PROFESSOR NORMAN RAMSEY'S 1989 NOBEL PRIZE FOR PHYSICS

This year's winners of the Nobel Prize in physics, announced a few weeks ago, are Norman F. Ramsey (USA), Hans G. Dehmelt (USA) and Wolfgang Paul (FRG). The common thread of the citation is high precision spectroscopy and atomic clocks based on atomic beams and atoms in traps. Professor Ramsey will visit the University on 1st December when he will address the Astronomy and Physics Society and also act as a DPhil examiner.

Professor Ramsey, of Harvard University, will receive half of the prize, one-quarter for his separated oscillatory field method which optimises magnetic resonance and one-quarter for his work on the development of the hydrogen maser. His magnetic resonance method is in widespread use and it is an essential feature of world's caesium atomic beam clocks. Caesium clocks have been used since 1967, as our most accurate clocks, to reproduce the unit of time to one part in ten million million. The hydrogen maser provides the world's most steady clock and it is the preferred clock for such things as measuring continental drift by very long base line radio interferometry where it is the constancy of the clock frequency rather than its particular value which is important. People may wonder about the need for such phenomenal precision; in fact, even higher precision is desirable in seeing 'before our very eyes' such things as continental drifts and wobbles in the Earth's rotation.

Professor Ramsey has had a long and continuing collaboration with Sussex physicists Ken Smith, Mike Pendlebury, Jim Byrne and Peter Dawber whose research interests are in atomic spectroscopy and neutron physics. Originally competitors on some topics, the Sussex and Harvard groups decided in 1974 to join forces in readiness to make the most of Europe's new neutron beam facilities at the Institut Laue Langevin in Grenoble. These had undoubtedly become the best neutron facilities in the world. The cross links formed in the ensuing collaboration have been many and valuable. Dr. Geoff Greene, head

The Japan Techno-Economics Society Study Mission to Europe visited the University on 2nd November. The Study Mission, led by Mr. Bun-Ichi Qguchi, Chairman of Fujitsu Laboratories (shown with the Vice-Chancellor) consisted of Managing Directors and Research & Development Directors of major Japanese companies such as Mitsubishi, Hitachi, SONY and the Nippon Telegraph & Telephone Corporation.

During its brief stay in the UK, the Study Mission asked to visit only three organisations: the Cabinet Office, ICI and the University of Sussex. The visitors were particularly interested in the work of the Science Policy Research Unit and heard presentations on SPRU's work in general and on the particular issues of Waste Management and of 1992.

MORE MONEY FOR H.E.

In his Autumn financial statement on 15th November, the Chancellor of the Exchequer announced that an extra £750 million would be made available to higher education to enable universities and polytechnics to finance an extra 50,000 student places over the next three years.

Twenty million pounds will be held back from universities until they negotiate a pay deal including greater flexibility and differentiation; £10 million will be held back from polytechnics until they negotiate a pay deal designed to achieve greater efficiency.

The Chancellor also announced an increase of £178 million over the next three years in the science budget.
Continued from page 1

of the Neutron Physics Section at the National Bureau of Standards (now NIST) in Washington, recently appointed Visiting Professor at Sussex, was formerly one of Ramsey's students and was supervised in addition by Mike Pendlebury while he was in Grenoble. Dr. Greene currently leads the NBS half of a collaboration with Jim Byrne and Peter Dawber, set up to determine the neutron meanlife by trapping protons given off from a neutron beam. This project has already produced one of the two best neutron meanlife results. The other, published in Physical Review Letters this August, is based on ideas for a very different method using trapped neutrons put forward by Mike Pendlebury and staff from the ILL.

Blayne Heckel, another student of Ramsey's tutored by Sussex faculty in Grenoble, is now a Professor in the University of Washington, Seattle, where he is able to send new research staff to these European projects. No one should conclude from this fostering out of students that Noman Ramsey is not a good supervisor! On the contrary, his tally of 84 graduate students supervised and occupying nearly as many influential positions in industry and academia must be something of a record!

An even larger and longer-term project, is the search for the electric dipole moment of the neutron, initiated by Professor Ramsey as a beam experiment over 40 years ago. The search continues even more keenly. The latest version led by Ken Smith and Mike Pendlebury uses the Sussex experience with trapped neutrons and Ramsey's magnetic resonance method. This is a key experiment for narrowing down theories of time reversal symmetry violation in physical forces.

**PANELLISTS WANTED FOR BBC SCIENCE QUIZ**

BBC Radio 4 will be recording in Spring 1990 a second series of ten programmes of 'The Limes Test', a quiz in which each week a panel of four scientists pit their wits in four or five structured rounds. These range from questions specifically about their own areas of interest to a quick-fire buzzer round and an anecdotal round where the panelists are asked to describe and name a new element, abolish a Law of Nature, etc.

The BBC is looking for "outgoing" types interested in popularising science in a lighthearted accessible manner. If interested, write to Louise Dalziel, Producer 'The Limes Test', BBC Edinburgh, Broadcasting House, 5 Queen Street, Edinburgh, EH2 2JP, enclosing a c.v. and list of recent publications.

**SMALL ADS**

FOR SALE: Trend Telex terminal with Mailbox option, 3 yrs. old, cost over £2,500, perfect working order. Nearest offer to £250. Contact Eps School Office, ext. 2580.

TO LET in Lewes: re-furbished room in private house. Suit mature female student, p/g, faculty. Own cooking facilities, also shower/wc. Non-smoker preferred. Refs. req. Tel. Lewes 478549.

WANTED: another parent interested in sharing a nanny from January, Fivesways area. Tel. 501089 (after 6 pm), int. ext. 2499.

TO LET: 1 bedrm. flat, furnished/unfurnished, in Hove, nr. main shopping area and within walking distance of Hove station, £90 p.w. Please ring Brighton 308212.

**SHELL FUNDS THE PHYSICS MASTER CLASSES**

A generous grant of £3,000 from Shell UK has enabled the University to hold a series of Saturday Master Classes in Physics each Saturday morning this term for 42 very bright 13-year-old Sussex school children.

The Master Classes are run under the auspices of the Royal Institution of London and there are three series of such classes in Physics nationally, the others being held at Strathclyde and York, Sussex, in fact, pioneered these classes, with the first series taking place in 1982.

The children taking part have been selected by the Education Authorities of West and East Sussex; also, ten children have been chosen from the private sector. Just over half of them are girls. The aim of the classes is to introduce the children some of the excitement of modern physics by giving them an understanding of the way physicists view the universe. They have a series of lectures, given by members of the Physics and Astronomy faculty, on the nature of the atom, its nucleus and how the constituent neutrons and protons and other elementary particles are themselves built up from quarks. Then going from the very small to the very large, the children are introduced to ideas in astronomy and cosmology.

After each lecture, the children carry out experimental work in our first year undergraduate laboratory, performing some specially adapted experiments illustrating aspects of atomic physics. The experimental work is entered into with enormous enthusiasm and a skill that has to be seen to be believed considering their age. In the final few weeks, the children finish off their experimental work with a project in which they build a working radio.

The series of Master Classes ends with an afternoon visit to the Royal Institution. They will see where Michael Faraday carried out his classic experiments on electromagnetism and then attend a special lavishly-illustrated 'final' lecture on sound in the beautiful old lecture room used for the famous Royal Institution TV Christmas lectures. The visit ends with tea, when the Director of the Royal Institution will present the children with certificates. Quite how I am going to cope with 42 lively 13-year-olds on the train that afternoon I cannot yet imagine!

Shell have promised a further £3,000 for another set of classes in 1990.

Colin Finn
The School of Engineering — 25 years on

Professor B.V. Jayawant, Dean of EAPS (pictured right), contributes our second article in a series on the Schools of Studies.

The School of Engineering and Applied Sciences will be 25 years old next year. It began life as the School of Applied Sciences, but over the years engineering took on a more dominant role and, in order to project a more positive image to the outside world, "Engineering" was added to the name.

Sussex provided an ideal opportunity to experiment with a new way of teaching engineering. The idea was to provide a broad core of knowledge of contiguous technologies. The various elements of engineering were to be taught as if students were going to specialise in that branch alone. Not only were they, therefore, to be taught by faculty in that subject, but they were also to be tutored by them. This meant that there were to be no service courses. Another facet of the non-departmental structure which was perceived then was that the most fruitful research to be done was at the interfaces or boundaries of the so-called departments or disciplines.

It has by no means been easy to have adhered to these principles, but now there is a universal acceptance in the School, led by a demand from employers for graduate engineers with interdisciplinary training, that there is something special about Engineering at Sussex. It is not exactly "a bed of roses" to carry out the functions of three or four departments in a traditional university within the confines and resources of one School. The successes at both undergraduate and research level, however, outweigh the stresses and disadvantages.

The common core, or foundation material, is now covered in the first year in three engineering streams and one of mathematics. Students then divide into two principal groups in their second year; Electronic and Electrical Engineering or Mechanical Engineering. The second year is devoted to advanced material of these two disciplines and the final year is devoted entirely to some degree of specialisation within these disciplines through an appropriate choice of topics and projects.

The projected shortages of engineering and physics graduates has led to the introduction of a four-year degree course. The first year (Preliminary Year) of this course is run jointly by EAPS and MAPS. It covers the physics and mathematics necessary for the undergraduate courses in these Schools, but for the engineers this is supplemented by courses and laboratory work in principles of engineering design. The success of this venture has surprised even the optimists in the two Schools.

Another innovation in the School is the new Engineering with Business Studies degree, in which up to one third of the course will be devoted to business studies. It is hoped that the introduction of this course will also help to alleviate the projected acute shortfall of engineering graduates in the next few years.

On the research side there is now a healthy mixture of specialist and interdisciplinary research. Even in the specialist areas at times, though, it is hard to be dogmatic that research does not contain elements of other disciplines. One area where the members of faculty of the School are recognised nationally, if not internationally, as experts is that of thermofluid mechanics. The work is concerned with the cooling of discs and blades of aero engines. The work here is supported by companies such as Rolls-Royce and by the SERC. It was the quality of work being carried out in the Thermo-Fluid Mechanics Research Centre which was instrumental in persuading Aisin-Seiki to establish their Western European Research Laboratory in England, at Sussex, in competition with France and Germany.

A second mainstream research activity that has been built up is in the area of computer generated images. This is being applied to creating scenes for flight simulators of the type used for training pilots. Since the image generation in this application requires very fast computational capability, special-purpose microchips known as 'Custom LSI circuits' are being designed and this area of electronics computer-aided design is also flourishing. This activity led, in part, to the establishment of the Eurotherm Research Laboratories on the campus.

A third research area in the School is that of control and power electronics. The one project that has received the most publicity here is that of magnetic suspension. The first magnetically suspended vehicle to be demonstrated in this country was in EAPS III — it was a good tourist attraction too! Novel forms of sensors and instrumentation, power electronic controllers for linear and rotary machines, tracking by means of radar and magnetic bearings, form a spectrum of closely interrelated research activities in this group. The activities of this group brought about the establishment of Glacier Magnetic Bearings.

The School has always had close links with local medical consultants. Research projects in the area of Biomedical Engineering have covered bedside heart pacemakers, monitoring of blood flows, developing new methods of eye testing and intelligent hearing aids. This Division thus provides a valuable link to the local community.

Members of faculty of the School are very active in the professional engineering bodies, locally and nationally. Membership of the Councils of Engineering Institutions, Chairmanship of Divisional Boards, membership of the Accreditation and Qualifications Boards, and now President-Elect of one of the engineering bodies, are amongst the roles undertaken with considerable mutual benefit. Another feat of achievement on the part of members of faculty of the School is that so far 16 members have been appointed to Chairs. It must be somewhere near a record.

The students of engineering are extremely hard worked but the School as a whole prides itself on its friendly atmosphere. The SRC contributes in no small measure to the harmony, and faculty, students and all other staff have made the School a pleasant place in which to work.
ROMANCE, MUSIC AND PANTO

Brilliant young Dutch guitarist Tom Kerstens presents a popular evening of Spanish dance music at the Gardner Centre tomorrow (Wednesday 22nd November) in a programme which spans the Baroque to the present day. Performing on both modern and baroque guitar, Kerstens has gained a solid reputation in the United Kingdom, particularly following his recent performance in the Villa-Lobos Festival in Piccadilly, London when he played all of Villa-Lobos' major works. A rich, mellow and romantic evening.

And now for something completely different. Leading dance theatre company Second Stride, famed for bold innovation, have pushed the boundaries of dance still further with Heaven Ablaze In His Breast which comes to the Gardner for three nights from 23rd to 25th November. Highly acclaimed and provocative choreographer Ian Spink has used the ballet Coppelia and the opera The Tales of Hoffmann, to focus on the compelling tale of a young man who is driven mad by morbid fantasy and his love for a mechanical doll. With six singers, two pianos, eight dancers and specially commissioned score by Kent Opera's Judith Weir, Heaven Ablaze could never be accused of being dance for dance's sake. Heavily influenced by 30s films this is a real cross-media event.

Romantic intrigue continues with Sheridan's The Rivals, presented by Hove-based theatre company Factotum on 4th and 5th December. Featuring the formidable Mrs Malaprops, Captain Jack Absolute and Miss Lydia Languish this is a classic mixture of farce, high and low comedy, pantomime and sentimental drama. Factotum have built their reputation on the presentation of exciting versions of classic works aimed towards a wide audience.

Wednesday, 6th December, sees New York saxophonist John Zorn at the Gardner. Zorn's reflections on modern culture have made him a colourful cult figure, his music a conglomerate of influences combining elements of jazz, classical, pop, blues and film. Joining Zorn on his UK tour is his band, Naked City. All prominent musicians in their own right, they collaborate regularly on recordings and concerts.

From Northumberland comes Kathryn Tickell on 9th December. She has won her way into folk-lovers hearts and gained an almost cult-like following all over the world for her playing of the Northumbrian small pipes. Influenced by a strong musical tradition both within her family and regionally in her home of Wark, near the Scottish border, Kathryn has recorded four albums, has had a 60 minute documentary about her made by Channel 4 and was last year voted Top Instrumentalist in the Folk Roots Poll '88.

For the kids at heart or those with little ones to think about, the ever popular Playboard Puppets are back on Sunday 26 November with Button Moon and The Moon Monsters based on their highly popular TV series.

In addition, coming directly from London's Sadlers Wells Theatre from 18th December to 6th January is the smash-hit children's show The Ideal Gnome Expedition. Designed to stir the imagination of young people the show has humour, suspense, catchy tunes and lots of audience participation. The Ideal Gnome Expedition follows the adventures of two garden gnomes who go on holiday to the city and find themselves having to confront some of the hazards of modern urban life. The audience help them to survive in a world of gigantic kerbs, traffic islands and road-works. Caring deeply for the environment the gnomes are appalled at the dirty streets and start their own litter campaign. Following its first successful performance eight years ago the play has spawned the hit television series Chish N' Fips featuring the two gnomes, Mr Wheeler and Mr Fisher.

FIRST DRIVE-IN THEATRE IN THE COUNTRY!

History was made earlier this month when the Gardner Centre became the first drive-in theatre in the UK. It happened one wet morning at 7 am when the bakers arrived to make their daily delivery — except that this time, instead of parking, the delivery lorry ploughed straight through the plate glass doors which make up the main entrance to the Gardner Centre. In his haste to back out, the driver forgot to close his van door and took with him the rest of the entrance. Luckily the show opened on time that night and business continues as usual.

DEATHS

LADY CAFFYN

We regret to announce the death of Lady Caffyn on 26th October at the age of 90. Lady Caffyn was the widow of Sir Sydney Caffyn, who played a leading role in the founding of the University and who was Chairman of Council from 1961 until his death in 1976. They together donated the Meeting House to the University. The family's connection with the University is continued by their son Robert, who is a member of Council.

GEORGINA BARRETT

We also regret to report the death of Georgina Barrett, former secretary in Molecular Sciences and Engineering & Applied Sciences. At the time of her death she was being cared for in the Tamer home in Brighton.
LETTER TO THE EDITOR

Safety on campus

"... so far the action taken by the University [since the rape in October] has been marginal. For example, lighting has only been slightly improved, attack alarms have been issued to only some of the women who use this campus and window locks and latches have not yet been fitted throughout the residences ..."

"We must campaign for:

- The provision of many more and much brighter lights, which are to be properly maintained.
- The employment of enough security staff, so that their time can be devoted to protecting people rather than property.
- University funded self defence classes, on offer to all women.
- The Student Union demands relating to improving the safety of students living in Park Village, East Slope, The Park Houses and Kulukundis House.

This University has a responsibility for the people who live, work and study here. It must face up to this and act accordingly."

M. Miró

Ed. note:
The above letter had to be edited for reasons of space and for the same reasons, I shan't comment on every point made by Ms. Miró. However, I can report that the University has committed funds to improving safety on campus (about £30,000 is being spent at present) and various measures are being or will be implemented as soon as possible: window latches and door chains for all bedrooms, for example, have been ordered from the manufacturers but the quantity required simply is not available "off the shelf". Discussions with the Students' Union and other interested groups will continue. I hope they continue in a spirit of co-operation and not confrontation.

CHRISTMAS FARE

The Refectory Christmas lunch in the Scramble will be available on two days: Thursday, 7th and Tuesday, 12th December, between 12.15 and 2.15 pm. Roast turkey with stuffed bacon roll, bread sauce, garden peas and roast potatoes will cost £3.00; homemade Christmas pudding with rum sauce, 70p; and a glass of wine, 60p. A limited number of tables can be reserved for large parties — ring Pat on 8221.

The Special Christmas lunches and dinners in the Private Dining Rooms will be available from Friday, 1st December, to lunchtime on Thursday, 21st December. The cost is £8.50 (evening £10.00) for a choice of three courses, plus coffee and mince pie and a glass of port. To reserve a table, ring 8221.

Food for Christmas parties and other occasions can be ordered from the Refectory. For example, the following food can be made to order: 1lb Christmas pudding (£1.15), large sausage rolls (£3.00 per doz.), mince pies (£2.20 per doz.), individual cheese and mushroom or pizza tarts (£3.96 per doz.), savoury flans (£2.20). All enquiries to Pat on 8221.

The Quantum Circuits Group: (from left) Tim Spiller, Terry Clark, Helen and Robert Prance, Dick Askew and Andrew Clippindale.

New Quantum Circuits Group contract — current funding reaches £1.2 million

The Quantum Circuits Group in MAPS (Terry Clark, Robert and Helen Prance, Tim Spiller, Andrew Clippindale and Dick Askew) has just been awarded a contract by British Petroleum Exploration to develop a state of the art electromagnetic sensor for aerial surveying. This contract, amounting to £410,000 over the next three years, brings the total current income of the Group to £1.2 million, all derived from United Kingdom sources. The Sussex electromagnetic sensor will form part of a package being put together by British Petroleum to boost oil exploration. This area is of the most crucial importance to British Petroleum and the award of such a prestigious contract signifies the company’s confidence in the University.

The sensor technology being used in this development derives from the fundamental work on macroscopic quantum phenomena being carried out by the Quantum Circuits Group. This area is also funded by British Petroleum, through its Venture Research Unit. The study of macroscopic quantum phenomena (actually in superconducting circuits), revolutionary in its own right, has required the Group to create new wave analogue electronics of the most remarkable sensitivity and scope. The power of this new electronics is becoming evident through the applications being devised in the Group, ranging from human body and biological cell imaging to studies of the onset of turbulence on the macroscopic scale.

PEOPLE

Vice-Chancellor

The Vice-Chancellor, Sir Leslie Fielding, was elected a Fellow of the Royal Society of Arts in October.

Professor Gerald Gazdar

Professor Gerald Gazdar, Dean of the School of Cognitive and Computing Sciences, has been appointed to two of the Economic and Social Research Council’s boards: Human Behaviour and Development RDG, and Research Resources Advisory Group.

Professor Margaret Boden

Professor Margaret Boden, Professor of Philosophy and Psychology, has been granted a Doctorate of Science by the University of Cambridge in recognition of the scientific value of her work. She has also been appointed Chairman of the Advisory Board for the Research Councils’ sub-committee on Peer Review.

Chancellor

The University’s Chancellor has succeeded to the title of the Duke of Richmond and Gordon. He became the 10th Duke on the recent death of his father. He was formerly the Earl of March and Kinrara.
NOTICEBOARD

VACANCIES

The Personnel Office has issued the following summary of posts to be filled. Advertisements for these vacancies have been placed in local, and where appropriate, national papers, as well as being circulated to the relevant Section Heads and union representatives for circulation to staff and noticeboards. Copies of these advertisements and further particulars, if available, as well as application forms, are available from the Personnel Office, Room 227, Sussex House. This list was compiled on 13th November and is subject to revision.

Teaching Faculty
Chair in History of Art

Secretarial, Clerical and Related
Secretary, Residential Services, full-time, grade 3
Secretary, Euro, f/t, grade 2/3
Secretary, Admissions, f/t, grade 3
Secretary, CAPE—MA/MBEd Office, f/t, grade 3
Secretary, Eaps, f/t, grade 2/3
Secretaries to Research Teams, SPRU, f/t, grade 3
Clerk/Typist, Eaps, f/t or part-time, grade 2
Secretary, Student Admin, f/t, grade 3
Clerk, Financial Accounts, f/t, grade 1/2
Accounts Clerk, Estates, f/t, grade 2

General
Porters, MAPS, f/t, grade D
Nursery Nurse, f/t, grade 1
Cleaners, Residential Services f/t or pt
Catering Supervisor, Sports Pavilion, p/t
Teamakers, f/t

SPRU, Research Officer on Energy and Environment, to provide computer support. Initial one-year contract. Contact: Ms. J. Fuller, SPRU, Mantell Bldg., for details.

OPEN LECTURES

PELHAM LECTURE — "Iconoclasm and Image-making in 16th and 17th Century England" by John Murdoch, Deputy Director, Victoria & Albert Museum — 8.15 pm tomorrow, Wednesday, 22nd November, Molecular Sciences Lecture Theatre.

HITACHI LECTURE — "Collective Bargaining in Europe — Beyond 1992" by Bill Callaghan, Secretary, Economics Department, TUC — 6.15 pm, Tuesday, 12th December, Terrace Room, Refectory Building.

LUNCHTIME MUSIC

Meeting House
21st November, 1.15 pm — John Birch (organist)
5th December, 1.15 pm — Meeting House Choir

Rectal Room, Palmer House (Room 120)
28th November, 1.15 pm — John Heman (piano) — Beethoven Sonata Op.110

12th December, 1.15 pm — Composers Concert — a programme of music by Sussex student composers

Playing Fields Pavilion
Fridays, 1.00 pm — Sussex Trugs play mainstream/traditional jazz

CAROL SERVICE

The University Carol Service by candlelight will take place on Sunday, 10th December, at 6.00 pm in the Meeting House Chapel.

TOUCH TYPING

The Computing Service has a teach-yourself touch typing package. Learning to touch-type takes about 12 to 20 hours. Once you have learned the technique, it becomes second nature. You no longer have to look at the keyboard if you would like to try it out, contact Reception in either Arts B154 (tel. 2387) or the Computing Centre (tel. 8090).

TO ALL ANIMAL LOVERS

Please spare a thought for pets and help them to have a Happy Christmas. The Refectory Porters are once again asking for donations of non-perishable pet foods (no money, please, only pet food). Please hand in your contributions to Peter or Terry at the Refectory Porters Office — all donations will go to a pet charity.

NEWS FROM THE LIBRARY

"Arguably the finest of all private press books printed between the wars" (Roderick Cave), The four gospels, illustrated by Eric Gill and published by the Golden Cockerell Press in 1931, is a recent gift to the Library.

ELECTORAL REGISTRATION

Each year a Register of Electors is drawn up listing those persons entitled to vote in County, Borough and Parliamentary elections. All University students (other than foreign students, peers and others who may not vote) are entitled to register at their local, as well as home, address. Therefore, you should check that your name is listed in the 1990 Register.

University Residents

The University has compiled a register based on the accommodation records of students and staff only (i.e. spouses are not included). Whilst every effort is made to ensure that everyone eligible is included, you should check that your name is on the list. If your name is absent, you should obtain a form from the Town Hall in Brighton.

The Register of Electors will be published in draft form on 28th November, 1989, and can be checked between 28th November and 16th December, 1989, at:

a) the Post Office, Refectory Building,
b) the University Library,
c) the Town Clerk's Department, Town Hall, Brighton.

If you wish to vote in any elections during 1990 you are strongly urged to check the accuracy of the draft Register.

RECENT BOOKS


All available from SUSSEX UNIVERSITY BOOKSHOP.

BULLETIN

The Bulletin is published every three weeks during term. The next edition, and the last for this term, will appear on Tuesday, 12th December. Copy for this issue must be received in the Information Office, Sussex House, tel. 8208, by no later than 4.00 pm on Monday, 4th December.

Please remember to let us know about news events — we can only inform you, if you inform us.

The Bulletin is for the information of staff and students of the University of Sussex. Published by the Information Office. Photographs by the Photographic and Design Unit. Printed by the University of Sussex Printing Unit.