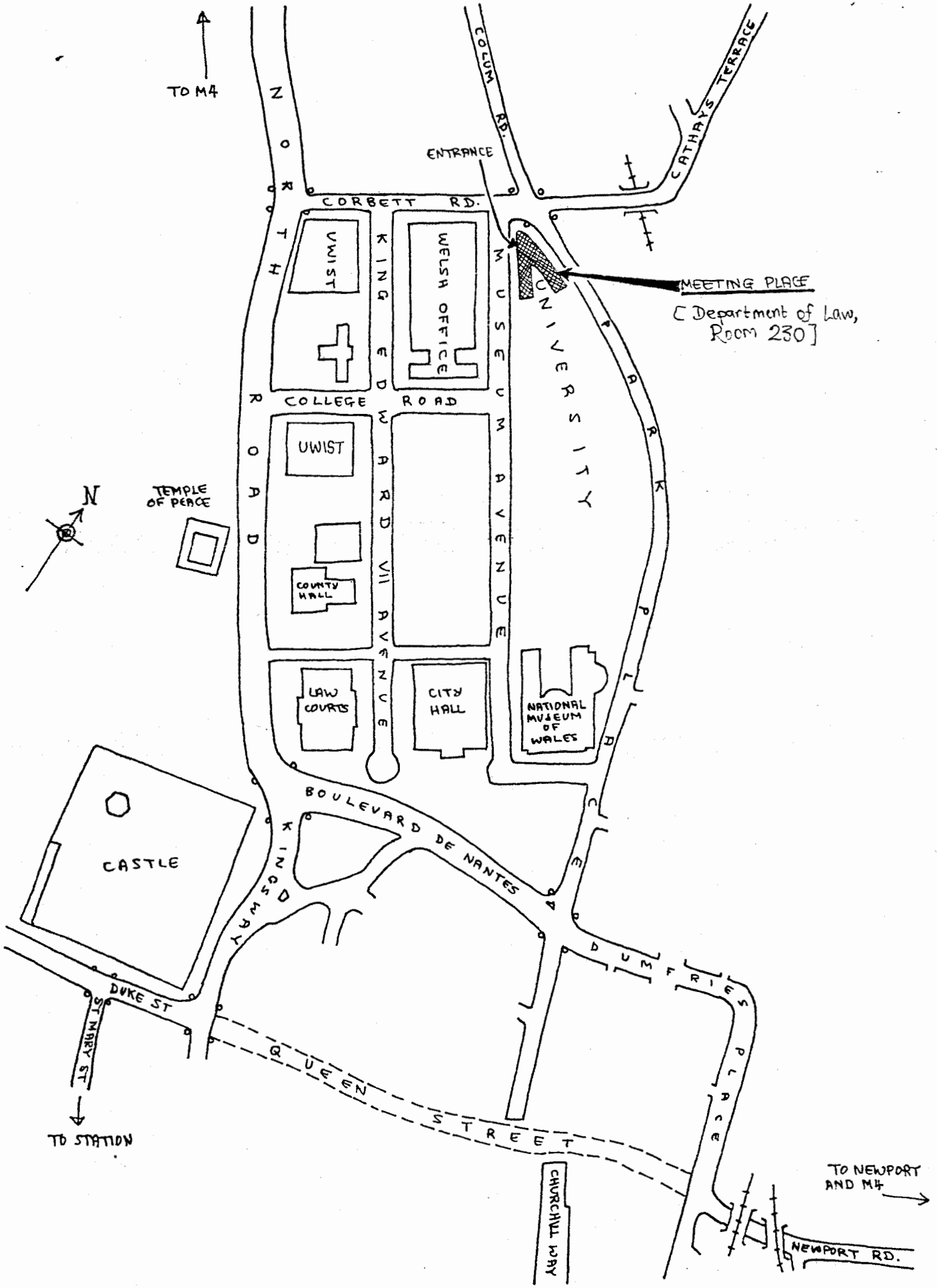


**Cardiff
Astronomical
Society**

**Handbook
1980-81**



I N T R O D U C T I O N

Since it seems as if the CAS Handbook has been a success in its first year, it has been decided by the Committee to make it an annual publication. The pattern of this edition closely follows that of its predecessor, but if members have suggestions for improvement for future editions, they will be warmly welcomed by Committee.

M E E T I N G S

Indoor meetings are held on alternate Thursdays from September to July in Room 230, Department of Law, University College, Cardiff, at the north end of Museum Avenue (see map opposite). They commence at 7.30 p.m., and finish by 9.30 p.m. (lectures normally end shortly after 9 p.m.). Occasional meetings are held on days other than Thursdays, and you should check the programme at the end of this handbook for details.

Apart from indoor meetings, outdoor observing sessions, where members bring their own portable instruments, are held from time to time. Details are announced at the indoor meetings or in the Newsletter.

CARDIFF ASTRONOMICAL SOCIETY

Cardiff has seen a succession of astronomical societies since the end of the war. The predecessors of the current society disbanded for various reasons, and its immediate predecessor, the Cambrian Astronomical Society, finally became moribund by 1970.

At an Extra Mural course held at Dyffryn House in June 1975, the present Treasurer (Bob Owens) and Secretary (Dave Powell) were encouraged by the organiser, Dr. G.P. Thomas (formerly of the Extra Mural Department of the University College of Swansea, now at the Department for External Studies, University of Oxford), to revive the Cardiff Society, particularly in view of the existence of large and vigorous societies in our neighbouring cities of Swansea and Bristol. Consequently, they got together with Ron Lane, custodian of Penylan Observatory, and two of his group at the Observatory, Colin Lang and Martin Chick, and arranged an exploratory meeting in July 1975. It immediately became apparent that there would be support for a new society, and so an interim committee, with Ron Lane in the chair, was set up. It set about arranging a programme for the autumn, and by the end of 1975 the membership had reached 50, and a keen, enthusiastic nucleus had become established. Despite pessimism from members of earlier societies, who had seen several rise only to fall again, the present society quickly became well established, and the membership has consistently topped the 100 mark for the past three years.

We are still a fledgling society compared with our long-established neighbours, who have given us a good deal of help and encouragement, but we are gradually becoming more sophisticated, with members obtaining larger telescopes and gaining observational experience. Several members now contribute to the observing sections of such national organisations as the BAA and British Meteor Society, and we have become involved in joint meteor watches with Swansea and Bristol. We are also attempting - so far without too much success - to encourage members to make their own instruments, particularly since we have members very experienced in this field. Towards this end there is a cooperative Society effort under way to construct a six-inch Newtonian reflector, hopefully(!) ready for use during the coming winter.

We try to offer a wide and interesting variety of lectures at our fortnightly meetings so as to cater not only for the practical

observer, but also for the 'armchair' astronomer. Also informal 'observing sessions' are held from time to time in a dark out-of-town location to allow members - especially those who are beginners without their own instruments - to have use of portable telescopes and to get to know their way about the sky. The Society is normally represented at the courses arranged by the Extra Mural Department, University College of Swansea, held alternately at Dyffryn House, St. Nicholas, South Glamorgan, and at Gregynog, near Newtown, Powys, as well as at the annual BAA course on observational astronomy held at Winchester. Social events are also held, sometimes in conjunction with our neighbouring societies.

Until the end of 1978 our Society had its headquarters at Penylan Observatory, owned by Cardiff City Council and equipped with a 12 $\frac{1}{2}$ " Newtonian reflector. This telescope is a rare example of a Browning reflector, made in the nineteenth century, and modified by Calver, who added the drive. It is thus an instrument of high quality as well as of historical importance. Sadly, the observatory compound has been so badly vandalised that it became necessary to dismantle and remove the telescope entirely in April 1980, so that it could be moved to the safety of a Council store. Members of the Committee, in concert with members of the South Glamorgan Education Committee, are currently seeking a new site on which to re-erect the observatory.

Through the good offices of our President, Professor Disney, we will be able to have use of the sixteen inch reflector belonging to University College, Cardiff, and it will be available after the end of some of the fortnightly meetings. It is used essentially as a training telescope by the Department of Mathematics and Astronomy to prepare students for working with bigger instruments abroad. The Society owns a few small portable telescopes for use by members, and these can be had on loan from the Director of Observations. There is also a small, but growing library, and books are available for loan at each meeting.

COMMITTEE 1980-81

PRESIDENT:

Professor M. Disney,
Professor of Observational Astronomy,
Department of Mathematics and Astronomy,
University College,
Cardiff.

VICE PRESIDENT:

R.C. Lane (Ron),
Custodian of Penylan Observatory,
53 Romilly Road,
Canton,
Cardiff.

Instrument - 2½" refractor.

Interests - Cosmology; deep sky objects.

CHAIRMAN:

Mrs. P. Chick (Pam),
Data Controller,
28 Clos Llangefni,
Yorkdale Garden Village,
Beddau,
Near Pontypridd.

Telephone - Newtown Llantwit 206594 (home).

Cardiff 396131, ext.41 (business).

Instruments - 8½" Newtonian reflector.
3" refractor.

Interests - Planetary and solar observation;
spectroscopy.

VICE CHAIRMAN:

Mr. G.P. Dolan (Gerry),
Civil Servant,
9 Hendy Street,
Roath Park,
Cardiff.

Telephone - Cardiff 496296.

Instruments - 3" refractor,
7 x 90 binoculars.

SECRETARY:

D.W.S. Powell (Dave),
Warehouse Manager,
1 Tal-y-bont Road,
Ely,
Cardiff.

Telephone - Cardiff 551704 (home).
Cardiff 564822 (business).

Instruments - 6" Newtonian reflector.
20 x 70 and 7 x 50 binoculars.

Interests - Variable stars, nova patrols,
meteors.

TREASURER:

R.M. Owens, B.Sc., Ph.D. (Bob),
Assistant Keeper of Geology,
National Museum of Wales,
7 Herbert Terrace,
Penarth,
South Glamorgan.

Telephone - Cardiff 397951, ext. 213 (business)

Instruments - 6" Newtonian reflector,
6 x 30 binoculars.

Interests - Solar System; photography.

EDITOR:

Miss M. Lewis (Mary),
Clerical Assistant, Welsh Tourist Board,
86 Highbury Road,
Ely,
Cardiff.

Telephone - Cardiff 499909, ext. 215.

Instruments - 10 x 50 binoculars.

Interests - Solar System, space exploration.

DIRECTOR OF
OBSERVATIONS:

M.E.J. Chick (Martin),
Assistant fingerprint officer,
South Wales Police,
28 Clos Llangefni,
Yorkdale Garden Village,
Beddau, Near Pontypridd.

Telephone - Cardiff 44111, ext. 256 (business).
Newtown Llantwit 206594 (home).

Instruments - 8 $\frac{3}{4}$ " Newtonian reflector.
3" refractpr.

Interests - Planetary observation; photography.

JUNIOR REPRESENTATIVE
AND LIBRARIAN:

R. Morris (Robin),
16 Bartlett Street,
Caerphilly.

Telephone - Caerphilly 882058 (home).

Instruments - 12 x 50 binoculars,-
40 mm refractor.

Interests - Astrophysics;
computer applications to astronomy.

COMMITTEE MEMBERS:

N.L. Jenkins (Norman),
BBC Engineer,
34 St. Margarets Road,
Whitchurch,
Cardiff, CF4 7AB.

Telephone - Cardiff 68335 (home).

Instruments - 7 x 50 binoculars.

Interests - Astronomical instruments and
their construction;
deep sky objects;
planetary observation.

P.W. Jones (Phil),
Telephone/electrical engineer,
8 Pyle Road,
Ely,
Cardiff.

Telephone - Cardiff 595008 (home).

Instrument - 8 $\frac{3}{4}$ " Newtonian reflector.

Interests - Planetary and lunar observation;
photography.

COMMITTEE MEMBERS
(continued):

M. Painter (Mike),
BBC Cameraman,
59 New Road,
Rumney,
Cardiff.

Telephone - Cardiff 77893 (home).

Instruments - 8½" Newtonian reflector.

Interests - Double stars; solar observation.

W. Sutherland (Bill),
Physicist, Velindre Hospital,
13 St. Johns Crescent,
Whitchurch,
Cardiff.

Telephone - Cardiff 66132 (home).

Instruments - 6" and 4" maksutovs;
6" cassegrain.

Interests - instrument making,
cosmology.

LIBRARY

(a) General

Astronomy for everyone	George O. Abell
The universe	Isaac Asimov
The view from Orbit II	Anthony Avenal
New astronomy and space science reader	John C. Brandt, S.P. Maran
Astronomy in colour	Peter Lancaster Brown
Comets, meteorites and men	Peter Lancaster Brown
Stars and planet spotting	Peter Lancaster Brown
Restless earth	Nigel Calder
The violent universe	Nigel Calder
Into space	P.E. Cleator
Space frontiers	Heather Couper, Nigel Henbest
Radio studies of the universe	R.D. Davies, H.P. Palmer
The earth	I.O. Evans
Astronomy - teach yourself	David S. Evans
Frank's book of the telescope	Charles Frank
Bombarded earth	Rene Gallant
Robot explorers	Kenneth Gatland
The comet Kohoutek	Joseph F. Goodavage
The living universe	James D. Hebwyrd
Reach for the moon	Walter Hendrickson
Introducing the universe	James C. Hickley

LIBRARY (continued)

The comet	Douglas Hill
Astronomy	A.R. Hinks
The search for life on other worlds	Cpt. D.C. Holmes
Flying saucers from outer space	Mjr. D.E. Keyhoe
Radio astronomy	Frank W. Hyde
The modern universe	Raymond A. Lyttleton
Discovering the universe	Bernard & Joyce Lovell
The A-Z of astronomy	Patrick Moore
The boy's book of astronomy	Patrick Moore
Guide to the moon	Patrick Moore
Guide to the planets	Patrick Moore
Guide to the stars	Patrick Moore
Practical amateur astronomy	Patrick Moore
The stars above	Patrick Moore
Yearbook of astronomy 1975	Patrick Moore
Yearbook of astronomy 1977	Patrick Moore
Yearbook of astronomy 1978	Patrick Moore
Yearbook of astronomy 1979	Patrick Moore
Deep-sky objects	Jack Newton
Sky shooting	Jack Newton
Exploring the planets	Iain Nicolson
The constellations and how to find them	W. Peck
Man and the planets	R.S. Richardson
Signs of life	Ian Ridpath
Man probes the universe	Colin A. Ronan
The amateur astronomer and his telescope	Gundter D. Roth
Handbook for planet observers	Gundter D. Roth
Invasion of the moon, 1969	Peter Ryan
Mathematician's delight	W.W. Sawyer
The riddle of the universe	W.M. Smart
A key to worlds beyond (TASCO)	A. Smith
Make your own telescope	R. Spry
Is anyone out there?	J. Stoneley
How to construct a 6" telescope	
Black holes	J. Taylor
Astronomical spectroscopy	A.D. Thackeray
Faster-than-light particles (Superluminals)	
The UFO enigma	J. & J. Vallee
The revolving heavens	R.L. Waterfield
Celestial objects for the common telescope:	
Vol.1: the solar system	T.W. Webb
The first three minutes	S. Weinburg
Exploring space (two editions)	R. Worrill
The stars and their legends	R. Worrill

LIBRARY (continued)

(b) Yearbooks and Calendars

Yearbook of astronomy: see Patrick Moore
The night sky 1961
The night sky 1963
The night sky 1976
CAS Calendar 1977
CAS Calendar 1978
CAS Calendar 1979
CAS Calendar 1980

(c) Periodicals

Stars and space 177 1977
BAA, New South Wales Branch, Bulletins: Nos. 579-585
590-592
595-599
The Astronomer, Vol. 14: Nos. 162
165-167
[Oct 177, JAN-MAR 179]
Spectrum No. 5 NOV 1976

(d) Observation guides

Signposts to the stars
Stars at-a-glance
Popular star atlas 1950
Norton's star atlas
Whitaker's almanac 1967

(e) Equipment catalogues

Astronomical equipment handbook and catalogue
Fullerscopes handbook and catalogue
TASCO products catalogues 1978
TASCO telescopes - a short list
Bretmain catalogue
H.W. English
Astro books and supplies price list FEB 1979

(f) Guides to places of astronomical interest

The London planetarium
Guide to the Old Royal Observatory

LIBRARY (continued)

(g) Miscellaneous books

About telescopes	Project book 118
The young space traveller	Project book 168
Astronauts' book	
Moon, Mars and Meteorites	[Geological Museum]
The Moon - a four-language booklet	
Flying saucers	APR 1977

(h) Astronomical Society publications

CAS calendars - see Yearbooks and Calendars	
BAA publications - see Periodicals	
Swansea AS Circular 27	DEC 1979
York AS Newsletter 13	JAN 1978
Programme of BAS meetings	1979/80
Minutes of CAS committee meetings	
Newsletters of the CAS	
CAS Handbooks:	1979/80
	1980/81

PROGRAMME 1980-1981

This is the programme as finalised at the time of writing (October 1980). Members will be advised of any changes at meetings or via the Newsletter. Please note that all meetings are held on Thursdays with the exception of that of November 14th, which will be on a FRIDAY.

* Denotes a visiting speaker.

1980

4th September*	Exploding Black Holes, by Dr. P. Walters, Department of Extra Mural Studies, University College of Swansea.
18th September*	Infrared Astronomy, by I. Miller, Swansea Astronomical Society.
2nd October*	Comets, by G. Keitch, Bristol Astronomical Society.
16th October	Changing fashions in telescopes and techniques of observational astronomy, by B. Sutherland, CAS.

PROGRAMME 1980-1981 (continued)

- 30th October* Origins of life in the Universe,
by Professor C. Wickramasinghe,
Department of Applied Mathematics and
Astronomy, University College Cardiff.
- 14th November* Supernova, by Higel Henbest,
University of London.
- 27th November* Missing mass of the Universe,
by Professor M.J. Disney,
Department of Applied Mathematics and
Astronomy, University College Cardiff.
Hon. President, CAS.
- 11th December Title to be arranged.
- 1981
- 8th January* Interstellar matter,
by B.E. Featherstone,
Swansea Astronomical Society.
- 22nd January Title to be arranged.
- 5th February* Olbers paradox,
by Professor M.J. Disney,
Department of Applied Mathematics and
Astronomy, University College Cardiff,
Hon. President, CAS.
- 19th February* Astro Navigation, by Mr. Frost,
Llandaff Technical College,
Western Avenue.
- 5th March Introduction to infrared astronomy,
by Mrs. P. Chick, CAS.
- 19th March X-Ray astronomy,
by W. Sutherland, CAS.
- 2nd April Annual General Meeting.
- 16th April Variable stars,
by D. Powell, CAS.

PROGRAMME 1980-1981 (continued)

- 23rd April* Spiral galaxies from Herschel to the present day, by Dr. A.H. Nelson, Department of Applied Mathematics and Astronomy, University College Cardiff.
- 30th April* Giant molecular clouds in the galaxy by Dr. M. Edmunds, Department of Applied Mathematics and Astronomy, University College Cardiff.
- 14th May Observations of deep sky objects, by M. Chick, CAS.
- 28th May The four forces, by G. Dolan, CAS.
- 11th June Jupiter and Saturn Voyager results, by Dr. R.M. Owens, CAS.
- 25th June Three short talks by CAS members.
- 9th July* X-Ray telescopes, by Dr. H. Griffiths.

NOTES

Week 18-26th April 1981 National Astronomy Week

The week April 18-26th, 1981, has been designated National Astronomy Week. Professor M.J. Disney will give a public lecture entitled "Space Colonisation" in Cardiff, on a night to be decided, and to celebrate within the Society this important week, an extra meeting has been arranged for Thursday 23rd. A one-day convention, to be held in Bristol, is also being planned for April 25th. Further details of all these events will be circulated nearer the time.

June Lyrids, Maximum 15th

Watch organised for the night of Maximum between 11.00 p.m. and 1.00 a.m. Societies taking part include Swansea and Bristol. Co-ordinators are:-

K. Davidson, Swansea,
Telephone Neath 52153.

M. Brain, Bristol,
Telephone 027 581 2539.

In addition, there will be informal observing sessions, joint meteor watches with the Swansea and Bristol Societies, and an outing to a place of astronomical interest in the summer. Jumble sales will be arranged from time to time, in order to raise funds for the society. Details of these events will be given at meetings and in the newsletters.