



FELIX

Founded 1949

The Newspaper of Imperial College Union

Universities will close

SOME UNIVERSITIES will close in the next ten years, says the Government Green Paper 'The Development of Higher Education into the 1990s'.

The Government document outlines the short-term policy on higher education. Based on an assessment of student numbers it says 'it is not improbable that some institutions of higher education will need to be closed or merged.'

The intention to 'reform' the student support system is re-affirmed, and one likely result would be the introduction of loans instead of grants as we know them. The Government says that 'a greater financial engagement on the part of students would cause them to take greater care over their choice of study'.

A fundamental change in the structure of degree courses is also proposed. This includes a broadening of the degree course in universities and at the same time reducing the length of some degrees. The Government believes that a limited experiment, in a small number of universities, should be mounted to test the view that 'a two-year degree for the most able could become a prestigious award, which would be highly coveted'.

The Government doubts that present sandwich courses provide value for money. It proposes to consult advisory bodies to offer

continued on back page

Voluntary unions?

THE GREEN PAPER makes specific comments about student unions, particularly regarding fair representation of opinion, freedom of speech and ultra-vires expenditures.

It is maintained that student unions have not always been representative of the student body as a whole. Policies are determined and implemented by a minute proportion of the union membership, says the Government, and the growth of sabbatical leave for union officers is also found worrying.

'Only the president of the union used to be granted leave from his studies for a year of office, but this privilege is now often more widely extended so that too much influence over student affairs can be exercised by a smaller number of students enjoying sabbatical leave,' it maintains.

The Government is concerned that taxpayers' money should not be used to fund unions that refuse a platform to speakers whose views are objectionable to some students although some students wish to invite them, that prevent invited speakers from gaining a hearing or that permit violence or the threat of violence to that end.

The Government will consult as to how student union policies and actions can be made properly representative; whether, if that cannot be achieved, the automatic membership of students in student unions can be justified; and whether the present numbers of sabbatical officers are needed in order to manage the legitimate activities of the union.

It is made clear that if voluntary agreements cannot be achieved on these issues, then direct action will be taken.

'Nobby' Stiles gets UGA



HUGH STILES, right, was awarded a Union General Award at Tuesday's IC Union AGM.

The UGA is the highest distinction that the Union can award. 'Hugh Stiles was RCC chairman for two years and has done valuable work in many other fields', said Union President Ian Bull.

Elections were held at the AGM: Jane Ryder and Tom Melliard-Smith were elected ordinary members of Council; John Ingham, Alan Rose, Tom Melliard-Smith and Pete Smith, delegates to GUC; and Pete

Wilson, Haldane Record Buyer.

Returned unopposed were: Josie Glausiusz, Haldane Book buyer; Bryan Rowen and Andy Cave, Union House Committee; and J Martin Taylor, FELIX Business Manager.

The post of Publicity Officer is still vacant.

A motion that societies should be fined for holding events that clash with UGMs, proposed by Hugh Southey, was defeated on the vote.

Other recipients of UGAs were Ian Bull, Dave Parry, Eric Darbyshire and David Rowe.

Midsummer dinner dance

A MIDSUMMER DINNER will be held on Friday 7 June in the Sheffield Building.

The cost is £9 for students (£4 subsidy) and £11 for staff. This includes food, wine, and dancing to the Nina Barry Quartet.

Reservation forms are available from the Union Office for students, and from Room 508 Sheffield for staff. The closing date is Wednesday 5 June.

Staff and students who would like to say goodbye to the Rector and Lady Flowers may do so on Wednesday 19 June in the Main Dining Hall, Sheffield between 5.00pm and 7.00pm.

Beer and bangers will be available.

Letters

Sex

Dear Sir,

Speaking as a woman at IC, I can't say I found the 'Armchair Perverts' article in the 10.5.85 edition of FELIX particularly insulting or offensive. It was obvious that the writer did not take himself too seriously and the vitriolic reaction to his feature seemed unjustified to me. In any case it provoked controversy, a quality which has been lacking in recent previous editions of this paper. Oh, and incidentally, I know the author and by implication I know the 'type of person who writes such an article' and he isn't that much different from the rest of us.

*Yours sincerely,
M Ibbotson
Chem 2*

Dear Sir,

I write in reply to the ill-considered letter published under the heading 'Revoltin' Drivel' in last week's FELIX. It strikes me that those who write such missives enlighten the FELIX-reading public only to their own narrow-mindedness.

The article to which these letters refer, 'Armchair Perverts', was a well-written, highly entertaining and (as Messrs Gray, Yeung etc failed to notice) tongue-in-cheek piece of journalism. Their whitehouse—like criticism of (and I quote) 'this kind of thing' serves to demonstrate their illogical belief that we should be protected from whatever they consider immoral. I really think it would come as a surprise to such people that, in the world of grown-ups, we have a right to make our own minds up about such things.

The second, rather cliché-ridden, attack on the piece mentions 'public exhibitions' like this discourage 'better students' from coming to Imperial. Displaying the same quality of inane self-assurance that provoked him to write in the first place, this author now assures a correlation between moral standards and academic prowess! I would advise him that this is not the case.

The start of the letter, which gives the section its heading, is hard indeed to reply to as it doesn't make any point at all. However, calling its author mindless, without further explanation, rebuts it adequately whilst retaining the style of the original.

*Yours faithfully,
A S Thomis
Elec Eng 2*

Beer

Dear Sir,

I write to you with great concern regarding the serving of beer in half litre skiffs yesterday (Thursday 16 May). For those who still find SI units a bit confusing, one-half litre = 0.8798769 pints (as far as my humble calculator will allow) but those being served were being charged for a full pint.

I for one would not mind being served metric measures if metric charges are to be charged, eg. 60p per half litre for a 68p pint of beer, but to leave some of 'my' beer behind the Union Bar to be resold to someone else seems unfair to say the least.

I am also concerned by the current fashion of leaving a half-inch head on a pint of Guinness, as this particular half-inch contains two fluid ounces in a straight glass and represents a decimation of the beer.

I look forward to a reply from someone on the committee for the pricing of the beer in the IC bars, if in fact such a committee exists.

*Yours sincerely
Ed Ashford
Aero 2*

Money

Dear Sir,

Rumour has it that, due to the oversight of Dave Parry, the Union will risk the very existence of 'high spending' clubs in the misguided belief that College will rescue them.

College knows full well that the number of applicants is a function of the academic standing of this College not the prestige of the union clubs and societies. It will not spend its precious resources on abandoned clubs.

Only when students get to College are they delighted with the range of clubs. It is a matter of Union, not College, prestige that these clubs are maintained. Without them what would make ICU better than any other? All unions have cheap beer and unshaven hacks but few have progressed beyond the 'banda' copier, still less have an established radio station and fewer still have television. Apart from the undeniable quality of its graduates, this College's media is of more renown than any other facet of its activity. Has this fact eluded Dave Parry in his immature delusion of self-deity? Let us remember that this financial problem is only a cut in a widely optimistic increase and as such the responsibility lies square on Dave Parry.

The obvious solution is to keep everyone at last year's budget and distribute the available increase impartially according to need.

*Yours pragmatically
Richard Copnall*

FELIX

The axe-man cometh

The Green Papers on higher education does little more than to confirm worst fears. Level funding is out, retrenchment as student numbers decrease is the name of the game, and the equivalent of the University of Southampton will close annually for the next three years.

There are a few clues, though, as to Government thinking on higher education (in as much, as the term 'thinking' can be applied to the Government). There is a radical departure from the Robbins principle—that courses in higher education should be available for all those who are qualified to pursue them. The Government have re-formulated this by saying that courses should be available to those who can 'benefit' from them and, what is more, that the benefit has to be sufficient to justify the cost.

What Sir Keith means is that the benefit to the *economy* must justify the cost, in *his* opinion. And his perception of what is of benefit is based on wholly unjustified assumptions.

He seems to look no further than the end of his admittedly prominent nose. He has identified a demographic trend and a technological need that apply to the 1990s. And he uses this to justify a wholesale re-organisation of higher education which will continue to be felt long after the demographic trend has been reversed and the technological need has changed.

Acknowledgements: Many thanks to Chris, Grenville, Nigel, Hugh, John, Pete, Debbie, Alan, Judith, Sarah and all the collators, Rosemary, and 'get well soon' to Tony who has had a motor accident.

Felix is published by the Editor for and on behalf of Imperial College Union Publications Board and is printed by the Union Print Unit, Imperial College, Prince Consort Road, London SW7. Telephone 01-589 5111 Ext 3515. Editor: David Rowe, Business Manager: Martin Taylor, Advertising Manager: Paul Belford. Copyright FELIX 1985. ISSN 10140-0711.



Symon Corns, Rôger Preece and Dave Page lead a Boomalaka at the end of the Guilds Handover UGM. Highlights of the day were Luke Walker's award as Angel of Guilds and the traditional trouserless boat race. Neil McCulloch was most surprised to be awarded RCS half colours for services to the President. Observers were left wondering how one achieves RCS full colours.

Not bust

CITY AND GUILDS Union have revealed that they are not bankrupt after all. This follows a contingency claim to IC Union at which time they claimed to have 'run out' of money.

IC Union finance Committee decided to loan them money from next year's subvention, to clear their debts.

It now appears that the apparent crisis was caused by the double entry of a large debit in the accounts.

Guilds HJT David Sharpe has been seen sporting a black eye recently.

Free rooms

A NEW WARDEN and Student Manager are required for Hamlet Gardens.

Both will start in 1985-86 session; a couple is required for the senior post and a single student for Student Manager. Both posts carry free accommodation.

Further particulars and application forms are available from IC Union Office. The Closing date is Friday 21 June.

Guide to Head Tenancies

RESIDENTS of Hamlet Gardens have produced a guide for dealing with their Head Tenant, Imperial College.

The document was produced after a six-month delay in repairing a leaking roof.

The guide suggests that contacting Student Services is much more effective than dealing with Student Managers. Student Services will usually ring the owner of the flats if a student has a problem, say the residents.

They also point out that students can get free legal advice, particularly on housing, from Law Centres.

The nearest Law Centre to Hamlet Gardens is at 106-108 King Street, Hammersmith, W6.

FELIX will print the whole of the guide next week.

Another free room

APPLICATIONS ARE invited for the post of Assistant Sub-warden of Falmouth Keogh Hall.

The Hall has 190 residents (25% female, 75% male) and the essential duties of the post are to assist the Warden with the day-to-day running of the Hall. Rent-free accommodation is provided in the form of a study bedroom.

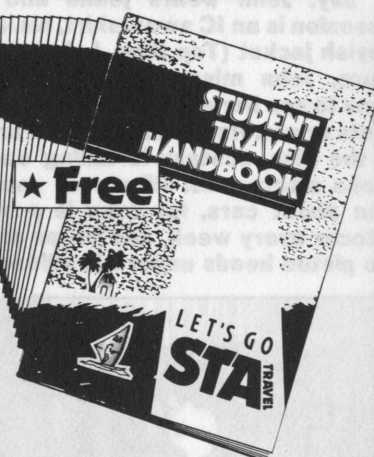
The post requires an individual who can combine conscientious application, enthusiasm, initiative and a responsible outlook. The successful applicant will probably be a postgraduate, but others will be considered.

Applications should be made in writing, detailing any relevant experience, to reach the Warden, Dr P W Jowitt, by **Monday 10 June 1985**. A shortlist will be selected for interview.

Put The World In Your Pocket



The Lowdown For High Flyers



Pick Up A Copy-Get Ahead

64 Fact Packed Pages to help plan your summer break
Free from your Student Travel Office or Student Union

ULU Travel
IMPERIAL COLLEGE UNION
THE JUNIOR COMMON ROOM
SHERFIELD BUILDING
PRINCE CONSORT ROAD
SW7 2AZ TEL: 01-581 8882

A Service of
STA TRAVEL
AIO CIBL IBC

The World's Greatest Student and Youth Travel Organisation.
Government Bonded under ATOL 822 in Association with SATAC Charterers Ltd.

OPINION

It may take all sorts to make the world, but here at Imperial College, that pinnacle of higher education, that bastion of technology, that epitome of all that's wrong in British Industry, we can find assembled, dear Miss Brodie, what surely must be *la crème de la crème*. Yes, by virtue of rigorous selection methods, arbitrarily based on unreliable information, and carefully chosen at the whim of some incompetent Head of Department, we have the quintessential Centre of Excellence; the Best of British Youth striding boldly forward at the Frontiers of Science. Just British? Nay! The World! Well, China and the Middle East, anyway. And what a fine collection of people they are too...



Carefully chosen at the whim of some incompetent Head of Department

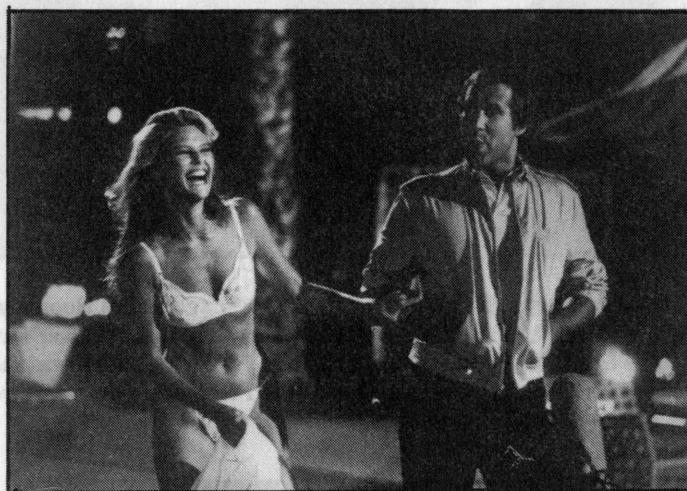
Perhaps you remember learning at school that there was no such thing as the 'average man', average being a complete fantasy existing only in the minds of deranged statisticians and Labour prime ministers. That may be all very well, but here at Imperial the 'average student' is a gruesome reality—just a few basic guidelines, some minor alterations here and there, and you have not just an overall impression but a clear picture of almost every individual in College. I don't know whether people actually come here like that, but rest assured, once caught in the sausage machine, escape is well-nigh impossible.

Consider then the average Imperial Student; John, shall we say. John wears jeans and trainers, his proudest possession is an IC sweatshirt, his idea of style a nondescript greyish jacket (*Top Man*, I shouldn't wonder). A rather sad figure, John misses his girlfriend-back-home, and goes home to see her every other weekend, whether she actually exists or not. Happiness for John and his mates is a night out on the piss, ecstasy is telling each other all about it for weeks afterwards. Whatever you do, never, ever, talk to John about cars, for John is a staunch Guildsman, buys *Autocar* every week, and keeps an oily reduction valve and two piston heads under his pillow.



John misses his girlfriend-back-home

Not a human



A big hit with the girls...

Now imagine John in a new set of clothes, buttocks and beer gut squeezed mercilessly into overtight jeans, a rugby shirt instead of a sweatshirt, and over his shoulder a hard, masculine, 'action-like' brown leather jacket. A very fine young man is John; clean-cut, ex-public school, sponsorship from Daddy's company in South Africa, his wallet a big hit with the girls. Trouble is, John and his mates are now, without exception, repressed homosexuals. And the thing about a repressed homosexual is that he'll go to any lengths to prove he's not. In short, a typical miner.



...John and his mates are now repressed homosexuals

single being

Another quick change, and John now has long hair, unwashed for the last six weeks but still nowhere near as filthy as his jeans, which are fully three inches too short. It's so hard to get a good pair of flares these days. As far as John is concerned, Woodstock didn't end in '76, man: they all fell into a time warp and ended up in the Royal College of Science. Far out.

I expect you're fed up with John now. Well, call him Charlie instead, dress him in pointy shoes and a funny haircut. Charlie hates CCUs, loathes Imperial College, and despises John in any shape or form. He is a *trendy poofter*. Not that he's particularly trendy or necessarily gay, it's just the general term used to describe Charlie and his kind by the massed Johns in College, *trendy* and *poofter* being the two most heinous insults that their stunted minds can dream up. But Charlie hardly even notices. He's in love. With himself.

You may notice that I haven't mentioned girls yet. Well, I have now. The interesting thing about the girls in College is that, contrary to popular belief, there are actually quite a lot of them here. It's just that in most cases, it's impossible to tell the difference. Be warned, lads; that big, sound-looking bloke you've just been talking to could in fact be, yes, horror of horrors, a girl. And mind your step, too—get into a fight with one of them and you're a gonner for sure.



In most cases it's impossible to tell the difference.



Gorgeous, blushing, pouting Samantha—she likes boys. Lots of boys.

Then again there's the other end of the female spectrum: everybody's darling—gorgeous, blushing, pouting Samantha, always dressed to the teeth, always on the lookout for the latest hunk of meat. Because Samantha likes boys. Lots of boys. And they like her, too. It's her wonderful personality, don't you know. Like hell it is—she doesn't even know what the word means. Not that that makes any difference when all she has to do is raise her little finger and five hundred drooling males rush to her aid. By my reckoning, these days that's just got to be on a par with a thousand ships. But at least Helen of Troy was a good screw.

Mind you, all this power doesn't come without some retaliation—no, we men are made of sterner stuff than that. Yeah, we men put those women in their place good and proper, don't we boys? So the girls, all the way through from the Samanthas to the Janes, have to take refuge in feminist groups and the collected works of Germaine Greer, for you see far from deciding that they hate men after all, all they really want is to have their (beef) cake and eat it as well.

A fine collection of people indeed, dear reader. But surely, you ask naively, there must be some, even remotely human people somewhere in College? In the Nat West Bank possibly? Those bastards? You've got to be kidding. Well then, how about the staff? Those wonderful, wonderful lecturers and professors who work so hard to educate us? Ah yes; the staff. I'm glad you mentioned them...

Suppose you go to a member of staff with a problem. Suppose it's your lucky day; you manage to find him. You ask politely for his help. Usually he won't know. Certainly he doesn't care. And in any case he's got an appointment. Paul Weller never spoke a truer word.

Of course if you're a girl that's quite another thing. A friendly pat on the shoulder. An affectionate grope in the lift. A fatherly hand up your skirt. Creeps? The whole place is lousy with them.

So you see, dear reader; not one single human being in the entire place. Except you and me. And as for me, well I'm as big a bastard as anyone. I wouldn't know about you.

Ian Thomas
Mech Eng 2

Transport and tour subsidies

The Recreational Clubs Committee (RCC) has, for many years, given a subsidy to clubs and societies wishing to participate in their chosen sport or activity. This subsidy has included a certain percentage of transport costs. At the last UFC meeting a large part of this subsidy was removed in an effort to save money. I would like to explain what this means to some of the clubs in RCC.

The transport subsidy is divided into two categories. One for subsidy of weekend trips, at any time of year, set at 40% of transport costs. And one for subsidy of extended 'out of term' activity, set at 30%. This latter category is known as a tour grant, and it is this that has been cut. (The 'term time' referred to is for under-graduates. For post-graduates there are four terms each three months long, so all activity is during their term time.) As a member of Imperial College Caving Club I shall explain what effect this has on caving at IC. The effects are similar for Mountaineering, Canoeing, S&G, YHA, Underwater and a few others including Wargames and Hamsoc etc who occasionally go on tour.

Tours constitute a major part of the activity of IC caving. We usually go on three tours a year. A week in Yorkshire at Christmas and Easter, and three weeks in France during the Summer. The tours are a much more efficient way of going caving than weekends. A tour to Yorkshire costs only a fraction more in transport than a weekend, as the actual distances driven differ only by about 30%, for a three fold increase in caving activity. The Christmas and Easter tours enable us to run courses at the Whernside Cave and Fell Centre to ensure that new

people in the club receive proper training and become familiar with the techniques and problems of caving. Caving during the week also enables us to obtain permits for caves which are very over subscribed at weekends.

The tour during the Summer is the culmination of the year. It gives people a taste of caving abroad, in caves which are very different and often much more demanding than British caves. It is the completion of the introduction to caving which the club is providing. This Summer we are tackling the Gouffre Berger, the world's fifth deepest cave. The lack of a tour grant would make this type of activity that much more expensive, especially as tours occur at the end of term when people are short of money. The RCC clubs represent the College just as well as the more public sports of Football, Cricket, Rugby etc, but this seems to go unrecognised in many circles. RCC has clubs which are well known and respected in their particular activity.

Therefore the tour grant cut will mean the loss of much club activity. The tour grant represents 37% of Caving Club income from the Union, but it means the loss of more than 50% of our caving activity, the loss of training courses and greatly reduced standards of caving both in terms of difficulty and safety.

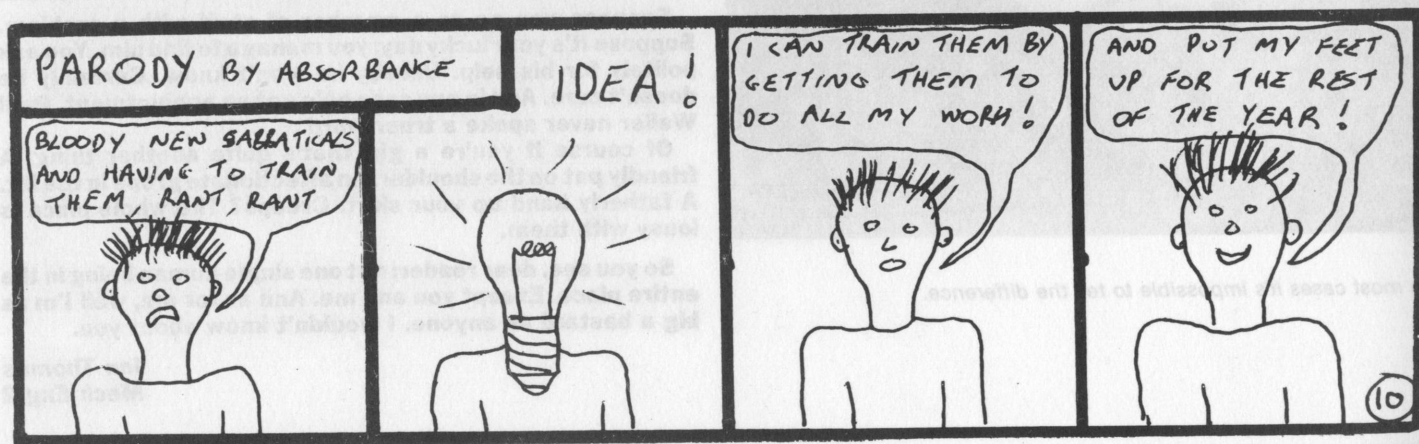
Apart from affecting RCC outdoor and some indoor clubs (and many ACC clubs), it will also damage the transport system.

The union is paid more for van hire and mileage than is paid out in subsidy by RCC,

about 1.5p/km more for weekends and 3p/km more for tours. The cutting of tours will make the transport system less self financing than at present, as it is at its most efficient when the clubs are on tour, the transport system receiving more money for tours than weekend activity from clubs like Caving. Caving does about 50% of its mileage on tour, this represents about 8000km. Therefore some of the money saved by cutting tours will have to be used to support the transport system. Reducing the number of vans would be a possibility but this would create term time problems.

The RCC clubs are recognising that cuts will have to be made, but it is felt that making massive cuts on a few clubs is a grossly unfair way of doing things, also, being told where to cut by someone who knows very little of our activities is grossly inefficient. Surely we know best where to cut money from our grant to do the least damage. I personally would like to see a unified transport policy for all activities, either weekend or tour, to apply to everyone getting a union transport subsidy. The RCC clubs must raise 20% of their subsidy from membership subscriptions. If this could also be made universal then the present financial crisis would be much reduced. I hope that the present financial troubles can be overcome by rational means and not by random and devastating cuts on certain clubs.

Steve Lane
President IC Caving Club
IC Union Transport Officer



IN THIS ALIEN ENVIRONMENT, SPACE TECHNOLOGY IS OUT OF ITS DEPTH

Inspecting underground gas pipelines for faults may not sound like the ultimate high-tech challenge. But, in fact, the task proved to be beyond the 'state-of-the-art' technologies previously available – even in military and aerospace applications.

PROBLEM:

Design a vehicle which can travel inside the pipe, carrying equipment capable of identifying any significant defect, and pinpointing its position to within a metre in a run of up to a hundred kilometres or more.

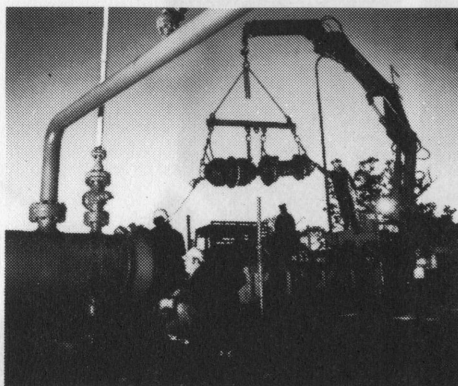
SOLUTION: THE INTELLIGENT PIG

The Intelligent Pig, developed by the gas people, is a vehicle carrying highly advanced sensing, data processing and recording equipment. Driven through the pipe by the gas pressure within it, the Pig can be used without taking the pipe out of service.

What is more, it can not only pinpoint any defect on the inside or outside of a steel pipe, but even describe its nature.

HOW?

Using strong magnetic fields or elastic waves propagated at ultrasonic frequencies, different types of sensors can detect corrosion, cracks, impact damage or distortion of the pipe. But the real challenge lay in processing the hundreds of millions of signals produced by the sensors in an average run.



THERE WASN'T A COMPUTER SMALL ENOUGH AND TOUGH ENOUGH

Many of the pipes to be inspected are less than 305mm in diameter. To fit sufficiently powerful data processing equipment into the tiny space available, hybrid microcircuits incorporating custom-designed silicon chips had to be developed. And since the space restrictions also limit battery size and therefore power, many of these highly advanced electronic components have to operate at the very limits of their specifications. What's more, the environment inside the pipe isn't exactly friendly. All the highly sophisticated equipment carried by the Pig has had to be designed to tolerate or be protected from extreme vibration, mechanical shock, dirt, and gas pressure of up to 70 atmospheres.

A 'TOMORROW'S WORLD' TAPE RECORDER

The sheer volume of data to be stored inspired the development of what is probably the most advanced ultra-miniaturised tape recorder currently in

existence. Making extensive use of sub-miniature hybrid microelectronics, new types of recording heads and ultra-precision mechanical engineering, this little marvel can store up to 500 million readings on a single reel of standard one-inch tape, with an accuracy of better than one-thousandth of one percent!

FROM REEL TO REELS

Once the Pig has finished its run, the next job is to prepare the data for analysis by powerful, advanced computers such as the VAX 11/780. There's so much information in the Pig's tiny recorder that many reels of computer tape are needed to receive it, and many hours of computer time to analyse it.

THE RESULT

Britain's underground gas transmission network is a multi-billion pound asset. And the technical pyrotechnics we've just described have a thoroughly down-to-earth end result – they help the gas people to maintain this asset more efficiently and cost effectively.

WHY THE GAS PEOPLE LIVE IN THE FUTURE

The fact that gas is Britain's most popular domestic fuel – and a powerful and growing force in industry, too – is the result of many years' foresight, planning and massive investment by British Gas scientists and engineers. And they're still working for the future – to meet Britain's energy needs in the next century.

THE GAS PEOPLE - WORKING FOR TOMORROW'S WORLD TODAY

Gas

FROM THE astronomers of antiquity through to modern day photographers people have been making use of the principles of Remote Sensing. With the advantage of earth orbiting satellites and other space missions, a whole new dimension has been brought to this area of science.

Remote Sensing is really the ability to perceive and study an object from a distant location, and it is a technique that is providing important information about natural resources and the environment.

The most common way of studying an object is to record the electromagnetic energy emanating from it, but it is also possible to look at seismic waves, gravitational force, or sonic waves.

Technological developments in recent years have enabled us to sense data beyond the normal range of human perception, and useful information can now be gained from electromagnetic radiation of most wavelengths, from gamma-rays and x-rays through to radio waves. There are a

number of different carriers available from sensors including aeroplanes, helicopters, balloons, satellites and others spacecraft.

Over the last decade or so satellites have been increasingly used as carriers because they provide a means rapidly to monitor large areas of the earth's surface. Although the data obtained from satellites is of low resolution, it can be complemented with

other data, for example aerial photography, if necessary. An important feature of Remote Sensing data, especially that from satellites, is that it provides an easy and economical way to study even the most hazardous terrain.

Interpretation of data plays an major role in Remote Sensing, and becomes particularly complex when the information collected is transmitted to the ground in the form of digital data. Complex

computer processing is then necessary to produce usable pictures, and the process is known as *image processing*. Technological advances in data handling and processing techniques are contributing to the increased value of Remote Sensing.

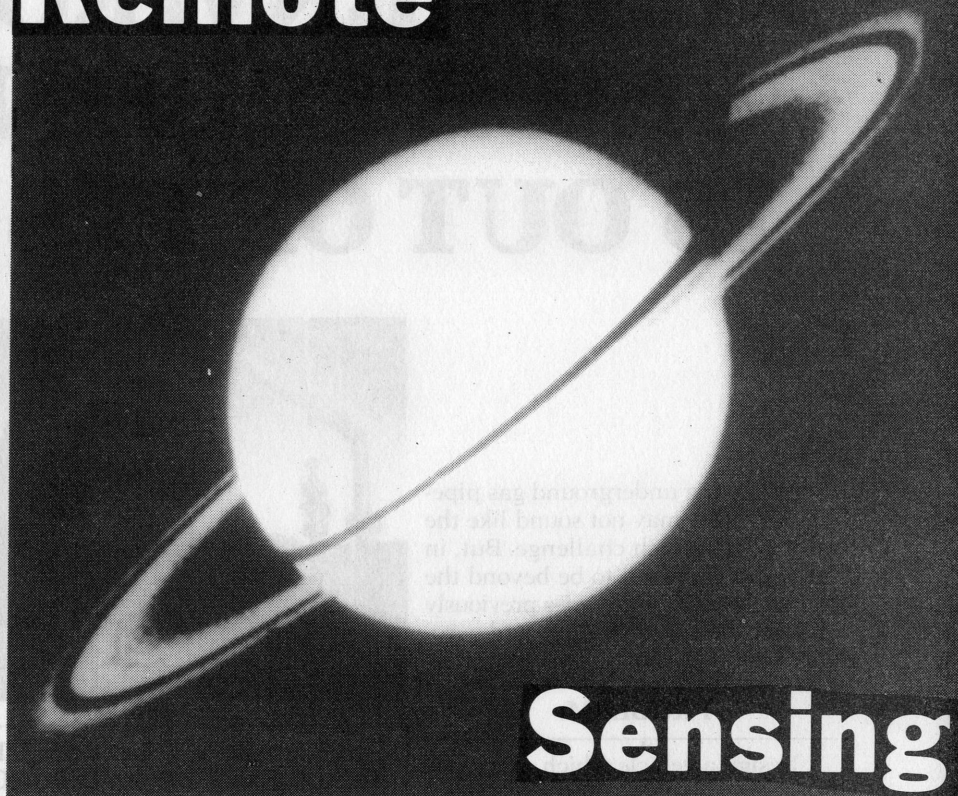
Using Remote Sensing techniques information can be gained that is valuable in a diverse range of research areas, and in many cases it can provide a unique tool.

Research activities at the Centre for Remote Sensing involve a number of departments and include studies in Earth resources, botany, agriculture, geology, atmospheric sciences, oceanography and planetary sciences. To support research

and to help meet industry's needs it is important that there is continuous technological advancement. So there is extensive research in data handling, optical and digital image processing, and pattern recognition.

Earth orbiting satellites make global surveillance possible and the information gained is giving a new insight into the Earth's atmosphere oceans and man's effect upon the climate. The Centre

Remote



Sensing

THE CENTRE FOR Remote Sensing was established at Imperial College in 1983, and has Dr Gary Hunt as Director. It represents all the departments that have an interest in Remote Sensing, and aims to use links between the College, Government, and Industry, at both national and international levels, to form a firm foundation for future expansion of the subject. To ensure that the activities of the Centre keep in touch with industry, the management and policy are controlled through an inter-departmental Advisory Committee which has representatives from industry as well as from College.

One of the Centre's major achievements has been the setting up of an MSc course in Remote Sensing, in conjunction with the other colleges of the University of London. It is the first of its kind in the United Kingdom, and is designed to fulfil needs at national and international levels for well qualified graduates in Remote Sensing. A measure of the success of the course is the interest it is attracting from people working in industry who feel that they need further education about this subject.

The Centre is located on the seventh floor of the Huxley building, where there is extensive image processing facilities. There is also a large archive of digital images from satellites, (including *Meteostat*, *Landsat*, *Tiros*, *Goes*, and *Seasat*) other space missions (*Voyager* and *Galileo*) and aircraft. This data is available to other institutes of the University of London, Government, and Industry, as well as staff and students of Imperial College.

directly receives and processes data from a number of satellite missions including the European spacecraft *Meteostat*, and the *NOAA* polar orbiting spacecraft. These observations provide the means for investigating atmospheric and oceanic phenomena, with time sequences being used to study the development of synoptic systems which are used as a basis for weather forecasts. The Centre provides weather forecasts for a number of television programmes including the BBC's Breakfast Time, and Thames's News at Six, and also for a Brazilian TV Channel. The Centre is also involved in oceanographic investigations of the sea surface temperature, sea state, and marine biological problems in preparation for the European *Ers-1* satellite mission which is due to go up in 1987. It will carry a number of microwave instruments including radar and will be carrying out ocean observations.

One of the most interesting research programmes at the Centre is looking at Planetary atmospheres beyond the Earth. The Centre has the most extensive archive of planetary data outside of the United States, and is also the only place outside of the United States processing data from the *Voyager* mission. Observations from the *Voyager* mission have already given a new insight into atmospheric phenomena on Jupiter, Saturn, and Titan, and in the future there will be data on Uranus and Neptune. Spectroscopic studies from the International Ultraviolet Explorer (IUE) satellite are also providing information about the planets. Another interesting project is using data from the *Viking* spacecraft to look at the atmosphere and geology of Mars. Future investigations at the Centre will be making use of observations of Jupiter from the Galileo mission, and observations of the planets from the Earth orbiting *Space Telescope*. Information gained from Remote

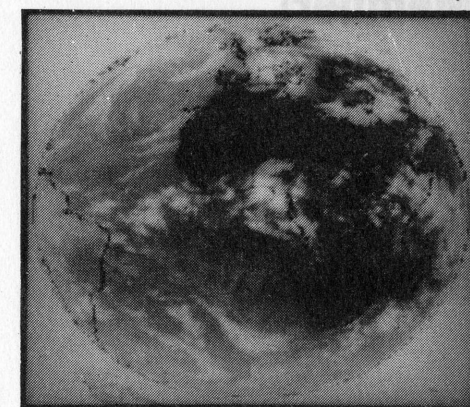
Sensing data has proved to be extremely valuable in the study of geological processes. In particular, interpretation of aerial photographs and satellite data can give information about the structure and nature of rock formations. The satellite images provide a quick appraisal of the regional geology and can be supplemented in the key areas by the greater detail of images from planes. A major research project at the Centre uses aerial photographs and data from *Landsat* for geological mapping in mineral exploration, engineering and tectonic hazard monitoring. The major study areas include Ireland, S W England, the Pyrite Belt of Portugal, Spain, Southern Africa and Mozambique. There are also a number of research topics under development which include studies of gold and other minerals, engineering geology mapping in Brazil and the assessment of the uses of thermal and radar imagery for mineral exploration in glaciated terrain.

Another area where Remote Sensing can provide a unique tool is in the evaluation, classification and mapping of vegetation. There is a long-term research programme at the Centre looking at the fundamental interaction between radiation and vegetation canopies. Extensive field measurements are being carried out which are providing an understanding of this interaction, and can be used to monitor and calibrate the data obtained from airborne and *Landsat* instruments. The work has revealed irregularities in vegetation caused by underlying mineral deposits which will be useful in mineral explorations.

There is a need for continuous advances in software and hardware to support the research and teaching at the Centre. One aim is to develop specialised hardware, with a major step forward being the

SCIENCE

Remote Sensing • Weather forecasts • Extra-terrestrial atmospheres • Mineral exploration

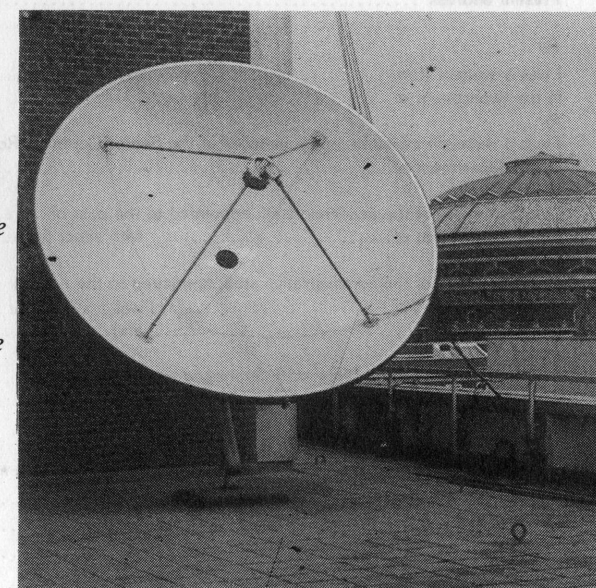


construction of an image Archiving System (IAS) for digital storage of large quantities of imaging data. It has the capability of storing 2×10^{10} bits of data on a single one hour video cassette with an error rate of only 1 in 10^7 , and is ideal for storage of large quantities of data as received direct from satellites. An important feature of the IAS is that it can be easily used with major computer systems. One of the most important software developments has been the modification of the *Vicar* systems in conjunction with the Jet Propulsion laboratory in the United States. The Centre also supports an easy to use 'user-friendly' command language which is being developed in conjunction with *Nasa* establishments in the United States.

The Centre is providing a focal point for Remote Sensing activities at Imperial College, and has allowed the subject to develop in a way that would have been difficult without central co-ordination. Research groups who find that Remote Sensing could help them now have extensive facilities available. As well as showing how inter-departmental work can be carried out successfully the Centre shows that academic institutions can work together and also work with industry and government institutions. This area of science is particularly costly and contracts with industry may help to finance the running of the Centre.

Top right: A *Metostat* picture of the earth

Right: The receiving dish on the roof of the Physics building



Imperial College



Union

**Become
a
Life
Member!**

**Hurry,
hurry,
hurry!!!**

**Rates must
rise in
July**

Join now!

**Life
Membership
gets you
a discount
in Summer Accommodation**



LIFE MEMBERSHIP

You are eligible to become a Life Member of the Imperial College Union if:

- (a) You have been a Full Member of the Union for at least one complete academic year.
- or (b) You have been a research assistant and a member of the Senior Common Room for at least one complete academic year.
- or (c) You are a member of the academic staff.
- or (d) You are a member of the administrative staff and are qualified to degree status (such an application to be subject to the approval of Council).
- or (e) You have been a member of the College staff for a period of not less than five years (such an application to be subject to the approval of Council).

A Life Member is allowed to use all the facilities and amenities provided by the Union, with the exception that they shall not participate in the government or representation of the Union in any capacity or to vote in or take any part in any election of officers or committee members of the Union in any capacity: A Life Member shall have speaking rights at General Meetings of the Union and, at the discretion of the Chairman of the Committee, at any other Union Committee.

The facilities are the use of all the student common room areas in the Union, Sheffield Building and Southside; the Billiards and Snooker and Table Tennis rooms, and to join Union clubs and societies. At no time shall a Life Member be eligible for any form of subsidy from the Union or its clubs and societies.

The College also allows Life Members to use the Sports Centre and the bars and refectories. It should be noted that Life Members bringing guests into the Union Bar must sign them in. Such guests shall be restricted to two per Life Member. The Lyon Playfair Library and departmental libraries may be used for reference only. Books may be borrowed from the Haldane Library (if living within the Greater London area).

FEES

For section (a)

(i) The subscription is £12.00 for ex-students at any time after completion of at least three academic years.

(ii) For those who do not complete three academic years the subscription is £15.00.

For sections (b), (c), (d) and (e) the subscription is £25.00.

Cheques should be made payable to 'Imperial College Union' and sent to the Union Administrator at the above address.

Persons wishing to become Life Members of one of the Old Student Associations in addition to ICU should contact 303 Sheffield Building for relevant details.

NAME IN FULL
PERMANENT ADDRESS

I wish to become a Life Member of Imperial College Union (fill in section a, b, c, d, or e).

Present address

.....

(a)

I was a student from to

in the department of

(b)

I was a research assistant, and a member of the Senior Common Room

in the department of

(c)

I am a member of the academic staff, appointed to the post of

in the department of with effect from

(d)

I am a member of the administrative staff, appointed to the post of

with effect from I was a student at

between and

(e)

I am a member of the College staff, appointed to the post of

with effect from

I enclose a subscription of

SIGNED

DATE

BOAT

Boating Successes

Following another successful weekend, it is time to reflect on the notable victories achieved since last term. The record number of wins, achieved last year, has already been surpassed.

Tideway Head: *Novice VIIIs*

Scullers' Head: *Senior B, Senior B lightweight, third lightweight, Novice.*

Bedford Head: *Senior C, Senior B sculls, Novice coxed pairs, Senior B, Senior A coxless pairs, Senior C, Senior B IVs Senior A coxless IVs.*

Hammersmith Regatta: *Novice VIIIs*

Putney Amateur: *Senior A sculls.*

Alpha Barne: *Women's Senior B pairs.*

Mortlake Spring: *Novice sculls, Senior C VIIIs*

Vesta Dashes: *Senior C Sculls, Senior A coxless IVs*

Putney Town: *Novice IVs*

Thames Ditton: *Senior B VIIIs*

By Henley the famous Novice crew, with notable additions, will be racing at Senior A level, a tremendous performance in one season.

The College has also been well represented at international level with the lightweight IV winning a silver medal at Ghent, and the tireless J O'Brien coming a creditable fourth in lightweight scull. Both G Griffiths and W Downing will hopefully be representing Great Britain in the lightweight World Championships later this year. Thanks to the ever comical W G Mason and John 'Bum Doon' McArthur.

GOLF

On the Green

On Wednesday 8 May Imperial College Golfing Society held their annual club championships at Sudbury Golf Club.

In the first 18 after much drama Dave Jakubovic returned a well deserved net 69 to take a narrow lead over the rest of the field at the half-way stage. However he could not maintain this form and Dave Lang who had shot a net 71 in the morning

proceeded to follow this with a net 69 for a total of 140, to be declared club champion. The best round of the afternoon however was the shot by the retiring club captain Phil Hughes-Narborough who shot a net 67. Another notable achievement in the afternoon was the net 70 shot by the incoming captain Chris Harrison.

Other excitement during the day included S Nakamura's shot along the road at the first, M McBride's 12 at the first and Bill Passmore's double-triple bogey at the par 3 ninth. Phil's and Jeff's 'fun' activities in the undergrowth are also worthy of note.

Finally to all club members the tour to Scotland will probably take place in the first week of September. Notification of dates and location for this will be given in the next three weeks.

CRICKET

IC win the day

Wednesday 22 June: news has just reached us that Mr Peter May, Chairman of the England Selectors, has been in contact with the Sunday XI Captain, Graham, after his performance in the Sunday's match against Imperial Software Technology.

'I hope he'll take up our offer, not for the money,' said May, 'but for England'. The offer in question is a payment of £50 and a set of autographs of the entire 1984 Glamorgan Cricket team, in return for Graham agreeing to never play cricket again. 'How can we encourage good, new prospects, when this sort of example is being set by Captains? He bowled consistently short on a slow pitch, which at this pace meant the ball ramming through at waist level, instead of knee level. It's a wonder he gave away only 12 off his first over', May commented.

The match itself was marked by four exceptional performances. By far the most significant was made by Wendy, who provided a lunch/tea which hasn't been equalled since the MCC last played Hambledon. Our sincerest thanks go to everyone who helped prepare the spread, which helped provide a spirit that was ideal for a friendly cricket match.

On an overcast day, the IST captain elected to field first. This

was agreed by both captains because their wasn't a coin available to toss. IC made a sound start with Wright, making his UK debut, managing to overcome the base-ball stance. The innings was due to last 20 overs, and when Barnet fell in the second over for nine, Rickard took over the assault with a rapid 40. Rijneck (19), Bradley (25) and Lauder made contributions, with Bradley being LBW off a ball pitching outside leg stump and going over the wicket. This brought in Miss Brown, who would have taken the attack apart had that not been the end of the innings, with the score at 118-5.

After more tea, IST made a spectacularly sound start, with the first wicket falling in the seventh over, at 87. By this time Greener had scored 36, and Dixon went in to make 48 out of 107 in the 20 overs.

After more tea, the second innings of ten overs commenced, with the batting order reversed. Indeed, it was left to the umpire to tell the captain, who was

opening the batting, which way round to stand. But fortunately he was soon out for a season's best score of two. This brought in Jaynes, who in eight overs smashed 44 runs before retiring for yet more tea and letting Katy have another bat. The final over of the day was bowled in traditional manner by the wicket keeper wearing pads, while batsmen and replacement keeper wore none!

Throughout the day, the fielding had been of the highest standard. Two IC men received an injury, but the Americans and Canadians on both teams saved many runs, even if they weren't totally sure what was happening. Finally, as everyone retired to tea, with the clouds hanging ominously overhead, the IC captain announced that the Sunday XI will be playing on Saturday next weekend, at Harlington against Silwood Park. Come on Mr May, up that offer, Please.

Scores: IC 118-5; and 71-2, IST 107-3 and 57-7. IC won by 25 runs.

FELIX Motor Rally

James Hunt
Jack Brabham
Fangio
Jackie Icyx
Stirling Moss
Alan Jones
Mario Andretti

...a few of the top drivers never to have won
The FELIX Rally.

Your chance to add your name to
this prestigious list comes on
Sunday 23 June.

An entry invitation is waiting for you
in the **FELIX Office, Beit Arch**

SINGLES REVIEW

Marvin Gaye: *Sanctified Lady*

They've taken a few of his rubbish songs that he'd rejected, remixed them with piano synths and funk beat and stuck them on a retrospective album *Dream of A Lifetime*. Fans may buy it but I certainly wouldn't consider it if this single is anything to go by. Nah.

Yukihiro Takahashi: *Stranger Things have Happened*

With famous names backing (Ryuchi Sakamoto, Mick Kara) and an up beat interpretation of the 'Japan' style this would be a certain hit were it not for the indie 'Cocteau' label. It still might make it, and is certain to achieve a cult following.

Adult Net: *Incense And Peppermints*

Wot is this? This is really odd but it's great! Starring Ottersley Kipling, described as Der Golen of Romford, on bass and Brix on backwards guitar (sic) and featuring Mrs Mer Rouge on Spectral keyboards. Poppy in the extreme but with great

electricity and energy. I love this. Buy it.

Sky: *Night Sky*

The new album *Great Balloon Race* is excellent, and this is equally good. Rather like the stuff *Oasis* brought out last year, this is the kind of acoustic music to listen to of a warm summer evening, with glass of chilled white wine in one hand and your girlfriend (sexist sorry) in the other. Sophisticated in the extreme, it's a pity it only lasts three minutes.

Reo Speedwagon: *One Lonely Night*

Follow up to *Can't Fight this Feeling* the standard is surprisingly high. I suppose when you've been going as long as the Speedwagons, you know better than just to release anything as a single. Rock guitar work counterbalancing the crepuscule lead vocal and an almost anacreontic lyric should at least earn me a place with the NME, if not earning the band a particularly high chart place. A good solid single but uninspiring.

**WINE TASTING
SOCIETY
DAY TRIP
TO BOULOGNE
FRIENDS WELCOME
COST £19.50
(—LARGE SUBSIDY)
EXCELLENT OPPORTUNITY
TO BUY CHEAP WINE
DECENT CHEESE,
STRINGS OF
ONIONS ETC.
SEE MARK MASENTO
BIOCHEM 103 EXT 4114
MIKE STEVENSON
UG MECH ENG**

ELECTRICAL ENGINEERING DEPARTMENT END OF YEAR PARTY SPT SOC PRESENTS:

PARTY II THE SEQUEL

SHOWING AT THE HOLLAND CLUB
WED 12 JUNE £1—ADVANCE
BOOKINGS ONLY
OPEN TO STAFF AND STUDENTS ALIKE
8PM to 12PM
EVERY TICKET NUMBER IS A FREE ENTRY
IN A DRAW FOR A BOTTLE OF
BAILEY'S IRISH CREAM

GET YOUR TICKETS FROM SARAH COX, ANNE DRIVER
MIKE JOHNSTON, LISA SALE, PETE SROKA,
ANDY SPALDING AND MIKE DAVIS
THERE WILL BE NO TICKETS AVAILABLE ON THE DOOR

**PLEASE COME TO
IMPERIAL COLLEGE
DAY NURSERY
SUMMER FETE
ON
SATURDAY 15 JUNE
AT 2.00PM
GAMES AND RACES
CRAFTS, REFRESHMENTS
FISHING, CAKES
WHITE ELEPHANT
BOOKS, FANCY DRESS
STEADY HAND
...AND LOTS, LOTS MORE...**

Bookshop News

The following publishers will be having exhibitions of their titles in the shop. 24 May to 12 June, Van Nostrand Reinhold and Wadsworth International. 13 June to 2 July McGraw Hill. 3 July to 19 July Holt Saunders. If you see a book in the window ask one of my staff, if you want to see it.

NEW TITLES

Pictures from the Water Trade John David Horley Andre Deutsch £9.95.

Letter from a Fainthearted Feminist Jill Tweedie Picador £1.95.

More from Martha Jill Tweedie Picador £2.50

An Imaginary Life David Malouf Picador £1.95

So Long, and Thanks for all the Fish Douglas Adams Pan £1.95.

Louis Armstrong James Lincoln Collier Pan £3.50

Life of Daniell Hammett Diane Johnson

Picador £3.95.

The Wandering Jew Stefan Heym Picador £3.50

Stories of Raymond Carver Picador £3.50

Maifa Darcy Ribeiro Picador £3.50

Light and Darkness Natsume Soseki Picador £3.50

D Day Warren Tute Pan £5.95

State of the Nation Stephen Fothergill Pan £6.95

National Trust Book of Long Walks Adam Nicolson Pan £7.50.

I Chose to Climb Chris Bonington Gollancz £4.95

Ordance Survey Cyclist's Britain Pan £5.95

Turtle Diary Russel Hoban Picador £2.95

The 300 Best Hotels in the World Rene Lecler Macmillan £6.95

The Clans and Tartans of Scotland Robert Bain Fontana £3.95.

The Phoenix

—founded 1886—

on sale
soon
in

**Libraries
Bookshop
Union Office**

**The literary
magazine of ICU**

Peter Klemperer, RCS Academic Affairs Officer-Elect talks about

Life, the University and Everything...

The Government uses the University Grants Committee and the National Advisory Body to ensure that education money goes only where they want—hence the summary axing of all 'unnecessary' non-vocational courses in recent years. They want to centralise control of higher education so that first they can make sure that all these academics have no political power, and second so that they can twist education away from its ideals towards being a preparation for performing some predetermined rôle in the political machine.

This is a bit odd for two reasons: first how come they can so freely manipulate what is ostensibly a public service, and second they depend heavily on education for a steady supply of trained people in order to perpetuate this ghastly rat race. Here, there are two obvious points to note.

Political weight depends largely on the competitiveness of the economy and its technological bargaining power, in which Science plays a central rôle. Imperial College plays an important rôle in Science. Nobody should go through this College without considering carefully how and why it is here.

The NUS supports the fundamental ideas that general education, to maintain a wide

range of informed points of view, is vital in our society. As the society evolves and becomes increasingly complicated, this policy becomes increasingly justified. They (we?) believe that education is an important investment and deserves ample funding in all respects.

The NUS is currently starting a national campaign designed to augment the rôle of higher education over the next ten years as our country pulls out of the current economic depression. They have various means of communicating their ideas to students, so that they can assimilate a better picture of the scene in higher education, and so that they can collect a wide range of ideas for ways and means.

Imperial College is not a member of the NUS. However we are in the University of London Union (ULU) and the London Students Organisation (LSO) and the NUS communicates with us via them. Our Academic Affairs Officers play an important part here—there are the people who get invited to discussion sessions at ULU and attempt to put forward the point of view of all the students they represent.

There are four AAOs in ICU: one for each College/Constituent Union (RCS, C&G,

RSM) and one big one for the whole of IC. Of course they are not there merely to communicate with the NUS. Their primary functions are College-orientated; they help to see that students get a fair deal by keeping themselves well informed and protecting their interests on various committees, namely

- 1 Board of Studies
- 2 Education Technology
- 3 Admissions Policy
- 4 Vacation Training
- 5 Careers Advisory Service
- 6 Central Libraries

That is, basically everything concerning the academic situation of students at IC.

They also endeavour to keep everyone they represent up to date by whatever means is at their disposal notably Academic Reps and FELIX.

So you see that your Union performs an important and useful function. You may dismiss it out of hand as a bunch of wallybrained 'hacks', but this is only a small proportion. We must all be aware of its job and help it where we can. The basic problem is one of communication; but however bad you may think this is, its all you've got—so use it!

DIARY

Friday 24

●**ISLAMIC SOCIETY** 1.00pm Union Building. Friday congregational prayers.

Saturday 25

●**ANTI-APARTHEID** 12.30pm Jubilee Gardens, County Hall. Rally and demonstration to mark Africa Liberation Day and protest against South African regime organised by African People's Movement.

●**NIGERIAN NITE** 7.30pm Sheffield Building. Highlights: Nigerian dances, cultural display and food plus disco. £2.

Sunday 26

●**CHAPLAINCY SERVICE** 10.00am Consort Gallery Sheffield.

●**MASS** 11.30am and 6.00pm More House, 53 Cromwell Road. Mass, bar supper and talk.

●**WARGAMES MEETING** 1.00pm Union SCR. 10% discount on games, membership £1.50.

●**SPELLBOUND** 9.00pm to 11.00pm. IC Radio 999KHz. Casting the spell with humour and good music, essential listening for the hopelessly intellectual.

Monday 27

●**ICCAG LUNCHTIME MEETING** 12.30pm ICCAG Office. Come along and find out about the activities of the Community Action Group.

●**HANG GLIDING MEETING** 12.30pm Southside Upper Lounge.

●**WATERSKI CLUB MEETING** 12.30pm above Southside Bar. Sign up for Wednesday and Saturday skiing.

●**CHRISTIAN UNION** 5.30pm Green Committee Room, Union 5th floor. Meet for prayer each Monday till 6.30pm

●**DANCE CLUB** 6.30pm, JCR. Advanced Ballroom and Latin 6.30pm (Jazz), 7.30pm (Ballroom) 75p.

Tuesday 28

●**AUDIOSOC** 12.30pm Union Upper Lounge. Discount record club meeting, buy records, cassettes, videos etc at trade prices.

●**MASS AND LUNCH** 12.30pm Chemistry 231.

●**HOVERCRAFT CLUB MEETING** 12.45pm Lower Gallery, Linstead Hall.

●**FIELD TRIP MEETING** 1.00pm Bot/Zoo Common Room. Bookings for places on Minibus trip to Thursley National Nature Reserve on Wednesday.

●**QT MEETING** 1.00pm Southside Upper Lounge.

●**RIDING CLUB** 1.00pm Southside Upper Lounge. Meeting.

●**THE IMPERIAL WORKOUT** 6.00pm Southside Gym. Wear something comfortable and please bring training shoes (any kind) all welcome. 50p a lesson, membership £1.00.

●**CANOE CLUB** 6.30pm IC Swimming Pool. Trip every other weekend.

●**DANCE CLUB** 7.00pm(inter) and 8.00pm(improv) JCR. Intermediate Ballroom and Latin and Improvers Ballroom and Latin. 50p.

●**OPSOC REHEARSAL** 7.30pm Music Room, 53, Prince's Gate. Meet in Southside Bar before rehearsal.

Wednesday 29

●**ICCAG HOSPITAL VISITING** 12.45pm, Mech Eng Foyer.

●**WARGAMES** 1.00pm, Union SCR. 10% discount on games.

●**ISLAMIC TEACHINGS** 1.30pm-2.00pm, 9 Princes Gardens. Muhammad as foretold in the Bible. Free.

●**MICRO CLUB MEETING** 1.30pm Mines 401. Membership £2.

●**MINIBUS FIELD TRIP** 2.00pm meet Beit Arch. Outing to Thursley Heath National Nature Reserve for flowers, insects and birds see Tuesday for booking.

●**DANCE CLUB** 8.00pm JCR. New Beginners Class. 50p.

Thursday 30

●**METHSOC MEETING** 12.30pm Chem. Eng. E400. Informal meeting, lunch available.

●**AUDIO SOC** 12.30pm Union Upper Lounge. Discount record club meeting. Buy records, cassettes, videos, etc. at trade prices.

●**SOCIALIST SOCIETY AGM** 12.30pm Green Committee Room.

●**ICYHA BUTTIES** 12.30pm Southside Upper Lounge. Our weekly meeting with information on this term's coming events. All welcome.

●**THE IMPERIAL WORKOUT** 12.45pm Southside Gym. Wear something comfortable and please bring training shoes (any kind) all welcome 50p.

●**STAMP CLUB MEETING** 12.45pm Chemistry 231.

●**BALLOON CLUB MEETING** 12.45pm, Southside Upper Lounge.

●**STOIC BROADCAST** 1.00pm and 6.00pm JCR, Southside TV Lounge and all Hall TV sets. Turn it on again (part one), watch more repeats than the BBC as Stoic looks back over the College year.

●**SCIENCE FICTION SOCIETY** 1.00pm library meeting. Access to the society's 600 volume library. All members welcome. Union Green Committee Room.

●**QURANIC CIRCLE** 1.30pm 9, Princes Gardens. Learn the science of the recitation of the Quran.

●**THE IMPERIAL WORKOUT** 6.00pm Southside Gym. Wear something comfortable and please bring training shoes (any kind) all welcome. 50p a lesson, membership £1.00.

●**ICCAG SOUP RUN** 9.15pm, meet Weeks Hall, Princes Gardens. Taking soup, biscuits and meeting some of London's homeless.

SERVICING & REPAIRS at

RICKY'S GARAGE

(Personal service guaranteed.)

19 QUEENS GATE PLACE MEWS,
SOUTH KENSINGTON,
LONDON S.W.7

Tel : 01-581 1589

Refectory Notice

Thursday 30 May

JCR Buttery
closes at 2.30pm

Southside shop closed

2.30 to 4.30pm

Southside refectory closed

2.30 to 4.30pm

NIGERIA SOCIETY
presents

NIGERIAN NITE

Date: **Saturday 25th May 1985**

Time: **7.30pm**

Venue: **JCR—SHERFIELD BUILDING
IMPERIAL COLLEGE, LONDON**
Nearest Tube: **South Kensington**

HIGHLIGHTS
CULTURAL DISPLAY
NIGERIAN DANCES
NIGERIAN FOOD

DISCO!!!

Admission **£2 (includes food)**

Tickets from
Society members
or
at the door

★SUMMER IS upon us, and that means postcards. By autumn most of us will have managed to accumulate a selection of tatty cards which we will not hesitate to throw out. Well, to see the real thing go to the **Collector's Mart** under the arches near Embankment Tube. There are one or two stalls selling Nazi memorabilia and other stuff like that, but enough with interesting matchboxes and postcards and the like to make it worth a visit. In particular the cards of sleepy seaside spas in the 1920s are excellent value, many being less than 50p, and with the current jazz revival there can be few things to put on your wall that are more hip.

★THE RED GUITARS play the ULU building at 8.00pm tonight. Billed as 'Britain's top Indie band' this is the only London date on their current tour. Supporting them are **Terry and Gerry**, whose recent song *Clothes Shop* sank without trace despite being the best singalong single this year. Tickets are £3.50, and the ULU building is in Malet Street WC1.



★THE ROYAL ACADEMY are showing works by **Edward Lear**. For all their chaos and frivolity Lear's pieces always seem to have a faint air of sadness, which should give the exhibition an added edge. Admission is £2, and the Royal Academy is in Piccadilly.

Apocrypha

There are a whole pool of apocryphal stories to dip into which have common themes. One favourite of many students is the gruesome gory type of story where a teenager ends up either getting an axe between the ears, or getting very close. The trouble with these is that there are so many, each with many variations, so are very few that everyone knows. However here is one with many of the common features.

A teenager has borrowed his father's car and is parked in a forest indulging in some pretty heavy petting with his girlfriend. As things start to get really hot a newsflash comes over the radio saying that there is a homicidal maniac on the loose, who has a hook instead of a hand and get his kicks from goring people to death and defiling their corpses. At this, not surprisingly, the girl gets rather frightened, and goes as cold as ice. The romantic atmosphere dispelled, the boy starts the engine

of the car and revs off in a temper, intending to take his now frigid companion back to her parent's house.

Anyhow, on the drive back they both cool down, talk it over and make up—they were in no danger were they? When they reach the girl's home the boy gets out and walks round the car to let her out. He finds, on the door handle on the passenger side a hook with the bloodied stump of an arm.

As in all tales of this type the teller has indulged in a orgy of gory adjectives in attempt to make your stomach turn, telling you what the homicidal maniac does with the corpse and the like. Notice that only the girl pulling away from actually having intercourse saved their lives. And that none of this would have happened if they hadn't been indulging in pre-marital sex.

Let that be a lesson to you if you're going to any post-exam parties.

Capital
• I • D • E • A • S •

Universities

continued from front page

guidance on means of ensuring that sandwich courses justify their extra cost. It is concerned at the extra costs of four year courses, as well. In some cases, it says, the courses provide training that should properly be provided by employers. It expects the UGC to control the shift towards larger courses.

The green paper criticizes academic tenure which has elsewhere been described as a 'meal ticket for life,' and it is proposed to introduce legislation to ensure that all universities have the power to terminate academic appointments on grounds of redundancy or financial exigency.

As for teaching standards it is said that 'few academics would not benefit from a programme of systematic development of their teaching skills.'

The Government Expenditure Plans will require 'continuing gains in efficiency across higher education.' This implies a further tightening in Staff-Student Ratios.

Further private financing of higher education is encouraged.

The Government proposes to give highest priority to the provision of capital equipment, particularly 'new technology'. It is stressed, however, that there will be scope for no more than 'marginal impact' on the size of overall capital stock.

The green paper fails to give any concrete indication as to long-term financial policy. It says, in general, what factors will be involved: demand for higher education, the country's need for qualified manpower, the need to stimulate continuing education, the need to provide for research, the scope for increased efficiency, and the likely level of 'student support', ie the extent to which students might progressively begin to pay their way through higher education.

Password leak

THE COLLEGE Computer Centre password file was illicitly accessed by a student last week.

The student recorded an encrypted version of the file on his own disks and then used a decyphering key to obtain passwords from job numbers.

The leak has now been blocked, but users should check their files, and change their password if necessary.

It seems that no malicious damage was done to any files.



SMALL ADS

ANNOUNCEMENTS

●**Elec Eng Department** end of year party on Wednesday 12 June, 8.00pm to 12.00pm in the Holland Club. Open to staff and students alike. Tickets £1, only available in advance.

●**Spare Rooms?** Have you got a spare place in your flat or house for next academic year? Why not give the details to Student Services for the accommodation list.

●**Do you like wine or beer.** Do you need a cheap mini-break after exams. If yes to both of these join the Wine Tasting Society on a day trip to Boulogne. Few places left book now to avoid disappointment. Date 15 June. Cost £19.50 less big subsidy, see Mark Masento Biochem 103 extension 4114.

●**Allez a France** avec le Wine Tasting Societe. Nous Allons a Boulogne cheapo vin, fromage, bier. Sur 15 Juin. Cost seultment £19.50 moins le subsidy, few places gauche. See Mark Masento Biochem 103 ext 4114. Pas etre mangué.

ACCOMMODATION

●**Two rooms** and a kitchen situated in Tooting, suitable for two people (particularly PGs). The house is five minutes walk from Tooting Bec tube. The rooms are available from 1 June at £208 per month, contact Susan on 672 8274 for further details.

●**House** on company let available from June in Roehampton. Nice area next to Wimbledon Common and Richmond Park. One bedroom shared or double, £30 exc bills. Ring Nick Wooster ext 6866 or 789 9796 evenings.

●**One single** and one double room in family house in Chiswick. All meals etc. provided. Contact Mrs M Davies Tel: 994 2803.

●**Flatshare** with three males. Hamlet Gardens flat (not College run) available 3 June to 29 September, £25 per week, Tel ext 6806 or 741 0003 evenings ask for Dave Robinson.

●**Male Chemical Engineer** looking for someone to share double room in 8 Earls Court Square. Kitchen facilities separate and shared with others. Non smoker preferred. Contact Yishu Nanda through Chem Eng letter Racks.

●**Flatshare!** Double room available immediately in South Norwood. £25 per week each. Phone 771 4101.

FOR SALE

●**MG Midget 1500cc 1978** (T Reg), excellent condition throughout low mileage, plus extras £2,000. Contact Neil int 7777.

●**VW Beetle 1500 1970**, 71000 genuine miles. Perfect original condition, four months tax, 10 months MOT sharp stereo radio cassette. £875 ono. John int 6289 or Weeks Hall (589 9608) room 68.

●**Hi-watt Amplifier** 100W, also 4 x 12 inch speaker cabinet, £120. Contact Julian Clarke on int 3640.

LOST

●**Wine coloured silk cravat** with paisley design. Contact Sri Moorthy Physics 1.

PERSONAL

●**Welsh artist** creates paper sculptures to order, Welsh farmyard scenes a speciality. Contact 'The Big D'.

●**Wanted student** manager to service Hamlet Gardens and Geology first year.

●**McCavity award** for not being there goes to Nigel Owen.

●**Oh Julia** how I've missed you!

●**Paul 'Medallian Man'**, what you waiting on?

●**ARG**—do you really need to pass your exams?

●**Free coaching** in British Bulldog. Contact Dave Sharpe, c/o Guilds Office.

●**I was happy** in the haze of a drunken hour, but heaven knows I'm miserable now.

●**Hunky sweat** pheromones Eve Strouse 219 Hamlet Gardens.

●**Access cards** available—is your overdraft big enough.

Claim now

STUDENTS who have submitted a claim to the City of Westminster Housing Benefit Office and have still not received any benefit or an acknowledgment that their claim has been received should contact Student Services as soon as possible.

The department has recently been re-organised and some claims may have been mislaid. Staff expect claims from students awaiting assessment to still be waiting in eight weeks time. City of Westminster Housing Benefit Office have asked Student Services to submit a list of students still waiting for benefit claims to 'speed up' the assessment process.