SUSSEX IN SPACE

Sussex space scientists are playing a major role in Cluster, an ambitious project to study the complex interactions between the Sun and the Earth through interplanetary plasmas.

After solids, liquids and gases, plasmas are the fourth state of matter, rarefied gases, which comprise a mere 0.01% of terrestrial material. However, the universe as a whole is composed of 99.99% plasmas, so an understanding of their properties is vital to scientists' comprehension of our extra-terrestrial environment. These astrophysical plasmas can be examined via remote sensors, but Cluster will be the first mission to place four spacecraft within plasma fields to enable the three-dimensional resolution of naturally occurring plasma structures as they change in space and time.

Scientists in MAPS and ENGG are involved in the project, which is being undertaken for the European Space Agency (ESA), with engineers providing hardware, software and ground support, and physicists analysing the assembled data. Dr Peter Davies, Simon Davis and

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UNIVERSITY HONOURS HARRISON BIRTWISTLE

The University conferred an honorary Doctorate of Music on Professor Sir Harrison Birtwistle at a special ceremony held in the Organ Room at Glyndebourne last Thursday.

Sir Harrison, who is one of the foremost living composers, celebrated his sixtieth birthday this year with, among other events, the revival of his opera - Gawain at the Royal Opera House and the premiere of his opera The Second Mrs Kong. The degree ceremony coincided with the second performance of the opera which opened, to glowing reviews, at Glyndebourne earlier in the week.

During the same week, Sussex music students had the opportunity of working with Sir Harrison at Glyndebourne on a project built around the premiere of The Second Mrs Kong. Around 25 music students, both undergraduate and postgraduate participated in an intensive four-day workshop, the aim of which was to take Harrison Birtwistle's score as a starting point for the students to create their own compositions and develop their creative, dramatic and performing skills.

The workshop was mounted by Glyndebourne Education and was also supported by the Enterprise Unit here at Sussex. Helen Stanley, a third year student in CCS was one of the students who took part in the project. She is also evaluating the workshop for Glyndebourne and her report will be submitted as her Independent Studies project for assessment.

According to Helen, the feedback from the students has been very positive. "Everyone appreciated the opportunity to get inside the mind of a composer, and it was brilliant to be working with Harry. Although he is notoriously reticent about his compositional work, he was very open and revealing to us. We definitely gained a great deal from the experience of working closely with someone of his calibre."
What the papers say . . .

Professor Gordon Conway's inclusion in 'Don's Diary' has laid to rest the belief that all Vice-Chancellors do is hand out degrees (THES 21 October). The week in question (Tuesday 13 — Tuesday 20 September) was no ordinary week for the Vice-Chancellor who underwent surgery and consequently had to abandon planned trips to Washington where he was due to present a report on 'How to Feed the World's Population in the 21st Century' and to South Africa, where he had been invited to join the Prime Minister's entourage. He also had to send apologies to HRH Prince Charles who visited the University. The Vice-Chancellor was however able to attend a DTI Education and Training meeting aimed at increasing the country's earnings via education where he campaigned for more scholarships.

A report published in Nature (20 October) by Dr Erik Millstone (SPRU) and two other scientists, and also featured in the New Scientist (22 October), The Independent, Financial Times and Guardian (20 October), claims that cows given the genetically engineered hormone (BST) are more likely to develop mastitis, a painful inflammation of the udder. The hormone, developed by chemical giants Monsanto, has become the flagship product of the biotechnology industry. The authors base their findings on an analysis of data from trials involving 620 cows conducted in the late 1980s and funded by Monsanto.

Until now the scientists claim that Monsanto has blocked their attempts to publish the results. Monsanto dispute the findings and deny allegations of censorship. They claim that Dr Millstone wanted to publish his findings before Monsanto and others had published theirs and that "in the scientific world that is not acceptable." Dr Millstone said: "Not merely have Monsanto inhibited the publication of our analysis, they have also refused to provide us with the vital data which would help clarify the underlying position."

In a recent survey into student life in the 1990s, the Guardian visited Sussex to find out more about the University's student employment scheme (Guardian 25 October). The scheme, which helps undergraduates and postgraduates find part-time and temporary work during their period of study, has been running since January and is one of the first of its kind in Britain. The scheme is financed by the University and has registered between 3000 and 4000 students over the past 10 months. More than 400 employers, including the University itself, have made use of it. Students benefit in a number of ways not least of all from the condition that employers must agree to a minimum wage of £3 an hour.

Just as important in terms of the student's welfare is the condition that a student who registers has to nominate a tutor to be informed of any jobs taken and the hours they entail. This enables the University to monitor the effect that such work may have on a student's progress and should a student's academic work flag, this information can be taken into account in any decisions about remedies.
More Science Students

James Hirschfeld, former Dean of MAPS, has recently been appointed Science Liaison Director. He explains to Bulletin what the post entails

What is the idea behind this job?

**JH:** To increase the number of science applicants to Sussex. But hasn't the University expanded in all Schools in recent years?

**JH:** Yes, but the expansion has been greater on the arts side than the science side. It is also a continuing struggle to get a sufficient number of adequately qualified students in science. This is a nation-wide problem. What is the cause of the difficulty?

**JH:** Several things. Briefly, (1) during the 70s and 80s, too few good science graduates went into teaching: there were more attractive and better paid jobs in industry and finance; (2) the difficulty of the transition from GCSE to A-level; (3) science is no longer seen as a panacea for the world's ills; but, environmental science has been popular.

So, what is the idea of the Science Liaison Programme?

**JH:** To set up a network of links with selected schools and colleges so that it becomes natural for them to send science students to Sussex. What schools?

**JH:** Schools in Surrey, Kent, Hampshire, London and also Sussex with which we already have links are being approached. There is a map of the southern part of the UK in my office with pins indicating those schools which send us students. What sort of links do you mean?

**JH:** Either Sussex graduates teach there, or a teacher has been to Sussex for a science conference of some sort, or the school already sends science applicants here. What are you actually going to do? Are you going to spend your time travelling from school to school?

**JH:** I may make some visits but the idea is that a member of faculty in science will be designated to each school in the project and there should be a visit at least twice a year, either for a lecture or discussion or however else is appropriate. We have to communicate the message that science is exciting and important and that Sussex is an excellent place at which to study it. How many schools and colleges will this involve?

**JH:** In the first instance, 25-30. Then progress will be assessed and some lessons learnt. This is a long-term project. Everyone is very busy with larger workloads every year. How will you persuade faculty to get involved?

**JH:** It would be fun if we could survive on money for research alone. We cannot. Without enough students in science, Sussex cannot survive as a top university. As a contribution, the Science Deans have agreed that participation in the project will count in the teaching and administrative load of faculty.

Is this a one-man project?

**JH:** No, I am working with Geoff Ivey, George Kiloh, and Fenella Tallon from the Administration and Kim Rogers from Schools Liaison has helped me gather information about schools. Nicola Bidwell, a post-doctoral fellow in BIOLS, has volunteered; her aim is to get more women into science at a high level. How is the project being financed?

**JH:** The Administration is paying MAPS for two days a week of my time. So, what else do you do? Some people might say that you have found a soft option.

**JH:** Research is still my number one priority. Apart from that, there is a postgraduate course, refereeing, reviewing, organising Mathematics admissions, writing a book, marking undergraduate essays, organising conferences . . . Sorry we asked.

In Brief

RESEARCH OPPORTUNITIES

For more information, call Louise Vincent in the Research Office, ext 3761, email: S.Vincent@sussex.

LOCAL GOVERNMENT Research Programme: Dept of the Environment's projects for funding in 1995 and how to register as a possible contractor.

BIODIVERSITY, TAXONOMY & SYSTEMATICS: Wellcome Trust offers Senior and Junior Research Fellowships and Studentships. Closing date 15 Dec. 94.

INTERNATIONAL COUNCIL OF SCIENTIFIC UNIONS: we have the Royal Society's ICSU Focus for October 1994 GREECE, British Council support for collaboration in STATISTICS FOR ECONOMICS. Closing date 30 Nov.

WEALDEN IRON INDUSTRY: small grants from the Teesbuild Research Fund. Closing date 31 March 1995.

Sussex in Space

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Toby Champion of ENGG will travel to the ESA launch site in French Guyana to monitor the operation, whilst at the University, Dr Andrew Buckley and Richard Rijnbeek of MAPS will analyse data collected by on board instruments including the Sussex/sheffield built Digital Wave Processor.

Instrumental to the mission are Sussex project co-ordinators Sandra Chapman (MAPS) and Paul Gough (ENGG). "Cluster is a truly multidisciplinary Space Science Centre project requiring expertise in, and offering potential spin-offs in a wide range of fields" they explain. "The challenge is to be jacks of all trades and master them all as well!"

The Cluster mission, which forms a key part of the research programme of the new Particle Physics and Astronomy Research Council (PPARC), will be launched in December 1995 with overall management and financial control provided by Rutherford Appleton Laboratory.
Monday 7 November – Sunday 13 November

Lectures, Seminars, Colloquia

- **Monday 7 November**
  4.15pm MOLS Colloquium Programme: The Power of Solid State Chemistry. Prof. P. Bruce (St. Andrews). MSLT, MOLS.
  4.30pm Neuroscience Seminar: Development of Colour Patterns in Insects. V. French (Edinburgh). Biology Lecture Room.
  4.50pm Economics Faculty/Graduate Seminar: Exporting Manufactures: Trade Policy or Human Resources? A. Wood, Arts D722.
  5.30pm Politics Forum: Reinventing Human Rights. N. Stammers, Arts A71.

- **Tuesday 8 November**
  3pm SEI Research-in-Progress Seminar: Administrative Culture in the European Community: the Case of Competition Policy. M. Cini (Bristol), Arts A71.
  5pm German/Media Studies Seminar: The BBC German Service during the Second World War. C. Brink (Minster), Arts A71.
  6pm Issues in Environmental Science Symposium: Brave New Worlds: the Impact of Molecular Biology. Prof. J. Beringer (Bristol), J. Burke and P. Dale, MSLT, MOLS.

- **Wednesday 9 November**
  4pm IDS Seminar: Theorising Gender and Agrarian Change in Sub-Saharan Africa. A. Whitehead, Room 221, IDS.
  5pm History of Art Graduate Work-in-Progress Seminar: Image, Impresa and Personal Identity in Fifteenth Century Italy: the case of the medal. E. Welch, Arts B151.
  5pm English Graduate Colloquium: The Politics of Criticism: Cultural Constructions of Brendan Behan. J. Brannigan (Luton), Arts D630.

- **Thursday 10 November**
  12.30pm Inorganic Discussion Group: Metal Vapour Synthesis Involving Phospho-Alkynes. K. Flower and Novel Zirconium Amido Complexes. J. Love, MS1, MOLS.
  1pm IDS RUPAG Seminar: Second Generation Warfare in Africa. A. de Waal (African Rights). Room 221, IDS.
  2pm Theoretical Physics Seminar: The Quantum Mechanics of Particles with Classically-Assigned Trajectories. G. Barton, PB1A6.
  5pm Social and Political Thought Lecture: The Citizen and the Man About Town. J. Donald, Arts D630.
  5pm Geography Research Seminar: Great Shades in Geomorphology - the Recognition of Ancient Earthquakes in the Landscape. B. Murphy (Portsmouth), EDB 302.

- **Friday 11 November**
  4pm Chemical Physics Research Seminar: Neutral Fragments of Cluster Ions 2 (...this time they’re back with a computer model!). A. Jones, MS3, MOLS.

**CCE Saturday Schools - 19 Nov**

Understanding Body Language: an active and participatory workshop for anyone who would like to learn more about body language.

**Interview Skills:** how to prepare for job or educational interviews.

For all the above reduced rates for students, half price for staff. Enrol with CCE on 678527.

**CDU Career Talks**

- **Law Society** - Tues 15 Nov, 6pm
- **Social Work** - Thurs 17 Nov, 5.30pm
- **Working in Journalism** - Fri 18 Nov, 12.30pm
- **National Westminster Bank** - Tues 22 Nov, 6pm
- **Matra Systems** - Wed 23 Nov, 6pm
- **A Career in Marketing** - Thurs 24 Nov, 5.30pm

All in Palmer House. Please book in advance (£5 returnable deposit). For further details on the above and other CDU events contact ext. 8429.

**CDU Careers Information Day**

- **Wednesday 16 November**

A unique mix of employers and professional bodies all in one forum to talk to you about their organisations and their careers. 1-4pm, Mandela Hall.

**Language Centre**

Portugese: If there is enough interest, the Language Centre will run a course in Portuguese for beginners. French: We are still recruiting participants for the French Advanced Academic Skills for Postgraduate Researchers course.

**Autonomous Learning:** If you want to study a foreign language but are not registered on a degree course with a language element, and cannot find a Language Centre Open Course to suit, you can still get advice and support from the language centre to help you take some steps on your own. Contact the Autonomous Learners’ Adviser, Bob Griffith on Mondays 10am-1pm and Thursdays 1-4pm.

For further information on any of the above, contact Alex van Westen or Kavita Amarnani at the Language Centre reception on 8006.

**Miscellaneous**

NUS DEMO against grant cuts. Wednesday 9 Nov. Bus to London - 8.15am Falmer, 8.30am Brighton. Tickets £1.50 from SU Reception. Also local day of action Saturday 5 Nov. Assemble 12 noon St Peters Church, march to West Pier.

**DOCTORS CAR PARK:** Please note this car park is only for the use of Health Centre doctors’ vehicles.

**PIZZA EVENINGS:** Full meals only £1.50. Every Tues 5-7pm.

**CURRY EVENINGS:** Inc. desert. £1.99. Every Thurs 5-7pm. Level 2 Restaurant.

**Lunchtime Recitals**

Charles Macdonald - Organ. Tues 8 Nov. 1.15pm in the Chapel.

Alistair Bamford (voice). Programme including Cage Aria and Aperghis Recitations. Sussex University Music Faculty. Thur 10 Nov, 1.15pm, Falmer House Recital Room, 120.

**Small Ads**

**DO YOU NEED** a regular place to stay in London on weekdays? Reasonable rent, own room and use of rest of house in quiet street. NWS. Convenient for Central London. Contact Pat Than ext. 2467.

**TO LET:** Spacious, pleasant 1st floor furnished flat in quiet house in Regency crescent near Brighton BR and Seven Dials. Suit couple or single. Not suitable for children or pets. No smokers. 1 bed, sitting room, bathroom, large kitchen and back roof terrace. Available Jan 1995 for min. 6 months. £425 per month, excl. services. Tel: 0273 326993.

**VOLUNTEERS WANTED:** Researcher investigating guilt wants to talk in confidence to people with interesting stories. Contact David Cohen on 071 831 3385.

**UNICEF** cards and gifts on sale every Mon this term. 12am-2pm Refectory Building Lobby.

**Bulletin**

The Bulletin appears every Friday of Term. Copy deadline for the four page Bulletin is 1pm on the Friday preceding publication. We welcome any suggestions for news, details of events, letters and small ads. etc. Please contact the Information Office, Sussex House, ext. 8209 or email: Bulletin@sussex.ac.uk.