



18 June 1991

SUSSEX-BRITISH PETROLEUM COLLABORATION ON NON-INVASIVE SENSORS

British Petroleum, through its central laboratories at Sunbury, has just renewed its funding to the Quantum Circuits Group in MAPS to continue their development of world-beating non-invasive electromagnetic sensors.

The new grant, for £370,000 over a period of three years, will enable the group to work on a wide range of

applications of interest to BP, ranging from crack and corrosion detection in oil refineries and North Sea rigs to airborne geological prospecting. Many spin-offs now look likely, including non-invasive electrocardiography of the human body. (This was featured last month in the technology page of *The Daily Telegraph*, which described the work as not out of place in an episode of *Star Trek!*)

ENGINEERING GRAPHICS PROJECT BOOSTED TO £730,000

The VLSI and Computer Graphics Research Group of the School of Engineering, directed by Professor Dick Grimsdale and Dr. Paul Lister, has recently been awarded a £218,000 extension to the ESPRIT SPIRIT Workstation project in addition to the original funding of £512,000.

The Group has a long record of successful research in innovative computer graphics exploiting new algorithms, computer architectures and VLSI (very large scale integration) silicon chips and the latest award brings the total funding to over £2 million in the last five years.

The SPIRIT Workstation project is funded by the European Commission and is an important part of the ESPRIT programme. This European Strategic Programme for Research and Development aims to promote European industrial and academic co-operation in Information Technology to place Europe in a strong position in the 1990s.

The Sussex team is playing a major role in the SPIRIT project as a partner in a multi-million pound consortium comprising Kontron Elektronik of Germany, Caption of

France, ACE of Holland, British Aerospace, Universität Tübingen of Germany, QMW of the UK, and Ecole Polytechnic Lausanne, Switzerland.

SPIRIT is an advanced technical workstation targeted at the high performance end of the market and intended for use by engineers, doctors and scientists, particularly for computer-aided design, medical image processing and visualisation of the re-

sults of scientific experiments.

The Sussex team comprising Dick Grimsdale, Paul Lister, Martin White, Graham Dunnett, Mike McNeill, Andrew Nimmo and Ian McGroarty is making a major contribution to the design of the graphics system which is a key feature of the workstation. It provides both real-

continued on page 2



Members of the VLSI and Computer Graphics Research Group: (clockwise from bottom right) Dr. Paul Lister, Professor Dick Grimsdale, Bina Shah, Graham Dunnett, Ji Zhou Sun, Mike McNeill, Marie-Pierre Hebert, Lian-Qiang Zou, Martin White, Ian McGroarty, Mike Watson and Kwok Leung. (Photo: Hugh Bentley)

SPRU'S 25TH BIRTHDAY CONFERENCE

The Science Policy Research Unit (SPRU) celebrates its 25th anniversary this year with a major conference on campus on 3 and 4 July. Some 300 delegates from around the world, many of them graduates (in one form or another) of SPRU, will be gathering for a packed programme, including a birthday dinner on the evening of 3 July.

SPRU was established in 1966 with the aim of providing for science and technology policy what the National Institute of Economic and Social Research or Brookings provide for economic policy. Professor Chris Freeman was asked to be its first Director and in true Sussex tradition it was to be multidisciplinary (its research faculty of two comprised an economist and a geologist) and problem oriented.

Twenty-five years on this commitment to multidisciplinary and empirical research remains a key feature, even though SPRU now has a research faculty of more than 50 and a total staff of over 100 and a worldwide reputation and influence. Chris Freeman remained Director for the first 15 of the 25 years, and although now retired, is still actively involved in the Unit's activities. The geologist — Geoff Oldham — is the Unit's current Director, and SPRU staff now include economists and engineers, sociologists and chemists, psychologists and physicists. It has developed a thriving graduate programme with more than 100 Masters' and doctoral students.

The idea of the conference was to give its many friends and associates from around the world a chance to gather together with current staff members to review the achievements of the past quarter century and, in particular, to look forward to the challenges and opportunities of the next 25 years. Nathan Rosenberg from Stanford, doyen of economic and technological history, will give the opening keynote address, and other speakers will include Dick Nelson (Columbia University) and Giovanni Dosi (Rome) on technology and the firm; Jorge Katz (Argentina) and Francisco Sagasti (World Bank) on technological backwardness; Francis Narin (CHI, Washington) and Hariolf Grupp (ISI, Karlsruhe) on links between science and technology. There will be special sessions on information technology, energy policy, military technology, the science base, the corporate sector, and developing countries, and a full line-up of SPRU speakers as well as visitors. Chris Freeman will wind up the conference with an address on 'Technology, Progress and the Quality of Life'.

The high point of celebrations will be the birthday dinner on the evening of 3 July. Fittingly amongst the speakers will be Asa Briggs, Vice-Chancellor at the time of SPRU's foundation.

The Vice-Chancellor, who will be attending a number of sessions at the conference, will be welcoming delegates when they assemble on 3 July together with the Mayor of Brighton, Councillor Joe Townsend. As many will know, Joe Townsend has been associated with SPRU and its research for most of the last 25 years.

Programmes for the conference are available from Janet French in Mantell 2B26 (ext. 8169). Most lectures will be at the Gardner Centre theatre and all Sussex staff and students are welcome to attend any session of the conference they wish free of charge, but demand has been such that there are no places now left for full participants (i.e. those wanting lunch and dinner). The conference is also being used to launch a book which has been written to mark SPRU's 25 years. Entitled *Technology and the Future of Europe* it surveys the strengths and weaknesses of European technology. Its editors are Chris Freeman, Margaret Sharp and William Walker and it is being published by Pinter Publishers, publishers over the years of many SPRU books who will be mounting a special stall at the conference.



continued from front page

time performance, allowing designers to interact with models displayed on the screen, and photorealistic rendering, which produces images of exceptional realism. Computer image generation is a computationally intensive task. To give some idea of the requirement, it is necessary to paint more than one million pixels (that is small dots on the display screen) in one of a choice of 16 million colours at a rate of 50 times per second.

The graphics hardware is based on a minimum configuration of seven Intel i860™ processors together with an ASIC (Application Specific Integrated Circuit). The Sussex team has an important role in the design of the hardware. Special features of the graphics system include anti-aliasing, which is the removal of the annoying jagged edges observable in low performance systems, surface shading to create the impression of curved surfaces, with highlight shading for added realism. Further enhancements yielding improved realism include many forms of surface texturing and the display of transparent (glass) and translucent surfaces.

Further work at Sussex is concerned with developing novel algorithms and software for the photorealistic images. A recently finished SERC contract has developed a novel technique for ray-tracing which is a technique yielding images of superb quality but demanding enormous computing power. The work has resulted in designs for computer architecture which will involve the efficient use of many processors operating on the task in parallel.

An important aspect of the Sussex work is in the design of complex integrated circuits (chips) for real-time computer graphics such as in flight simulator visual systems. A large SERC project finished in March this year resulted in designs for chips which equal or exceed, in speed and quality, any of those yet produced world wide. The quest for innovative chips continues in the SPIRIT project.

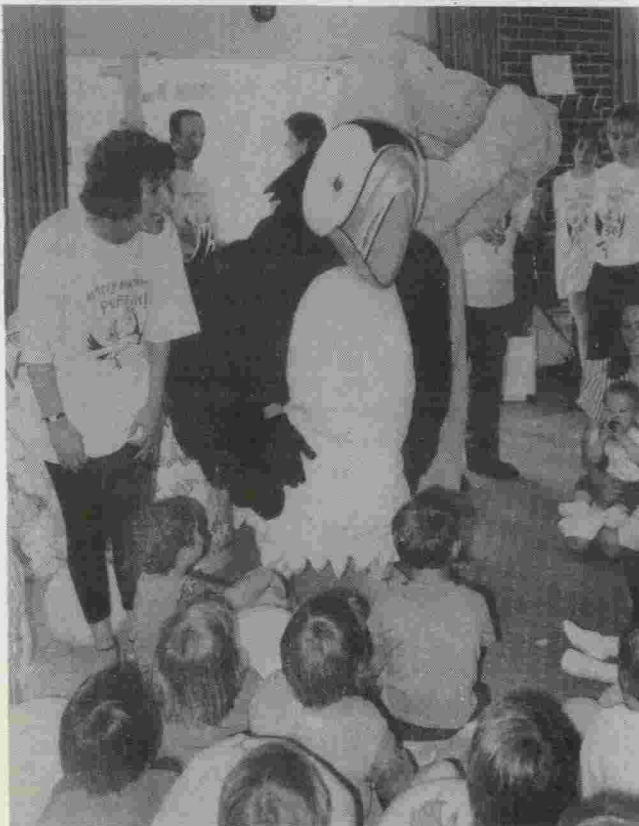
Other members of the group, including Bina Shah, Sergio Moraes, Mike Watson, Kwok Leung, Lian-Qiang Zou, Ji Zhou Sun, Mehmet Demirer and Marie-Pierre Hebert, are working on a variety of related topics in graphics systems.

CULINARY ARTS ACADEMY LIKELY ON CAMPUS

L'Académie Culinaire de France is to launch a British Academy of Culinary Arts which, subject to final agreement, will be based here at Sussex. Construction of a two-storey building in the south-east corner of the campus is planned to begin in September of this year with the first stage due for completion in 1992, in time for the first student entry.

The Academy will be guided by the National Advisory Catering Council and is supported and endorsed by the Secretary of State for Employment. It is intended to be Britain's premier educational establishment offering advanced courses in both academic and specialist aspects of catering.

The courses offered by the Academy will be short and modular, so out of an intake of around 100 students per year, only 24 will be on campus at any one time. The Academy intends to form a close relationship with the University, both for teaching and in relation to research and development.



The sun shone on the young children's party held to celebrate the 50th birthday of Puffin Books on 21 May. Games were played on the grass and much food and drink was consumed in the Coffee Shop — including a splendid cake made by the Bookshop's Gwen Eames. Pictured here are the great attractions of the afternoon: Spot the Dog and Fat Puffin. Sue Green-Innes, the main organiser of this highly successful event, maintains order.

POPLOG IMPRESSES THE RUSSIANS

Four Russian software engineers and their interpreter have just completed a four-week training course learning how to use POPLOG, the powerful programming system originally developed by the University. The Russians undertook their training at Integral Solutions Ltd (ISL), the Basingstoke-based company which markets POPLOG.

The Soviet company PCB ASU, based in Kishinev, and ISL agreed the training programme as the first step in developing the relationship between the two companies which should lead to a joint venture in the Soviet Union.

During the course, the Soviet team visited the University. They returned home keen fans of POPLOG. Their Manager, Peter Moldoveanu, commented: "We have been most impressed by the applications that we have seen, and plan to use it in our next project, in the field of medical diagnosis."

TED SHIELDS

Ted Shields, the founding Registrar of the University, died on Sunday, 9 June, suddenly and unexpectedly of a heart attack whilst rambling in Kent. Ted was John Fulton's first appointment and for almost a year from the day he took up the appointment on 1 January 1960 the two of them were the University of Sussex; they laid the foundations of the University from drafting the Charter to selecting the first undergraduates. Prior to his appointment at Sussex, Ted had a distinguished career in public administration in India and Africa, and when he left Sussex in 1973 it was to go to Australia as the Registrar of the University of Adelaide. On his retirement from Adelaide he was the longest serving Registrar in the Commonwealth, and he and Barbara returned to live in Sussex.

Ted Shields was a gentleman who always saw good in others and never complained; despite severe provocation at times during his 13 years at Sussex he always maintained his confident calm and sought to help those causing the problems. The University owes a great debt of gratitude to Ted for the experience and stability he provided in its first decade, and for the standards of commitment, industry and service which he personally established. Moreover, Ted was no 'ivory tower' man and he built up a range of close contacts between the Town and Gown which remain in place today.

Ted was a liked man, and deservedly so, who will be missed not only by his family but by the many friends and colleagues whom he helped in the University of Sussex.

Geoff Lockwood

EILEEN CHESSELL

It is with deep regret that we report the death of Eileen Chessell, a valued member of the Catering Staff for many years. She most commonly worked in Level Two Restaurant area. Her cheerful personality, general friendliness and sense of humour will be sadly missed.

AROUND the SCHOOLS

EURO

EUROPEAN SCHOOL faculty members are continuing with their efforts to strengthen links with colleagues and institutions in the European Community and elsewhere on the continent. Peter Holmes and Alisdair Smith are members of a group of economists who have secured a substantial grant to study "The Interaction between Trade Competition and Technology Policy in the Single Market" and last week Tom Crow chaired a seminar on Post-Modernism in Amsterdam.

Mick Dunford (Geography) is off to Pavia to complete his tenure of a Visiting Professorship supported by the ERASMUS scheme. He reports that the Italian system produces students with particularly high standards of oral fluency and communication.

European School students will have to improve their own communication skills if they are to take full advantage of the increasing number of opportunities for them on the School's Year Abroad programme. More and more major programmes are offering a structured element on the Year Abroad, which will mean that more Sussex students will be assessed on the courses they take on their Years Abroad and will carry the marks back with them to form part of their finals classification. The School hopes that 1991 will also see a EURO student graduating with two degrees, a Sussex BA in Economics and a license from the University of Grenoble — full details once the results are announced!

MAPS

SUSSEX PHYSICS is favoured by SERC — Despite severe cutbacks in the level of research funding provided by SERC in the recent grant round Physics at Sussex has emerged with several new awards.

The use of ion implantation to make optical waveguides was particularly favoured. SERC sent a review panel to Sussex in November as the new proposals of Professors Peter Townsend (MAPS), Tony McCaffery (MOLS) and Dr. Anne Tropper (Southampton) to develop ion implanted second harmonic and tunable waveguide lasers overlaps with the subject area covered by the Southampton IRC, and hence by definition was excluded from funding elsewhere.

The panel gave Sussex a high rating and the SERC committee described the existing work as 'world leading'. Not least because the Sussex team have made ion implanted waveguide lasers in insulators in no less than five materials, with no successful reports from any other laboratory.

This was an opportune moment to find favour as the committee only awarded one new grant! In cash terms the award to Sussex totals some £275,000 over three years. This is mostly from the new grant but as part of the award the SERC have arranged an increase of the current IRC funding to Sussex.

SUSSEX ASTRONOMER Starts the Week — Professor John Barrow of the Physics and Astronomy Subject Group appeared recently on Radio 4's 'Start the Week' programme. He explained to the nation the essence of his book *Theories of Everything*.



Celebrating her success: Lisette Petrie (centre) with Sharon Holgate (Chairman, MAPS SJC) and James Hirschfeld, Dean of MAPS. (Photo: Sue Bullock)

AND THE WINNER IS . . .

Congratulations to Lisette Petrie on winning first prize in the MAPS School Joint Committee essay writing competition. Students were asked to write an essay of between 1500 and 2500 words in the style of *New Scientist* to popularize Mathematics or Physics. Lisette, a second year undergraduate majoring in Physics, received £50 for her essay entitled 'The Sound of Music'. Many thanks to the judges: Professor R.J. Blin-Stoyle, Dr. J.W.P. Hirschfeld and Mr. R.K. Eastwood, for giving up their time. — Sharon Holgate, Chairman, MAPS SJC.

EAPS

DEM BONES, Dem Bones The Biomedical Engineers were well represented at the Worthing Orthopaedic Fair on 8 and 9 June. The event was organised by consultant surgeon Andrew Jarvis, to raise funds for a biomedical workshop which is being established at Southlands Hospital. Andrew is registered as a research student in EAPS and called upon his fellow students and his supervisor to give some help. On the Saturday, Theodoros Arvanitis, Barry Nevison and Mike Ziemann took part in an orthopaedic version of the Great Egg Race. They had three hours to build an 'animal' from a set of parts. Apart from aesthetic considerations, the aim was to provide the strongest possible load-bearing skeleton.

Lionel Ripley did the judging, along with Professor Heinz Wolff, who was the main celebrity of the day, but even his biased assessment could not get the Sussex team with better than third place. Horatio, as the Sussex beast was named, collapsed ignominiously under the weight of one small child. Repair work is proceeding and we hope to supply a picture of a resurrected quadruped for the next edition of *Bulletin*.

On the Sunday, Barry Nevison and Lionel Ripley timed the participants in the 20-metre walk. This purported to be a research study on gait but was, in effect, a novel way of selling certificates at a pound a time!

"NEVER MIND taking part — it's winning that matters" — After the bitter gall of defeat at the hands of the Undergraduates for the last two years, Gerry Boast tasted success when he led the Staff and Postgraduates to victory in this year's EAPS Games Night on 8 March.

The grown-ups now hold a 4-3 lead in the annual competition. The Undergraduates won the 5-a-side Soccer matches comfortably as usual and the Staff maintained their unbeaten record at Poker ("Aces" R.....s won again!). Despite intensive pre-match training organised by Andy McLeman, the Undergraduates were soundly beaten at Squash by the superior speed and power of Martin Shrimpton's team, equipped with Woollie's plimsolls and bamboo raquets. So much for Reebok Super Courtmasters and Graphite-Kevlar Composites. The Undergraduates won Pool and Darts but were beaten in Basketball, Table Tennis and Shuffleboard. Honours were shared in Badminton, Yahtzee, Pontoon, the Quiz and Charades, but eventually the SJC Chairman and Undergraduate Captain, Graham Neden, had to concede the trophy to Gerry.

FROM THE start of the next academic year, for EAPS read ENGG (reflecting the School's change of title from Engineering and Applied Sciences to the School of Engineering).

SOC

JENNIFER PLATT visited the USSR in May to give a series of eight lectures on the history and sociology of sociological research methods at the Youth Institute's Centre for Advanced Sociological Studies. Professor Platt said: "It became clear that there is considerable interest in research methods generally, not just their history, and I found myself in some demand to offer advice and comments. Several people said that they valued the opportunity to speak to someone interested in methods, since visitors from the West usually had quite different concerns. A 'methods' person could be instrumentally useful for their own purposes.

"I visited several research institutions, and two of the groups involved asked me to explore the possibility of organising further contacts with a view to exchanging data or initiating joint research as well as finding out more about what is going on in the West. It is likely that at least one of these contacts will lead to a future grant application to bring one or two people to this country to visit potential collaborators; I am pursuing discussions."

ENGAM

VALERIE CROMWELL, Reader in History, is leaving Sussex on 30 September to become General Editor and Secretary of the *History of Parliament* in London. This involves the general direction of a major research project under the auspices of the History of Parliament Trust. A number of volumes have already been published covering the biographies of MPs and studies of parliamentary constituencies since the 15th century. In the 1980s her research in parliamentary history, involving pioneering techniques of voting analysis applied to House of Commons' Divisions, received the largest (£54,000) ESRC grant ENGAM has had. Valerie is currently Vice-President of the Royal Historical Society, of the International Commission for the History of Representative and Parliamentary Institutions and a member of the Lord Chancellor's Advisory Council on the Public Records. She came to Sussex in 1964 from Cambridge. Both ENGAM and History will be sorry to lose her.

STUDENTS David Arnold, Sarah Downing, James Richardson and Ian Shaw have been performing in Brighton Festival's *Shakespeare in the Park*. Re:action Theatre, a Brighton-based, semi-professional theatre company, has been described as the only company in Brighton doing innovative and interesting productions at the moment.

A FORMER Politics student, Sarah Bartlett, who graduated in 1977 and is now a financial reporter for the New York Times, has risen to fame in New York. Her book, *The Money Machine. How KKR Manufactured Power and Profits*, has just been published and threatens to cause quite a stir. It has merited extensive, whole-page reviews in several papers and journals and is billed in a full-page advertisement as 'exhaustively researched, explosively written that probes the real story behind KKR . . .'

CCS

MANY A SLIP! — Over the early May Bank Holiday weekend, Professor Willie Lamont was visiting John Sants, a former colleague from CCS, who retired to Stirling a few years ago. Unfortunately, whilst there, Willie had a severe fall climbing a stile and badly fractured his leg in two places. (It is said that, even as he fell, he was thinking of the Arsenal FC!). Willie was transported overnight on the Scottish Flyer to Euston, where he was met by ambulance and taken to the Royal Sussex County Hospital; he has now been discharged from hospital and is at home. Everyone in CCS is missing Willie very much and wishes him a speedy recovery; it is hoped that it will not be long before he is back at the University again.

THIS IS Nick Tucker on the Jimmy Young Show — “. . . and coming next, we have Nick Turner from Sussex University, to talk about the psychology of accidents.” I swallow back, “Thanks a lot, Bill Young” and start talking to the great Jimmy himself in front of a tent full of people by the Brighton Pavilion and goodness knows how many listening elsewhere. He concentrates on accidents among the old, about which I know rather less than about accidents in the young. Extrapolating hopefully from the example of my 86 year old mother, I hazard that the old often

hang on to things like ancient boilers or geezers because they feel a certain affinity with them. “Don’t you call me an old geyser!” Nice one, Jimmy. Finally I tell him about a man injured by a flying slug when mowing the lawn. “So how’s the slug doing now?” Audience laughter and the end of a long five minutes.

SECOND YEAR music major Richard Fox is the script writer and producer of ‘Classical Notes’ broadcast on Radio Sussex every Sunday afternoon.

SO FAR it has been a busy year for the Professor of Music, Jonathan Harvey. In March several of his works were featured in the Ars Musica Festival in Brussels. In April, he was invited to perform in his 53-minute piece, *Bhakti* (for instruments and electronics) in Montreal. This month he has been invited to take part as the featured composer in a concert of his music in the Music Today Festival in Tokyo. His Cello Concerto will also be performed in the Festival of Contemporary Music and he has been invited to be on the international jury for the Toscanini Competition in Parma, Italy. Later in the summer, Jonathan will be conducting his *Serenade in Homage of Mozart* to be performed at The Glyndebourne Mozart Season.

MOLS

QUITE A PARTY! — When Professor John Murrell attended the signing ceremony at the Royal Society on 6 June he met three former Sussex faculty and fellow FRSS with the same invitation: Robert Cahn, former Dean of EAPS, now retired at Cambridge but still active in research and book writing; Philip Johnson-Laird, formerly of Experimental Psychology, now at Princeton; and Brian Charlesworth, formerly in Biology, now at Chicago. Professor John Maynard Smith was there to add to the gaiety of this Sussex get-together.

DR. ANDREW HUDSON, Subject Chairman of Environmental Science, visited Sri Lanka from 13 to 19 May to attend the Golden Jubilee celebrations of the Institute of Chemistry, Ceylon. Dr. Hudson who, with Drs. J.R. Hanson and J.D. Smith from MOLS, is an external examiner for the Institute of Chemistry Graduateship Examinations, gave the keynote address at a symposium on ‘Chemical Education for Development’. The theme of his lecture, *Teaching Chemistry in a Green Age*, was the need to include a consideration of environmental issues and their political and economic implications in the teaching of chemistry at degree level.

AFRAS

PARTHA MITTER has been invited to accept election as the Radhakrishnan Memorial Lecturer for 1991-92. The Radhakrishnan Memorial Trust was founded in 1976 with a bequest from the late Sir Sarropalli Radhakrishnan to endow a series of lectures at Oxford University on an Indian subject in any field. Past lecturers have included Professor J.K. Galbraith, Professor Tambiah and Professor Ramanujan.

HOMI K. BHABHA has been elected to the S.W. Brooks Visitorship by the Senate of the University of Queensland for 1991. He has also been appointed to a Steinberg Visiting Professorship in the Department of English, University of Pennsylvania, Philadelphia, for the Fall Term 1991-92. For the second semester of 1992, he has been elected by the Humanities Council of Princeton to the Council’s Senior Fellowship, and has been appointed to an Old Dominion Fellowship in the Department of English. In April 1991, Homi will deliver the Richard Wright lectures at the University of Pennsylvania. The Institute of Contemporary Arts, Boston, has appointed him as the Senior Academic Adviser for their Rockefeller-funded exhibition on cultural differences in a post-colonial world.

CONGRATULATIONS!

The Royal Horticultural Society's Gold Medal has been awarded to Ken and Ann Norman, members of the technical staff in Physics, for their exhibit of Bonsai trees at the Chelsea Flower Show this year.

The Gold Medal is the highest and most prestigious award available for horticulture worldwide. This is the fourth time they have exhibited at Chelsea, gaining Silver Medals on all previous occasions.

And at the South of England Show last week, their exhibit won them another Gold Medal.

BRIGHTON ROCK '91

The fourth Brighton Rock summer school will be held on campus from 18 to 24 August. The course gives students over 16 from all over Europe the chance to find out from top performers and business professionals the inside story of making it in the music industry.

The Course Director is Norton York, an undergraduate in Engam from 1983-86 now currently writing up his MPhil in Music. His book *The Rock File*, published by Oxford University Press last month, is based on the summer school.

Students on the course are sponsored by the Musicians' Union which helps to keep the fees down (to £260 residential, £185 non-residential) and allows for nine top tutors to teach on the course.

For further details contact Angie Oxley, Arts B, ext. 8019.

CAS CHANGES

Carolyn Morris is now working part-time and Ben Ball has taken over as Director of the Careers Advisory Service.

DEATH OF HONORARY GRADUATE SIR ANGUS WILSON

We regret to announce the death of Sir Angus Wilson on 31 May. Sir Angus received an Hon. DLitt. from Sussex in July 1981.

NEW CENTRE FOR SOCIAL WORK STUDIES ESTABLISHED



Dr. Crescy Cannan (top right) and Carol Kedward (nearest camera) who, together with Dr. Dorothy Jerrome, represented Sussex at a meeting of a French-funded European research network held recently at Sussex. Colleagues from Belgium, France, Greece, Spain and Portugal are also pictured.

Social work education and research becomes an increasingly significant area of work for the University. The last two years have seen a number of new initiatives in the Social Policy and Social Work Subject Group which have added to Sussex's existing Master in Social Work programme (and the ICAPE supervision and management programme for social workers) and have enabled the Group to create a Centre for Social Work Studies.

One important development has been the Postqualifying Course in Child Protection, a programme set up in collaboration with East Sussex Social Services Department to strengthen the Department's work with children at risk of parental abuse or neglect. The programme is validated by the Central Council in Education and Training in Social Work (CCETSW) in two formats — day release over an academic year and a 90-day full-time sequence — and already brings to the University social workers from three different local authorities. Another new programme is the Sussex Practice Teachers' Award, one of the first courses nationally set up in response to a CCETSW initiative to prepare and qualify social work 'practice teachers', the agency staff who supervise qualifying students in their practice work; this programme, day release over six months, recruited 23 students from the probation service, voluntary organisations and the local authority social services in its second year.

There have also been new social work research initiatives. A local authority funded project compares the practice of 'family centres' where staff work with children and families in which there is evidence of child abuse. A European project grew from links initially made in an ERASMUS exchange; the Centre is now part of a network of European groups developing joint research on social work and social welfare topics and has already played host to a seminar which brought together colleagues from six European countries. The Centre also plans to encourage individual research and study by practicing social workers; it is seeking not only to increase the number of graduate research student applications, but to support 'fellowships' for shorter periods of study, the first of which has already been undertaken.

Other activities, both training and research, are already under discussion and the creation of the Centre for Social Work Studies is expected to make easier the organisation and funding of this work. The Centre has no staff separate from the Subject Group, but the development of these projects has already allowed the Social Policy and Social Work Group to increase significantly the staffing of its social work side — there are now 10 social work teaching or research appointments, two of them jointly with the local social or probation services. The Centre's first director is Hugh England; he can be contacted in the School of Cultural and Community Studies.

IRAQI STUDENTS APPEAL

The Chaplaincy wishes to thank all those who so generously responded to the letter that the Vice-Chancellor wrote on our behalf to our Appeal concerning the welfare of the Iraqi students. We are unable to acknowledge every contribution personally but on behalf of the Iraqi students in our community we thank you for making it possible to provide them with money to cover their essential needs.

LETTERS TO THE EDITOR

The rather bland statement on the Gardner Centre in the May 14 issue of the *Bulletin* is causing some concern. It indicates that the University has decided the days of the Centre are numbered.

The Centre provides a link with the local community. I have sensed that a great many people outside the University appreciate the many pioneering productions that have been produced and are worried about the future of the Centre. I am also concerned with the loss of future students who are attracted by a good Arts Centre.

The University does have a moral obligation to honour the wishes of Dr. Lyddon Gardner and I do hope that before anything drastic is done there will be proper consultations on a University wide basis to see what satisfactory solution can be reached.

Yours sincerely,

*G.B. Trustrum
Mathematics*

We would like to thank all who sponsored us for the 1991 London Marathon. Altogether we have raised £1,056, of which £765 is going to pay for a syringe feeder for the Trevor Mann Baby Unit and the remainder will be donated to the Trafford Centre for research into baby units.

Again, many thanks and hope you will support us in the 1992 London Marathon.

Lorraine and Rosa

SELF-SERVICE FAX MACHINE IN SUSSEX HOUSE

The Printing Unit in Sussex House has now acquired a second Fax machine which will be used exclusively for sending Faxes on a self-service basis. The present machine and number (Brighton 678335) will be reserved for incoming Faxes. This should reduce delays to users in both directions. The new machine will be controlled by a card system, similar to that for the photocopiers, which will record the number of telephone units used in sending each Fax. These will be recharged monthly to official users at cost plus a small on-charge to cover overheads. The new system should be more convenient for users and will result in more accurate accounting and lower Fax charges.

Fax user cards will be issued against expenditure codes in the same way as currently happens for photocopier cards, on the authorisation of the person responsible for the code. Cards can be obtained on application to staff in the Sussex House Machine Room. Photocopier cards will not be valid for the Fax Control Unit.

It will continue to be possible for private users to pay cash for sending a Fax on application to the Machine Room staff. The staff will have a Control Card which will record the number of units used and will allow staff to quote (and collect) the cost on the spot.

BUILDING WORKS

The following work is being undertaken by the Estates Division. We ask you to take care in the vicinity of the work and keep outside the safety barriers.

Works in progress

Biology 1 Research 1: major refurbishment both internally and externally (due for completion in October).

Norwich House: replacement of broken slates.

Kent House, Kulukundis House, Essex House, Refectory, EAPS II (from mid summer) and part of Park Village (from mid summer): redecoration and external timber repairs.

Works completed

We thank you for your co-operation during recent external redecoration works to Sussex House and the Sports Pavilion.

Planned Future Works

Drainage work and resurfacing of East Slope car park (summer 1991)

New Playing Fields Tennis Courts (summer 1991)

Major repairs 1992: Meeting House and Falmer House (Phase 1)

Buildings Engineer & Surveyor

NEWS FROM THE LIBRARY

• The Library will be open, primarily for Open University Summer Schools, from 1030-1700 on the following Sundays during the vacation: 14, 21, 28 July and 4, 11, 18 August. No returning or borrowing of books will be possible but stock may be consulted by, and most self-service facilities will be available to, members of the University. Otherwise standard vacation hours and services will apply save as provided for by the following paragraph.

• The actual change-over to the new Geac 9000 computer is provisionally scheduled for Saturday to Tuesday, 3 to 6 August. During those four days (one closed, one open for OU Summer Schools, and two normal vacation open days) no Geac-based services will be available; in particular, books will not be issued. The dates are of course subject to confirmation nearer the time. It is possible that in the weeks immediately following the change-over some services may be affected, and the computer catalogue may not be available in the finally-intended form. However, it is our hope that by the start of the next session all core procedures and operations will be running smoothly around the new software.

• There may be minor adjustments to opening hours for the 1991-92 session. Details will become available during the summer vacation; for the latest information about the possible changes, which are still under discussion, please contact the Librarian.

ENGAM COMMON ROOM OPEN

The English & American Studies School Common Room will be open for light snacks from 9.30 am to 4.00 pm from the end of term until Friday, 9 August.

FULBRIGHT AWARDS

The Fulbright Commission offers awards in 1992-93 for British post-graduate students to spend a year of advanced study/research in the USA covering travel and maintenance. In addition, up to two special distinction awards and a number of travel-only awards will be available, as well as specialist awards in Business Studies and Cancer Research. For details and application forms send a stamped addressed 9 x 13 ins. envelope to: The British Program Administrator, The Fulbright Commission, 6 Porter Street, London, W1M 2HR. Details and application forms will become available in July.

NEWS FROM THE GARDNER CENTRE

It might only be June, but tickets for this year's Gardner Centre Christmas show — an adaptation of Kenneth Grahame's timeless classic *The Wind in the Willows* — are on sale and with over 5,000 tickets already sold it is heading towards being a sell-out.



This year's show is another from the pen of local hit-writer Mike Carter, the man responsible for last year's *Alice in Wonderland*, which beat all previous box office records at the Gardner. In co-production with the Centre, Mike has adapted Grahame's book into a musical treat for all the family. Special offers on ticket prices over the summer will make it even cheaper to spend Christmas 'down on the riverbank'. VAT increases are being held off until the end of August and all tickets bought before 31 October will be sold at children's prices. The show runs from 11 December to 4 January.



WEST SIDE STORY HITS THE '90s!

Students from as far afield as the USA and central Europe will be joining students from Sussex in a new and updated version of Bernstein's classical musical *West Side Story*, to be performed at the Gardner Centre from tomorrow, 19 June to 22 June. Tickets are £4.00 (concessions £3.00).

THE TRAFFORD CENTRE

More on its work — cardiac research

Many patients are at risk from life-threatening arrhythmias — abnormalities of heart rhythm that can bring it to a standstill. A research group working jointly at the Trafford Centre for Medical Research and at the Cardiac Department at the Royal Sussex County Hospital is exploring how to predict and treat cardiac arrhythmias by new methods that are both effective and comfortable for the patient.

The Centre's cardiac research group is exploring methods of retrieving heart signals from the body surface that are invisible on the ordinary electrocardiogram but which may hold important pointers to serious disorders of heart rhythm. The signals are no more than a few millionths of a volt — and they are often quickly moving and short lived. Computerised signal-recovery techniques — amongst the most advanced in the UK — are needed to extract and analyse such minute signals. Work on the signal-detection system, which has earned an international reputation for the Centre, has now moved into day-to-day clinical practice.

Current developments to speed and clarify ECG signal analysis are being based on optical techniques. The speed of such analysis is enormous and may lead to entirely new ways of learning more about the electrical information hidden in the heart.

In the area of treatment, the Trafford Centre has developed a pacemaker to optimise the performance of the heart when its rhythm has been set dangerously slow by a coronary attack. The small bedside unit ensures a high level of adaptation to a variety of heart rhythms characteristic of patients with this condition. In trials at the Royal Sussex County Hospital this pacemaker causes a measurable improvement in blood pressure at a critical time in the patient's illness.

In a separate pacing development, a microcomputer has been programmed to behave like a complex pacemaker. The system allows all the internal workings of the pacemaker and its interaction with the patient's heart to be presented in colour-coded graphics.

The Trafford Centre's cardiac unit is also making headway with other devices for patient care, including the computerised recognition of neo-natal signals that may help towards the prediction of a sudden infant death syndrome.

SMALL ADS

FOR SALE: studio flat Palmeira Avenue, Hove. Low outgoings, long lease. £29,000 leasehold. For further details, please contact Tony Durrant, ext. 8415.

RENT FREE accommodation July/Aug/Sept (and as much of June as possible) in return for providing some meals and (v. limited) help to faculty member with broken leg. Ideal for non-smoking couple or single person (p/g or u/g) wanting quiet environment for writing up dissertations, etc. Spacious bedsitter in lovely room with own bathroom, lavatory, in large Georgian house nr. Newhaven, with access to garden. Please contact Professor Lamont, Brighton 516588.

ENDEAVOUR, the Ford dealer, is offering discounts on service, parts,

etc. to University staff. For leaflet, contact Robert Pratt, ext. 8206.

HAYWARD'S RESTAURANT in North Street, Brighton, is offering 10% discount to all University staff on all services including private dining in the restaurant and outside catering functions. Tel. 24261.

ACCOMMODATION WANTED: July and August. Small flat needed for lecturer from European University, Fiesole. Contact ext. 2294 in first instance.

AU-PAIR needed to look after enchanting 2-year-old boy, just outside Florence. Contact ext. 2294 for details.

MATURE industrial researcher completing PhD seeks tuition from computer science graduate on PC, D-Base, Basic, etc. Tel. Lewes (0273) 478962.

NOTICEBOARD

RECENT BOOKS

Recent publications by Sussex authors include:

The Haunting of Sylvia Plath by Jacqueline Rose, Virago. £14.95.

Electrical Machines and Drives by J.D. Edwards. Macmillan. Paperback, £12.99.

The Ancient and Modern Names of the Channel Islands. A Linguistic History by Richard Coates. Paul Watkins Publishing. Paperback, £9.95.

The Art of Death. Visual Culture in the English Death Ritual, c.1500-c.1800, by Nigel Llewellyn. With 101 illustrations, 10 in colour. Reaktion Books. £9.95.

Evaluation of the Alvey Programme for Advanced Information Technology. A report by teams from SPRU and the University of Manchester led by Ken Guy (SPRU) and Luke Georgiou. The SPRU members include Paul Quintas and Michael Hobday. HMSO. Paperback, £17.25.

Industrial Change and Regional Development. The Transformation of New Industrial Spaces by Georges Benko and Mick Dunford. Belhaven Press. £44.00.

To Cure All Hunger. Food policies and food security in Sudan, edited by Simon Maxwell. IT Publications. Paperback, £9.95.

Neural and Behavioural Plasticity, edited by R.J. Andrew. Oxford UP. £55.00.

Some items of local interest:

Brighton and Hove: Official Map. Showing the University and the route of the by-pass now under construction. £1.20.

Virginia Woolf's Rodmell. An illustrated guide to a Sussex village, edited by Maire McQueeney. Rodmell Village Press. £3.00.

Underdog Brighton. by Sussex graduate Denis Hill concentrates on the life of ordinary people and pays considerable attention to the effect of University and Polytechnic influence on the town. Iconoclast Press. Paperback, £8.99.

E. J. Bedford of Lewes. Photographer of the London, Brighton and South Coast Railway by John Minnis. Wild Swan Publications. Paperback, £7.95.

A Guide to the Buildings of Brighton by students and staff of the School of Architecture and Interior Design of Brighton Polytechnic. This handy, eye-opening companion, published for the XVI World Congress of the International Union of Architects, is again available. Paperback, £4.95.

All obtainable from Sussex University Bookshop

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 10 June and is subject to revision.

Teaching Faculty
Chair in Electronic Engineering, EAPS

Temp. Lecturer in International Relations (closing date 21.6.91)

Temp. Director of SPRU (closing date 21.6.91)

Secretarial, Clerical and Related
Secretary to Director of IRC, Biols, part-time, grade 4

Secretary, Engam, full-time, grade 2/3
Secretary, International/Alumni Office, f/t, grade 3 (closing date 27.6.91)

Clerk/Typist, Student Admin Section, f/t, grade 3 (closing date 27.6.91)

Manual and Ancillary Staff
Cleaner, Sportcentre (7.00 am - 11.00 am), p/t, grade 2

For the following posts, please contact Pat Brewerton, Room 201, Refectory, ext. 8821:

Kitchen Assistant, Falmer Pub (10.30 am - 2.30 pm)

Catering Assistant, Refectory (11.45 am - 3.00 pm)

PUBLIC LECTURES

Professorial Lecture:

This Thursday, 20 June, 6.30 pm, Molecular Sciences Lecture Theatre: Brian Roberts, Professor of Mechanical Engineering —

Random Walks in the Dynamics Field Interest in random vibration problems has grown rapidly in the last few decades, due to the growing need to design structures and machinery to operate reliably when subjected to complex environmental loads, such as wind and wave forces, earthquakes and jet noise. This lecture shows how the concepts of stochastic process theory, including the theory of random walks, can be applied to solve a range of engineering problems in dynamics.

Wynne Baxter Godfree Law Lecture:

This Friday, 21 June, 5.30 pm, Lecture Theatre A2, Arts A:

Sir Gordon Slynn, UK Judge in the European Court of Justice —

How Relevant is the European Court of Justice in England?

These are open lectures. No tickets required.

TERM DATES

1991-92

Monday, 7 October — Friday, 13 December

Monday, 6 January — Friday, 13 March

Wednesday, 22 April* — Friday, 26 June

* The Summer Term 1992 has been reduced by two days because of the late incidence of Easter (Easter Sunday falls on 19 April).

CLOSURE DATES

The University will be closed for the August Bank Holiday on Monday, 26 August. The following closure dates have been agreed for 1991-92:

Christmas/New Year: Monday, 23 December to Friday, 27 December and Monday, 30 December to Wednesday, 1 January, inclusive.

Easter: Thursday, Friday and Monday, 16, 17 and 20 April.

Bank Holiday Mondays: 4 and 25 May and 31 August.

SPECIAL LECTURE

This Friday, 21 June: Dr. David Hubel, Nobel Prize winner in Physiology and Medicine: *The Mechanisms of Colour Vision*. 4 pm, Biology Lecture Theatre.

BULLETIN

This is the last BULLETIN of term. Copy for the first issue of the Autumn Term, to be published on Wednesday, 9 October, must be received by Jenny Payne, Internal Communications Officer, Room 230, Sussex House, by no later than noon on Friday, 27 September. If you have any news items or ideas for feature articles, she would be pleased to hear from you (ext. 8208).

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.

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PAPER



The University of Sussex, Sussex House, Falmer, Brighton, BN1 9RH.