

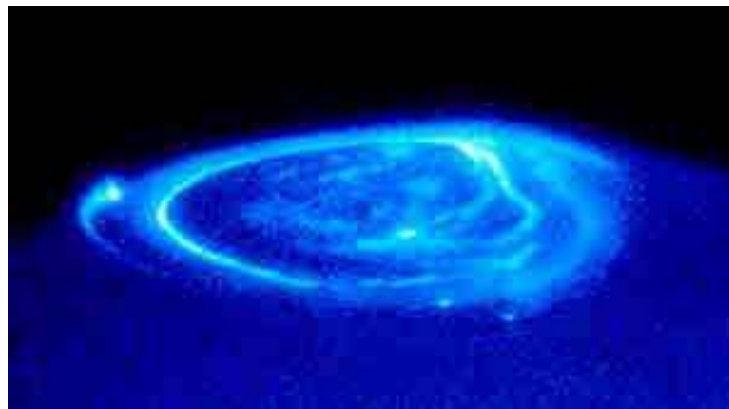


TRANSIT

The Newsletter of



12th December, 2003. Julian Day 2452986



Not an aurora on Earth but on Jupiter. This is a picture from the past but presumably the Sun is bombarding Jupiter now, as well as the Earth



And Saturn has its moments, too!

Editorial

The Society Book Project. Eleven articles now received. Please send in all those promises as soon as possible – it’s nearly the end of the year!!

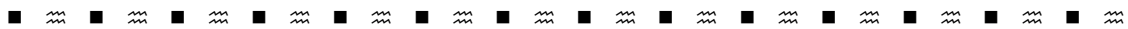
Keith Johnson’s Astropictures. Keith’s entry in the “Sky at Night” competition has been short listed for the finals with 15 other astrophotographers. Judging and announcement of the winners will be made on the Sky at Night, 4th January, BBC1.

November meeting. Lt Andrew Linsey RN (retd) give a talk on the loss of HMS Association, sailing for Portsmouth in 1707 but sunk on the rocks of the Scilly Isles. Four ships were lost in the same storm that night and 2000 men drowned. It was this event which triggered the search for a method of finding longitude, the prize for which Harrison won with his marine clocks.

December meeting. Our own resident of Esh Winning, Jurgen Schmoll, has entitled his talk for the December 12th meeting “The Marriage”. Do we need to bring confetti and rose petals, in case?

Subscriptions. Yes, you can’t believe that another year has passed so quickly. Nevertheless, subscriptions are now due and should be paid to Ian at the December meeting, or as soon as possible.

Member’s Night, January 9th, 2004. Anyone wishing to give a talk to the Society, please contact Neil with the details.

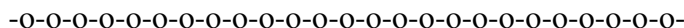


Thomas Wright and The Trophy

By Alex Menarry

A resident of Durham, Thomas Wright (1711 to 1786) trained as a clockmaker, though he afterwards taught mathematics. He is remembered for his work in astronomy and particularly his book, published in 1750, in which he first suggested that the galaxy is disc-shaped. He also believed that Saturn’s rings were composed of small particles. He had novel ideas concerning the Milky Way that he presented in his book *An Original Theory of the Universe*, published in 1750. At first, he said, he had supposed that the stars were "promiscuously distributed through the mundane space" but later, because of the Milky Way, he realized that the stars were scattered "in some regular order". A feature of Wright's universe was the existence of a supernatural galactic center, and at this "centre of creation," he "would willingly introduce a primitive fountain, perpetually overflowing with divine grace, from whence all the laws of nature have their origin".

He proposed two possible constructions of the Milky Way system: either a ring-shaped distribution of stars encircling the center of the Milky Way, similar to the rings encircling Saturn; or a spherical shell of stars, concentric with the center, in which the Milky Way consists of the stars seen in a plane tangential to the shell. Wright went further, and speculated on the possibility of many centres of creation. He speculated that the distant nebulae, seen in his day as “faint and fuzzy lights in the sky”, are perhaps other creations or "abodes of the blessed," similar to our Milky Way, and "the endless immensity is an unlimited plenum of creations not unlike the known universe”.



The local annual quiz, with its Trophy named after the famous Durham astronomer, is held “Somewhere in the North of England”. On a few occasions the venue has been at Thorpe Thewles. As many of the regional astronomy societies as possible are encouraged to send three-person teams to answer a varied range of questions. This year York AS welcomed teams from Durham, Cleveland and York to the Priory Street Centre.

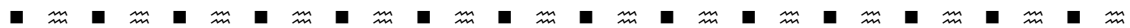
The irrepressible Paul Money was the question-master, arriving just in time after a horrendous journey on the dreaded A1 on a Friday night. Paul must be one of the most general-knowledgeable amateur astronomers in Britain. He set a fiendish quiz, requiring an amazing knowledge of deep sky objects, constellations, history, space probes and manned space flight. One had to agree with his opening statement, in which he insisted that astronomy was a visual subject and needed a visual quiz.

His method of presenting the questions was to use PowerPoint. This allowed the maximum use of astro-photography – a lot of which was Paul’s own, superb pictures as well as David Malin masterpieces. So, up flashes a picture of a starry sky; name the constellation. Have you ever tried this? Without the connecting lines or some indication of orientation and area of the sky included, it is not difficult – it’s impossible. Darran and Neil were equal to the task and scored maximum points.

Another killer was to be shown a picture of a Messier object and to be asked to name it. Not the common name, that would be too easy, but the M number and the NGC number. Darran even got a few of the NGC numbers right. Now, you are shown 4 or 5 space probes and asked to name them and give the connection between them. Then the picture changes to a rocket on the launch pad; what is it, when was it launched and – wait for it – who were the astronauts or cosmonauts who flew in it?

And so the evening progressed. Neil and Darran were brilliant and gradually pulled ahead of the other two teams and finally won by a handsome margin. The third member of the team (me!) was a bit of a makeweight, who could have answered three questions; M1 the Crab Nebula, recognised Sir Isaac Newton in the “who is this” round, and also recognised William Herschel.

I am now wondering if we could hold a CaDAS meeting along the same lines but with easier questions, of course. It would take a lot of work by someone in preparing the questions and being quizmaster but we have people with the qualifications to do that task. Having been at such quizzes a few times, I find it really does improve one’s knowledge. Lots of things stick in the memory. And to watch the experts at work is fascinating.



British Astronomical Association

Hazel Collett, of York AS, sent us this message.

Dear All, I have been dismayed over the past few years by the number of people who have complained about the British Astronomical Association (BAA) not doing enough for the true amateur or novice. Earlier this year I was asked if I would consider standing for the BAA Council, which after some consideration I did. As I have now been successful and elected onto the BAA Council, this gives me (and you) an inside chance to help address the balance, by representing the true amateur / novice astronomer.

The Solarscope

by Neil Haggath

A few months ago, Rod Cuff's internet column directed us to a web site advertising an interesting new product, the Solarscope – a low-cost, low-tech instrument for projecting an image of the Sun. In case anyone didn't see it, the web site is:

<http://www.lighttec.fr/pages/solarscopeenglish.htm>

I can now tell you a little more about this instrument, as I've just bought one! It's made in France, but is sold by several UK dealers, which are listed on the web site. The fact that one of those dealers is Broadhurst, Clarkson and Fuller indicates that it's a reputable product, and not just some gimmicky piece of rubbish! (It was, in fact, invented by a professional astronomer at the Observatoire de la Cote d'Azur.) I bought mine from a dealer in Nottingham – sufficiently close to me to be able to go there in person, rather than buy it by mail order, and try one out before committing myself. It cost £48.

It's intended as a "first solar instrument" for children and beginners, or an educational aid for teachers. However, *my* primary reason for buying it was that I wanted an instrument which can be carried in airline baggage, for when I travel abroad for next year's transit of Venus.

It certainly meets that criterion. When dismantled, it packs into a flat pack measuring 65 x 48 x 6.5 cm – which will fit into any medium-sized suitcase. The box, though only cardboard, is strong enough to survive airline handling, if carefully packed; the optical components are small enough to carry safely in hand luggage. And the whole package weighs a mere 1.5 kg! Much easier than carrying a 60-mm refractor and tripod abroad!

The Solarscope isn't a telescope; in fact, it's a small camera obscura, projecting the image by means of a single lens of 40 mm aperture. The light is reflected from a small mirror, which can be moved with a screw thread to achieve focus, and projects the image onto the inside front surface of the projection box. The image diameter is a respectable 115 mm.

The main structure of the instrument is cardboard; the projection box sits on a flat base, and has an altitude motion like a very simple Dobsonian rocker box. The optical components are held in aluminium casings.

As I write this piece, I've just given my Solarscope its First Light – and I'm quite impressed. It clearly resolved several sunspots, including some pretty small ones; judging by the size of the spots which could be seen, I guess that it would have clearly shown Mercury in transit, had I had it in May. It will certainly be more than adequate for the purpose of visually following the Venus transit, since Venus will be six times the apparent size of Mercury.

So this is a product worth checking out, folks. For such a cheap device, and considering that it's made of cardboard, a couple of bits of aluminium and one small lens, it serves its purpose remarkably well!

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The CaDAS Interview – Darran Summerfield

One of our “long distance” members with a young family, Darran finds it difficult to attend many meetings. He has been in the Thomas Wright Team for many years and, together with Neil, has ensured that CaDAS carries off the trophy on most – has it been all? - occasions. At the recent quiz, I was in the team and from close range marvelled at this man’s amazing knowledge of astronomy. For one of the questions we were shown a picture of a planet with very thin rings. In the team huddle I suggested Pluto but Darran was right with Neptune (“not an easy call” he said). It’s a pleasure to introduce such a member to you all.

Where were you born and brought up? I was born on July 8th, 1969, during a particularly violent thunderstorm, my mother often recalls, in North Tees General Hospital. I lived in Billingham for half my life until I went to University.

Have you moved around the country a lot? I went to the University of Durham in 1987, reading Geology for three years. After graduating I could not find the job I wanted, so moved back home while I replanned my life. I decided to retrain and did a Masters Degree in Information Technology at Teesside, then moved to Camberly in Surrey. This was followed by four years in London and a move to West Yorkshire in 1999. I currently live in Boston Spa near Wetherby.

Tell me about your own family. I was fortunate to grow up with a full set of Grandparents until my mid twenties. They always lived close by in Billingham, so I'd like to think I grew up with a close family. My father, which some in the society might remember (his work keeps him busy most Friday evenings), used to work for ICI; he's interested in aircraft and is still a casual astronomer.

My mother enjoys horse riding, a childhood interest she recently rekindled, and she is an important member of the local Guide Dog Association. She's heavily involved and is never without one puppy or another at varying stages of training. My younger sister went into Horticulture and is currently working at the Stokesley branch of Strikes.

My wife is a full time mum. Before we had children she was a Computer Programmer like me (we actually met at Teesside doing the same Masters degree). She's a talented musician and loves socializing with her staggeringly large circle of friends. She likes walking and skiing and tolerates my passion for astronomy and the odd hours that entails. My son, who is five in February, has just started school. He's quite a talented young man, who has been identified as being gifted at Maths (he must get that from his mother) and he's taken a keen interest in astronomy. Like any young child he's absorbing facts at an astonishing rate and can already quote more planetary statistics than I can. My daughter, who will be two just before Christmas, is a typical toddler. She's a handful, difficult, very noisy, but very cute, and at the moment her outstanding talent is mimicry. She can even count to nine in Spanish just from copying her brother.

How did you first get interested in Astronomy.? I first became interested when I was six. I picked up my father’s battered old Norton's Star Atlas and my eyes haven't wandered far from the sky since. My first instrument was a pair of 10x40 binoculars (at the time

they doubled for ornithology as well). After a couple of years my parents realised I was serious and bought me a 60mm refractor for Christmas one year. As my interest continued to grow my grandparents bought me a four inch refractor. I've lost count of the number of times people in the Society have said to me "weren't you the little kid with that big refractor?" That instrument was, and still is, the best telescope I've ever used. In 1997, I bought a 7 inch Meade Maksutov, which has been my primary instrument for the last six years or so. I do most of my observing from my back garden in Boston Spa. I'm lucky; usually the limiting magnitude is about five-point-five, sometimes it is better than that.

What is your favourite type of astronomy? I consider myself a bit of an all rounder. I particularly enjoy looking at the deep sky and over the years this is what has been the mainstay of my record keeping. But I also love looking at the planets and the moon. Then again, I don't think you can beat the joy of watching meteors. I like the simplicity of just looking, and it's an aspect of Astronomy that's easy to share.

Have you done any mirror grinding or telescope making? This has become a big thing for me over the last three years. Each Christmas and Birthday I've received a new Telescope Making manual, so I've got quite a collection now. Reading about it is one thing, finding the time to do it is another matter. I reckon I manage on average one hour a fortnight on the project. However, I've recently completed the grinding of a ten inch mirror, and I'm part way through constructing a Tester, which I want to complete before I start polishing. I hope to have the telescope completed by next summer...

What is good about the Society and what would you change? I like the Society and I've been a member since 1980, with one or two periods of absence when I've lived away. I've never wanted to join another society, which is why I'm still a member even though I currently live nearer to Leeds and York! I like the informality and lack of pretension. It might be nice to get people with similar interests working together, have clubs within the club, and bring back the old observing sections with coordinators. I'd love to kick off a deep sky group and invite people somewhere, to do some structured observing, but again, it's all down to having the time.

I would like an up to date sweatshirt, I bought mine when I was a lot smaller than I am now!

Did you enjoy your education? I did not enjoy school and had difficulties with Maths and English. Thankfully I did listen to my mother when I was sixteen and pressed on with my education. My A levels were a different story. I discovered I had a natural feel for Geology and decided to go on to University. I am a scientist through and through, I'm always analyzing, theorizing, testing and measuring something or anything. I'm on the brink of building my own computer, which I'm quite excited about. I find that more than anything, computers define the generation gap. Take my Mum for example, who despite much coaching can't even use a mouse. Compare that to my four year old son who is quite happy to turn the computer on to check his own e-mail!

Do you worry about asteroid strikes and such things? I'm concerned by the threat that asteroids pose because collisions are certain to occur. When and where and how bad, only time will tell, but they will happen. I am more concerned about the amount of misinformation and bad science involved when it comes to global warming and the ozone layer, than about the phenomena themselves.

At the risk of stepping onto my orange box... I remember twenty years ago climatologists going on about the beginning of a new ice age, now they say global warming. What about their climate models, the ones that predict a warming global climate over the next century? If you consider that not one climate model available today can explain the climate trend that has already occurred over recent geologic time, scientifically you cannot build a prediction based on such an unsafe foundation.

As for the ozone hole, five years ago I predicted that it would shrink because I thought that it is a natural phenomenon. All natural phenomena undergo cycles and I'm sure the ozone hole is no different. We just happened to have discovered it at a time when it was growing. Sure enough this year it started to shrink and it wouldn't surprise me if it's linked to the solar cycle and that will take twenty or thirty years of new data to prove or disprove.

Do quantum theory and super massive black holes excite you? They do, but more from the point of view of how weird they are. I don't pretend to understand but I still enjoy thinking. I remember reading "A Brief History of Time" and finding the insights into quantum theory very interesting. I also like the idea that "General Relativity" and "Quantum Theory" work perfectly well on their own but don't seem to fit together, one of them is wrong (or both). I can't wait to see how this science story turns out!

In astronomy, you are a life-long learner - comment. I'm sure it's the same with most sciences but astronomy is constantly changing, new concepts and ideas, new discoveries and events, you can't stand still. (Even the ubiquitous armchair astronomers can't sit still). I would absolutely love to have the time to take up a distance learning course. I'm not sure why, I think it's just because I want to carry on learning, to carry on improving myself. What is the essence of astronomy for you? Wonderment.

Do you like travelling? I love to travel, to see things and to experience things. The Australian outback, the relics of Greece, Niagra Falls, are just a few of my favourites. I am fortunate that I can travel, children and finances permitting. I have a list as long as my arm of places I'd like to go...

Tell me about the memorable characters you have met in the astronomical world.

I think one look at the ranks of our Society and I think you have a fair selection of memorable characters, and I mean that in the most positive way possible. Have you any heroes? Not sure if I actually do have heroes as such but there are many people I deeply respect. They're mostly everyday people, people who help and contribute to their surroundings, enthusiastic people. John McCue fits into that category.

Do you have time for any other interests and hobbies? My wife and I and some of our friends love to walk in the mountains, and we try to get away for a skiing holiday every

year. *Do you play a musical instrument?* I don't play an instrument but would love to learn when I find some time. My wife plays the cello for the Sinfonia of Leeds and I don't think anything would please her more than if I learned something, so we could play duets.

What about films? I enjoy films that are well made, so I tend to enjoy the work of particular directors, Ridley Scott, James Cameron and John Woo are some of my favourites. At the moment I'm particularly enjoying Peter Jackson's interpretation of the Lord of the Rings trilogy. I think he has done a splendid job of bringing the book to the screen. I tend to enjoy action films as I find them easy to slide into with minimal effort required on behalf of the viewer. Then again, I enjoy intricate films that make you think. The Matrix, the original, is a film that falls into both categories and is one of my favourites.

What do you read? Right now I'm actually reading my own! I'm hoping to become a fantasy fiction author in the near future and at this moment I'm doing the first edit of my first book that I completed in June. I'm hoping to be in a position to approach publishers before the end of the year. Someone recently asked me where I've found the time to write a novel, I replied. "I managed to squeeze it into the 25th hour of the day!" As for other peoples work I think everyone, particularly older children should read "Demon Haunted World" by Carl Sagan. I think it is a very important book indeed.

What is your most satisfying astronomical achievement to date? Going to Australia to see the 2001 Leonid storm, which incidentally is the subject of one of the articles I'm submitting to the Society Book Project. And of course being the youngest person to receive the Cleveland Astronomer of the Year Award, when I was twelve. (I'm not sure if I've been superseded or not – it's been along time).

Do we do enough as individuals, as a Society, to combat light pollution? I don't remember anyone in the Society organizing something to do with light pollution so from that point of view I'd have to say "No". I did toy with the idea of bringing a stack of ready written, addressed and stamped letters to a meeting and hand them out, but I never got around to it! I have been trying to get Leeds council to alter some streetlights near my home, with some limited success. I'm hoping that the Government will soon bring in new regulations that will give more power to my argument. I'm ashamed that I haven't done more to combat light pollution.

Who has influenced you the most? This is a difficult one and although it sounds arrogant, I'd have to say myself. From a very early age I refused to follow trends or conform, I chose my own path and that is something I've done all my life.

If you were World dictator, what measure would you introduce? I wouldn't do anything rash such as stopping wars or eradicating disease, since right now these are the only effective ways we have to control the global population. I would remove the influence of religion and politics on scientific research. I'm not saying that scientific research would

The Back Page Picture(s)

The December Portrait Gallery



Treasurer Ian Miles



Dave Graham



Ray Worthy



Ron Peacock

The December portrait gallery features four more Society members who have appeared in The Interview. .