

ROCK MUSICIAN NEWS PRESENTER  
 PHOTOGRAPHER ELECTRICAL  
 JOURNALIST

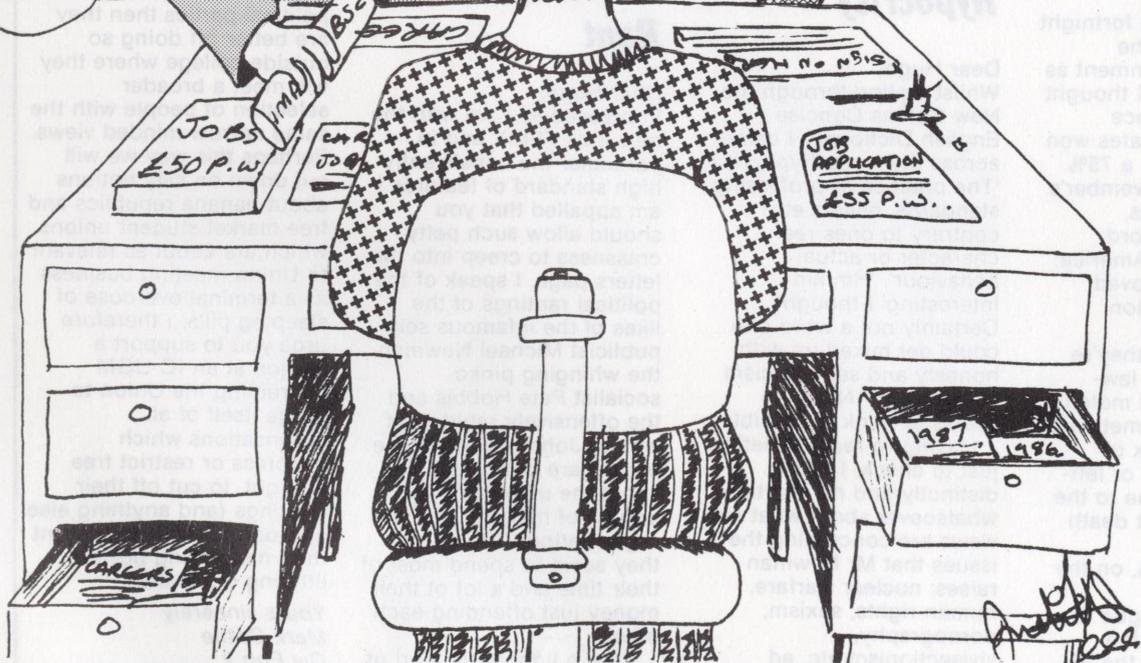
# CAREERS ISSUE

T.V. PRESENTER  
 ASTROLOGER  
 WELFARE  
 POLITICIAN  
 FOOTBALLER  
 ASTRONAUT  
 ARTIST  
 CHEF

SOFTWARE EXPERT  
 FAME DIRECTOR  
 ACTRESS  
 DIRECTOR

MANAGING DIRECTOR  
 FASHION DESIGNER  
 DOCTOR

BOOKS  
 PETROL ATTENDANT  
 FACTORY WORKER  
 CAR MECHANIC  
 TAXI DRIVER  
 ROAD SWEEPER  
 DUST MAN  
 OFFICE ASSISTANT  
 TV REPAIR MAN  
 BUS CONDUCTOR  
 CANVASSER  
 WAITER  
 SALESMAN  
 DAMN ALL THESE STUDENTS!



**FELIX** The Newspaper of  
 Imperial College Union

**Browned Off**

Sir,  
Having been present at the Debating Society's 'Question Time' debate on Tuesday lunchtime, I was rather interested in some of ex-Consoc chairman Graham Brown's comments as the debate founded on the subject of sanctions against South Africa.

One of his most interesting remarks was that the aim of the African National Congress 'is to slit the throat of every white South African'. However, the Freedom Charter of South Africa, a document upon which the constitution of the ANC is based, states that South Africa belongs to the will of the people, and that we the people of South Africa, black and white together—equals, countrymen and brothers—adopt this Charter.'

Since the ANC is a multiracial organisation, would Graham Brown have us believe that it proposes a policy of ritual mass suicide of its members as a concept fundamental to the overthrow of apartheid?

S Dunlop  
IC Anti-Apartheid

**Pinko Pete**

Sir,  
Thanks are due to John Martin for his letter (FELIX 717), which allows the debate on Nicaragua to be prolonged.

In my letter of a fortnight ago I referred to the Nicaraguan government as 'popular', a claim I thought uncontentious, since Sandinista candidates won 67% of the vote in a 75% turnout in last November's elections. This was, incidentally, a record turnout for Latin America: even the US-approved Salvadorean election, where voting was compulsory (and they're very, er, firm with law-breakers) couldn't match it. That may have something to do with the lack of social-democratic or left-wing candidates due to the threats of far-right death squads.

The Sandinistas, on the other hand, have committed Nicaragua to pluralism: opposition parties hold 35 of the 96

seats in the National Assembly as a result of the 1984 elections. These include Liberals and Conservatives to the right, and Socialists, Communists and the Popular Action Movement to the left of the Sandinistas. Somebody or other will probably point to the case of the 'Democratic Coordinator', which refused to take part in the elections. To this I can only counter firstly that the choice was theirs and they were under no threats from within Nicaragua, and secondly that the CIA are known to have approached them to persuade them to this decision. The Conservative Party (that's the **Nicaraguan** Conservatives) have revealed that they were

also offered money to withdraw.

Finally, let me return to David Ashby MP (Conservative) to whom I referred to in my last rant. His conclusion ran thus;

'...the electoral law was adequate to cover secret elections. I was able to observe unhindered the electoral process, and could detect no suspicion of malpractice. The elections were properly carried out'.

Yours  
Peter Hobbis

**Newman Hypocrisy**

Dear Hugh,  
Whilst leafing through the New Collins Concise English Dictionary I came across the word 'hypocrisy'. 'The practice of professing standards, beliefs etc contrary to ones real character or actual behaviour'. 'Hmmm-interesting' I thought. Certainly not a word one could get mixed up with honesty and self criticism as Michael P Newman seems to think is possible.

Having re-read my letter, just to check, I can distinctly find no mention whatsoever about what my views are concerning the issues that Mr Newman raises; nuclear warfare, human rights, sexism, pornography, vivisectionism etc. ad

infinitum. Hence Mr Newman has jumped the gun by producing his own piece of clumsy character assassination of me and 'those who support (my) cause'. I think you will find that despite the inferences made in Mr Newman's article that I hold very similar ideals to him on many of the issues he raises. I would like to go on record now that I do not agree with hard-core pornography, apartheid and the nuclear arms race. However I consider myself to be a bit more of a realist in terms of how we can arrive at these ideals. In my own lengthy experience at IC I have meet a great number of similarly minded people. Certainly, time and time again, motions at

UGMs concerning these issues especially banning Hon Porn's Night and links with South Africa have been consistantly defeated. I would put this move down to actual methods of arriving at the ideals involved rather than the ideals themselves. It is these methods which have resulted in the character assassination of Michael Newman and the martyrdom he obviously revels in. As a result I have no intention of apologizing to Mr Newman as I have nothing to apologise for.

Yours sincerely  
Mike Jones

**Rant**

Dear Hugh,  
Impressed as I am with the new look FELIX and in particular the consistently high standard of features I am appalled that you should allow such petty crassness to creep into the letters page. I speak of the political rantings of the likes of the infamous self-publicist Michael Newman, the whinging pinko socialist Pete Hobbis and the offensively rabid right winger John Martin. These people are using FELIX to spout the unimaginative dogma of national political organisations. Worse still they seem to spend most of their time and a lot of their money just offending each other.

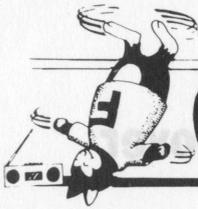
I see a light at the end of

the tunnel however, in the enlightened article you printed by Mr Steve Marshall. He encourages us to throw Ind Soc out of College with a kick up the backside. His illuminating argument show how this organisation is effectively using IC Union to brainwash students into a fixed and mindless way of thinking. But what of the political societies? ICU stands strong in being a non-political union working for students and not getting tangled up in the usual pointless irrelevant student union issues. These people are not working in our interests at all, they are seeking to utilise the student population to their advantage. I appeal to the Union KICK THEM OUT! SAVE THE MONEY WE GIVE THEM.

Don't get me wrong I believe the Union needs healthy and active discussion forums and campaign groups. But I suggest your readers' energies are better ploughed into apolitical things like Debating Soc, IC Amnesty International and Wellsoc. Out should go the likes of Soc Soc, Con Soc, Ind Soc, SDP Soc, Raving Vegans for a Monetarist invasion of Nicaragua Soc etc. We do not need such grasping social leeches trying to lead us into ideological blind alleys and outdated dogmatism. If the Union needs to become involved in external politics it can do so through the UGM. If it wants to hear outside speakers there are all sorts of societies who will still invite them. And if the worst comes to the worst and students want to join political parties then they are better off doing so outside college where they will meet a broader selection of people with the same narrow minded views. Perhaps this way we will cut down on silly notions about banana republics and free market student unions which are about as relevant to Union meeting business as a terminal overdose of sleeping pills. I therefore urge you to support a motion at an IC UGM instructing the Union to purge itself of all organisations which suppress or restrict free thought, to cut off their fundings (and anything else appropriate) and to prevent their nauseating posters littering our walls.

Yours sincerely  
Mark Cottle  
Civ Eng 2

LETTERS



# Editorial

## Teaching Standards

Imperial College is meant to be one of the world's leading Colleges of science and technology. Students come from all over the world to be taught by some of the leading academics who are staff here. When they come here, though, they have to go through incomprehensible and boring lectures delivered by staff who wish they were researching rather than teaching students. Not all staff are to blame. Some make great efforts to ensure their lectures are interesting. The majority don't. The Union, the Rector and many other notables have recognised the low teaching standards in many departments. They have set up promotion systems designed to encourage staff to improve their teaching.

Unfortunately this has failed to improve teaching at IC. The reason for this is quite simple. Many elderly, senior academics don't accept the need for change. One Head of Department refuses to answer questions on his course. How can he expect his staff to worry about their lecturing when he obviously doesn't? Members of staff as senior as Head of Departments can't be sacked. They can be replaced, though, when their contracts come to an end.

The Head of Department should be someone with a proven interest in student teaching. College should consider attracting younger, more dynamic Heads of Department so that College develop a reputation for being interested in students.

## Self Defence

Women interested in going on a self defence course should contact Kathy in the IC Union Office.

## Survey

Many of you will have received a piece of paper entitled 'Men and Women: The Survey'. Please fill in and take it seriously. We are attempting to find out what your attitudes not what your mates will laugh about. Please hand in your forms before Friday.

## Parking Permits

The results of the appeals are on the Union Office door.



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 Hugh Southey; Business Manager: J Martin Taylor; Copyright FELIX 1985. ISSN 10140-0711.

## Caption Contest

I've finally remembered to award Chris Crosskey £10 for his caption:  
Liz: 'What weighs 3/4 of a ton and pisses on the opposition?'  
Dave: 'You, strapped to Carl Burgess!'

## Rag

There's a Rag meeting today. Turn up if you want to elect a Rag Mag Editor etc

## Credits

Thanks to Judith, Tracey, Mark, Pete, Sean, Sarah, John, Andy, Sunny, Gren, Nige, Dave, Richard, Bill, Chris, Mike, Jim, The Careers Office, Tony, Rosemary, José, J Martin, Debbie, Jane and anyone I've forgotten. You're all wonderful.

# Letters

## BNR needs your talent to bring the digital world to Europe.

BNR (Bell-Northern Research) Limited is Canada's largest private R&D organisation. With headquarters in Ottawa and ten regional labs in Canada, the United States and the UK, the company has developed strategic plans to take digital switching and office products technology firmly into the 21st century.

At our lab in Maidenhead, the major technical thrust is the development of digital switching products for the European, Caribbean, near East and African markets.

Many of our projects are 'market-driven' and ensure that Northern Telecom, one of our parent companies, maintains its position as market leader in digital switching.

With an established reputation for incorporating advanced software engineering with the latest digital electronics technology, BNR offers excellent opportunities to graduates with honours degrees in computer science, electrical and electronic engineering or the applied sciences.

The BNR philosophy recognises and rewards the talents and creativity of all employees. If you are looking for an opportunity to develop a career within an expanding organisation at the very frontiers of telecommunications research, contact us or your careers office now.

We will be visiting the Careers Fair at your University on Wednesday October 30th.

Your future in telecoms research



For further information, apply to:  
Ian Irving, Human Resources,  
BNR Limited, Dept. M130,  
St. Mary's House, 17 St. Mary's Walk,  
Maidenhead, Berkshire SL6 1QX.  
Or call him on Freephone 3277.

## Join the Worldbeaters

Flights • Trains • Tours • Accommodation  
Ski Holidays • ISIS Insurance • ISIC Cards  
Group Rates • Weekend Breaks

## ULU Travel

Imperial College, The Junior Common Room,  
Sherfield Building, Prince Consort Road,  
London SW7. 01-581 8882

A Service of

**STA** TRAVEL  
The Worldbeaters



GOVERNMENT BONDED UNDER ATOL 822  
IN ASSOCIATION WITH SATAC CHARTERERS



# Good Riddance

The Fremantle Hotel, which for the last three years has been used as Hall of Residence, was gutted by a fire on Wednesday evening. Fire Brigade spokesman told FELIX that over 50 firemen had been required to put out the blaze. He said that over 50% of the building had been destroyed. At the time of the fire nobody was living in the hotel.

The Fremantle Hotel was unpopular with residents. During the three years that the Hotel was a residence FELIX regularly ran stories about the poor condition that residences were forced to endure. Michael Arthur, the Student Services Officer of the time, did not deny that College were hoping to take on the residence for another three years.



The Fremantle Hotel on Thursday morning

## Rain Stopped Play

The Phantom Soaker referred to in last week's FELIX letters page has struck once more. Three plastic bags containing water were tipped over victims as they were seated in the gents toilets in the Physics department on Tuesday.

Similar attacks have been occurring since mid-September. Thirty incidents have been reported to date. The 'Phantom' has concentrated his efforts in the Sherfield building, but has also visited the Physics and Mechanical Engineering departments.

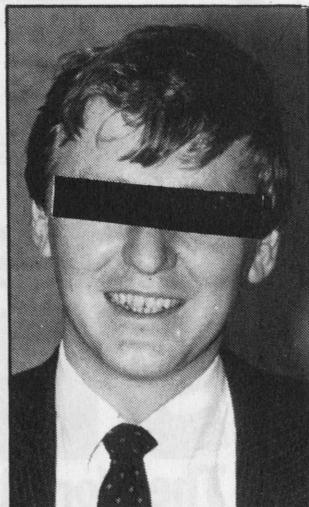
A letter, signed by 'The Phantom Soaker' has been mysteriously delivered to the FELIX office:

Dear Editor,  
In reply to Dr R Benodekars letter published in the 18th October issue the carrier-bag in question was not full of water as described but about half-full of water. This kind of misleading information from so called 'academics' should justly be rewarded with a soaking and any other Imperial persons who are regarded

by myself as 'snobby nosed swots' will be duly showered.

Yours sincerely,  
The Phantom Soaker

'The Phantom has got to be some kind of nut' said John Boroughs of Security. Geoff Reeves, Chief Security Officer, has expressed concern for the Phantom's health and is appealing for any relevant information.



The Phantom Soaker.

## Kawasaki Slams Porsche

A motor bike was pursued through the College grounds in a James Bond style chase last Friday. The bike, closely followed by a police van, hit a speed ramp and jumped twenty five feet before hitting a parked Porsche. The rider then climbed off his crumpled Kawasaki and made his escape. He was later apprehended behind the chemistry department.

A small amount of damage was done to the underside of the Porsche, owned by Dr Wakeman of Chemistry, but the motorbike was written off. Police have declined to comment on the incident.

The chase occurred whilst a student was being carried away from the Life Sciences dinner by ambulance men. Mr Haldane Broby, who had been drinking whilst on a course of antibiotics, collapsed at the dinner and was taken to St Stephens hospital. He later regained consciousness and discharged himself. He has now recovered.

## Bars Takeover

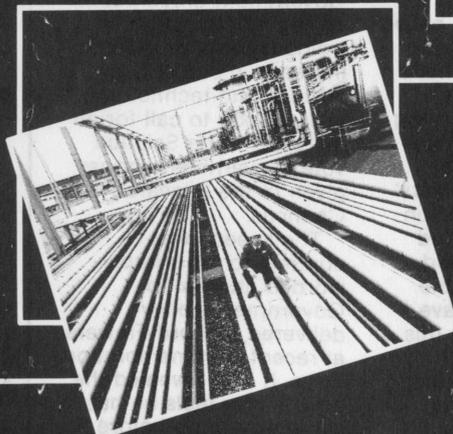
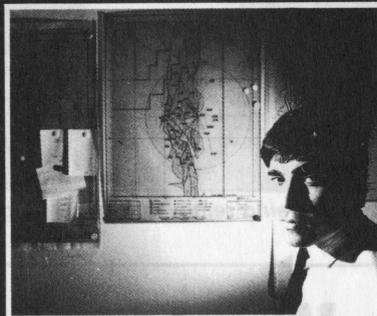
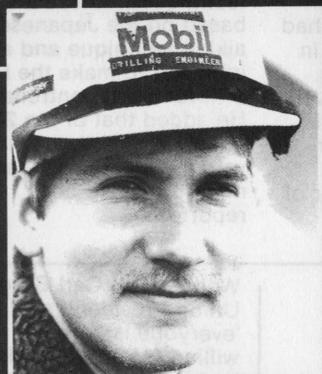
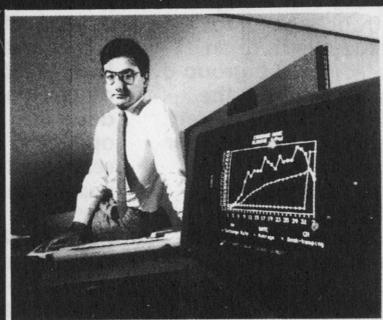
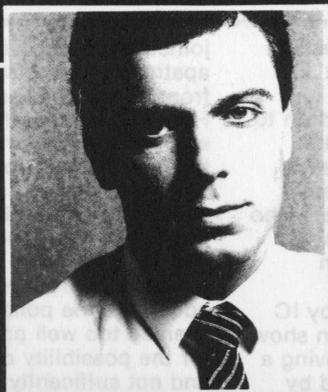
IC Union will begin a phased takeover of the Union bar on 1st January 1986, if proposals put forward by College Secretary John Smith are approved. Mr Smith has prepared a first draft of a paper to be submitted jointly with Union President Carl Burgess at the next meeting of House Committee on November 6. If the plans go ahead, the Union will assume full control of the bar on 1st August 1986. The draft makes no mention of whether control of other Union rooms will be included in negotiations for a takeover.

To gain control of the bars the Union must first obtain a corporate legal identity in order to apply for a liquor licence. There will be an inaugural meeting of the Union Planning Group next Thursday at 6.15pm in the SCR to discuss the bar takeover and the future of the Union Building as a whole. Anyone interested is welcome to attend. The Union's response to Mr Smith's initial proposals, and the control of Union rooms not within the building will also be discussed.

## ASTMS Protest

Mr John Fecamp, branch secretary of ASTMS, is writing to College Secretary John Smith to ask if College facilities will be used by staff or students working on the Star Wars project. His concern follows the disclosure that Professor Manny Lehman has signed a contract to work on the project as reported in FELIX last week.

Mr Fecamp feels that many members of IC may object to any such use of College facilities. The Star Wars project, he believes, is morally wrong and involvement in it would be damaging to the college's image. Mr Fecamp is prepared to take the matter to the board of governors or the College ethics Committee.



Oil is big business. But big doesn't have to mean impersonal. And that's where Mobil has the edge. We're part of the third largest oil corporation in the world – with all the resources that implies – yet our UK group of companies is efficiently compact.

For graduates this can mean the best of both worlds. We're large enough to matter, yet small enough to provide real opportunities for individual recognition and attention. And for achievers, cross functional movement is readily attainable.

Our activities span the full range, from exploration, production and refining to distribution and marketing – with, of course, very high levels of professional management and support staff.

But, whatever the activity, it's our people that matter.

**People with ability and ideas.**

**Mobil**

# Trouble At NUS Demo



A demonstrator being removed from Trafalgar Square

Police made 280 arrests in Trafalgar Square last Saturday when a demonstration spilled on to the road in front of the South African Embassy. Most of the arrests were peaceful, but protesters who were unwilling to move along were dealt with forcefully. The photographs, taken by IC student Mark Harman show a police officer removing a man from the ground by putting his fingers up the man's nose and lifting.

The trouble occurred when students from an NUS rally joined a group of demonstrators from the City anti-apartheid society. Mr Harman, a second year Computing student and Chairman of the College CND society, was taking part in the anti-apartheid demonstration. He told FELIX that the early stages of the NUS rally had passed off without any sign of trouble. He estimated that about 800 students had gathered for the protest in Trafalgar Square. At around 3.00pm they moved off to deliver letters to Sir Geoffrey Howe asking for sanctions against South Africa. A smaller number of students returned to Trafalgar Square and

joined the group of anti-apartheid demonstrators in front of the Embassy. Mr Harman said that the police were probably correct to begin arresting protesters who were causing an obstruction and refused to move, but was concerned that their methods were unnecessarily rough. He added that the police seemed too well prepared for the possibility of arrests and not sufficiently organised to make sure that the demonstration passed off peacefully.

In a statement to FELIX, New Scotland Yard press officer Martin Hobgood described Saturday's police operation as 'very tolerant, restrained and well-supervised'. When asked about the 'fingers in the nose' method of removing demonstrators he said that since July 1982 police-officers had been taught a 'new system of arrest techniques'. These are based on the Japanese aikido technique and are intended to make the level of force used controllable. He added that of the 280 people arrested only 18 were being charged, and no injuries had been reported.

## Ash Wants More Women

The number of women students at IC will double to one third of all students within eight years if the target set by the Rector, Eric Ash, is met.

Addressing the Commemoration Day ceremony in the Royal Albert Hall yesterday afternoon, the Rector called upon female graduates to spread the message that a career as a scientist or engineer offers an exciting future, one that is just as much for women as for men. During Lord Flowers' Rectorship the proportion of women had increased from 9% to 17%, he said. 'To obtain a comparable multiplying factor I have until 1993 to increase this proportion to 33%.'

Also in his address the new Rector praised the work of his predecessor Lord Flowers, saying he could only hope to emulate his success. The College is he said, ready to meet the challenge of dual-funding,

and already derives almost half its income from non-UGC sources. This could be done, he felt, without jeopardising pure science research for which there was no immediately obvious industrial use. Referring to the recent Government green paper on higher education he welcomed the proposed increase in students of science and technology, but went on to call for an increase in the Science vote, Government money given to the Research Councils.

The speech was a contrast to the sharply-worded attacks on Government policy delivered by Lord Flowers at recent Commemoration Days. It also revealed the new Rector feels he has some way to go before he leaves the shadow of his predecessor and stamps his own authority and personality on the College.

## Small Unions To Decline

Clive Jenkins, General Secretary of ASTMS, spoke to the Industrial Society on Tuesday, predicting the decline of small unions and their replacement by larger multi-trade unions. He also foresaw training schemes as a permanent feature of employment and advocated union representation in decision-making in preference to a purely bargaining-based system.

## Selkirk Again

A petition signed by most of Selkirk and Tizard Hall residents was handed to Peter Hallworth, Managing Surveyor of Residences, on Wednesday. The petition was submitted in support of a letter to Mr Hallworth objecting to the building of staircase kitchens.

After the Warden's Sub-Committee meeting on

Wednesday, Carl Burgess, Union President, said that 'everyone is perfectly willing for different plans to be implemented'. He added, what is good for Falmouth-Keogh Hall is not necessarily good for Tizard and Selkirk'. The matter will be discussed at the Students' Residence Committee next Wednesday.

## DSES Robbery

Thieves escaped with a tape deck, a number of internal telephones, and several half filled jars of coffee after breaking into the DSES building on Sunday afternoon.

The thieves climbed scaffolding at the rear of the building and entered through a third floor window. Later that night an intruder evaded police and police dogs by escaping over the roof.

The police have collected fingerprints and footprints and are awaiting forensic evidence. Window locks have now been fitted to the building.

## Below the BELT

This week your very own vicious rumours column turns its attention toward Union personalities. Vice Presidents are always good for a few vices and Mines VP Chris Griffin is no exception. It is a Union rule that Union premises are only to be used for intimate activities if they are 'discreet and unavoidable'. Mr Griffin evidently felt no discretion was possible when seen in Kensington Gardens one evening recently. Unless the usual bribes are forthcoming, it may be revealed exactly what injury he sustained from the tarmac. Guilds VP Symon Corns has been making it very very publicly known that he doesn't have Mr Griffin's problems. After several of the recent Guilds' buffets he and Hon Sec Dave Page were seen engaging in loud and drunken acts of public lechery. Meanwhile, Guilds' President Roger Preece is rumoured to have been far more successful with the dashing officer approach, and has been seen 'putting a resident of Selkirk to bed'.

Meanwhile, hapless IC DP Dave Kingston was seen using a Union minibus to drive a young lady down to Eastbourne in order to get a dress in which to accompany him to the Commemoration Day Ball. Unfortunately this has also jilted a large number of RCS officers who believed they had enraptured the very same fresher.

Finally, more 'Northey Balls', it is rumoured that due to problems with metric and Imperial measurements the entrance to Mr Northey's new SCR bar has been made too narrow for bar manager Alan Larson to get through. We are now waiting for Mr Northey's overdue run of good luck.

And for a dig at the competition, the CCU papers seem to be having their problems. Broadsheet is currently late due to the absence of editor Tony Spencer. Following a young lady home to Evelyn Gardens and them having to walk back un-rewarded to Shepherds Bush has apparently left him temporarily unable to walk.

# Pestilence

**FELIX Science Editor, Debbie Wilkes, looks at new methods of insect control and examines research being done at IC.**

The damage that insect pests cause to crops is a major problem in many areas of the world, particularly tropical and subtropical regions. As these pests become increasingly resistant to conventional insecticides, and the pressure to protect the environment in more acceptable ways grows, it is clear that there is a need to develop new methods of insect control.

Some plants have evolved elaborate chemical defence mechanisms to combat insect attack. In many cases these natural defences are far superior to the man-made insecticides that have been used over the last few decades. Professor Steve Ley, of the Chemistry Department, is naturally studying a number of these occurring substances, derived from various plant sources, which actually inhibit insects' feeding processes. These compounds, known as antifeedants, have enormous potential since they have very low mammalian toxicities and can be selective for particular insect pest species. This selectivity is of great value as it will

allow them to be used in an area without unduly disrupting the local ecology. It is hoped that the study of these chemicals may provide valuable information concerning biological mechanisms involved, and could ultimately lead to the development of commercially useful insect antifeedants.

Many of the structures of these complex natural compounds are already known but it is only recently that people have begun studying their total syntheses. Professor Ley's group have had great success in developing general synthetic routes to a number of antifeedants. These routes have been used to produce simpler structural analogues, which enable the relationship between biological activity and molecular structure to be investigated.

Recently, the group have had a major breakthrough in their work with a particularly potent compound called azadirachtin.

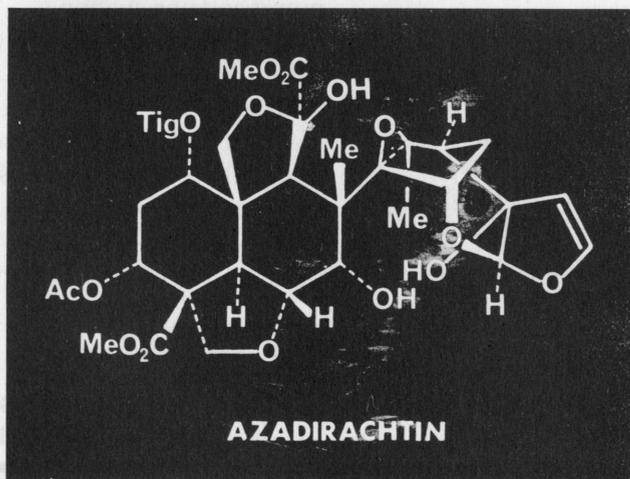
The Neem tree (*Azadirachta Indica*), which is native to Africa and India, has long been known

for being virtually free of insects, nematodes and other diseases. Although all parts of the tree seem to be resistant, extracts from the seed are particularly powerful, and are highly effective against a wide range of crop pests. The most important active constituent, known as azadirachtin, affects at least forty species, many of which are difficult to control by conventional methods.

In most cases insects develop through ecysis, which consists of a series of moults. It is believed that azadirachtin works by interfering with two hormones involved in this process; the ecdysone (moulting) hormone and the juvenile hormone. Azadirachtin convinces the insect it is approaching its moulting phase, a time during which it loses its appetite for food. However, it never goes into the full moulting phase and consequently dies of starvation, or is eaten by another predatory species, such as birds. Another possible commercial outlet for azadirachtin is in the Australian sheep industry, where blowflies cause damage estimated to be over 120 million dollars a year. Recent tests have shown that the blowflies will not lay their eggs in azadirachtin impregnated wool. With the American government having recently approved the use of Neem tree extracts for pest control, the future looks very promising.

Professor Ley is working in conjunction with Rohm and Haas, from the USA and has been looking at possible synthetic routes to azadirachtin and structural fragments. Their work has also led them to re-examine the accepted structure, which was proposed some ten years ago. The groups work, which has involved mainly X-Ray crystallographic and spectroscopic studies, has led to an unambiguous new structural assignment for azadirachtin. This discovery at Imperial College has enormous repercussions for those companies designing novel structural analogues of azadirachtin.

Increasing our understanding of how these natural defences work forms an essential part of the search for more effective and ecologically acceptable methods of pest control.



# YOU MIGHT MAKE MENSA. BUT WOULD YOU EVER GET INTO ERNST & WHINNEY?



## Which Twin is the Liar?

Owing to an obscure physiological trauma at birth, one of these twins has always told the truth, the other has always lied.

You are asked to discover for certain which is which by asking either of them one question.

What is the question?

## The Wolf, the Goat and the Cabbage.

On the banks of Loch Linnhe, the local boatman is faced with a wee quandary.

He has undertaken the transport of a wolf, a neighbour's goat and a prize-winning cabbage across to the opposite shore.

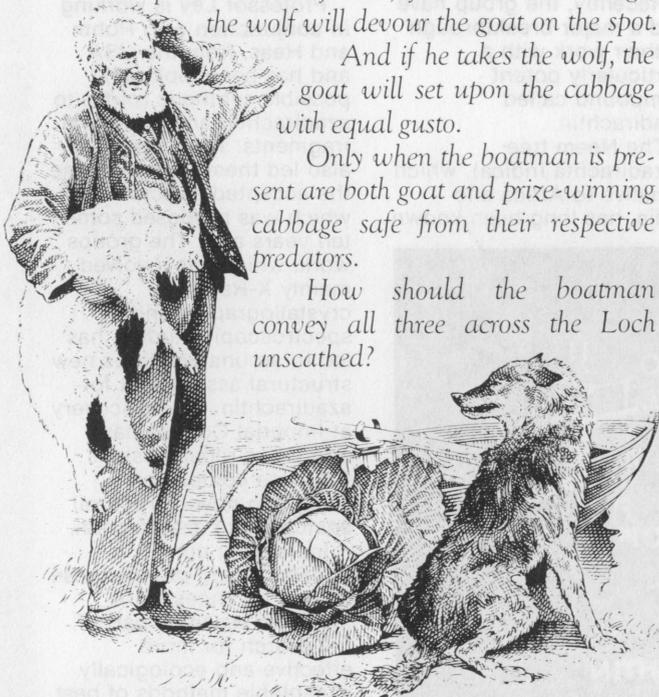
However, his vessel has only enough room to take either the wolf, or the goat, or the cabbage as passenger.

To complicate matters further, if he takes the cabbage, the wolf will devour the goat on the spot.

And if he takes the wolf, the goat will set upon the cabbage with equal gusto.

Only when the boatman is present are both goat and prize-winning cabbage safe from their respective predators.

How should the boatman convey all three across the Loch unscathed?

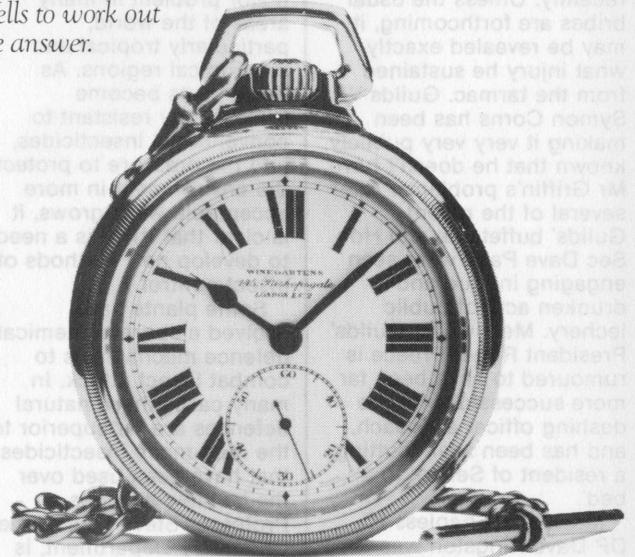


## The Stationmaster's Watch.

To while away a few minutes in between trains, the stationmaster at Abergavenny sets himself a little problem.

With two straight lines, can he divide the face of his pocket watch so that the sums of the numbers in each part are equal?

He has until the arrival of the 10.18 from Llandrindod Wells to work out the answer.



As all this might suggest, Ernst & Whinney are looking for graduate recruits with a somewhat unconventional turn of mind.

Which is to be expected, really. We are a somewhat unconventional firm of accountants.

We see our business role going far, far beyond the job of auditing accounts.

We like to increase our clients' profits, not simply tot them up.

So we will expect you to have a brain of unusual power and imagination.

The kind that can apply itself to seemingly impossible problems and come up with brilliantly obvious solutions.

You think you like the sound of Ernst & Whinney? We think we might like the sound of you.

Contact Tim Curry on 01-928 2000.

As well as having the answers to all the puzzles here, he may well have the solution to your career.

**EW** Ernst & Whinney  
Accountants, Advisers, Consultants.

Becket House, 1 Lambeth Palace Road, London SE1 7EU. Tel: 01-928 2000.

The National Centre for Alternative Technology (NCAT) is situated in the midst of wooded hills near Machynlleth, mid-Wales. Arriving there, as our party did late at night, we were struck first by the cold cleanliness of the air, the silence and the millions of visible stars—quite a shock after London—but it wasn't till the following morning, when we awoke to an exceptionally lovely weather, that we realised quite how beautiful a place we had come to.

The Centre itself is built in a disused slate quarry, since its foundation ten years ago many of the barren slate heaps have been lovingly reclaimed by the planting of trees, shrubs and grasses; and the ruined buildings have been totally restored. The overall impression is one of fertility and harmony. However the legacy of the old quarry is apparent everywhere; the ubiquitous slate has been used for construction wherever possible; trolley tracks run around the site and old tunnels lead through the hills to stunning viewpoints where you can gaze at the vast sheer rock faces.

The purpose of NCAT is to demonstrate and develop a way of life which depends on working *with* nature rather than *against* it, caring for the environment rather than thoughtlessly harming it by needless pollution, squandering of previous resources like fossil fuels, mass destruction of the world's wildlife and so on. Alternative technology is not just about windmills and waterpumps, but about people; it is about achieving a healthy, comfortable, satisfying existence which is sustainable indefinitely and allows everyone a fair share. It recognises that people's needs *can* be met with out harm to others of the environment and that by encouraging d.i.y., community schemes and local self-reliance life could be made a lot more enjoyable for those involved. Alternative technology is based on the belief that social progress can not be measured by the quantity of goods produced and consumed but rather by the *quality* of life, which in our society frequently means unhealthiness, alienation, loneliness, bewilderment and in the long term, ecological suicide.

# Wacky Windmills

*José Michaelis recently visited the National Centre for Alternative Technology. In this article he talks about his experiences.*

The NCAT is not just an exhibition space; it is a working example of the alternative lifestyle it advocates. It is self sufficient in many respects—all electricity is generated on site by wind and water power; heating is provided by solar power, heat pumps and renewable fuels (largely wood). The emphasis however on conservation rather than overproduction, so all the buildings are well insulated and waste heat is recovered by heat exchangers. The centre also filters water for its own needs from a nearby reservoir; and produces its own vegetable and dairy produce organically (ie without artificial chemical means). All organic waste (human, garden and domestic) is recycled into compost and as far as possible things that won't rot are reused! Most of the NCAT staff live on site with their families and thus it is a true working community. Decisions and tasks are shared democratically and staff wages reflect the philosophy that everybody's contribution is

valuable—salaries are needs rather than 'merit' based.

In order to demonstrate that the 'alternative' lifestyle is both possible and desirable, the centre welcomes visitors on a day or residential basis. The 'visitor circuit' takes you around a working display of wind, water and solar power, biofuels, energy saving and organic farming as well as exhibitions explaining what alternative technology is and why it is necessary. The presentation is such that the displays are of interest to everyone regardless of age or depth of technical knowledge.

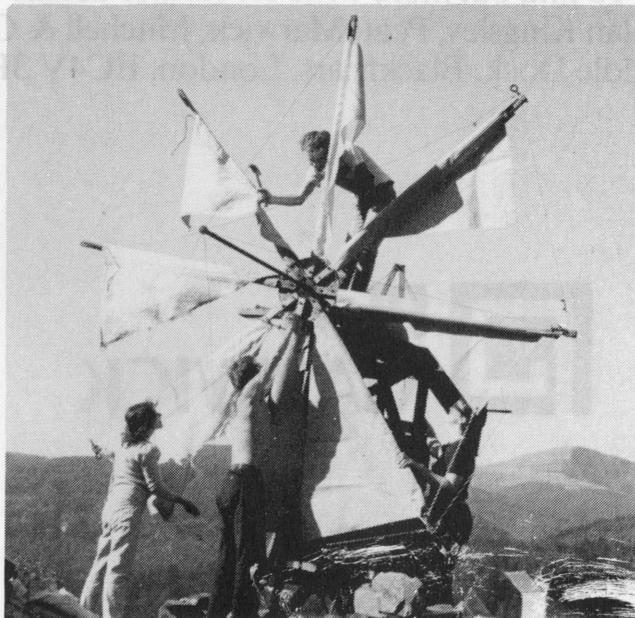
As well as the display/exhibition, the centre runs residential courses on subjects as various as d.i.y. solar power, wholefood cookery and practical skills appropriate for third world work—the latter course being supported by VSO and similar voluntary organisations. Although a registered charity the NCAT derives much of its income from admission and course fees, as well as the

profits from the excellent restaurant and bookshop (where you can buy plans for the d.i.y. windmills, solar panels etc for a nominal price!).

The Centre also welcomes volunteers, which is how we come to be there. We spent the first day being shown around the site and second engaged in a variety of tasks from digging drainage ditches, to repairing windmills and waterpumps. The accommodation was comfortable and cheap and food was provided though we organised its preparation ourselves. Everyone worked as hard as they wanted to—being a weekend, the pace was very relaxed; during the week volunteers are expected to work reasonably hard. The atmosphere is friendly and helpful, though, any contribution is appreciated.

The striking thing about the centre is how relevant its work is to all of us; not just to those fortunate enough to live in the Welsh hills! The emphasis on individual and local self-reliance make the technology accessible to everyone—and highly desirable too; for instance did you know that domestic fuel consumption can be reduced by up to 80% by good insulation and waste heat recovery? Although simply materials and constructions are used where possible, 'hi-tech' is not avoided but utilised where appropriate—for example a sophisticated electronic device may be used to control the flow over a solar panel made from an old radioator. The technologies on display and in use at the Centre are eminently practical and visible, from the largest windmill (sophisticated Dutch machine rated at 15Kw) to the smallest compost bin. No one at the NCAT appears to have many illusions about their work. The change towards alternative technology and way of life available to you, the visitor or volunteer. A visit may inspire you to rethink your own career or just give you a few ideas about running your household but it will be enjoyable. The problem is, you may be tempted not to come back.

The National Centre for Alternative Technology, Llwyngwern Quarry, Machynlleth, Powys, Wales, Machynlleth 2400.



*Alternative Technology building their do-it-yourself windmill.*



# Careers Special

## Careers For The Clueless

Your last year and you haven't a clue what to do next? Awful, isn't it? Perhaps if you forget about it, it won't happen? Perhaps if you just send off thousands of application forms, someone will give you some sort of a job which you might enjoy? No, better just ignore the problem. No, I know, go and see the Careers Advisers, they'll tell you what to do.

Unfortunately, we can't tell you what to do, we can help you towards the decision, point you in the right direction to get you started, test out whether you're being realistic but, ultimately the decision is yours. You're on your own on this one! So where do you start? Well you could stick a pin into every third page of the Graduate Recruitment programme Booklet or you could try to be a bit more systematic about it. First of all, you could think about it yourself, try to compile a list of your characteristics, traits, your values, what you want out of life and your skills, what you're good at, not forgetting of course those things that interest you and that you enjoy. Then, when you look at job descriptions, you can compare them with your personal profile and see which ones match and hey presto, you know what you want to do next.

The trouble is, it's not so easy to identify all these things about yourself and so here's some tips as to how you might go about it. Look at your life so far. Why did you come to Imperial, why are you reading Mathematics or Biology or whatever? What have you enjoyed of the experience why, what have you hated? Was there anything in your holiday jobs that you found fun or that you discovered you were particularly good at? How about leisure interests, any clues there? If you can't do it this way round,

try looking at the jobs first. Read as many job descriptions and adverts as you can and when you spot one that takes your fancy, try and analyse why it is that attracts you and then you can look for other occupations containing these factors. Perhaps you've seen or talked to people whose jobs seem interesting. Why, what was it about that job? Your Careers Advisor can help you with this task or analysing your skills and needs by asking questions and checking out whether you really mean it when you say, for example, that all you care about is becoming a millionaire by time you're 30!

There are brief descriptions in the back of the Directory, 'ROGET', but for more detailed descriptions, consult the series of booklets published by the Association of Graduate Careers Advisory Services, all available free of charge from the Careers Library.

If you find all this totally impossible and your Careers Adviser can't help you get started on the trail, then they may recommend that you complete Gradscope Questionnaire which is a fiendishly ingenious little toy. You answer 50 questions and the computer programme comes up with your top ten jobs...but alas you've still got to answer the questions, what are you good at, what do you enjoy, what do you want to do next.

Have you enjoyed yourself so much as a student that you're thinking of going onto take a further qualification? There are many reasons for continuing your studies but merely having enjoyed your undergraduate years may not be an adequate motive. Being a postgraduate may turn out to be very different from being an undergraduate. Are the elements of your undergraduate life that you

have enjoyed still present at postgraduate level?

Another pretty pathetic reason for taking a further course is because you can't think of anything else to do or because this career choice business is just too difficult. What's going to make it easier to think of something else, or to decide after another year or three at College? If you just continue to study and take no active steps toward the dreaded future, you'll find yourself in exactly the same dithering situation, only slightly older!

But mind, the worst reason of all is falling prey to flattery. You may feel that you're not susceptible but come June, when your degree results are out and notable professors ask if you'd like to do a PhD with them, it's so easy to be overwhelmed by the ideas, without thinking out the reality. Should this happen to you, beware false pride. Beware the professors have reasons of their own for wanting PhD student and before jumping on to three year project, weigh up the pros and cons and analyse whether it's really the right move for you.

Before you get the impression that I am totally against postgraduate studies, here are some more positive reasons for this course of action. You may simply not feel finished with studying, the more you want to learn. Perhaps there's a part of your undergraduate course that you have found particularly interesting and would like to study in depth. Many a masters course cater for this need, eg Astrophysics.

The most obvious reason is vocational. Your chosen career may require a PhD or a further qualification eg research in the Pharmaceutical industry or teaching. You may feel that it will be easier to get a job in your chosen field if you possess a further qualification, eg Geophysics or Petroleum

Engineering. You may wish to change direction and another course can often help, eg Information Technology. Another word of caution is required here. It's easy to be misled into believing a course is more vocational than it really is. Admissions tutors are sure to tell you how useful their courses are and so make sure you ask what percentage of their previous scholars are in employment and what they are doing. You might also check out the value of your chosen course with some of the employers at the Careers Fair or discuss it with a disinterested person like a Careers Adviser.

Having made the decision to prolong your student days, the obvious next step is to decide where you want to study. The Careers office, Sheffield 309 keeps a reference copy of, 'Graduate Studies' which lists all the PhD and Masters and many of the Diploma courses available in the UK. We can also point you in the right direction for information on studying abroad. The Lyon Playfair library has many prospectuses and also keeps a copy of the 'Directory Of Research in British Universities and Polytechnics' which contains detailed titles of PhD projects which have been carried out recently. Of course, you'll need to check whether you can get the money for your studies and whether you need any pre-course experience. To be safe, you should think about applying for PhDs and Master around Christmas but for many vocational courses like teaching, you should be applying now. If you think that there's the slightest chance of wanting to continue your studies, then apply. If you get an offer of a place, you can always turn it down, otherwise you may find yourself having to wait a year because you decided too late.

# THE COMPANY AND YOU:

An easy guide to find the perfect employer

'How do I choose which employer to apply to? They all seem much the same. I'll apply to the seven largest, most famous employers with the most vacancies and that will probably do'.

It might work but, if you have spent any time at all choosing what occupation you wish to follow, it seems a pity to mess up your future happiness by failing to carry out adequate research on your prospective employer.

There are five Directories of employers of graduates, 'Register of Graduate Employment and Training' (RoGET); 'Graduate Employment and Training' (GET); 'Graduate Opportunities' (GO); 'Directory of Opportunities for Graduates' (DOG) and, 'Directory of Opportunites in New

Technology' (DONT) These are a good source for your preliminary list of possible employers. Besides outlining the vacancies that they may have, they may tell you about the Company's size, its location, its pattern of employment and even a little of its philosophy. Many employers produce special Graduate brochures which provide profiles of recent graduate entrants of the 'Day in the Life of...' variety. There are many videos for those who prefer watching and listening to reading. These can be viewed in the Careers Video Room, key from Sherfield Room 309. Although all these sources will tell you something of the companies; they are produced and written by the employers themselves and therefore are unlikely to paint the companies in anything other than glowing terms. The same can be said of the recent graduates brought along to Company presentations. A company is unlikely to bring along people who think it's a foul company in which to work! So how can you find out which company is for you? Firstly, you must know what you want from an

employer. What sort of environment would you enjoy, what promotion prospects or training would suit you best, do you want a very open, friendly style of management or would you prefer more conservative formal firm?

What other factors are likely to make the difference for you between one employer and another? Then when face to face with employers or recent graduates, you can question them closely. The Careers Fair is a good place to start. You might ask them why they think you should work for them rather than for X and Co although don't sound too arrogant when doing so! Another valuable way of finding out about different employers is at the old students' Association Careers evening.

Once you have narrowed the field of employers, you can save everyone an awful lot of time by checking whether the companies actually have vacancies in the areas of which you are applying. Every year, a well known computing Company is inundated with applications for computer programming jobs. They do have between 400 and 500 vacancies but not for computer programmers.

If the company is visiting the campus during the Graduate Recruitment Programme then you can obtain the application forms for the Careers library otherwise you will have to apply directly to the company.

And finally, think about 'falling back positions'. Please consider the wisdom of only applying it to the big, glammers, well-known companies. Every year on the Imperial Graduate Recruitment Programme, perfectly respectable companies have to cancel their visits through lack of applications. Just think what it would do to your chances of success if you applied to such a company.

## Applications

Books have been written on this topic and so it is not particularly easy to condense into a couple of hundred words or so. A good application is absolutely crucial in seeking any job—without it, you have no chance of an interview, let alone the job! The reasons why most applications fail are because they are badly presented (illegible writing, coffee-stains etc), ill thoughtout and poorly expressed. One employer reported he had rejected 90% on those grounds. Perhaps more typically an employer with about 15 jobs might receive 700 applications and these would be reduced to about 150 for the first interview. Thus it really is significant to get the interview.

What then is the 'secret'. Actually there is no secret at all; just plain common sense. So here then are a few tips.

- 1 Think carefully about what kind of job you want, indentify possible employers then read up about them and their vacancies.
- 2 Follow the instructions on the form carefully. If they say 'attach a photograph and write

in black ink' then you cannot expect too much if you do not send a photograph and write in blue ink (as a depressing number of applicants did for one employer last year).

3 Work out in advance your answers to the questions on the form.

4 Draft and edit your answers to fit the spaces provided.

5 Answer all the questions. If one is not really applicable to you, explain why that is so and do not leave the space blank.

6 Keep it all simple; keep a copy.

7 Try and view your application from the employers point. Would you be impressed by the answers? It is not likely that you would be if there were broad unsupported generalisations eg 'I can communicate well and get on with people'—is the evidence elsewhere on our form?

8 If you want more help/advice see one of the Careers Advisers. If also after a few applications you haven't been invited to an interview, come and see us again.

## Interviews

'The Unspoken Messages'—When called to interview the unspoken message from the employer is that they like the look of you on paper and so wish to meet you to confirm that view. The invitation to the second interview is that having checked you out, 'we'd now like to give you the proper interview from which we may make you an offer'.

Thus the first interview, often held in College and certainly for those employers listed in the GRP programme, is relatively short. Much will consist of points in your application—"Tell me more about that", 'Why did you do that', 'describe your project'. In some cases there may be a little technical content. The interview is also a chance for you to ask questions—so have some prepared! In fact be prepared all round—dress suitably, arrive in good time, be friendly and positive, look at your interviewer, be prepared to smile, be honest—if you don't know the answer to a question, say so and don't waffle!

The second interview is normally on the employers premises. This gives a special chance for you to evaluate the employer (after all it is a two way process)—does the place seem a good one in which to work, are the employers friendly, how are recent graduates getting on etc. The employers may have a variety of tests for you to do—some use psychometric tests, some use Group Discussions—here the important thing is not so much whether you get the right answers to the problem but how you deal with other people, how do you react under stress. Finally there will be the interview itself, very often before a board. Of course you will be nervous but the confidence that comes from a good preparation can help a lot.

Once again the Careers Service can be part of that preparation. We are easy to find, easy to consult and we are running a comprehensive programme of talks and seminars; we also have much literature. So if you want any help, do come and see us.

## Careers Special

### Some Things To Remember

#### 1) General Employment Prospects

Since the low in 1981/82, employment prospects have been rising steadily. Although full Unemployment Rates are one obvious indicator of this (and Imperial is always at or near the bottom of that league table), every other measure tells the same story. Thus there are more jobs on offer, more employers asking to visit, more employers having jobs available at Summer Fairs and many others. While all these signs are particularly evident here, the same optimistic reports are being made all around the country. As might be expected, demand is strongest in such areas as electronics and computer science. One employer, commenting on the trend reckoned they would have to run hard to stand still! In other words they were going to find it much harder to recruit as many graduates in 1986 as they did in 1985.

There has also been a good recovery in recruitment levels in manufacturing and, to a slightly less extent, the oil industry. Finance (Banking, Accountancy, Insurance, Commodities) and Retailing are two other areas that need a special mention. Most of the employers here are making special efforts to attract science and engineering graduates.

All this does NOT mean that the 1986 graduates can sit back and wait for attractive job offers. The market does not operate that way! As an example, about 300 Electronics graduates were unemployed at the start of the year. It is still vital to remember you must be realistic—if you have taken five years for a pass Degree do not insist on looking for a R&D Job as one graduate (From elsewhere in London) did a few years ago. Also good applications are crucial but they are dealt with elsewhere in this issue.

#### 2) Taking a Year Off

—or six months (eg some employers recruit in March). A year off taken before University is welcomed almost universally. Quite a number think seriously instead about having some time off after graduation and before starting (serious!) work. This too can be a very rewarding and productive experience. As usual however, there are some qualifications to be made. If for example, you are aged about 21 or 22 then there is no problem, from an age consideration, regarding your eventual career prospects. If, however, you are 24 or 25 it may be less straightforward and it could be worthwhile to seek careers advice first. It is also good that at any age you would have some sort of plan for the year and one which you can articulate—perhaps to a future employer. You should be able to talk about what your aims were, what you gained from the experience etc. You should also think ahead. For example it might be fun going jackarooing in Australia for 12 months but you will hardly be well placed to apply for jobs back in the UK. For just such simple reasons as this, 12 months off have often become 15 or more. Remember the vacancy lists in September are probably shorter than at another time of the year. Nevertheless, given some thought and planning, some time off after graduation can be fun, productive and for many, a time of great personal development.

#### 3) Temporary Work

While the great majority of graduates want permanent work, each year there are a number who for a variety of reasons, seek temporary work. In thinking of longer term career prospects, virtually all previous work experience is useful, even

valuable. Here in London temporary work is not hard to find. I can cover many possibilities from part-time in a bar or as evening crew in a MacDonalds to challenging administrative jobs. Job Centres can be a good source of such work and there are specialist agencies. Catch 22 is one such firm. (It's harder to get a job without experience and you can't get experience without a job). Although the work might well be far removed from your ultimate ambition, it does give valuable insights both into people and the nature of work. It can also be a useful way of funding that year off.

#### 4) Additional Skills

Another reason for some time off after graduation and the necessity for temporary work, could be the raising of finance to be used in acquiring certain specialist skills. These could range from passing your driving test (it's hard to get a job in Sales without a licence) to secretarial, computer or language skills. When employment was particularly difficult a few years ago, it

was quite common to find graduates making such moves. Now the market is moving steadily in the graduates favour, it is perhaps less common but nevertheless it can be as useful and in many cases as essential way to enter certain areas.

5) **Summer Fairs** It has always been wrong to think of recruitment as being only a January to March phenomenon associated with the Graduate Recruitment Programme, other wise known as the Milk Round. In fact recruitment this is increasingly becoming an all-the-year round event. Nevertheless outside the GRP the next busy peak is during the Summer Fairs. This is the time in June and July, starting immediately after finals, when there are about 10 Fairs throughout the country. Of these, London's is by far the biggest. This year, almost 200 employers attended during its 3 days, with a wide variety of jobs on offer. Thus these events are particularly useful for those who have not wanted to think about jobs prior to graduation.

CAREERS



### Group Treasury

the

### Trading

and

### Money Market

Division of the

### Midland Bank Group

Career opportunities exist in foreign exchange dealing treasury management and computing.

To give you an insight into our business we invite you to a careers presentation on

Wednesday 6th November

in

Room 328 Sherfield Building

at 6.00 pm.

All Imperial students are welcome.

# Careers Fair

## Key

A Aeronautical Engineering	M Mathematics
B Chemical Engineering	N Chemistry
C Civil Engineering	O Management Science
D Mechanical Engineering	P Physics
E Electrical Engineering	R Botany
F Environmental Technology	S Biochemistry
G Geology	T Social and Economic Studies
H Metallurgy	U Computing
I Petroleum Engineering	X Biology
J Mineral Resources Engineering	Y Microbiology
L Material Science	Z Zoology

The Industrial Society and the Careers Advisory Service are presenting the Careers Fair on Wednesday 30th October. The fair will take place in the Great Hall and Junior Common Room from 10.00am to 4.00pm continuously.

There will be approximately seventy companies, many of whom will be looking to recruit heavily for the first time in several years. There will be a considerable range of activities represented at the fair with large numbers of banks and accounting firms as well as representatives from the services and manufacturing and service industries.

The fair will require a considerable amount of organisation. If you feel you would be able to spare some time either on the evening of Tuesday 29th October or any time on Wednesday 30th October and help to make the fair a success then please contact me via the chemical engineering pigeon holes.

Mark Padley  
Chem Eng 3

## Exhibitors

1. **Air Products** *Manufacture and Sale of industrial gasses and process plant equipment* BNUOLMDH
2. **Arthur Andersen and Co** *Chartered Accountants and Management Consultants* All Departments
3. **Association of Certified Accountants**
4. **Bechtel GB Ltd** *Engineering, design and construction* BCEOLDHJIT
5. **Bell Northern Research Ltd.** *Research and development of telecommunications equipment* UEPO
6. **Beecham Pharmaceuticals** *Research, development & manufacture of human ethical pharmaceutical & animal health products* All Departments
7. **Blue Circle Industries** *Manufacture and marketing of cement, ceramics and allied products* All Departments
8. **BOC** *Industrial and medical gases, medical equipment, vacuum technology and computing* BUEOMDHP
9. **British Petroleum** *International group engaged in discovery and development of crude oil resources, manufacture and marketing of oil, petrochemical and associated products* All Departments
10. **British Steel Corporation** *Production of iron and steel* All Departments
11. **Britoil** *Exploration, production and trading of oil and oil related products* All departments
12. **Chevron Petroleum** *Oil company* All Departments
13. **Civil Service Commission** *Recruitment for government scientific and technical departments* All Departments
14. **Courtaulds** *Textiles, paints plastics and packaging* All Departments
15. **Coopers and Lybrand** *Chartered accountants* All Departments
16. **Datron Instruments** *High technology instruments* All Departments
17. **Dow Chemicals** *Manufacture of a wide range of chemical, plastic, pharmaceutical and agricultural products* All Departments
18. **Ernst and Whinney** *Chartered Accountants* All Departments
19. **Ferranti** *Development of techniques, equipment and software which form the basic unit from which large systems are built* UEMP
20. **Ford Motor Company** *Design and manufacture of motor vehicles* All Departments
21. **Fugro** *Consulting, geotechnical engineers in offshore & UK construction industry* CU
22. **GEC Avionics Research** *design and manufacture of electronic systems for aircraft and allied technology* AUEOLMDHPT
23. **GEC Engineering Research** *Research, development and design in mechanical, electrical and electronic engineering* AUELMDCH
24. **GEC Turbines** *Design manufacture and erection of large steam generators and power stations* AELMDHP
25. **Gencor** *Mineral mining and processing of metals* BELDHJI
26. **Hewlett Packard** *Design and manufacture of measurement and computation products & systems* All Departments
27. **HM Government Communications Centre** *Design and development of advanced communications systems and equipment* EP
28. **Home Office** *Development of new equipment, methods and technology for police, fire and prison services and policy for home defense* UEOLMP
29. **IBM** *Design, development, manufacture, marketing, installing and servicing information systems* All Departments
30. **ICI** *Manufacture of chemicals and pharmaceuticals on a world wide scale* All Departments
31. **Johnson Matthey** *Precious metals refiners, chemical manufacturers and paint fabricators* All Departments
32. **Lloyds Bank** *Banking* All Departments
33. **Marathon Oil** *Oil and gas exploration and field development* ABCUEDHI
34. **Marconi Defense Systems** *Research and development* UEDM
35. **Marconi Research Centre** *Electronics research, robotics, artificial intelligence, electronic components and devices, avionics, radar and communications* ABNUELMDHP
36. **Marks and Spencer** *Retailing organisation requiring textile and food technologists, production engineers, commercial personnel, administration and warehouse managers* All Departments
37. **Mobil Oil** *Exploration, refining, production, distributing and marketing of petroleum products* BNCUGOLMDJIPTAE
38. **MO Valve** *Research, design and development of high technology electronic devices with professional, military and information technology applications* NELDP
39. **National Coal Board** *Coal mining, distribution and marketing* All Departments
40. **National Physical Laboratory** *Research and development* UELMDHP
41. **Noble, Lowndes and Partners** *Employee benefits, pension consultancy* All Departments
42. **Ove Arup** *Consulting engineers* ACDE
43. **Peat Marwick Mitchell and Co.** *Chartered accountants, management consultants* All Departments

44. **Perkin Elmer** *Manufacture of high technology analytical instruments* BNUELMDF
45. **Pilkington** *Manufacturing of glass and associated products* All Departments
46. **Pilkington PE Research** *development and manufacturing of electro optical systems* ANUEOLMDPT
47. **Plessey** *Development of high technology electronic systems* ANUEOLMDHPT
48. **Price Waterhouse** *Chartered Accountants* All Departments
49. **Procter and Gamble** *Development and manufacture of cleansing and domestic products* All Departments
50. **Rank Xerox** *Design and development of reprographic machinery* UEMD
51. **RAF National air defense of the UK and NATO** All Departments
52. **Reckitt and Colman** *Manufacture of household goods, toiletries, pharmaceuticals, food and wine* All Departments
53. **Ricardo Consulting Engineers** *consulting engineers to the engine manufacturing industry worldwide undertaking engine design, research and development, instrumentation and control* AUEDP
54. **Rolls Royce and Associates** *High technology mechanical engineering* All Departments
55. **Rowntree Mackintosh** All Departments
56. **Royal Engineers** *Military engineering* All Departments
57. **REME** *Support for the army's engineering* AED and various
58. **Royal Navy and Marines** *Maritime defense of the UK and NATO* All Departments
59. **RTZ Mining** *metal smelting, processing and fabrication, chemicals, light engineering* All Departments
60. **Sauter Automation** *Environment controls, building automation, energy management* BUEFMDP
61. **Schlumberger Electronics UK** *Design and manufacture of a wide range of high quality electronic measurement and test instruments, systems and transducers* UEMPD
62. **Schlumberger Oilfield Services** AUEMDHJIPG
63. **Shell International Petroleum Co Ltd** *All aspects of the oil and chemical industry* All Departments
64. **Smiths Industries** *Aerospace and defense systems* AUEMP
65. **Spicer and Pegler** *Chartered accountants* All Departments
66. **STC Communications research** BNUEFMDHP
67. **Systems Designers** *Computer real time systems house* UEMDP
68. **Touche Ross and Co** *Chartered accountants* All Departments
69. **Unilever** *Manufacture, marketing and distribution of foods, detergents and chemicals* All Departments

# S

## HOW FAR FORWARD ARE YOU THINKING?

At British Steel we need high calibre graduates to provide the technical expertise essential for our development — people with the drive and potential to lead us into the 21st century.

Opportunities cover a wide range of engineering and science disciplines, and training and development are second to none.

Find out what we can offer you — visit us at the Careers Fair on Wednesday 30 October.

If you can't be there, ask your Careers Service for our brochure or write to Graduate Recruitment, British Steel Corporation Head Office, 9 Albert Embankment, London SE1 7SN.

## Badminton

### IC 4-LSE 0

Although neither team fielded a complete team of 6, IC had a vastly superior team, who won every game, with the loss of only 7 points in the entire match. Congratulations ladies.

### IC 5-St Marys 4

After a number of hard fought games IC just managed to win the fixture. This means that after 2 games IC mens 3rds have a 100% record. Thanks to all those who almost managed to get up and get into College for 10am on a Saturday.

## Ladies Rugby

Well—this past week has been a busy one for the Virgins. We played one match in Bristol against the Clifton Suspenders on Sunday, October 13, and another match against the UCL 'Tanks' (our fond nickname for them) on Wednesday October 16.

The Bristol match on Sunday was something to be proud of; we were down in the first half 14-4, but came back in the second half to draw 14-14. Star players on Sunday included Nathalie (Speedy—Gonzales) Laidler, who got the ball within inches of a try every time; Vickie (Cave Woman) Williams—who intimidated everyone on the opposition; and our own Anne (Pisso) Parsons, who scored Try upon try.

The match on Wednesday, sadly, was not quite such a victory; we lost to UCL 16-0, we didn't play badly—all their tries were scored in the first half: By the second half we were finished warming up and a angry enough to give them a **real** run for their money. (The Captain of UCL is really nice).

Anyway—remember Virgins—practices Tuesdays and Thursdays at 12.45pm in Beit Quad. Watch the notice board outside the Union for details on up coming matches.

Sunday 13 Clifton  
J Kleinot, E Parry, A Parsons, J Lewis, C Chisnell, J Pierce, L Dutton, V Williams, S Dailey, N Landle, G Shipps, A Cole.

# SPORTS

## Football

### Wednesday ULU League

IC	2nds	0	Guys	1sts	2
UCH	1sts	7	IC	3rds	2
IC	4ths	4	UC	4ths	0
IC	5ths	0	UC	5ths	3
IC	6ths	0	Marys	2nds	3
RSM	1sts	7	KQC	3rds	1

### Saturday

#### ULU Challenge Cup - Preliminary Round

IC	2nds	0	Goldsmiths	2nds	1
UC	3rds	2	IC	3rds	1
IC	4ths	4	Guys	2nd	1
UC	6ths	2	IC	5ths	1
RSM	1sts	5	Westfield		0

## Rugby

### Wednesday

IC	1sts	31	Goldsmiths		0
IC	2nds	38	Goldsmiths		0
C&G		6	Airports		31

### Saturday

IC	1sts	16	St Thomas'		8
IC	2nd	4	St Thomas'		27

## Hockey

### Wednesday

Male			St Mary's		0
IC	1sts	3			

### Ladies

IC		5	Barts	2nds	0
----	--	---	-------	------	---

### Saturday

Male			O. Isleworth'		0
IC	1sts	1	O. Creightonians		3
IC	3rds	2			

### Mixed

IC		6	Guys		1
----	--	---	------	--	---

## Badminton

### Wednesday

Male			QMC		2
IC	3rds	7			

### Saturday

Male			St Marys		4
IC	3rds	5			

### Female

IC		4	LSE		0
----	--	---	-----	--	---

## Rugby

### IC 2-Middlesex/UCH 9

Continuing their successful start to the season, the first recorded another memorable victory on Saturday against a well-drilled hospital side.

After five minutes IC had already stamped their authority on the game. From a sets scrum the ball was spun wide and Nick scored under the posts, with Mike adding the conversion. UCH and the ref dragged themselves back into the games with 2 dubious penalties just before half-time.

After the turn-round the pack, aided by extra stability from 'Cruture' Denkins in the front row, scored a pushover try which was then converted.

In the dying minutes of the game, UCH were given a final consolation penalty from their fairy godmother the ref.

Scorers: Tries Nick, Steve. Conversion, 2.

## Hockey

### Guys 1 - IC mixed 6

The day started with John Spence introducing himself to our new recruit from the IF with the words 'You must be Rebecca, I'm your captain'. Instantly hypnotised, Spence (not for the first time) proceeded to lose himself on the Circle Line and ended up running from Bank to London Bridge. Having arrived on time we decided to play an 8-a-side game, the dregs from the first team arrived in Jon Stonham's car fresh from actually winning in the morning. We set about about the formality of knocking the goals in-a task performed with consummate ease by Dave Whitton who scored 4 times. Other goals came from Jim Ward and Chris Harrison. Another noteworthy performance came from Rolf, our keeper, dribbling up the wing.

## IC 3rds 2-Old

### Creightonians 2nds 3

Richard Ellis, our new captain, started as he means to go on by losing his first game even though he blamed it on poor umpiring.

IC got off to a typically bad start by giving away a penalty flick which gave the opposition a quick lead which they then consolidated with another goal just a couple of minutes later.

However this galvanised the team into action and we were rewarded with two quick goals shortly before halftime, one from a penalty flick neatly slotted away by Per and the other scored by Chris Harrison putting his golfing skills to good use on a short corner.

In the second half fitness began to tell and eventually the OCs scored a hotly contested goal. All in all it was a good performance for only our second game and we have some budding superstars emerging.

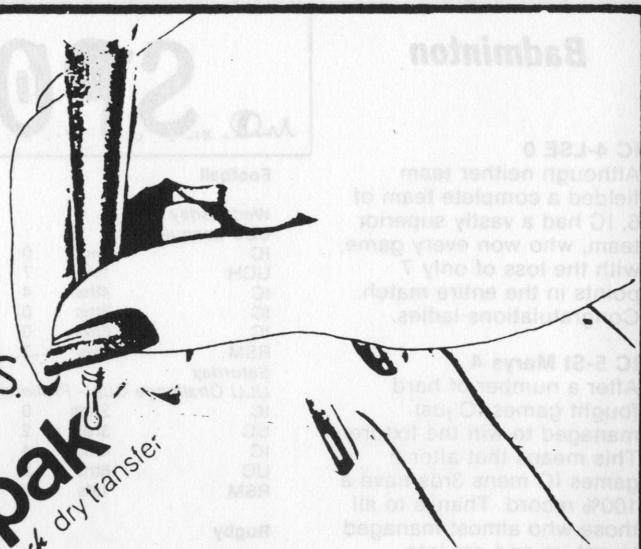
### Old Isleworth 0-IC 1sts 1

Our first game in this year's Middlesex Cup started promptly at 11am despite the attempts of the opposition to win through default by giving us the wrong directions. Although our opposition were a division below us it became obvious that this game was not going to be a walkover. The first half saw both sides in difficulty on what can only be described as a bumpy pitch. Both teams were able to get the ball into their opponents D but, whereas their attacks were coming to grief on a very tight defence, our attacks were proving rather more successful with their goalkeeper proving to be our main obstacle. The first half also saw us reduced to ten men with Brendan forced to leave the pitch with what proved to be a fractured hand. However, rapid reorganisation allowed us to continue with a clear advantage. The second half was far more one sided with very few of their attacks entering our 25. The forward line of Justin, Paul and Nigel were obviously too good for their defence and it was therefore no surprise, although it was a great relief, when Nigel slotted a reverse stick shot under an advancing 'keeper to give us a deserved lead. Overall a good team performance with a score-line that does not reflect how well the opposition keeper was playing. (Thanks to Jim for umpiring).

We are also stockists of:  
 Rotring, Staedtler, Pentel,  
 Swann-Stabilo, Chartwell &  
 many other fine art, graphic,  
 and technical drawing materials.

**10% Student Discount** on  
 production of NUS cards. (Not applicable to  
 purchases less than £2.; discounted/  
 special offer items.)

**chartpak**  
*Velvet Touch dry transfer*



**Back to school offers:**

- Rotring College set     £16.99
- Staedtler College set   £16.60
- Ecobra Compasses     20% off

**Lamley**

The South Kensington  
 Graphic Shop

1, 3, 5, Exhibition Road, London S.W 7  
 Tel: 01-589-1276

# Your Future in Instrument Design

Datron Instruments Ltd is setting the pace in the design of high technology test instruments — these currently include Digital Multimeters, Calibrators and Data Loggers.

To maintain our technical leadership we require graduates who can combine flair and innovation with aptitude for design in any of the following disciplines:

- Analogue** — advanced circuit designs in the frequency range DC to 1MHz.
- Digital** — system design using microprocessors, gate arrays and interface technology.
- Software** — real time measurement system management and interface handlers using both assembler and structured languages.

You will work within a highly skilled team on the development of new products incorporating imaginative measurement techniques and the latest technology. Training will be under

the guidance of a senior engineer, supplemented by specialist courses.

Datron offers an excellent working environment in a new, well equipped Engineering Research facility. This is augmented by an informal and friendly atmosphere. Based in ancient Norwich, close to both the coast and Norfolk Broads, the area offers excellent recreational facilities and low cost housing.

Your experience at Datron will give you an identity in a company which has an international reputation for quality and technical excellence. With current growth rates of 50% per annum there are opportunities for further career advancement.

Highly competitive salaries will be offered; other benefits include profit share, a transferable pension scheme and BUPA. Assistance with relocation is available.

Final years students are invited to apply. For further information please contact the Careers Advisory Service or meet us at the Careers Fair.



- ★ Leading in measurement technology
- ★ 50% growth in turnover
- ★ Plants in Norwich and Florida
- ★ Technology Award Winners
- ★ Full air conditioned laboratory
- ★ Ambitious R & D Programmes
- ★ Attractively priced housing
- ★ Scope for career advancement

Datron Instruments Limited, Hurricane Way, Norwich, NR6 6JB

Union dining hall. All 800-  
 and... society chairman and  
 everyone else should be  
 lives to attend. This is the  
 Gulls' General Committee  
 which is responsible for the  
 organization and running of  
 the Union. So make any  
 views, opinions and  
 suggestions known to your  
 representatives before the  
 - This week there will be  
 the opportunity to get  
 tickets for Brighton on  
 Sunday 7 November. This  
 is a superb day watching  
 '80' compete in the veteran  
 car race, and having a  
 excellent meal together and  
 a good day at the seaside.

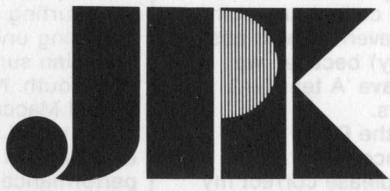


Not a member of Gulls

Windsurfing

Yes, look that bit of the  
 between Fitzzy and  
 saw the IC  
 thing club beach-  
 ng order a not  
 an in editorial  
 uth not even  
 30 knot bid  
 record  
 the IC WC's  
 one of the  
 greatest windsurfing races  
 of this century. A  
 beautifully laced display  
 of martial arts by Pete  
 Drummond-Smith and his  
 board, wiped out half the  
 opposition and gave IC an  
 excellent start. With shades  
 still in place Fitzzy, ex-  
 captain, cruised coolly into  
 first place. Pipe Allen, our  
 present captain was the  
 first lady to glide over the  
 line, and Pete swiftly  
 worked his way up the field  
 into fourth place. The world  
 speed record holder, Pete

J P KENNY



International Mark Scullion  
 who won  
 breaking  
 couldn't  
 for this  
 us (dearly) but  
 didn't have A  
 members.  
 Oats the  
 Resistance  
 piggy-back  
 spelling Ed) The 4 x 100m  
 relay (important because  
 imperial won it). Yes, that  
 highly tuned machine  
 complaint Roger,  
 Jonathan Gamin (Mining  
 I-willing to accept  
 sponsorship negotiation by  
 appointment he wanted a  
 mention). John and Ming  
 displayed their  
 neurosciences of socialist  
 training and despite  
 split-time changeover won

Atletics

The crack elite squad  
 ventured forth to Woburn  
 Park last Sunday in an  
 unsuccessful attempt to  
 annihilate the other London  
 Colleges at the Inter  
 Collegiate Winter  
 Flays-five enthusiastic  
 athletes turned up at the  
 store-mentioned event and  
 didn't win!  
 Also, the ladies did not  
 turn out-possibly due to  
 other commitments rather  
 than distance-and many  
 of our men were otherwise  
 employed but mental  
 nevertheless did well.  
 in the field, Jon Gamin  
 (dragged kicking and  
 growing from bed time  
 more than an hour earlier)  
 competed well in all the  
 events available for the  
 men (first 2nd's 98m  
 HJ 1.50m  
 Discus 2nd's 28m) as did  
 Ming Tan (HJ 1.51 80m)

Appalling  
 Changeover

**WANTED:** High grade graduates and post-graduates in civil, mechanical and materials engineering for design and engineering appointments in submarine pipelines and subsea systems for the international oil and gas industry.

**J P KENNY & PARTNERS LTD**  
 Burne House, 88-89 High Holborn, London WC1V 6LS  
 Telephone: 01-831 6644  
 4 Queen's Road, Aberdeen AB1 6YT  
 Telephone: (0224) 642525

UK Holland Norway Canada USA Australia

Athletics

**Appalling Changeover**

The crack elite squad ventured forth to Motspur Park last Sunday in an unsuccessful attempt to annihilate the other London Colleges at the Inter Collegiate Winter Relays—five enthusiastic athletes turned up at the afore-mentioned event and didn't win!

Alas, the ladies did not turn out—hopefully due to other commitments rather than disinterest—and many of our men were otherwise employed, but Imperial nevertheless did well.

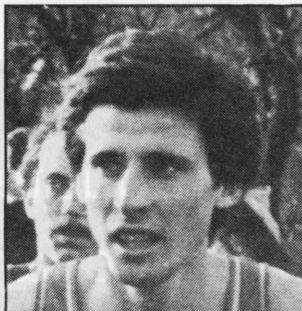
In the field, Jon Gamblin (dragged kicking and groaning from bed little more than an hour earlier) competed well in all the events available for the men (shot/2nd/9.99m HJ/6th/1.50m

Discus/2nd/26.26m) as did Ming Tan (HJ/3rd/1.60m), whilst Roger Lougney improved his personal best with each trial in Shot and Discus and the Athletics Sec proved once and for all that he couldn't High Jump.

On the track in the team 5000m our men did us proud with Mark Goldstone coming 5th (17.32.7min) and Jon Lea finishing a clear 3rd (16.01.3) behind Great Britain senior

international Mark Scrutton who won in 14.25.5, hardly breaking sweat!!! Alas we couldn't collect any points for this event (which cost us dearly) because we didn't have 'A team'—3 members.

Onto the Piece de Resistance (the biggy—please correct my spelling Ed!) The 4 x 100m relay (important because Imperial won it!). Yes, that highly tuned machine comprising Roger, Jonathan Gamblin (Mining 1—willing to accept sponsorship negotiation by appointment! He wanted a mention!), John and Ming displayed their nanoseconds of specialist training and, despite appalling changeover, won.



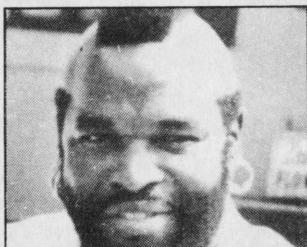
*Not a member of Athletics Club*

B2 Club

**Old Boys**

Bar Staff, ex bar staff, Footballer, Rugby player, ex IC scrumhalf, President, ex President or just in the bars on Saturday lunchtimes? All the above have played or are playing for the B2's but if you don't fit into any of the above categories, we'll make one up for you.

The B2's are a side composed of players whose standard depends on proximity to the ball, the pack and scrum half being good, the wings rubbish.



*Not a member of B2 club*

As many of us are 'old boys' the pathetic excuses of family matters often leave us with 'the best side that ever promised to turn up' not appearing.

So if you fancy being dragged from your bed at 1.45 on Saturdays for a good social game of rugby come and let any of the staff in Southside Bar know your address/phone no. No salesman will call.

Phoenix

The centenary issue of the Phoenix is currently in production. We need stories, poetry, art, photographs etc produced by IC students and staff.

The subject matter is entirely up to you. There is a £40 cash prize for the best submission. Deadline is as soon as possible and no later than the last week of this term.

Drop completed work in at the FELIX office or send to Julian Curtis Maths 3.

Windsurfing

**Bums**

Yes folks, that bit of the week between Friday and Monday saw the IC Windsurfing club beach-bumming under a hot Hawaiian sun in equatorial Weymouth. Not even Pascal Macca's 30 knot bid at the world speed record could match the IC WC's performance in one of the greatest windsurfing races of this century. A beautiful tactical display of martial arts, by Pete Drummond-Smith and his board, wiped out half the opposition and gave IC an excellent start. With shades still in place Franour, ex-captain, cruised coolly into first place. Pippa Allen, our present captain was the first lady to glide over the line, and Pete swifly worked his way up the field into fourth place. The world speed record holder, Fred Hayward, and the delightful Jenna de-Rosnay were nowhere to be seen.

With wine flowing and the guitar playing into the early hours, the IC Windsurfers hit the beach to warm up after a cool day's windsurfing. This is what the kids want.

Guilds

**100%**

The past three weeks have seen all the departmental buffets come and go. These have generally been a tremendous success with the majority of undergraduates in all years attending. Entertainment was provided during the sherry reception by guests from the RCM and a friendly RCS Jazz pianist. Thanks to everyone who had a part to play.

Monopoly Rag was not very well supported numerically but those who came put 100 per cent effort into tearing around London after different clues, having a lot of fun and raising a large amount of money for Mencap. Thank you!

It has been encouraging to see the number of people who have stood for social and academic representatives. Come and give your name to the office so that we know how to get in touch with you. The first main meeting is Tuesday 6.15pm in the

Union dining hall. All Soc-reps, society chairman and everyone else should be there to attend. This is the Guilds General Committee which is responsible for the organisation and running of the Union. So make any views, opinions and suggestions known to your representatives beforehand.

This week there will be the opportunity to get tickets for Brighton on Sunday 3 November. This is a superb day watching 'Bo' compete in the veteran car race, and having a excellent meal together and a good day at the seaside.

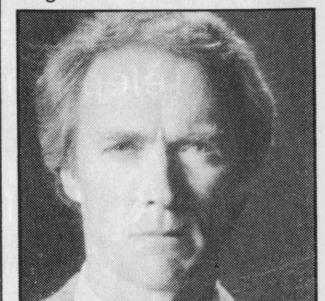


*Not a member of Guilds*

Netball

**New Members**

Netball is an up and coming sport and the club at Imperial is no exception. From modest beginnings only three years ago the club now has a team in both the first and second divisions of the London University League. One team has also been entered for the University Athletics Union competition. The club meets every Tuesday and Thursday on the Tennis courts by Linstead Hall where, after warming-up, a game is usually played. The club invites players of all standards to come along to these practices at 1pm and to consider joining this club. Matches against other teams are played on Wednesdays and Saturdays. For those interested contact Captain Debbie Charlett Aero 2, Secretary Viv Draper Chem Eng 4.



*Not a member of Netball Club*

Audio

**Sounds  
Around**

The Audio Society (and Record Club) serves two purposes:-

1 Through the club you will have access to trade prices on records, cassettes, compact discs and videos. Cheap, cheap, cheap! Order them on Tuesdays and collect them on Thursdays (Dead Convenient innit?) That's quick, quick, quick! And there's no problem returning that undesirable scratched mix of Mozart, or the record with warp factor 5!

2 On Tuesday nights we meet to discuss and listen to Hi Fi of all types with appearances by well known manufacturers demonstrating their wares and letting us in on some of their design secrets. We hope members will be attracted by our helpfulness and open-mindedness. We aim to

**Unoriginal  
Article**

Rampant schizophrenia strikes again!

*Chairman:* It's time to write another FELIX article.

*Author:* Christ not another one! I'm beginning to run out of ideas. Is there anything I can actually tell them, instead of just inventing some spontaneous bullshit?

*Chairman:* As it happens, science has pulled their finger out and actually arranged something.

*Author:* (with baited breath) Well, what is it?

*Chairman:* Okay. On October 29 we'll be

help students who want to buy Hi Fi of any description, from Amstrad to Zeta, in two ways; by offering advice on choice of products and by finding the cheapest place to buy it. Membership entitles you to substantial DISCOUNTS at several of the country's leading Hi Fi shops.

SFSoc

showing Mad Max 3, Beyond Thundercome. Then, on November 12 we've got hold of Terminator, starring Arnold Schwarzenegger. *Author:* Yea, I've seen it. They're both good. *Chairman:* Well, apart from our library meetings on Thursday that's all that's

happening for now.

*Author:* Well it gives me something to work on.

*Chairman:* Got any ideas yet?

*Author:* Well, maybe. We could have this discussion between you and me over what to write.

*Chairman:* Well, stupid It'll never work.

**Princess  
Ida**

Opsoc

Once again this year, Opsoc are producing a Gilbert and Sullivan megawork for your delight. This year it is to be **Princess Ida**, not particularly well known, but containing some of the best music of the fourteen operas. Rehearsals are now underway every Tuesday evening in the Music Room, 53, Prince's Gate at 7.30—please do come along for a sing even if you do not think you are going to like it...

**The Auditions.** As usual, the principal rôles are

allocated by auditions, which will be held on Sunday 3rd November starting at 2.00pm in the Music Room. The Auditions are 'open', so please feel free to come along, even if you aren't planning to have a go/embarass yourself. (**Remember** there are no auditions for the Chorus. There will be a play through of the audition pieces on Tuesday, and a complete list can be found in the newsletter (vol 2 issue 2) available from the Opsoc Room. Hope to see you there.

**'OPPORTUNITIES IN  
THE OIL INDUSTRY'**



Presentation by Mr P Everett

Managing Director Shell UK  
Exploration and Production

6.00pm Tuesday, 5th November,  
1985

Senior Common Room  
Sherfield Building

All are welcome and  
refreshments will be provided.

**Pilkington—Electro-Optical  
Division  
Barr & Stroud Ltd  
Pilkington PE**

Visit our stand at the Imperial College Careers Fair on 30 October 1985. There, Hugh Bowman and John Lamb will be pleased to tell you about careers in design, development and manufacture of Electro-Optical instruments and systems.

The Division's products include lasers for military, medical and other scientific applications, infra-red and other night vision systems, head up displays for pilots, submarine periscopes and fire control systems for armoured fighting vehicles. We produce unique exotic materials for infra-red optics, fibre optics, microwave devices, integrated optics and specialised thin optical films.

Our two biggest sights are Barr & Stroud, with over 2300 employees in Scotland, and Pilkington PE with 700 people in Wales.

We are recruiting graduates in Electronics, Physics, Applied Optics, Materials Science, Mechanical and Production Engineering.

Mari Wilson's second appearance at the Bass Clef this Tuesday, continues her fortnightly residency at Peter Ind's successful international jazz-venue, now in its second year, with an encapsulating collection of love-songs arranged and performed by the D.K.B. quartet.

They gave a superb performance. The quartet were a superbly talented and unobtrusive counterpart to Miss Wilson's singing, performing a wide range of 40's and 50's dance tunes and uptempo minor ballads. At times Miss Wilson appeared a little uneasy, as if looking for a stool, but, borne up by Stuart Curtis' liberated sax, the set never once lost its concentration or its vitality.

This is no comeback for Miss Wilson however.



The Caucasian Chalk Circle is subtitled 'a fable in which everyone gets what they deserve', which is true enough. This amiable tale tells of what happens to rich and poor in a time of political and military upheaval in a fictitious but vaguely biblical time and place. As one expects in a self respecting modern play the rich are portrayed as unpleasant people who spend their time doing unpleasant things. Sure enough the particularly obnoxious wife of the chief governor leaves her baby behind when the royal palace is attacked in her hurry to save her favourite dresses. The poor child, who we are pleased to learn has not the time to be tainted by wealth, is discovered by a kitchen maid, and she brings it up and cares for it in the best way her meagre resources will allow. This causes problems when the war

# Mari me.

## John Burgess talks to Mari Wilson

Indeed, as she was quick to point out, Mari Wilson has never been away. Those heady days with The Wilsations, (formerly *The Imaginations* until a certain funk band told them otherwise) earned her a recording contract with the *Compact Organisation*, two well placed chart successes and the dismal legend of 'Miss Beehive; Queen Of Neasden.'

Thankfully, however, much of this is now history. The beehive has gone. Her amicable split with Compact Records, with

whom she went hand-in-hand during their early years, was brought about in order to escape the stylish, though hardly substantial stance that they have adopted. There is a possibility of a move to *London* records, but this hasn't been confirmed at all. Neither does there appear to be any hurry.

Perhaps Mari Wilson hopes to find fame and fortune without the compromise and pressure of success that recording compaines demand. There is no doubt that her

smooth, controlled but wonderfully flexible voice outstrips the efforts of today's chart-based prima-donnas. She is in no great hurry for a hit, unless it happens by accident of course. Indeed the relaxed atmosphere of the London clubs has allowed her to strengthen her style and technique to a far greater degree than, say, Sade and her previous contemporaries.

Of becoming a new blues legend? Certainly there aren't enough. The jazz scene is besotted at present with be-bop's old lags and sidekicks, now pushed into the limelight for want of anyone better. There's no money in talent, it appears; the real action happens in the sidelines. And, if necessary, that's just where Miss Wilson is happy to stay.

# Reviews

ends. However, as befits a fable in which everyone gets what they deserve, the play ends with the poor people happy and the rich less so.

In this production the Oxford Playhouse company excell. All the action is polished yet fresh, especially that of Sylvester McCly, who plays the part of Azdak, a beggar-come

may take to be deliberate. There's lots of music too. The program says there are 47 original songs, though I counted them not. It is played on ethnic instruments, and adds a nice feel to the evening.

The murder of Father Jerzy Popieluszko and later arrest and trial of four secret

crosses himself and leaves the stage. What follows are what I took to be fairly accurate court proceedings with an explanatory narrative from the priest's driver.

The play cannot really be described as entertaining, the style is much more that of a documentary. It was obviously of great significance to the large Polish contingent in the audience especially as it's being performed on the anniversary of the events it describes, but to me it seemed flat and lifeless. There are good performances, Stuart Wilson deserves a special mention, but a good cast was given little to exercise their skills. Go along if you're very interested in Poland, otherwise wait till it reaches Channel 4.

## Tales and testaments.

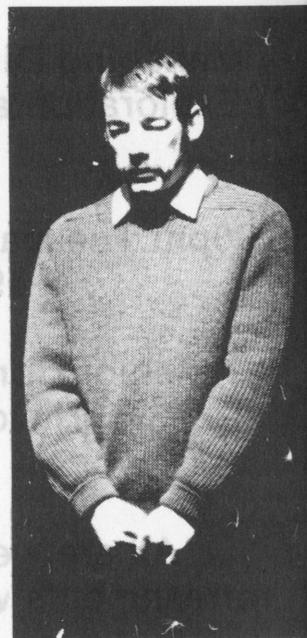
**Grenville Manuel at the Young Vic.**  
**Nigel Atkinson on *The Deliberate Death Of A Polish Priest*.**

judge who dispenses social justice and spiky wit with equal ease. The theatre is ideally suited for the play's system, played 'in the round'. Unfortunately the bench sets the audience sit on are 'in the flat', and could not be described as user friendly. My bum hurts.

In order to mark out the rich the actors playing them walked on four foot stilts; this really worked very well. The actors sail gracefully about the stage, looking only slightly ridiculous; an effect they

policeman rocked Poland last year. Ronald Harwood's new play at the Almeida is set at the trial and through the courtroom proceedings he describes the kidnap and murder of the priest and the attempted cover-up by the police.

The play opens with the priest alone in his pulpit delivering his closing address. As he finished the stage lights are brought up to show the courtroom as the prosecutor details the charges. When the murder charge is read the priest



# The Rising Keane.

**The Rising Tide and Good Behaviour**  
*M J Farrell (a.k.a. Molly Keane)*

Both these books concern the privileged Anglo-Irish landowning class—particularly the women therein. A dazzling life of balls, coming-out parties, hunting and dress allowances is contrasted with the miserable lives the Bright Young Things usually led as children. Hence these satires are pretty bleak; Molly was wreaking vengeance for all the indignities she and her friends must have suffered as adolescents.

The opening to 'Good Behaviour' is bizarre: the central character, Aroon St Charles, kills her invalid mother who has a phobia about eating rabbit by force feeding her with a mouse of baby coney. The book then traces Aroon's childhood; starting at the tender years, when her mad governess who had a crush on Mr St Charles, committed suicide - first

telling Aroon how terrible sex was. Next came the First World War that robbed Ireland of its remaining young men and left Aroon's father with only one leg, then Aroon's affair with Richard, her homosexual

brother's best 'friend,'—who spent half an hour in bed with her and *even* kissed her!

Eventually death duties, taxes, and falling revenues drove the St Charles Family into petty cutbacks and

economies, all the while refusing to consciously acknowledge they are getting any poorer. The whole book brilliantly displays Aroon's self delusions, until you can wonder how anyone is that foolish—but perhaps the answer lies in the title of the book. *Good Behaviour* is published by Abacus and costs £2.95.

*The Rising Tide* contains far less humour and without that light touch the main characters seem even more dismal and depressed. Two Queen Bitches, the dowager lady and her daughter-in-law, fight it out for the control of the hearts and minds of those around them. One is left wondering if all the Irish aristocracy are mad, bad or emotionally downtrodden. There is no happy ending: youth makes the same mistakes that its grandparents did, and the ghosts of sad childhoods blight the lives of middle aged couples. A good book in its own way, which subtly informs its reader that middle-aged women have libidos too. Published by Virago, costing £3.95, both these books are stocked by Waterstones in the High St. Ken. *Sarah Kirk.*



On the doorstep of Imperial College itself is one of the finest landscape photography exhibitions of the year, taking place at the Serpentine Gallery in Kensington Gardens. The exhibition is a retrospective of the last ten years of Fay Godwin's work, entitled simply, *Land*: stark, desolate landscapes, always on the edge of habitation. There is always evidence of humans having lived in her scenes of Scotland and Wales—the megaliths arrayed atop moors and the deserted cottages tucked into the crooks of valleys. Should an animal even wander into her pinsharp focus, they are frozen as if they are statues, forever a part of the scenery. Clouds form an integral part of the composition singled out with polarising filters and fixed in time. All these components might have made her photographs lifeless and shallow; but an innate knowledge of both subject and techniques avoids this problem. The pictures evoke the atmosphere and form a true portrait of each scene.

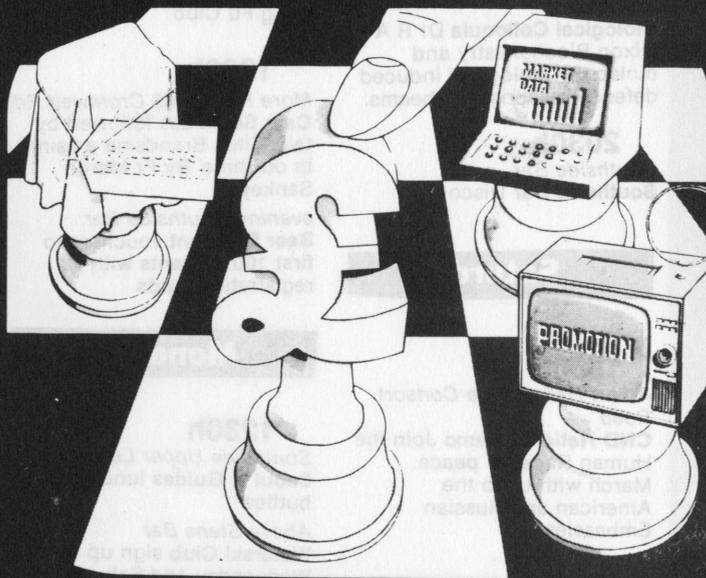
# Within 3 years a £50 million business could depend upon your next move

**COME ON THE PROCTER & GAMBLE MARKETING COURSE AND DISCOVER THE EXCITING WORLD OF CONSUMER MARKETING**

*Procter & Gamble are widely regarded as one of the inventors of modern marketing. One of P&G's major contributions has been to create the role of Brand Manager - the person responsible for managing the marketing of a major household brand. Within 3 years with P&G a graduate could become a Brand Manager managing a business worth as much as £50 million.*

*To give you a chance to find out more about this exciting and challenging career P&G will be running a Marketing Course from December 15-19 1985 at the P&G Head Office in Newcastle upon Tyne. The course which is free will cover all the major areas of the Brand Manager's responsibility [including advertising, consumer promotions, finance and media] and there will be every opportunity to try some moves of your own.*

*For an application form ask at your Careers Service or write to Paul Rogers, Procter & Gamble Limited, Newcastle upon Tyne NE99 [telephone 091 279 2365].*



*Closing date for applications is November 9th 1985.*



# What's On



## Today

### 1230h

*Green Committee Room*  
**External Affairs Committee** discussion on GUC—subjects include South Africa and Women's rights. All welcome.

### 1245h

*Union Lower Lounge*  
**Rag Committee Meeting** all welcome.  
*Volleyball Court*  
**Basketball** shooting practice. For all players; to teach beginners how to shoot, and help more experienced players improve their shooting.

### 1300h

*JCR*  
**ICCND Bookshop** Buy your posters badges and cards. 10% discount to members.

*9 Princes Gardens*  
**Islamic Society** congregational prayer.

*Beit Gym*  
**Keep Fit** Please bring suitable clothing and jogging shoes.

### 1400h

*Biology Basement Lecture Theatre*  
**Biological Colloquia** Dr R A Dixon Biochemistry and molecular biology of induced defence responses in beams.

### 2030h

*Southside Bar*  
**Southside Bar** Disco

## Saturday

### 1030h

*Albert Hall, Prince Consort Road*  
**CND National Demo** Join the Human Race for peace. March with us to the American and Russian Embassies.

### 1200h

*The Log Cabin*  
**Acton Playgroup** help look after Handicapped children, contact Palul Kapusta Physics 2.

*9 Princes Gardens*  
**Islamic Society Noon prayers.**

### 2000h

*Holland Club*  
**Guilds Participatory party.** A superb mid term celebration. Guests especially welcome from other colleges.

*Lounge*  
**Rain Parade** and Jazz Butchers £2.50 (£1.50 with Ents card)



## Sunday

### 1130h

*More House, 53 Cromwell Road*  
**Catholic Soc** Mass all welcome for reflection and worship.

### 1300h

*Senior Common Room*  
**Wargames Meeting.** 10 - 15% discount available on games. Membership £1.50.

*9 Princes Gdns*  
**Islamic Society** congregational prayer.

### 1630h

*Union Gym*  
**Wu Shu Kwan** Kick the boring Sunday habit, literally! Learn to look after yourself and enjoy fitness with IC Kung Fu Club

### 1800h

*More House, 53 Cromwell Rd*  
**Cath Soc** Mass followed by talk 'Titus Brandsma a saint in our time' By Fr Maritr Sankey.

*evening Southside Bar*  
**Beer Discount** vouchers to first 100 students with registration cards

## Monday

### 1230h

*Southside Upper Lounge*  
**Scout & Guides** lunchtime butties.

*Above Stans Bar*  
**Waterski Club** sign up for Wednesday and Saturday Skiing trips.

*Union Upper Lounge*  
**Artsoc meeting** discussion on future events bring your own ideas tea, coffee and biscuits provided.

### 1300h

*9 Princes Gardens*  
**Islamic Society** congregational prayer.

*Beit Gym*  
**Keep Fit** Please bring suitable clothing and jogging shoes.

### 1730h

*Volley ball Court*  
**Basketball training** for first and second team players.

### 1745h

*Great Hall*  
**IC Wind Band** Rehearsal  
*Southside Gym*  
**Imperial Workout.** Wear something comfortable, and bring training shoes. Exercise mat is also useful. 50p per lesson, £1 membership.

### 1830h

*Union Dining Hall*  
**Guilds General Committee.** All Social repres Dep reps and lots of important people should attend bring queries, problems suggestions etc.

### 1930h

*Physics Lt 1*  
**H G Wells Soc** 'Escape from Colditz' Patrick Reid MBE gives an absorbing account of the many escapes from Colditz including his own.

*Great Hall*  
**IC Badminton Night.** Everyone welcome.

### 2000h

*Junior Common Room*  
**Beginners Dancing Class**

## Tuesday

### 1230h

*Southside Upper Lounge*  
**Scout & Guides** lunchtime butties.

*Chem Eng 231*  
**Catholic Society** Mass, lunch and people. Quiet after Quantum theory, transisters etc. Everyone welcome.

*Union Upper Lounge*  
**Audio Society** buy your discount records, order today, collect Thursday.

### 1240h

*EE 403*  
**TW 1,** Simulation game. A short film and simulation game on the problems of developing and find out their problems.

*LT1, Chem Eng*  
**Artsoc Presentation** Talk and video about the Royal Festival Hall. All welcome.

### 1400h

*TBA*  
**Ex-services CND** a veteran of World War Two talks about his experiences and beliefs on War and Nuclear Weapons, launching the sale of the white peace poppies.

*Southside Lounge*  
**Boardsailing Club.** Regular meeting to organise Wed afternoon trips. Membership £4.

### 1300h

*Southside Bar*  
**QT Soc** Annual Breakfast organisation. All members please!

*9 Princes Gardens*  
**Islamic Society** congregational prayer.

### 1330h

*LT 213 Huxley*  
**Scientific Civil Service** By Dr J F Barry

### 1430h

*Holland Club*  
**Postgraduate Informal** Gathering

### 1730h

*Brown Committee Room*  
**Amnesty International** Meeting.

*Southside Gym*  
**Imperial Workout.** Wear something comfortable, and bring training shoes. Exercise mat is also useful. 50p per lesson, £1 membership.

### 1800h

*Union SCR*  
**Wine Tasting Society** Bulgarian wines are of a very high quality and excellent value. £1.50 or £2.50 non-members.

### 1830h

*Union Gym*  
**Judo Coaching Session.** Instruction from BJA resident and guest instructors. All welcome, especially beginners. 60p mat fee.

*ME 220*  
**SF Soc** present Mel Gibbin in the second and best, Mad Max film 50p.

### 1900h

*Room 3A ULU Building Malet ST*

**Christian Science Lecture** God can be a reality to you. All welcome.

*Junior Common Room*  
**Dancing Club** Intermediate

**1930h**

Music Room 53, Princes Gate  
**Oposc Rehearsal** meet in  
Southside Bar before hand  
for refreshment.

**2000h**

Junior Common Room  
**Beginners Dancing Class**

**Wednesday**

**1230h**

Southside Upper Lounge  
**Scout & Guides** lunchtime  
butties.

**1300h**

SCR  
**Wargames Meeting** 10-15%  
Disc on games £1.50

9 Princes Gardens  
**Islamic Society**  
congregational prayer.  
Above Southside Shop  
**Micro Club.** All members  
have all access to our  
computers and word  
processing facilities  
membership £2.

Beit Gym  
**Keep Fit** Please bring  
suitable clothing and jogging  
shoes.

**1315h**

9 Prince's Gardens (base-  
ment)  
**Islamic teachings** course  
series D: Muslim Beliefs.

**1400h**

Mech Eng Foyer  
**Make Kids Toys** for  
handicapped children

**1900h**

Junior Common Room  
**Advanced Dancing Class**

**2000h**

Junior Common Room  
**Medals Dancing Class**  
Lounge  
**Inner City Unit** featuring Nik  
Turner of Hawkwind. £2.50  
(£1.50 wih Ents Card)

**Thursday**

**1230h**

Union Upper Lounge  
**Audio Society**  
Southside Upper Lounge  
**Scout & Guides** lunchtime  
butties.

**1245h**

JCR Sherfield  
**North American Stall**  
Information on BUNAC work  
and play in US this summer.

**1300h**

Civ Eng  
**Talk** by Mr Lumbers of IC  
Dept of Civ Eng

Tennis Courts next to  
Linstead  
**Netball club** practice, new  
members welcome.

Southside Upper Lounge  
**Balloon Club** meeting.

Upper Lounge Southside  
**Riding Club** meeting.

Southside upper Lounge  
**Balloon club** meeting.

9 Princes Gardens  
**Islamic Society**  
congregational prayer.

Green Committee Room-Top  
floor of Union building  
**SFSoc Library meeting.**

Access to the SFSoc library  
of over 1000 titles, plus  
discussion and organisation  
of future events.

**1330h**

9 Prince's Gardens  
**Quranic Recitation**  
Lt 213 Huxley  
**Finance 2** Insurance by Dr D  
Herbert.

**1730h**

Aero 254  
**Gliding Club Meeting.**  
Arranging lifts to Lasham,  
videos & films.

**1745h**

Mech Eng 342  
**Imperial College Choir.**  
Rehearsal.

**1800h**

Southside Gym  
**Imperial Workout.** Wear  
something comfortable, and  
bring training shoes.  
Exercise mat is also useful.  
50p per lesson, £1  
membership.

Bot Zoo Common Room  
**Christian Union Meeting**

Evening  
Southside Bar  
**Halloween Party**—Fancy  
Dress

**1830h**

Union Gym  
**Judo Coaching Session.**  
Instruction from BJA resident  
and guest instructors. All  
welcome, especially  
beginners. 60p mat fee.

**1930h**

Volley ball Court  
**Basketball training** for  
beginners.

**2115h**

Weeks Hall  
**ICCAg Soup Run,** tea, soup  
and meeting London's down  
and outs.

**CAREERS IN ICI**

This year ICI is looking to recruit up to 100 Science and Engineering Graduates for a wide range of opportunities. ICI is at the forefront of the world chemical industry, producing a broad spectrum of products from bulk chemicals to highly specialised products for the electronics industry. The nature of ICI's business means that the Company requires highly motivated graduates with a wide range of technical, commercial and managerial abilities

**REPRESENTATIVES FROM ICI WILL BE AT THE INDUSTRIAL SOCIETY CAREERS FAIR  
IN THE SHERFIELD BUILDING ON 31st OCTOBER 1985 WITH INFORMATION ON THE  
OPPORTUNITIES AVAILABLE**





Firstly, thanks for all who have written, especially the following:

In the poetry section, although not strictly rhyming, I was impressed with David Neasham's (LS2) Entry, and £10 is ready to be collected from the FELIX Office. It is untitled, so make of it as you will.

And it was dark.  
No breath of wind,  
No shiver of branch.  
There stood silence.

There comes a cry  
Soaked with fear  
For the wind that carries the way;  
The arms which hold your bones to walk.

Such pain was not seen  
In the place where the echoes last.  
That agonising symphony  
Ceaseless to be.

The pit of all.  
For whom shall take my feet  
from its mouth?  
Look!  
There stands the light.

David Neasham  
Life Science 2

On the song front, here is the promised 'The MacDonalds Massacre', by Ker Buckley (Remember the events of August 1984?)

13 Aug 1984 *The Mac Donald Massacre*

*If you go to MacDonalds  
You're best off not to frown  
'Cos if yo Do  
Our Loony crew  
Will come and mow you  
down*

*There's flicknives for the  
young ones  
Theres pistols for the old  
And out the back A maniac  
Will fill you full of holes  
It's the buckshot at  
MacDonalds you'll enjoy*

*And once you make the  
pavement  
If you should get that far  
You'd better run  
or another one  
Will hit you with a car*

*We're always eating fast food  
We eat until we burst  
There's Chinese  
And Tandooris  
MacDonalds's are the worst*

*It's the puke after Mac  
Donalds you'll enjoy*

'The Ballad of Big John Parkes', alas, has to wait for another time. Thanks also to Martin S Taylor for his Song. Unfortunately I can't read music, but it was lyrically excellent. How about 'The Phoenix' Martin?

Among a selection of limerics sent in were these by Alan Rose.

*The Man who became IC  
President,  
Applied to become a hall  
resident.  
But he pissed on the floors.  
And he smashed up the  
doors.  
So the warden of Linstead  
was hesitant.*

*There is a young fellow  
called Hugh,  
Who produced a FELIX for  
you.  
But I have to confide  
That there's little inside  
That is relevant, useful or  
true.*

*The Hon Sec that people call  
Q,  
Is much more attractive than  
you,  
That's why Lusty Liz,  
Thought that he was the biz  
Ask Kingston, he'll tell you  
it's true.*

Finally, some more cockney Rhyming slang, from a West Londoner, Roy Adams! From a long list, here are a few more common ones which I forgot and which you might hear—

Clothes pegs—legs  
Almond Rocks—socks  
Peckham Rye—tie  
Porky Pie—lie  
Jam Jar—car  
Toe Rag—fag

Also some 'College based' ones—How about—

Governing Body—hot toddy  
College Deans—ways and means  
Silwood Park—bit of a lark  
Under Grad—not too bad  
Post Grad—never sad  
Sports Ground—lost and found  
Refectory meals—jellied eels  
Union Bar—near and far  
Micro-computer—Pea Shooter.

There's a few pints for Alan, Kev and Roy waiting in the Holland club when they're next in. Who knows, it may make them feel like writing more!

Small Ads

Announcements

●Do you have a child between 18 months and four years? Do you need someone to look after your child while you are at college? Have you considered using the college Day Nursery? The nursery is at 8 Princes Gardens and is open from 9.15am until 5.45pm, five days per week, both during the term and the vacations. The charges are £163 per month, but financial help is available for those with financial problems. Contact Sue Thornett at the Nursery on 3356.

●Southside Bar Events: Friday 25 Oct: Disco—admission free. Sun 27 Oct: Beer discount vouchers for first 100 students with registration cards. Thurs 31 Oct: Hallowe'en Party—Fancy dress. Prizes. Live music from Important Notices.

●Results of Spot the Cockroach competition held at Freshers Fair First Prize: two years free subscription to FELIX, Roger Serpell (Aero). Second Prize: Case of wine, Ian Morris (Beit Hall). Third Prize: Pint of beer per day for one month Ian Chapman (Elec Eng). Fourth Prize: One bottle sparkling wine, Sarah Holmes-Woodhead (6 Arlington Gardens, Chiswick). Prizes can be collected from Mr Northey, Level 1, Sherfield.

●Artsoc: Audio Visual Presentation. A superb talk about the Royal Festival Hall, accompanied by an exciting video. Everyone welcome LT1 Chem Eng Dept 12.40pm Tuesday 29 October.

●The Opsoc Auditions Big Dick (The Musical Director) and Little Willy (the Producer) would like to know if you have it in you: will you disappoint them, will you measure up? All will be revealed at the Audition on Nov 3 in the Music Room.

●Keep Doctors' freedom—No to Limited lists!—B2 Group.

●For your health's sake, oppose parallel importing.—B2 Group

●The keep Fit Club now have an Imperial Workout on Thursday at 6pm in Southside Gym.

●Subwarden required for Mining House. Apply in writing (with internal Tel Ext). To David Miller (Warden) 53 Evelyn Gardens SW7. Closing date 25 October 1985.

●Parking Permits The final list is on the door to the IC Union Office. Please pick them up immediately as security will not be allowing entry to college unless a permit is displayed, with effect from Monday 28 October. There are no more permits.

●Party with a difference meet new people, come on the Soup Run. Free tea. Thursday 9.15 Basement Weeks Hall. Further Details M Alderton EE3.

●Here's a turn-up for the books. IC Social Democrats having speakers on Politics? Whatever next?

●Party? Hire the disco that delivers the goods. Clear sound Power, over 2KW (if you can handle that!). Good lights, Good rates for IC students. HC Beier EE3 or 352 5258.

●Indulgences. Due to SCC Cuts, Cathsoc seeks new funds. Indulgences may be bought from the Papist in Elec Eng 3.

●Thurstik? Kum Tov Dak Tistink Dvi Vigni Ok Bulgaria. Vim Soksietik Ok Vigni Tueday 6 Ig Evenink Platz uzual (LCR) £1.50 (Comrads) £2.50 (Odderz).

●Ed and the Captain wish to thank everyone at IC Radio, RGSU, FELIX, Tony the printer, and everyone on the dance-floor for funkin it up. We're still tingling.

Accommodation  
●Two males UG Double Room required to share Hamlet Gardens flat with five mixed. Phone 748 3184 (Flat 211) or K Bonnick or J Keer Geology 2 via letter racks.

●Room for two to share in penthouse flat for eight, Lexham Gdns. Nice Lounge etc. Apply Jeremy Green room 217 Biochem

●Dissatisfied with abode? Luxury flat newly decorated fully furnished suit three females one double/living room, one single Bathroom 'n' toilet. Large kitchen/dining: Norbury 45 mins from IC by LT. £99 pw total incl Elec. Contact Mark Masento Rm 103 Biochem Int 4114.

Lost

●One grey leather jacket—Left in white union van on Friday 11 October? contact T Power Mech Eng 2.

●An MSc Thesis is missing. I'll be pleased if any information about it is obtained. Details: Author: Adernefun, A.A. Title: 'Viruses in Water'. Year: 1975. Dept: Civ Eng. Thanks, Edgar Caicedo.

Wanted

●Sixth person wanted for a ski trip to Cervinia. Male or female, any standard. Please contact Steve Capell, Elec Eng Pigeon holes.

●Immediately—Heavy Cleaning six hours week, preferably Thurs/Sat 3 ph. St Stephens Church Gloucester Road Tel 937 0318/937 5083.

For Sale

●Gent's Racer ten gear good reliable bike. Only £55 for quick sale. Ext 4462 or 354 5247.

●Windsurfers, surfers, and kinky rubber freaks mega deal on steamers (off the peg skin tight saunas under

offer from sola wetsuit co. £90 inc Hat, double lined 3/5mm Conact Pippa Allen Chem 3 or Boardsailing ASAP.

●Citroen Dyane 6 R Reg Short Mot cheap Motoring, offers Roger Int 4843.

●Have you got a compact disc? Yes, well you should hear this amplifier in your system. Really powerful dynamics. Carver cube M400A 250W/Channel £250 ono. Also High Quality record player plus pre-amp. Dunlop system Deck 3, mission 774, Dynavector Ruby Karat with matched Meridan 101B Pre-amp £380 the lot ono. Cosmic Wheel nuts 3/8 inch UNF Set of 16 £7.50. Champion spark plugs N12YC set of 4 £2.50 Contact HC Beier EE 3.

●Grey pin-Stripe two piece suit. Size 38 chest, 30 waist. Only worn 5 times. Ideal for job interviews only £25 Phone 741 7380. P Toomer maths 3.

SERVICING & REPAIRS at

RICKY'S GARAGE

(Personal service guaranteed.)

19 QUEENS GATE PLACE MEWS,  
SOUTH KENSINGTON,  
LONDON S.W.7  
Tel: 01-581 1589



ENDSLEIGH INSURANCE SERVICES LIMITED

71 Old Brompton Road  
South Kensington  
London SW7 3JS  
Telephone 01-589 6783