the University of Michigan, USA. His keynote address covered an overview of the history of the Lamont-Hussey Observatory and he then proceeded to give a talk entitled "Saving our Night Sky – the Problem of Light Pollution". It was a sharp look at humankind's own global degeneration of its dark skies, but gave solutions on what both amateur and professional astronomers can do about this growing menace. The 7<sup>th</sup> ASSA Symposium was then officially concluded, although many participants still stood outside a long time exchanging a few final notes before going their own ways.

The organising committee hopes that the event was a memorable one to all participants and that any positive outflow will result in practical results for astronomy in Southern Africa.

The full article with more photos can be found on the ASSA website at <http://assa.sao.ac.za/html/symposium2006.html>



**The organising committee: Gerrit Penning, Braam van Zyl, Matie Hoffman, Pat van Heerden and Phillip Coetzer**