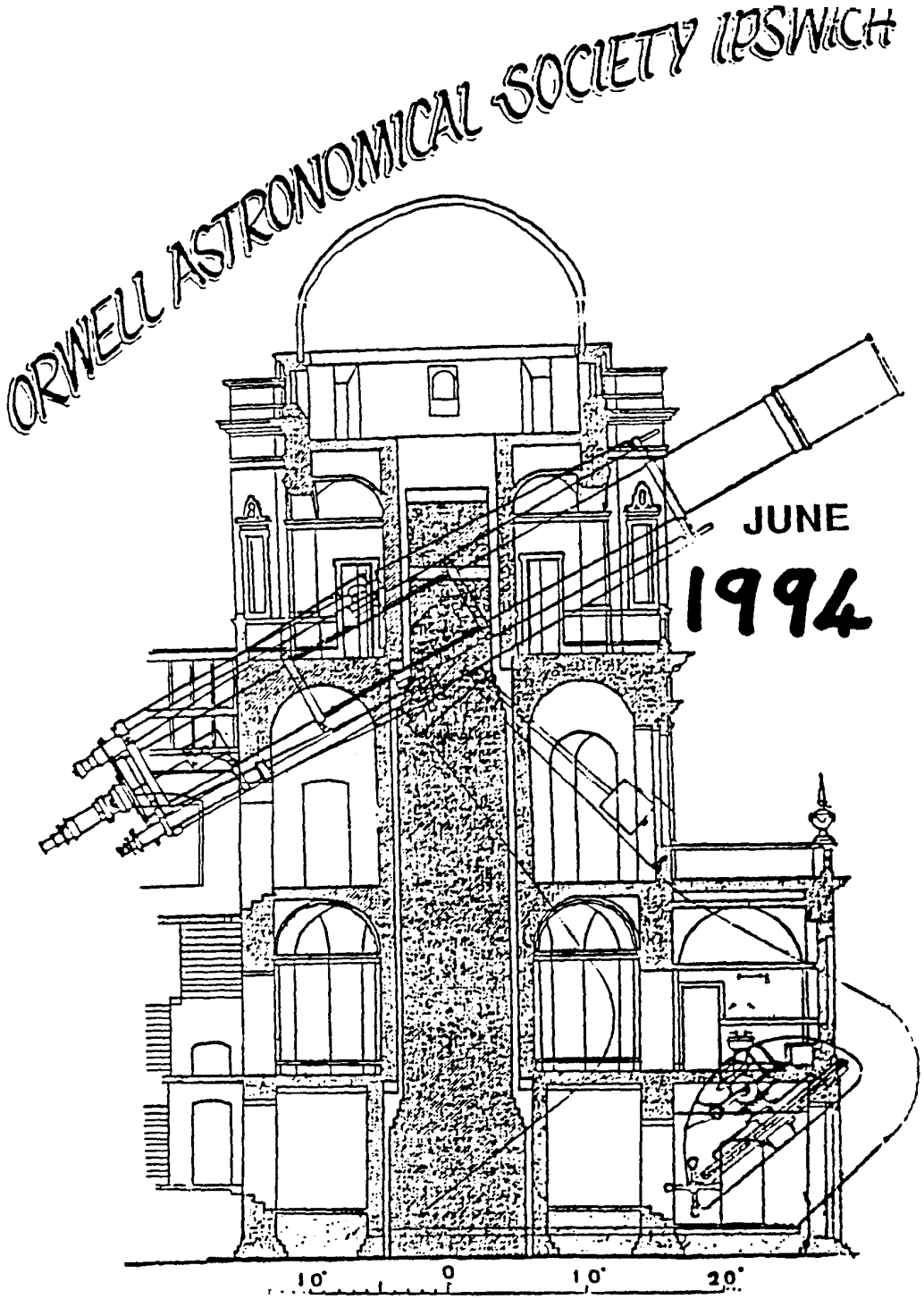


SOCIETY NEWS

1 Committee Meeting

The next committee meeting will be on Saturday 30th July, from 7.30. As usual this is an open meeting and any member is welcome to attend.

2 List of Events For 1994

i)	Trip to Greenwich	11-6-94
ii)	Parents Day	18-6-94
iii)	Norwich A.S. are holding open days at their new site at Seething. Numbers are limited, with tickets costing £3.50.	2/3-7-94
iv)	FAS Convention Cambridge	24-9-94
v)	The annual Open Weekend will be held in the autumn.	
vi)	Bury Star Party. We have been asked to help organise a star party as part of the Bury St Edmunds Time & Motion Festival. Probable date Saturday	10-12-94
vii)	Christmas meal. Sometime in December	14-12-94

3 Open University TV Programmes

The Open University is running an astronomy course this year, and BBC2 will be showing a series of programmes for this:-

	BBC2 08.45 1st showing Sunday	BBC2 24.00 Repeat Thursday	
TV5	19-6-94	23-6-94	Design for an Alien World
TV6	17-7-94	21-7-94	Mapping the Milky Way
TV7	14-8-94	18-8-94	Jets & Black Holes
TV8	11-9-94	15-9-94	Cosmology on Trial

NIGHT SKY

All times GMT

SUN

Rises approximately at 03.49 to 03.47
Sets approximately at 20.08 to 20.21

MOON

1st 9th 16th 23rd 30th

MERCURY Mercury will be visible low down in the west during the first week of the month. Inferior conjunction is on the 25th.

VENUS Venus will be visible in the western sky after sunset. It will be setting about 23.00 in mid month. Mag. -4.0.

MARS Mars will be rising about 2 hours before the sun, (01.22), by the end of the month. Mag. 1.2.

JUPITER Jupiter will be visible most of the night. Mag. -2.5.

SATURN Saturn will in visible in the morning sky, rising at about midnight at the end of the month. Mag 1.0.

URANUS & Neptune Both planets are in Sagittarius. Uranus rises at about 22.10 in mid month, and Neptune rises a few minutes earlier.

R.Gooding

Astronomy at Oxford and Cambridge by Mike Harlow

May was a good month for astronomy meetings with the 16th Annual Oxford weekend from 13th-15th and the Webb Society meeting at Cambridge on 21st. These are two very different events. The Oxford weekend is held at Rewley House, which is the centre for the department of continuing education at the university, and attracts a wide range of people, from enthusiastic amateur astronomers to those with a general interest in things scientific and philosophical.

The theme for the weekend was Planets and Planetary Systems and it started on the Friday evening, after dinner, with an introductory overview of the solar system by Dr. Bob Lambourne. As the course director Bob Lambourne, who is actually in the physics department at the Open University, was able to choose his own subject for the talk and he dealt mainly with the outer solar system; the outer planets, Pluto, the recently discovered Kuiper belt (?) objects and beyond. The talk was delivered with such clarity and enthusiasm that everyone forgot that it was late on Friday evening and were totally absorbed by the mysteries of Pluto and the search for the edge of the solar system by the Voyager spacecraft.

The following morning began the specialist lectures. The first was by Prof. F W Taylor who talked about planetary atmospheres from Mercury out to Neptune including some of the bigger planetary satellites on the way. Yes Mercury does have an atmosphere but as Prof. Taylor explained, not the earth like atmosphere that was believed as little as 25 years ago to exist there but one that is only 10^{-12} that of the Earth's and consists mainly of hydrogen, helium and sodium!

Following coffee Dr. David Rothery, also of the Open University, gave a fascinating talk about 'Great Balls of Ice', i.e. the icy satellites of the giant, outer planets. Thought to be geologically dead by the majority of geologists before the Voyagers got there but now known to exhibit a wide range of geological processes including volcanism.

I must say that at about this time I stopped taking notes--the dazzling display of images, two slide projectors on at once plus the occasional overhead!! was too much to cope with so I just sat back and enjoyed the show! The amount of detail in the Voyager pictures is truly amazing. From being just tiny, fuzzy discs in earth based telescopes these icy satellites can now be seen as active worlds in their own right--and the Galileo spacecraft will show ten times as much detail!

Because of the lack of notes the details of the rest of the weekend are not so clear but one other outstanding talk was by Dr. Mike Lancaster,

from UCL I think, who talked about Venus. It must be said there were some doubts before the talk started about what we were going to get because the scheduled speaker couldn't make it and his replacement looked as though he had only just left school (no offence intended). However, all doubts were quickly dispelled as Dr. Lancaster got underway. His knowledge of the surface of Venus was astonishing. If any of you have seen the Magellan radar images of Venus you know that it is far from clear what they actually represent, but the speaker obviously had a very good idea what they were showing and was good enough to share it with his audience. A breathtaking performance with a number of appreciative comments overheard afterwards.

Sunday was different again with Dr. Roger Griffin discussing practical ways of detecting planets around other stars, beyond our solar system. The practical difficulties are immense but with certain techniques it should be possible to detect planets right now. The last talk of the weekend was a speculation about life on other planets put into context with a discussion of life on Earth. A very thought provoking end to a thoroughly fascinating weekend.

The Webb Society meeting at Cambridge the following weekend (attended by Pete Richards and myself) was a complete contrast as it was a meeting of those interested in everything *beyond* the solar system, i.e. so called 'deep sky' observers. The morning session was about the hot topic in amateur astronomy at the moment, yes you've guessed, CCD cameras!!!

Alex Coburn kicked off. If you read my article last month about astronomy at Keele you will recognise the name. One very interesting observation came out of Alex's talk this time round. At Keele I had seen his camera in action on a 17 inch Newtonian and the results were stunning. This time however he showed results, with the same camera, on a 10 inch Meade (f/10 Schmidt-Cassegrain) and interestingly the results were much poorer. The fact is CCD's are amazing things but a bigger telescope will still give better results. It may seem obvious but it is not the impression given by most of the popular magazines.

The next talk by a couple of members of Castlepoint AS showed that you do not have to be a computer or electronics wizard to work with CCD's. They both came into the field with next to no experience and have picked it all up as they have gone along, with excellent results.

And the final talk of the session was about the computing aspects of CCD's--like the fact that there is no standard image format, an overhead with 21 different images types was displayed at this point!! Also, the computing power to manipulate the large images is still underestimated, an image from a 1024 x 1024 CCD (not common it must be said) would take up 2.09Mb so it could not be stored on a floppy disc.

At lunch we met three members of the Norwich AS who confirmed that they would be having an open day at their new observatory site on the 2nd July. Several members have already expressed an interest in going up for the day but be warned that entry is by ticket only. More details nearer the time.

There were two talks in the afternoon, the first by Dr. David Dewhurst who talked about 'the observing books of the Earl's of Rosse'. Now you may think that this sort of talk was a bit out of place after the high tech. start to the day but, as Dr. Dewhurst pointed out, the 3rd Earl of Rosse (1800-1867) was in his day right up at the leading edge of technology having built by far the largest telescope in the world at that time. It was the 72 inch telescope at Birr Castle, finished in 1845, which led astronomy into the modern age with the discovery of the spiral structure of galaxies and Dr. Dewhurst's talk left no one in any doubt that the 3rd Earl of Rosse was a highly skilled observer as well as optician, engineer and mathematician. The picture painted of the set-up at Birr castle was that of a world class observatory with foundries (mirrors were made of metal in the early 1800's), optical workshops and engineering facilities as well as technicians and visiting astronomers.

And finally, back up-to-date with a talk by Prof. Augustus Oemler, visiting Cambridge from Yale, who gave the current view, or at least his view, of the evolution of galaxies. As he pointed out there are as many theories as theoreticians, typical of a science that has to rely on observations rather than direct experiment. Having said that however the quality of the observations is improving and many results are now coming from the repaired Hubble telescope showing structure in galaxies way beyond what was possible before. One interesting observation is that Hubble is seeing gravitational arcs in and around distant clusters of galaxies, in fact, almost everywhere it looks around clusters there are arcs, the images of even more distant galaxies.

To finish the day off we indulged in a very English activity--touring the observatories and telescopes at Cambridge--in the rain!!

If you are interested in what goes on at Cambridge, i.e. The Royal Greenwich Observatory (RGO) and the Institute of Astronomy they are having open days on the 17th and 18th June (Friday and Saturday) between 10am and 4pm with admission free. Well worth a visit as part of a day out in Cambridge.

PYXIS

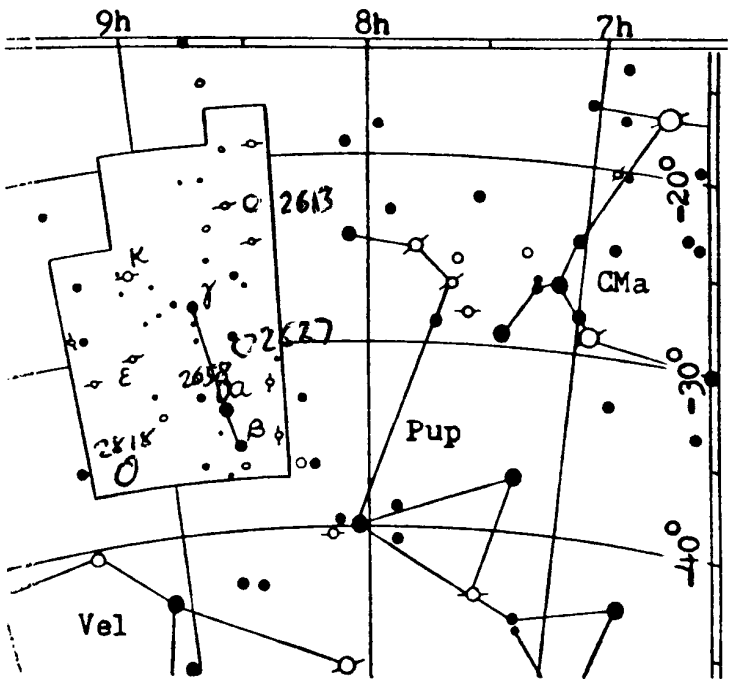
The main object of interest for binocular and telescope observers in Pyxis is the Milky Way which runs through its western portion, providing observers with some small open clusters. The eastern area is unobscured and contains a nice spiral galaxy N.G.C. 2613.

There are three open clusters N.G.C. 2627,N.G.C. 2658 and N.G.C. 2818. The last one being the most interesting as it is combined with a planetary nebula which is not connected to the cluster as it has a greater distance.The nebula is about 40 arcseconds in diameter, faint and located at the western edge of the cluster of about 30 stars.

Double Stars

PYXIS

Pos.	1	2	D	d"	P A	No.
082634	5.8	10.	o	25.2	143	
2919	5.9	6.5	b	0.5	78	I489
3024	6.8	6.9	b	0.5	128	B205
3232	7.1	7.1	d	0.8	134	
3622	5.3	6.9	b	1.9	212	B208
090525	4.8	10.	d	2.1	263	K
0730	5.5	9.2	c	17.8	147	ε
1831	7.2	8.0	c	3.0	73	h4200
2428	6.4	7.2	b	0.6	254	Jc5



PROGRAMME FOR JUNE

DAYS &DATES	DIRECTORS	SECTION & ADDRESSES	PHONE INC. STD CODE
Mondays	from 7.30pm	GENERAL OBSERVATION SECTION	
6-13-20 27	Mr J King	, Felixstowe, IP11 9LQ	
Tuesdays	form 7.30pm	GENERAL OBSERVATION SECTION	
7-14-21 28	Mr D Barnard	IP3 8RN	
	Mr J King	(Address above.)	(Number above)
Wednesdays	from 8.00pm	NEBULA & FAINT OBJECTS SECTION	
1-8-15 22-29	Mr M Cook	, Ipswich, IP4 5PZ	
	Mr D Payne	, Wickham Market, IP13 0SD	
Thursdays	from 7.30pm	OBSERVATORY VISITS FROM OUTSIDE GROUPS	
2-9-16 23-30	Mr P Richards	, Nacton, Ipswich, IP10 0HS	
Fridays	from 7.30pm (may be postponed to Saturday)	PLANETARY & LUNAR SECTION	
3-10-17 24	Mr P Richards	(Address above.)	(Number above)
	Mr G Marriott	Ipswich IP4 4JB	

All members are welcome to come but, on nights other than Wednesdays please check with directors that the observatory will be open. Directors will also be able to tell you if a group visit is taking place. All of the sections observe anything of interest but the title of each section suggests a popular subject.

Lectures and other events:

1994 COMMITTEE

			Home Phone:	Work Phone:
CHAIRMAN	D Payne	(Address above)		
MEMBERSHIP RENEWALS	M.Cook	(Address above)		
MEMBERSHIP SECRETARY	R.Gooding			
SECRETARY	R Gooding	, Ipswich, IP1 6AE		
TREASURER	M Nicholls	, Capel St Mary, Ipswich, IP9 2EX		
MAINTENANCE CO-ORD	M Cook	(Address above)		
JOURNAL CO-ORDINATOR	E Sims	, Ipswich, IP1 4HA		
PUBLICITY & VISIT CO-ORD	P Richards	(Address above)		
EQUIPMENT CURATOR	M.Harlow	Trimley		
SPECIAL EVENTS CO-ORD	P.Richards			
LIBRARIAN &COMP SOFTWARE	J.Appleton	Ipswich IP3 0QJ		