

... ROUNDUP ... ROUNDUP ...

### Authors needed

Would you like to see yourself in print? Write a brief article for inclusion in a newsletter. Or better still, a series of articles! Perhaps on a theme, such as David Williams's on time, or mine on visits to observatories. Have you been to a place of astronomical interest? Tell us about it. Do you have a snippet of astronomical information? Anything welcome.

### Gnomon

A book review by the Secretary on *Astronomy for Every Kid* appears in the current issue of Gnomon, the newsletter of the Association of Astronomy Educators. The newsletter also contains details of our Stardial.

### F.A.S. Newsletter

Enclosed with this newsletter is the latest issue of the Federation of Astronomical Societies Newsletter. We are mentioned once again.

### Welcome home

... to David Falla, Kieran James and Daniel Cave, all back for Christmas with interesting stories of university life.

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### Advertisements

*Do you have anything for sale, or do you want anything (preferably, but not necessarily astronomical)? Advertise here - no charge.*

#### The Astronomy Section needs:-

A table, lightweight, about 7' x 3'.

A filing cabinet.

Shelving.

A television (ours is again broken!)

Electric wall-mounted water heater

### Answers to quiz on page 6

1. Jupiter
2. No
3. Tycho Brahe
4. Spiral
5. Leo
6. Photosphere
7. 2061
8. Pluto
9. Little Green Men
10. Charioteer

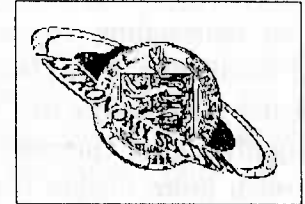
*The next newsletter will be published at the end of February. The deadline for publication materials is the 15th February.*

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# Sagittarius

The Newsletter of the Astronomy  
Section of La Société Guernesiaise

**January/February 1993**



Welcome to the new style newsletter of the Astronomy Section. It is in a new format, a new publishing schedule, and a new name. It has also been expanded to include short articles, features, reports, snippets of information, advertisements, etc. Even pictures. In fact, anything you want. Give me your feedback, and particularly material to put in it. The format is expandable (or contractable), as sheets can easily be added. I anticipate that it will generally be published bi-monthly, although extra issues could be made in the event of urgent or important news.

### Annual Business Meeting

**Tuesday 5th January**

8.00 pm at the Observatory

The main business will be the 1992 accounts and 1993 budget, the election of officers, and the discussion about the programme of meetings and observations for the next year. Usually there is a small turnout for the business meeting, but I would urge all interested members to attend this one, as the next year could be an important one in the development of the Section.

More details on page 7.

### Radio Astronomy

**Tuesday 2nd February**

8.00 pm at the Observatory

**David Williams**

will be exploring the history of radio astronomy, and its application to today's "Modern Astronomy".

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## Why Sagittarius?

I felt that if we were having a new style newsletter it was about time it had a name. I chose Sagittarius for several reasons. First and foremost is an outstanding constellation, full of fascinating things (which the newsletter also aspires to), but it is also significant for Guernsey in that it is much more visible from here than from the U.K.. Our few degrees more southerly latitude make a considerable difference when observing objects which at best are just a few degrees above the horizon. The name Sagittarius therefore draws attention to one of our main advantages - we must be, after all, the most southern observatory in the British Isles.

Sagittarius also contains the centre of our galaxy, the Milky Way, and is rich in beautiful objects - the Triffid, Lagoon and Swan Nebulae, the Large Sagittarius Star Cloud, and over 20 globular clusters (10% of all known). By my count, it contains 15 Messier objects, and is therefore a favourite area to study during the summer months.

My final reason for choosing this name was that no-one else suggested any other!

*David Le Conte*  
*Section Secretary*

## The new building

The new building is already halfway up. We received IDC permission for the new building on the 14th October, and from Building Control a few days later. Having established that we did not require a bournemouth (as the building is over 30 feet from the road) we started work straight away.

A planning meeting was held on the 17th, and the area laid out on the 19th. On the 21st John Lesbirel provided a digger (free of charge) to excavate the two metre-deep holes and trenches for the foundations. A 16-inch diameter, 2.4 metre long pipe was purchased from the Water Board for the pier.

Subsequent work has largely been carried out by Gareth Coleman, Steven Jefferys, John Taylor, Alan Le Prevost and myself. The base of the building and frame for the roll-off roof consist of old greenhouse piers, and the structure is built of heavy greenhouse timber.

Concreting was carried out on the 10th December, Ronez kindly providing 7 tons of mixed concrete. John arranged a scheme for keeping the pipe perfectly vertical and levelled while concrete was poured around and in it - not an easy task!

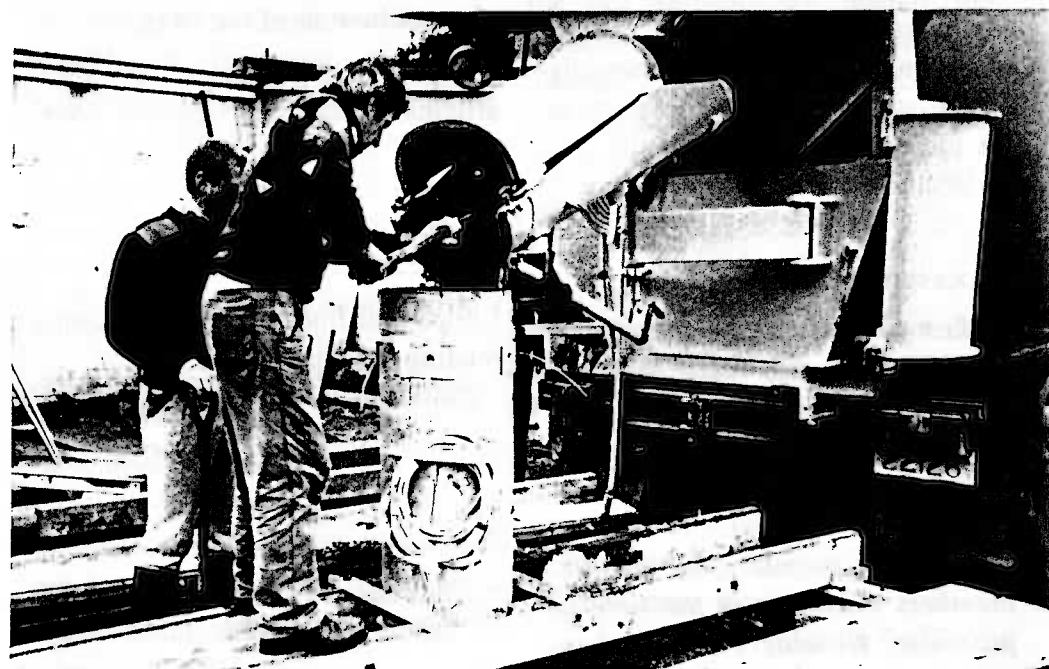
The selection of a cheap but presentable cladding material proved difficult, until we were given a lorry load of packing case timber by the States Electricity Board. The huge cases had been used to convey their new generator equipment from Scandinavia, and were constructed with inch-thick planking. After some 1500 nails were removed, the planks made an excellent cladding for the lower half of the building.

The frame for the roll-off roof has been built, and the whole structure has turned out to be extremely strong. Angle-iron for the roof rails has been obtained from a States Works Department building

which was destroyed in the hurricane, and Environment 2000 have provided wheels from old greenhouses. The building is therefore almost 100% recycled!

Work is suspended over Christmas, but will restart in earnest on the 2nd January, and every Saturday morning thereafter until it is completed. All members are invited to help. The work still to be done includes: constructing the upper, fold-down walls; making the roof; assembling the rails; laying the floor; lining the interior; connecting the electrics; and painting the whole structure. Plenty of work for everyone!

Pouring concrete into the pier on the 10th December



## Patrick Moore's visit

Dr. Patrick Moore is coming on Wednesday, the 10th March 1993. His visit is being sponsored by La Société Guernesiaise, and the Astronomy Section is responsible for all the arrangements.

The main event will be a talk in the theatre at Beau Sejour at 7.30 p.m.. This will be illustrated with colour slides, and is entitled: *Looking for Life - A Survey of the Solar System*. It will be open to the public, and tickets will cost £4.00 for adults and £2.00 for children and OAPs.

Assuming our new building is completed by then (and we are well on target) Patrick Moore will be invited to open it.

Members will have ample opportunity to meet him personally - both at the opening reception at the Observatory, and after the talk at Beau Sejour. Full details will appear in the next newsletter.

### Important announcement:

*Tickets for the talk go on sale on the 27th January. Members can purchase tickets for good seats from me from Tuesday the 26th. I will be at the Observatory from 7.30 pm. on that day. In view of the expected popularity of the talk, members must pay at the time of purchase. No orders will be taken.*

## 4 Do You Have the Time?

"Sir," asked the enquiring young lad, "What is time?" It is a very straight forward question, but as I found out, the answer is far from being straight forward.

We use the word **time** so often without understanding fully its meaning. "Time passes by so quickly." "Do you have the time?" "What time will this lesson end?" "Time I was going." "Can you tell me the time?"

Reading through the above list one would suppose time to be a concrete entity, within our own world of experience - but is it? One cannot catch, hold, see, talk to or hear time. Yet we accord it a place of honour in our lives.

The following series of short articles attempts to explain some aspects of time, and how our measurement of it and the names we give it have come into everyday use.

I hope you find the time you spend reading them profitable!

*David Williams*

*David, who is Head of Beechwood, will be writing articles for the next few newsletters, starting, in this issue, with the explanation of the 24-hour day (page 5).*

## What's in a Day?

We take 24 hours in a day for granted, but where did this arbitrary number come from? So asked Lawrence Guilbert - I decided to conduct some research.

The Babylonians appear to be the first to have divided day and night into 12 periods. The Greeks (in Hellenistic times, but not before) divided the 'daylight' into 12 periods and the 'darkness' into 12 periods, 12 being a sacred number (this is also true for many religions). However, each 1/12th was, of course, of unequal duration. The Romans continued the system, but divided the 'night' into four watches.

Our hour (from Greek *hora*) is one twelfth of the day or night, measured at the equinox. Combine the two 12-hour periods and you have the modern 24 hour day.

*David Williams*

This newsletter has kindly been sponsored by  
**Interior Decor of Guernsey**  
Suppliers of carpets and furnishings. Tel. 48096

Do you know of any company which might be interested in sponsoring?

## 5 The Lunar Eclipse of 1992

Lawrence Guilbert and I were the only ones brave enough to venture out to the Observatory on a cloudy, windy night - the 9th December - to observe the total eclipse. Conditions appeared hopeless, but perseverance was rewarded with glimpses of each phase - the entry into the umbra, the totality and the re-emergence.

Our hopes of seeing the final stage of the umbral entry were dashed two minutes before totality, when complete cloud cover intervened. This lasted well over an hour, and we were beginning to think we would never see totality. Then 10 minutes before the end of totality the sky miraculously cleared, the brilliant and familiar star fields of Taurus, Orion and Gemini appeared, and the blood-red Moon hung beautifully in their midst.

Through the telescope the Moon looked very dark, but in binoculars the sight was one of the most magnificent I have seen - one felt one could reach out and touch it. Photographs cannot do justice to the view of the real thing. Our conclusion was that it was a most worthwhile night's "work" - we were only sorry that more were not there to share it with us.

*David Le Cante*

## 1993 Subscriptions

By changing the publishing schedule of the newsletters, and with anticipated sponsorship, we have managed to keep the subscriptions for the Astronomy Section down to £3.00. Don't forget you must also be members of La Société Guernesiaise (1993 subscriptions: single £11.00, double £14.00, students £2.50).

Please pay your subscription now. We expect to have an Honorary Treasurer soon (see announcement elsewhere in this newsletter), and subscriptions are payable either to him or to myself. Cheques should be made out to La Société Guernesiaise Astronomy Section. You will be then receive a copy of the 1993 Programme and Astrocalendar. **The next newsletter will only be sent to paid-up members.**

## The Programme for 1993

1993 is our 21st Anniversary Year. The programme is again full and varied, with talks on astronomical subjects, an evening devoted to old astronomy texts, public star nights, and a visit to John Hodder's garden, as well as the usual barbecue, Perseid meteors, quiz and video evenings.

## 6 Quiz and supper evening

Despite a low turnout (only seven people) the quiz and supper evening was deemed a success by those who attended, largely because of the considerable thought and preparation by Antony Saunders who acted as the quiz-master. His questions were varied - some easy and some tricky, but all interesting and adding to our knowledge of astronomy. We found that we were least knowledgeable about the constellations!

Try some for yourself (answers are on page 8).

1. Which planet could be said to have been a failed star?
2. Does the Moon have a magnetic field?
3. Who was the Danish astronomer with the golden nose?
4. What type of galaxy is our Milky Way?
5. Denebola is in which constellation?
6. What do we call the visible surface of the Sun?
7. In what year is Halley's Comet expected to return?
8. The moon Charon orbits which planet?
9. The first pulsars were called LGMs. What does LGM stand for?
10. Auriga is known as what?

## 7 Want to participate?

Many members already participate in Astronomy Section activities, some in observing, some in giving talks, some in helping with public star nights, and some labouring at constructing the new building. There is bound to be a role for *you*. Come to the Annual Business Meeting on the 5th January and find out!

Geoff Falla acts as Assistant Secretary and Librarian. However, we need more "officers" to be responsible for various activities: money, photography, equipment, observing programmes, outside areas, inside areas, coffee, Editor of this newsletter? etc. etc.

Peter Langford has volunteered to be our Honorary Treasurer - (I shall certainly welcome him) - and Steven Jefferys and Daniel Cave have demonstrated their prowess at:-

## Astrophotography

Steven's slides of Sagittarius and other star fields were shown at the video evening and won considerable praise. Daniel has pioneered photography with the 11-inch Celestron, and took some excellent photographs of the lunar eclipse from the Hatfield Observatory, where he is at college.

## A visit to . . .

### Mills Observatory, Dundee

We approached Britain's only public observatory up a winding, wooded hill road, close to the centre of Dundee. The Observatory is funded by the City, and run by Dr. Fiona Vincent and her assistant Brian Kelly. Admission is free. On the ground floor are displays of basic astronomy, together with a small lecture room and planetarium. Upstairs is a 10-inch refractor - a fine instrument. There is also a roof area where there is an interesting "sun dial" - you have to stand on a line at a point corresponding to the month, and your own shadow gives the time.

The Observatory is open daily, and there is observing every evening, weather permitting. We were there on an "open night". Brian Kelly gave an excellent talk about what could be seen, and described the significance of nebulae in the evolution of stars. Several dozen people turned up that night - a clear one, but hampered by the bright lights of Dundee. Telescope views of Saturn interested many, while we searched for, and found Comet Swift-Tuttle in a pair of binoculars.

*David Le Conte*

*This is the first of a series of articles on visits to observatories.*