



# Felix

The Newspaper Of Imperial College Union

Founded 1949

## Ash Speaks Out

The Rector, Professor Eric Ash, attacked Government policy on education in his Commemoration Day speech yesterday. The UGC cut of more than 4% means that key posts cannot be filled, despite the recent UGC review having described most of the College's departments as "outstanding". The Rector called for greater efficiency and stressed the importance of attracting more funding for research programmes, including collaborative research, from both national and international sources.

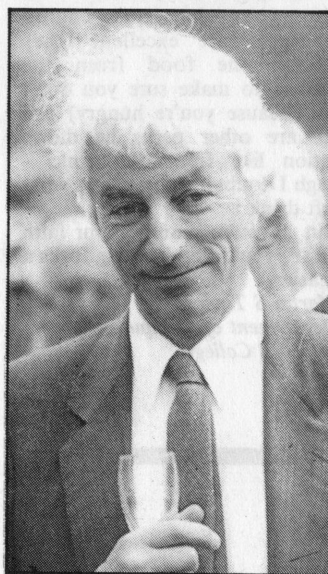
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During the past year, industry has established a new chair in the Computing Department, two lectureships in Electrical Engineering, and one in Physics. The Mechanical Engineering Department has also been able to expand due to the Government's "Engineering Technology Programme", and this year Electrical Engineering and Computing will take part in the programme. However, the money is available strictly in proportion to the number of extra students taken on. Prof Ash welcomed the Government's emphasis on applied science and technology, provided pure science does not suffer as a result.

The Rector announced that two IC lecturers have been elected to the Royal College. Professor Emeritus John Argyris was elected for his work on the solution of complex field problems using finite elements, and Prof Roy Anderson, who is head of Pure and Applied Biology, for his research into epidemiology. He also congratulated Prof Sir David Cox, who was knighted recently in recognition of his achievements in Statistics.

Prof Ash reported that the

proposed merger with St Mary's Medical School is currently under discussion. Preliminary studies have shown that most staff and students would be in favour of such a merger, and the Governing Bodies of both establishments feel that it would bring great academic advantages, he added. The final decision should be made by July 1987 and if the merger goes ahead, it should be completed within two years.



## Goodbye Rosemary



Rosemary Hosking, the FELIX typesetter operator, is leaving IC Union today after working at Imperial for two years. Rosemary, and her husband John are starting a family and are expecting their first child in January.

Since joining the FELIX staff when David Rowe was Editor (1984/85), Rosemary has done the job of Print Unit receptionist as well as that of typesetter operator. She

had to cope with three of the most difficult editors there have been, as well as a constant stream of helpless dumb publicity officers. She has managed to maintain a remarkably cheerful disposition throughout her time at FELIX despite the frequent unreasonable demands made of her.

FELIX would like to thank Rosemary for all her hard work over the past two years, and to wish her and John all the best for the future.

## Careers Issue 1986

*Imperial College  
Careers Fair; Tuesday  
October 28th and  
Wednesday October  
29th. JCR and Great  
Hall. 10am till 4pm*

The Fair is jointly run by the Industrial Society and the Careers Advisory Service, and has been dramatically expanded in 1986 to cover two days, with 120 companies attending. It is now one of the major events of its kind in the UK.

The fair offers students of all years and degree disciplines the opportunity to question a wide spectrum of employers on careers options and vacation training in a relaxed and informal atmosphere. Alongside such traditional employers of Imperial graduates as the oil and chemical industries, chartered accountants and electronic and computing companies, the new entries include:

1 Many major companies absent in previous years, including British Telecom, British Aerospace, United Biscuits and Austin-Rover.

2 Several new government departments inc. the MOD Science Group and the Royal Aircraft Establishment

3 Representatives from the small business world (the Small Firm Services and the Association of Collegiate Entrepreneurs)

4 Two companies with graduate opportunities in the US (Lutron Electronics Inc. and KLA Instruments).

### Inside

*Choosing the right  
career; applications and  
interviews ..... page 11*

*List of companies  
attending the Careers  
Fair ..... page 14*



## Sharp At The Cards

Dear Dave,

Colin Palmer's article on Blackjack in FELIX 750 seems especially written to confirm his former reputation as IC's biggest bullshitter. He tells us 'Blackjack is THE GAME for students of science and technology', yet 'hunches play an important part' and even 'a little bit of ESP is a bonus'. ESP?!? Isn't that a bit much, even coming from you, Colin?

To summarise, gambling is fun, but you must do your homework first; there certainly isn't enough in Colin's article to turn you into a winner. Read Tulcea's book "A Book on Casino Blackjack" (by far the best available on the subject); look up the article on computer simulation in the June '85 issue of Personal Computer World; go to the Wellsoc lecture on Casino Gambling planned for next term; or write to me, if you like.

Uri Palmer then goes on to imply that he wins consistently when he plays, so it's rather suprising that he gives no figures on how much he has or hasn't won. To remedy this, let me quote the research of C.I. Tulcea, a maths professor from Yale, who

asserts that the *best* players can win, on average, 1.5% of their minimum bet per hand, but to insure against a run of bad luck they need to gamble with a capital of at least 400 units. This means that, if you are playing for £1 stakes (the minimum in Britain), you must have at least £400 you don't mind gambling with, and your expected profit will be about £1.50 per hour *if you are one of the best players in the world*.

It's a pity Colin gives the impression that winning is easy, because he is right when he says casino restaurants are excellent (they subsidise the food from the gambling to make sure you don't leave because you're hungry) and there are other perks he didn't mention like free soft drinks - though I doubt if Colin knows what a soft drink is.

But if you're pinning your faith on ESP, you'll find bending forks a lot easier.

Martin S Taylor  
Department of Computing  
Imperial College



## Bonus On The Cards

Dear Sir,

May I use your columns to clear up an apparent misapprehension concerning the new library borrower cards? We have discovered that many people think that the allocation of 4 book loans from the Haldane Library forms part of their entitlement from the Lyon Playfair Library. This is not so, but is a bonus *in addition to them*.

We have an excellent stock for fiction and non-fiction, records, tapes, music scores, newspapers, journals and maps (mostly for loan) which includes the Union Library. It is available to all members of the College. We have recently extended our borrowing hours, and it is now possible to borrow from all but the Music Library in the evenings and on Saturdays.

Yours Sincerely,  
Richard G Williams.  
Haldane Librarian.

## Not a full deck

Dear Dave,

I would like to take this opportunity to warn your readers about the large number of toilets that are appearing all around College.

Further information may be obtained from the Horror Toilet Corporation.

Yours sincerely,  
Max Horror Jr.

# Felix

## Paradise Lost

This year's annual report, released yesterday, is very much the glossy publicity brochure that had been predicted. It is excellently produced, expertly designed, and unashamedly bland in its billing of IC as a Utopian centre of education. A few months ago a collection of students, myself included, was invited to contribute their opinions of the College. It was quickly apparent that the company commissioned to prepare the brochure were not interested in any viewpoint which fell short of adulation. Fair enough, perhaps; one would not expect a College publication, which had been targetted from the outset at industry and parents of prospective students to present a balanced viewpoint. Nevertheless, the ubiquitous flattery of the College is not only laughable, but rather a little distasteful to anyone who knows IC well. If only the brochure had addressed itself to some of the problems faced by IC, it would have made a far more respectable review of an academic year.

## Rosemary

On behalf of David Rowe, Hugh Southey and myself, I would like to extend a special thankyou to Rosemary Hosking for her immense contribution to the FELIX office over the last two years.

## Credits

Special thanks to the Careers Office for excessive tolerance. Also to Chris Martin, Pippa Salmon, Pete Higgs, Chris Edwards, Nigel Whitfield, Kamala Sen, Liz Holford, Alex McNeil, Pete Wilson, Judith Hackney, Aaron Kotcheff, Mark Cottle, Sunny Bains, Grenville Manuel, Sarah Kirk, Chris Perry, Christine Taig, Dave Colley, Steve Shackell and Rosemary.

## David Jones



**SUN ALLIANCE**  
**INSURANCE GROUP**  
INCORPORATING PHOENIX ASSURANCE

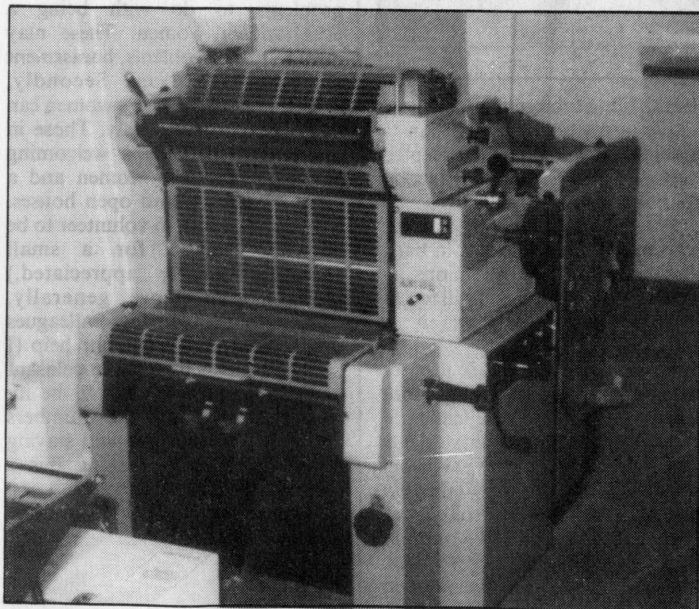


# Bolt From The Blue



RCSU Vice President Ms Judith Hackney was surprised to receive a Tarzanagram at the RCS Ladies' lunch yesterday. The burly Tarzan threw Ms Hackney, aged 21, over his shoulder and then attempted to leave. His way was blocked by an angry mob of RCS ladies, who persuaded him to release their officer. "I didn't know what had hit me. It was like a bolt from the blue," said beautiful blonde Judith, blushing shyly.

# We Are Here



The New FELIX office has now been in operation for nearly two weeks, though the old premises in Beit archway have still not been completely vacated. Last week's issue was the first to be printed on the Print Unit's new litho, a model made by Ryobi. The new office can

be found at the foot of the west staircase of the Union Building, on the North side of Beit Quad. The new site is a little out of the way, but it is hoped that students will soon get used to using the office in its new location. Alternatively, you can contact the office by phoning 3515.

## LIFE SCIENCE DEPARTMENT

IN ASSOCIATION WITH

**RCSU**

Friday 24th October  
8.30pm 'til late

UNION CONCERT HALL

**£1.50**



## HALDANE LIBRARY

Books Records Tapes Music  
Maps Newspapers Journals  
(almost all for loan)

## NEW EXTENDED HOURS

Open Mon-Fri 9.30-21.00

Sat 9.30-17.30

(Music Library Mon-Fri 9.30-17.20 only)

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# The 17 Per Cent Solution

**Part 1 of a feature on Women at Imperial College. Below, from the left, are Sandra Dawson (Women's Senior Tutor), Wendy Renshaw (UG Women's Officer), Mrs. Ash, Jane Bowie (WIST), The Boss, Sam Chittenden (PG Women's Officer).**

## UNDERGRADUATES.

My name is Wendy Redshaw. I am the undergraduate Woman's Officer. It is my job to take care of the women in Imperial College especially the first years who may be finding the traumas of moving into London, starting at college, being in a male dominated environment etc. just a bit too much to cope with. I am a very approachable person and you are welcome to come and see me about **anything** at all; if you want to discuss your course, your career,

what to wear to college, contraception, life, the universe, whatever...and if I can't help you personally then I'll put you in touch with someone who can. You will probably catch me dashing around the maths department at lecture times, or at QT (Snack bar) or Normans (Union Snack bar) at lunch times (you can't miss me as I've got white-blonde hair!) Alternatively you can write to me (don't forget to put your name and department, though, if you need a reply), Wendy Redshaw, Maths 3.

## POSTGRADUATES

If undergraduate women feel themselves isolated at IC, the problem is greatly magnified for postgrads.

In many departments PG Women are in tiny minorities and have little contact amongst themselves. They may find it hard to get involved in social and union activities for lack of people to go along with. Unlike UG's, many PG's work almost entirely on their own and often have no female academics available to discuss problems with and to act as role models for those who had thought to stay on in academia. For a lot of PG women, college becomes more or less a place simply to study in.

This is a great loss as there is much to be gained from contact with others like ourselves. Simply having other women to share problems, ideas and experiences with can make all the difference. Women who are new to London or to Britain can find willing guides to life in the Metropolis. Those whose extra-mural activities might otherwise be confined to the family can find some alternatives. We also hope to break down some of the barriers between different women in the college (ie staff, PG's, and UG's) to the mutual benefit of us all.

As postgraduate women's officer, I see my job as basically 3-fold. Firstly along with Sandra, being some one to come to with any problems to do with being a postgraduate women. These may include tutor problems, harassment or plain isolation. Secondly, organising events where women can meet each other socially. Those in the pipeline include a welcoming event for new PG women and a series of outings and open houses. (Anyone wanting to volunteer to be descended upon for a small gathering greatly appreciated.) Finally, and more generally, working along with my colleagues shown here and with your help (I hope) to make IC a more pleasant environment for women to be in, thereby improving the numbers applying to come here and staying the course and so making this a better place for everyone.

Hope to see you at WIST and our various events,

Love Sam

Any feedback please to Elec Eng PG or int 5155



**Sandra Dawson; Welfare and Social needs**

As College Tutor for Women I am particularly concerned with the welfare and social needs of women students at Imperial College. I think I have two main responsibilities. Firstly on a personal level it is often helpful for students to have someone in college who is outside the immediate sphere of their academic and social life of whom they can seek help and advice. In this role I am always ready to see students who think it may be helpful to talk to me about issues or problems which arise in their life at Imperial College.

Secondly and more broadly I am concerned at the collective and social level to contribute to the development of a more stimulating and enriching social environment within the college in which all students with widely different interests and needs can flourish.

Why then you may say 'College

Tutor for Women?' Why put the emphasis on women? The reason is that members of minority groups - and less than 20% of students at Imperial are women - sometimes find it difficult to create enough momentum and get enough support and resources to secure new developments. This can be especially difficult if there are strong pressures within an established culture to behave in particular ways, which members of minority groups may not want to follow. I want to help develop more diversity and balance in the ways students can live. Traditionally at least, some aspects of social life at Imperial College have not generally been highly rated by the outside world - the image has been one of compulsive masculinity. I would like to support changes in both the image and reality of life at Imperial so that no sixth former - whether male or female - is 'put off' from coming to Imperial by this reputation. On the contrary one of my objectives is to support moves which will make the social and

cultural life at Imperial College a positive attraction rather than a 'necessary evil' which is accepted because of the benefits of a good Imperial degree. I would like to help to create an environment in departments, in refectories, in bars, in residences and in the unions, in which all women students will feel as much at ease as their male counterparts.

One consequence of greater diversity and balance of different interests will I hope, be a feeling of greater freedom for women students to do and say things 'as women' without fear of immediately attracting, what I am told now, seems to be an all too common hostile reaction from other students.

I'm writing to all new women students inviting them to meet with me in groups so that they can let me know the sorts of things they would like to see developing within the College. I hope students with more experience of Imperial College will also come to see me with any ideas and suggestions which they think I may be able to help.



# MECHANICAL ENGINEERING

## CHRISTMAS COURSE 5/8 JAN. 1987



ICI is offering a Christmas Vacation Course this year for final year undergraduates who are reading Mechanical Engineering at University.

■ This is a chance for you to discover the wide range of engineering opportunities typically available within a large industrial organisation, to work in syndicate groups and develop your practical understanding and to speak and work with engineers who are operating in a wide variety of different fields and with different levels of responsibility.

■ The ICI environment is a demanding one which is driven by scientists and technologists from many backgrounds but it is stimulating for open minded engineers who are excited by change and the implications for making sure that we continue to be a world leader in the future.

■ Are you up to the challenge? You do not have to be a boffin but you do need to be an achiever, with a positive attitude of mind and a record of competent achievement!

■ The Course will be based at the Blossoms Hotel in Chester – naturally, no charge will be made for attendance and travel expenses will be reimbursed.

■ Application forms are available from, and should be returned to:

**Undergraduate Office**  
**Room 553**  
**Mechanical Engineering Dept.**  
**Imperial College**  
**Closing Date:**  
**Thursday 6th November**



# Engineering

MECHANICAL

If you are in any doubt about what engineering in ICI may be able to offer you, why not have a word with your Careers Advisory Service or your Departmental Staff? It could be time well spent!



# 'I didn't spend years at University to spend years sitting behind a desk...'

Apart from the obvious satisfaction in working to make work safer H.M. Inspectors of Agriculture and Factories are soon given rewarding and stimulating opportunities to work out in the field on their own initiative.

## A VITAL ROLE

H.M. Inspectors fill a vital role in identifying potential hazards throughout British industry. They also advise on preventative safety measures and take any steps necessary to ensure compliance with health and safety law.

## COMPLEX TOPICS

In the course of their continuing programme of site visits H.M. Inspectors encounter many and varied issues which require

judgement and sensitivity. They must have an ability to grasp complex legal, technical and administrative matters very quickly. In addition they will need to have good physical fitness and a full U.K. Driving Licence.

## COMPREHENSIVE TRAINING

A comprehensive training programme includes assisted field experience and study leading to a professional qualification. Starting salary for Inspectors is £7,930 rising to £10,387. Prospects for promotion are excellent. Staff in the next immediate grades earn up to £20,000.

## QUALIFICATIONS

Candidates should offer a good honours degree or equivalent in any subject combined with an ability to communicate with people at all levels of industry.



## H.M. Factory and Agricultural Inspectors don't

**A FREE** information pack is available for students and Careers Advisors which presents useful information on career opportunities in the Health & Safety Executive. Contact Carol Walker, Personnel, Health & Safety Executive, Room 410, St. Hugh's House, Stanley Precinct, Bootle, Merseyside, L20 3QY.



**Health & Safety Executive**  
*Working to keep work safe*

Please send me your FREE information pack—

Name \_\_\_\_\_ Address \_\_\_\_\_

University/College \_\_\_\_\_


If Student—Qualification ☐ Student ☐ (please tick)

Subject \_\_\_\_\_

Area of Interest ☐ Agriculture ☐ (please tick)

Factory ☐ Health & Safety Executive  
Room 410, St. Hugh's House,  
Stanley Precinct,  
Bootle Merseyside,  
L20 3QY.

Post Code \_\_\_\_\_





# Benefit Update



Welfare Advisor Lesley Gillingham talks about money.

## Benefit update 1986/7: The New System

### Housing Benefit:

Housing Benefit was set up in 1983 to enable people on low incomes to get help to pay rent and rates. Until September 1st 1986, practically all students paying a normal London rent were eligible to apply for help under this system, irrespective of where they lived, unless at the parental home.

On September 1st the regulations concerning student claims for Housing Benefit were changed. There are **three** major changes to the regulations:

- a No student living in College owned accommodation (Halls and Houses) can claim Housing Benefit in term-time or the two short vacations,
- b The student income will now be based on the full grant taken over 38 weeks, giving a total weekly income of £59.10 for Undergraduate students. Postgraduates should divide their annual income by 52 weeks.
- c There will be no reassessment over the short vacation, whatever you receive will be the same for the whole academic year.

## Simple Calculations:

### 1. Work out your 'Needs Allowance':

Single Person £48.10pw

Couple £70.85pw

Single Parent £70.85 pw

Each Dependent Child £14.60pw

### 2. Work out your gross weekly income:

The Undergraduate student grant works out at £59.10pw, of which £17.10 is disregarded for rent (but not rates) purposes, leaving £41.40.

### 3. Work out your weekly rent and rates:

If your rent includes any amounts for gas or electricity payments, money will be deducted from your rent for these. Maximum deductions are approximately £7.00pw in total for heating, lighting, cooking and hot water.

Your rent will then be divided into rent and rates. Rates are usually taken to be 30% of your total rent, unless specified.

To get the 'eligible' rent figure you must deduct £17.70 from your weekly rent. No deductions are made for rate purposes.

### 4. Calculate your rebate:

If your income is equal to the needs allowance:

Rent equals 60% of 'eligible' weekly rent,

Rates equals 60% of weekly rates.

If your income is less than the needs allowance:

Rent equals 60% of 'eligible' weekly rent **plus** 25% of the difference between income and the Needs

Allowance,

Rates equals 60% of the weekly rates **plus** 8% of the difference between income and the Needs Allowance

If your income is more than the Needs Allowance:

Rent equals 60% of the 'eligible' weekly rent **minus** 29% of the difference between income and the Needs Allowance,

Rates equals 60% of the 'eligible' weekly rates **minus** 20% of the difference between income and the Needs Allowance.

## Supplementary Benefit and Unemployment Benefit

On the 1st September 1986 the regulations concerning student claims for supplementary Benefit and Unemployment Benefit were also amended.

### Supplementary Benefit

Students can no longer claim Supplementary Benefit in the two short vacations. They can still claim in the longer summer vacations.

### Unemployment Benefit

As the 'period of study' is now considered to be 38 weeks, students are no longer 'available for work' in the two short vacations. However, if you fulfill the eligibility requirements you will still be able to 'sign on' over the summer.

Remember if you do have any questions or experience difficulties with benefits, call into Student Services and see Lesley, the Welfare Adviser, or call into the Union on Wednesday afternoons.

## Careers with Glaxo – Britain's leading Pharmaceutical Company

In order that we maintain this position throughout the World in 1987 we will be seeking to recruit up to 70 well-qualified graduates and postgraduates (science and arts disciplines) to work in the following key areas of our business:

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Drug Metabolism  
Regulatory Affairs  
Information Services

### Technical Services/Production (Glaxochem)

Analytical Chemistry  
Development Chemistry

Microbiology

### Commercial (Glaxo Pharmaceuticals)

Sales and Marketing  
Finance

Materials Management

If you would like to find out more then come and have an informal chat at the Industrial Society Careers Fair in the Sheffield Building on 28 October 1986.

# Glaxo

## Christine: Safety First

Early last Sunday morning a woman was attacked and raped in the basement of one of the blocks of flats leased by College in Hamlet Gardens. It is appalling that it takes an incident like this to bring to light the lack of security measures in these student flats. Main doors from the street are unlockable and in some cases missing altogether, and the dark unlit passages and stairwells are perfect places for intruders to lurk. By the time you read this, something should have been done about these defects; if not, perhaps Hamlet Gardens residents should demand alternative accommodation until they feel safe going to the telephone or to visit friends in their own block.

Meanwhile there is little we can do to help the situation apart from offering commonsense advice to all women; be alert at all times and remember that rape alarms are now available from the Union Office and the Warden's flat in Hamlet Gardens (121). It makes sense to carry one all the time. Don't feel silly asking somebody to go with you even to the telephone, stick together, and once locking main doors are fitted, make sure they stay shut.

If you're ever stuck at College and worried about getting home, don't hesitate to call Jackie or myself (internal 3512 or 3511 respectively), the least we can do is find you a floor to sleep on here. If you have to travel alone, avoid dark streets and empty train carriages, sit near the guard or conductor and walk near the road to avoid dark doorways. It is all commonsense really, it's just sickening that we do have to be so alert and suspicious all the time. Do come and see me if you think we can do anything else or if you just want to talk this over.

Whilst on the subject of security, I've put "ALARM" labels on the red buttons in the cubicles in the Union Building women's toilets. Please try to avoid setting the alarm off accidentally or for no real reason, the more false alarms there are, the less people will react in a real emergency. The same applies to personal alarms, of course. If you're ever in the Union Bar and hear a loud siren, get up those stairs fast as it means someone has pressed the alarm in the womens toilets or the Union office and needs help.

### UGM

The next Union General Meeting is on Tuesday, November 4 at 1.00pm in the Great Hall, Sherfield building. There will be a speaker, Derek Edwards, the Human Rights Education Officer of Amnesty International. There will also be a collection for Amnesty. Routine business will be kept as brief as possible to give the speaker a fair chance! If anyone does want to submit a motion to the UGM, give it to Dave Colley (Hon. Sec.) or Hugh Southey (UGM Chair) by Thursday, October 30.

Christine



## "Insurance Top Up"; Take Cover!


Hello one and all, it's me again and my small rant. The main thing that came to my attention is "Insurance Top Up". All students who live in College Accommodation, including Head Tenancies, are covered for upto a limit of £1,500 worth of personal effects. There is however, a limit on certain items such as collections, art pieces and gold items of £150 per item. If you possess goods that total more than £1,500 then come and see me in my office. I then ring up the brokers and ask them to quote me a premium, which I then tell you. If you accept this, you then write out a cheque for this amount, made payable to Alexander Stonehouse, and when they receive the cheque, the cover is started.

Also, while I'm on the technical side of life: 1) Will all drivers of Union vans please use the parking places marked "College Vans Only", as these are our new, specially reserved, spots. They are situated near the guards barrier by the post office, please don't park anywhere else. 2) Will all those who have parking permits around the Southside and Linstead area please bring their parking permit in to me, so I can change them for the correct permits, which I have just received.

Now that's all the dull administrative bit over, it leaves me very little to say, except that in the last issue of FELIX I received a bit of a slagging off for upholding the publicity rules. The rules are there to be upheld, and if a society breaks the rules I will take the persons or society to the publicity tribunal regardless of political persuasion. This, I hope, clarifies anything that Mr. Ranson said, and I hope that openness of mind will be at the fore in future cases.

One last note I would like to make; I'm really pleased with the change of atmosphere this year and everybody seems to be out to socialise as well as work. The Union building is very well attended both during the day and at night. For this we must thank the increased services of Kevin and Norman and their crews of hard working people, and also the efforts of Ents. Remember that events and services are here for you, so do make the most of them.

D.I. Colley



Fed up of Sweating  
in Southside?

Then come to the  
Students' Union-

the HEALTHY place to eat & drink!

snacks & meals 6-9pm      bar and lounge bar

\* \* videos \* \* \* music \* \*

A small tapestry (approximately 10 inch by 12 inch) has been stolen from the Exhibition on level 2 of the Sherfield Building. This tapestry was the work of Valerie Kirk, whose name should be on the back.

If anyone has any information about the tapestry, please contact Dr Hargreaves (3046) or Mr Reeves, College Security Officer (3371).



# **McKinsey & Company, Inc**

McKinsey is the world's pre-eminent management consulting firm, advising major companies on their strategies, mergers and acquisitions, operations and organization. The Firm has 36 offices worldwide, employs over 1,000 consultants and is owned entirely by its partners.

We are looking for a few exceptional men and women to join our London Office as Business Analysts, working on teams to solve client problems. We expect them to be with us for 2 years before going on to study for an M.B.A. at a leading business school. We encourage the best of them to rejoin us as consultants thereafter and provide them with financial support at business school.

The men and women we hire will have an excellent academic record and will be able to demonstrate leadership and wide ranging interests.

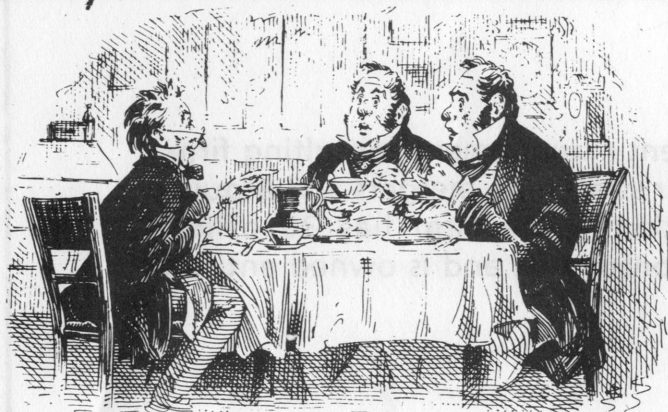
We shall be making a presentation to all who are interested in a career with us in

**Room 208, Civil Engineering Department  
Imperial College**

**at 6p.m. on Wednesday November 12, 1986**

We shall be interviewing for Business Analyst positions during January. If you would like to be interviewed, please write to Orna Ni-Chionna, McKinsey & Company, Inc., 74 St James's Street, London SW1A 1PS, enclosing a completed copy of the standard Careers Service application form. The closing date for applications will be December 23, 1986

# 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.

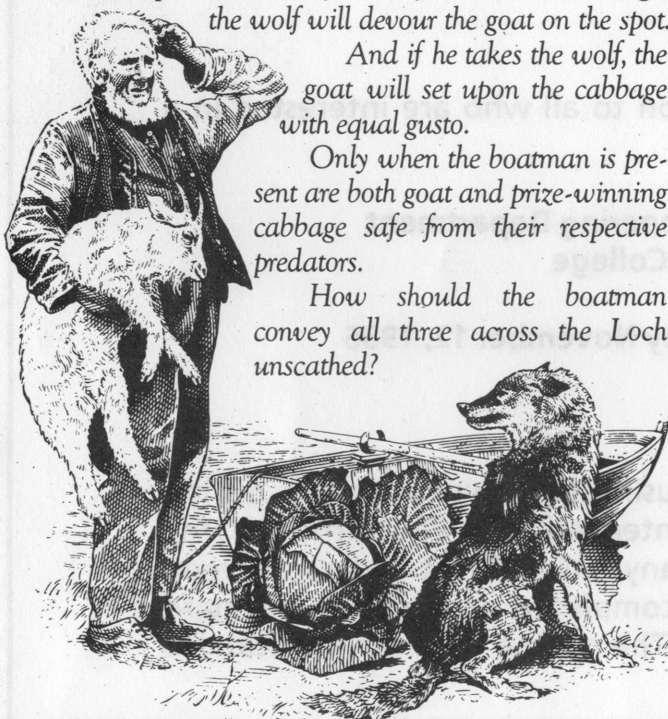
However, his vessel has only enough room to take either the wolf, or the goat, or the cabbage as passenger.

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?

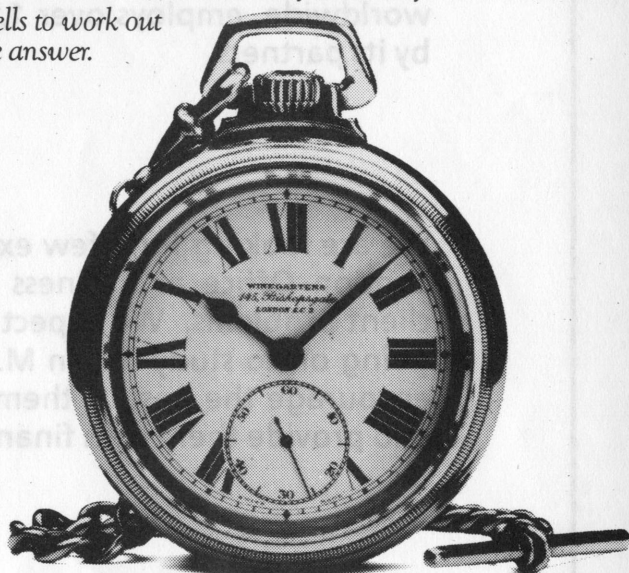


## The Stationmaster's Watch.

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.



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

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



# Life After Imperial

## Or: What do we do now

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 Advisors, 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.

## How did I get here?

Trouble is, it's not so easy to identify all these things about yourself and so here are 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 what 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. 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 the 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.

## Fiendishly Ingenious

If you find all this totally impossible and your Careers Advisor 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 the 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 on to 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 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 students and before jumping on to a 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 caters 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. Admission 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 employer at the Careers Fair or discuss it with a disinterested person like a Careers Advisor.

Having made the decision to prolong your student days, the obvious next step is to decide where you want to study. The Careers office, Sherfield 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's 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 decide too late.



**"Weigh up the pros and cons and analyse whether it's really the right move for you"**



# The Choice

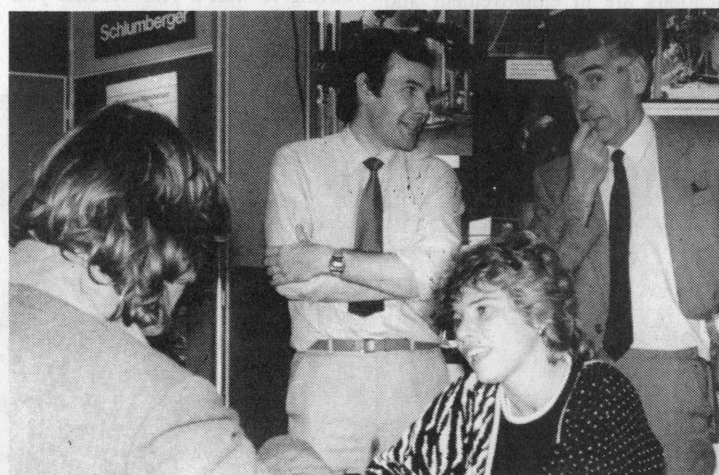
*An in depth study of what to look for in the perfect employer*

"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' (DOG) and 'Directory of Opportunities 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 tell you about the company's size, its location, its

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 a more conservative formal firm? 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 and 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 for 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.



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 Sheffield 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 thing can be said of the

If the company is visiting the campus during the Graduate Recruitment programme then you can obtain the application forms from the Careers library. Otherwise you will have to apply directly to the company.

And finally, think about 'fall back positions'. Please consider the wisdom of **only** applying to the big, glamorous, well-known companies. Every year on the Imperial Graduate Recruitment Programme, perfectly respectable companies have to cancel their visits through lack of applications. 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 in 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 reason why most applications fail is because they are badly presented (illegible writing, coffee-stains etc), ill thought-out 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 an 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, identify 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 of view. 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 your form?

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

## Interviews

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 message from 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 the College and certainly for those employers listed in the GR Programme is relatively short. Much will consist of points in your application—"tell me more about that", 'why did you do this?', '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 the 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 employees 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 problems but how you deal with other people, how 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.



# Things To Remember

## Some Things to Remember

### 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. 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. There has also been a good recovery in recruitment levels in manufacturing. 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 1987 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.

### Taking a Year Off

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 should 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.

### Temporary Work

While the great majority of graduates want permanent work, each year there are those who, for a variety of reasons, seek temporary work. In thinking of the 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 work in MacDonalds to challenging administrative jobs. Job Centres can be a good source of such work and there are a number of

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 your work might be far removed from your ultimate ambition, it does give valuable insights into people and the nature of work. It can also be a useful way of funding that year off.

### Summer Fairs

It has always been wrong to think of recruitment as being a January to March phenomenon associated with the Graduate Recruitment Programme, otherwise known as the milk-round. In fact recruitment 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 is by far the biggest. This year almost 200 employers attended during its three 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.

## Tested and Measured for Success

Datron Instruments is setting the pace in the design of high technology test instruments - these currently include Digital Multimeters, Calibrators and Calibration Systems.

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 picturesque Norwich, close to both the coast and Norfolk Broads, the area offers excellent recreation 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 excellence, with positive 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 year students are invited to apply. For further information please contact the Careers Advisory Service or meet us on 29th October at the Careers Fair.

- ★ Leading in measurement technology
- ★ Impressive growth in turnover
- ★ Plants in Norwich, Florida and California
- ★ 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. A subsidiary of Datron International plc.

**World Class...Worldwide**

**datron**  
INSTRUMENTS



# Careers Fair 1986

## JCR Tuesday

- 1 Proctor and Gamble R&D and production management, development, manufacture and marketing of soaps, detergents and allied products. *CFKPG.*
- 2 Grant Thornton Chartered Accountants. *All Departments.*
- 3 British Telecom Provision of national and international telecommunications service. *All Departments esp JKOXZ.*
- 4 Imperial Chemical Industries Manufacture of chemicals for a wide range of applications. *All Departments.*
- 5 Association of Collegiate Entrepreneurs based at the Department of Business Studies, Stirling University *All Departments.*
- 6 Small Firms Service Provision of information and advice for starting and running a business. *All Departments.*
- 7 Thames Valley Police Police Force. *All Departments.*
- 8 Peat, Marwick and Mitchell Co Chartered Accountants and management consultants. *All Departments.*
- 9 Hewlett Packard Design and manufacture of computer products. *JKOPXZN.*
- 10 Glaxo Group Research Research and development of ethical pharmaceuticals. *All Departments.*
- 11 Gencor Gold, Platinum and coal mining. *CFGHMPQSTU.*
- 12 Noble, Lowndes & Partners All aspects of pension fund management and employee benefit. *All Departments esp O.*
- 13 Rank Xerox Mid Volume Business Unit Design and development of reprographic devices. *KPX.*
- 14 Johnson Matthey Specialists in precious metals and advanced materials. *FGJKPQX and any technical discipline.*
- 15 Ministry of Defence (Science Group) Research, development and implementation of new technology in the defense field. *ABCDGHIJKO PQRVXZL.*
- 16 Air Products Industrial gases and plant manufacture. *All Departments.*
- 17 National Physical Laboratory NPL is the UK national standards laboratory, also undertaking research in aspects of physics, engineering materials an information technology. *GJKOPQXZ.*
- 18 Lloyds Bank Financial services to corporate and personal customers in the UK and internationally. *All Departments.*
- 19 British Oxygen Company Industrial and medical gases, medical equipment, vacuum technology and computing. *FJKNOPQXICDRY.*
- 20 GEC Turbine Generators Design, manufacture and supply of large steam turbines for power stations in the UK and overseas. *AJKOPQX.*
- 21 Arthur Anderson & Co. Chartered Accountants. *All departments.*
- 22 Fairclough Civil Engineering Civil engineering contracting in all fields. *IT.*
- 23 Foster Wheeler Energy Petrochemical engineering design contractors. *FIKP.*
- 24 Chartered Accountants Student Introduction Service *All Departments.*
- 25 Systems Designers Computer software systems and consultancy. *JKOKZ.*
- 26 Ernst & Whitney Chartered Accountants *All Departments.*
- 27 British Aerospace Design, manufacturing and marketing of civil and military aircraft. *AJKNOPQXY.*
- 28 Price Waterhouse Chartered Accountants *All Departments.*
- 29 British Gas Corporation Supply of gas and gas appliances. *FGKLMNQOPXYTV.*
- 30 British Coal Coal Mining. *All Departments.*
- 31 Esso Group Exploration, production, transportation and marketing of petroleum and petrochemical products. *FGKM(PG Only)PVN.*
- 32 Royal Aircraft Establishment Scientific research and development. *AGJOPX.*
- 33 National Audit Office External auditors to Central Government, quasi-bodies and international organisations. *All Departments.*
- 34 British Steel Corporation Manufacture of iron and steel products. *All departments esp FGJKOPQXNY.*

## Great Hall

- 35 Water Research Centre - Processes Development of process systems & plant for the treatment of water, sewage and waste sludges. *FGLCOPXXDR.*
- 36 Civil Service Commission Technology division. Recruitment of engineers to all Government departments. *AFIJKOPQSTVX.*
- 37 KMG Thompson McLintock Audit, business services, taxation, corporate recovery and management consultancy. *All Departments.*
- 38 Royal Engineers Combat and construction engineering. *All Departments esp FIKPT.*
- 39 T I Group Diverse engineering group. Products include domestic appliances, cycles, machine tools, sealing systems, vehicle components and steel tubes. *JKOPQZN.*
- 40 Dow Chemical Co Manufacture and marketing of basic chemicals, plastics, agricultural chemicals, industrial and pharmaceutical specialties. *CDFGHIJK%K.*
- 41 Schlumberger Electronics Design and manufacture of electronic measurement instruments, simulation systems, transducers, ATE and energy management systems. *JKPXX.*
- 42 Austin Rover Group Car manufacturers. *All Departments.*
- 43 Rushton Gas Turbines Manufactures of gas turbines and turbochargers. *AJKOPTVX.*
- 44 Coopers and Lybrand Chartered Accountants and management consultants. *All Departments.*
- 45 Lutron Electronics American electronics company. *All departments esp JK to work in USA.*
- 46 Singer Link-Milnes Design and manufacture of simulation equipment for aircraft, naval, maritime and space applications. *AJKOZ.*
- 47 Mars Group UK Manufacture and marketing of confectionary, prepared petfood, pet accessories and main meal foods, drinks systems, electronics computer services and market research. *All Departments.*
- 48 GEC Avionics Research, design and manufacture of electronic systems for aircraft and allied technology. *AJKNQPX.*
- 49 BICC Design and manufacture of cable and accessories, a wide range of electrical and mechanical engineering products worldwide. *AJKNOPXY.*
- 50 Mobil Oil Co. Exploration, production, refining, distribution and retail of petroleum products. *FGHIMOPTUVN.*
- 51 Royal Navy National defence. *All departments.*
- 52 British Nuclear Fuels Production and processing of nuclear fuels. *FGIJKLMNQOPXY.*
- 53 Royal Air Force National defence. *All Departments.*
- 54 M-O Valve Research, design, development and manufacture of electronic components, tubes and devices. *KQX.*
- 55 Civil Service Commission Science Department *All Departments.*
- 56 Ferranti Computer Systems Research, design and development of real-time, on-line computer systems. *JKOPXZ.*
- 57 CAP UK Computer systems in the financial services, scientific and industrial market sectors. *All Departments.*
- 58 Inland Revenue Tax inspectorate. *All Departments.*
- 59 Philips Electronics Electrical components, consumer electronics and business and professional systems. *CGJKOPXZ.*
- 60 Hays Allan Chartered Accountants. *All Departments.*

## JCR Wednesday

- 1 British Petroleum International group engaged in the discovery and development of crude oil resources; oil, petroleum and associated products. *All Departments.*
- 2 Operational Research Unit - The Inland Revenue for Civil Government departments applied to the public sector policy, admin. management and planning. *All Departments.*
- 3 Arthur Anderson & Co. Management consultants providing a professional service in designing and installing systems. *All Departments.*
- 4 Ove Arup Partnership Consulting Engineers. *AIKMPL.*

- 5 Datron Instruments Design and manufacture of precision test instruments. *JKXZ.*

- 6 Ford Motor Company Design, manufacture and sale of motor vehicles and components. *All Departments.*
- 7 Ricardo Consulting Engineers Consulting engineers to the internal combustion engine manufacturing industry worldwide. *AJKOPZ.*
- 8 Unilever Worlds largest consumer goods co. with extensive interests in packaging materials, animal feeds, perfumery and flavourings for industrial use. *All Departments.*
- 9 Deloitte, Haskins and Sells Management Consultants assisting managers in solution of business problems towards improving efficiency and effectiveness. *GJONXY.*
- 10 Pilkington Brothers Manufacture of glass and associated products. *All Departments.*
- 11 Chevron Engineering Oil and gas production. *All Departments.*
- 12 Royal Electrical and Mechanical Engineers Equipment engineering in the army. *AFIJKPQZ.*
- 13 Rowntree-Mackintosh Confectionery and snack-food. *All Departments esp JKP.*
- 14 Pilkington Electro-Optics. Division design, development and manufacture of precision electro-optical systems. *AJKOPQXZLN.*
- 15 Spicer and Pegler Chartered Accountants. *All Departments.*
- 16 R. Watson and Sons Consulting Actuaries *GJOXY and any maths related degree.*
- 17 Conoco UK - London Data Centre Computer services department of Conoco UK, a major oil company *GJKOPNZ and any numerate discipline.*
- 18 ICL Design, development, manufacture and marketing of information systems. *All Departments.*
- 19 Arthur Young Chartered Accountants. *All Departments.*
- 20 UKAEA Northern Division Research and Development in support of the UK nuclear power programme. *FGKPOZ.*
- 21 Schlumberger Cambridge Research research for Schlumberger Oilfield Services companies. *FGKOPQTX.*
- 22 PA Computers and Telecommunications Information technology consultancy. *JN.*
- 23 Perkin-Elmer Manufacture of advanced analytical instruments for medical, industrial and academic fields with R&D, sales, marketing and software and hardware development functions. *CGHJOPXZ.*
- 24 Courtaulds Manufacture of fibres, textiles, paints, chemicals, packaging, films & plastics. *EFGKPNX.*
- 25 Browns Operating Systems Software house - communications specialists in the IBM field. *JKOX.*
- 26 Rolls Royce and Associates Design, development and procurement of nuclear steam-raising plant principally for Royal Navy submarines. *AFGJKNOPX.*
- 27 Reckitt and Coleman Manufacture of household goods, toiletries, pharmaceuticals and food and wine products. *All Departments.*
- 28 U B (Biscuits) Biscuits, cakes, snacks and confectionary products. *All Departments.*
- 29 Northern Telecom Telecommunications. *JKZNY.*
- 30 Bell Northern Research Telecommunications Research and Development. *JKOX.*
- 31 Marks and Spencer Retailing. *All Departments.*
- 32 Central Electricity Generating Board The bulk generation of electricity throughout England and Wales. *All Departments.*
- 33 Electricity Council (for Area Electricity Boards) Distribution, sale and utilisation of electricity, sale of appliances and electrical contracting. *JKOZNY.*
- 34 Shell International Petroleum All aspects of the oil, chemicals and gas industry. *All Departments.*

## Great Hall Wednesday

- 35 KLA Instruments Production of high speed image processing systems used for inspection and control in the semiconductor industry. *JKXZ.*
- 36 Timken Europe-Research Research into new technology methods of manufacture suitable for bearing production. *JKOPQXZ.*
- 37 GEC Research Contract research and development in mechanical and electrical engineering. *AKPQ.*
- 38 HM Government Communications Centre Research and development of electronic and communications equipment and installations at home and overseas. *KX.*

- 39 Cargill UK Commodity trading and processing. *All Departments.*
- 40 Data General Manufacture and sale of computer software and hardware. *All Departments.*
- 41 Eurotherm International Innovative design, manufacture and marketing of advanced products, principally industrial instrumentation and control. *JKP.*
- 42 Touche Ross & Co Chartered Accountants. *All Departments.*
- 43 Marconi research Centre Electronics Research involving avionics, radar and communications systems, electronic materials and components and computer applications. *AGJKOPQXZ.*
- 44 Price Waterhouse Management Consultants. *All Departments.*
- 45 Building Research Establishment Research into building and construction and the prevention and control of fire. *GHIJKOPQZXL.*
- 46 Sun Alliance Insurance Group, General Insurance business development, accounting, investment analysis, actuarial work and systems analysis. *All Departments esp JO.*
- 47 Penny and Giles Conductive Plastics Design and manufacture of a wide range of products for servo systems in avionics, industrial control and military applications. *KP.*
- 48 Kodak Manufacture and marketing of photographic materials. *BCDEFGHIJOPRWXYZ.*
- 49 Marconi Defence Systems Design, development and manufacture of advanced systems for electronic warning and counter measures, radar missile guidance and satellite communications. *JKPOX.*
- 50 Government Communications Headquarters Communications research and development. *JKOXZ.*
- 51 Scicon Computing Services. *AFGJKMOPQS TVXZN.*
- 52 Tioxide UK Manufacture of Titanium dioxide and associated products. *FGJKOPX.*
- 53 Legal and General Group Actuarial Work, financial management, investment, insurance, sales, marketing, management services and estate surveying. *All Departments esp NO.*
- 54 Bechtel Engineering design and construction services to the petroleum and construction industry. *FKPV.*
- 55 UKAEA Winfrith Nuclear research and development, also non-nuclear work both theoretical and experimental. *FGJKQOPX.*
- 56 Lutron Electronics American Electronics Company. *All Departments esp JK to work in the USA.*
- 57 Steetley production of construction materials and refractories, minerals extraction and processing, and the distribution of chemical, industrial and electrical supplies. *All Departments.*
- 58 Plessey Design and development of advanced electronic products. *AJKOPQXZLN.*
- 59 Barclays Bank Domestic and international banking. *All Departments.*
- 60 STC Electronics and Communications. *All Departments.*

A	Aeronautical Engineering
B	Applied Biology
C	Biochemistry
D	Biology
E	Biotechnology
F	Chemical Engineering
G	Chemistry
H	Chemistry and Biochemistry
I	Civil Engineering
J	Computing Science
K	Electrical and Electronic Engineering
L	Environmental Technology
M	Geology
N	Management Science
O	Mathematics
P	Mechanical Engineering
Q	Metalurgy and Materials
R	Microbiology
S	Mineral Process Engineering
T	Mining Engineering
U	Mining Geology
V	Petroleum Engineering
W	Plant Science
X	Physics
Y	Social and Economic Studies
Z	Software Engineering
ç	Zoology



# THE HEIGHT OF TECHNOLOGY

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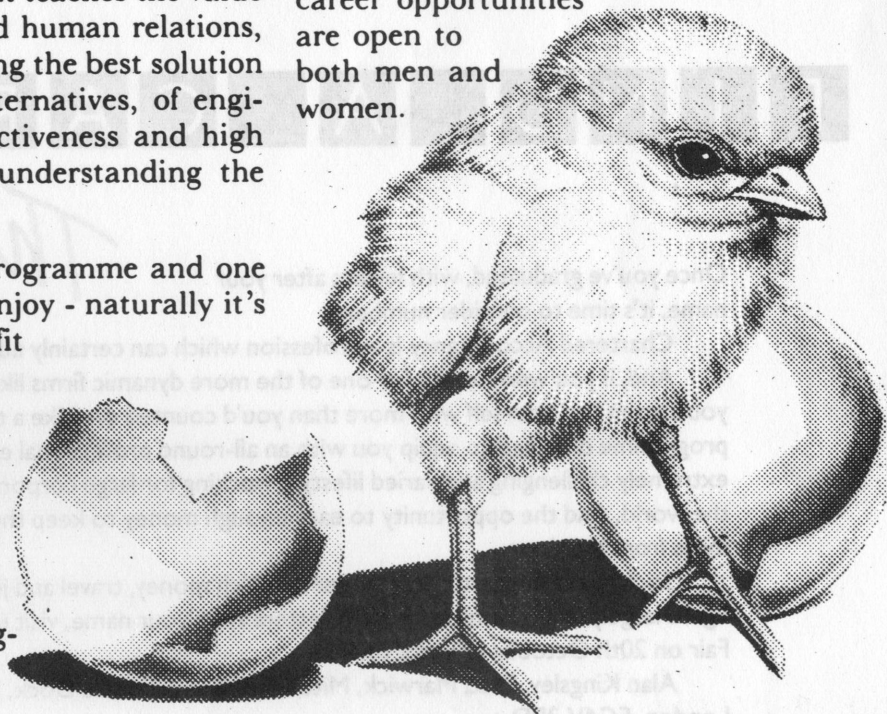
It's a programme that teaches the value of teamwork, of good human relations, and the art of choosing the best solution from a variety of alternatives, of engineering for cost effectiveness and high reliability, and for understanding the process of design.

It's an interesting programme and one we're sure you can enjoy - naturally it's done partly to benefit us, after all, the sooner you can make a productive contribution, the better. But it will also benefit you by giving you the basis for the challeng-

ing and exciting career future we can offer. We're a meritocracy - if you're good, you get to the top - we make no apologies for this attitude, we happen to believe in it.

If you believe in it too, then contact Suzy Johnson at Rank Xerox Mid Volume Business Unit, Bessemer Road, Welwyn Garden City, Herts AL7 1HE, tel. 0707 323434.

We are looking for electrical/electronic and mechanical engineers, applied physicists, computer scientists. All career opportunities are open to both men and women.



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**RANK XEROX**

MVBU





There can be few bands with relatively little chart success that could hope to fill the Royal Albert Hall with an authentic capacity audience, but **Everything But The Girl** managed this on 14th October.

The concert was split into two parts: during the first half Tracey Thorn and Ben Watt were accompanied by their usual band and a jazz group, some of whom had played on their first album 'Eden'. This collection of intense, highly personal songs is regarded as a classic of lonely bedsitter land and here they managed to reproduce its jazz sound perfectly, especially with 'Each and Everyone'. There were disappointingly few songs from the album 'Love Not Money' but this was compensated for by a number of B sides and cover versions including 'Night and Day'.

The second half consisted mainly of songs from 'Baby The Stars Shine Bright' but backing was no longer provided by saxophone, etc. but by a large contingent from the London Philharmonic Orchestra! The sweeping strings and the clarity and strength of Thorn and Watt's voices complemented one another perfectly, most notably in the cover version of 'Always On My Mind'.

Everything But The Girl did not make the mistake of simply scaling up their light and sound system to perform in the massive hall; they produced a whole new show in order to make the maximum use of the acoustics. They started the whole show with a simple duet performance of 'Come On Home' and finished off with the same number but dramatically accompanied by the whole of the orchestra.

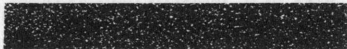
This was a show of variety, imagination and supreme confidence. Thorn and Watt have great stage presence and show all the signs of true professionalism. However they never fall into the trap of taking themselves too seriously, as witnessed by the Thorn quip about using 'everything but the kitchen sink'.

Everything But The Girl are a band who have progressed a long way in the last few years, their versatility in musical styles and sharp, truthful lyrics make them an interesting band to watch out for in the future.

Liz Holford

I doubt if any of you have noticed, but so far this term, only one of the books reviewed has been by a woman (Mary Renault's 'Fire From Heaven'). But this week it's all change and FELIX proudly presents two rather good books from outstanding women writers.

**My Antonia**, by Willa Cather, is a tale of pioneering Americans who left home, kin and kindred, to sail to the land of opportunity. Antonia is a Bohemian girl, the only one of her family to speak English. Her mother, ambitious for her son, brought the family from Europe—her father, pining and homesick, dies soon after in suspicious circumstances. The spirit of the prairie, covered in red grass and rattlesnakes, the winds and blizzards, small-town gossip, comes to life. There is even a sense of homecoming as her chronicler returns from twenty years at university, law school and the Big City to find Antonia, surrounded by



Far from the horrors of Gaston Leroux's 1911 novel and Universal Pictures' 1925 movie, Andrew Lloyd Webber's latest show, 'The Phantom Of The Opera' (Her Majesty's Theatre, Haymarket) is a tame though entertaining spectacle.

It is set in the Paris Opera House and concerns a disfigured phantom's attempt at gaining the affections of a young Soprano, Christine (Sarah Brightman). The plot is complicated by rehearsals for 'Don Juan Triumphant' and 'Il Mito' taking place at the opera house. In pursuit of Christine's love the phantom (a distinguished performance from Michael Crawford) interrupts rehearsals and performs varied but unexciting misdemeanours: for example, sliding down through the theatre on the infamous chandelier.

Brightman and Steve Barton, as her aristocratic lover Raoul Vicomte de Chagny, perform credible demonstrations of song and dance but The Phantom Of The Opera's best assets are the special effects. The stage is initially clad in heavy velvet curtains and collapsed backcloths but transforms convincingly into a graveyard, an underground labyrinth and a misty lake. There are mystifying illusions and many tricks under the floorboards, the best of which are the sprouting candlesticks (these were greeted by rapturous applause from the audience). For the mechanically-minded the show's programme gives a guide to the sub-stage machinery including counterweights, crab winches and graphited oak fillets!

The show certainly entertains and is worth queuing for although it is nearly fully booked until next year and all those thousands of people can't be wrong, can they?

John Hockridge

her farm, barns, orchard and (twelve!) children, but still with all those shared memories. This book may even help you understand the melting pot of America—published by Virgo, it costs £3.50.

**Murder in the English Department**, by Valerie Miner, is totally different-brash, modern and with none of the gentle, reflective nature of *My Antonia*.

A professor is killed whilst attempting to rape a student, and suspicion falls on one of his colleagues, Nan Weaver, a feminist, who has been organising an anti-sexual harassment campaign. It all ends happily ever after, though I suspect in real life that it wouldn't, but at least some interesting ethical discussions come out of this book, which is lively, tightly written and with quite good character sketching. It's published by The Womens Press, costing £3.75, and it's also available in the Haldane Library. In case any of you need to know, the College women's tutor is Susan Dawson, phone 7015, and the Union Womens Officer is Wendy Renshaw.

Sarah Kirk

*Venessa Redgrave as Mrs. Alving in Ibsen's "Ghosts" at the Old Vic.*



This production of Ibsen's **Ghosts** at the Young Vic is a meticulous and perfect presentation of life's circles: The present and future are merely points on a circumference that will eventually be repeated.

Written just over one hundred years ago, **Ghosts** deals with incest, mother-son relationships, morality and immortality with a sharp realism that is matched by superb performances throughout. The action centres around two contrasting characters; Mrs Alving (Vanessa Redgrave) who represents liberalism and change, and Pastor Manders (Tom Wilkinson) whose 'moral majority' type of attitude is a little too reminiscent of many public figures today. His reactionary statements against anything that remotely threatens the family unit to the status of men over women are still naive and dangerous; 'It isn't a wife's place to judge her husband'.

**Ghosts** appear to Mrs Alving in déjà vu experiences as she realises that her son, Oswald is following in his father's steps, despite never having known him. Efforts made to escape his evil patriarchal fate fail as the 'sins of the father are visited on the children'.

The Sun rises as the son dies. David Thacker's **Ghosts** is too good to be missed.

Simon Lewis



## ENTS

## Desperate Dan Writes

"We figured the only way to get more men ..... was to go on tour"

Ye Gods, is that **His Latest Flame** talking? It is you know. And what's more, one of 'em dislocated her knee dancing to a Prince record the other week. Wacky times, a touch of bubblegum pop, soul, country and now a Housemartin (fellow label-mates on 'Go! discs' records) makes tea.

Let's talk about Girls. Or, rather five girls and one boy. Let's talk about the pride of Glasgow, **His Latest Flame**; Jacqueline, Tricia, Laura, Irene and Moira (on vocals methinks).

Their first single, "Somebody's Gonna Get Hurt", won critical and public acclaim (Sounds said "Oh my my, this IS living. His Latest Flame are girls with a passion. Sweet soul music pirouetting and tumbling, 'Hurt' is murderously good"). Can I say more?

Well, yes, certainly, dears. Their latest single was N.M.E. 'single of the week' last week and is a heart-felt rendering of life on the never-never; 'Stop the Tide' is its name, and 'tis great!

Now, the thing is - I've got to admit this - it was only going to be private viewing. I was just going to sit in the Lounge, with a cigar or two and a glass of whiskey say, and just watch the pleasant scenery. But they forced me to make it public. So, if you must, come along, it's only £1.50 to get in and see the best all girl band since the Shangrila's strutted their sophisticated (boom boom) stuff! I'm wholly besotted!. P.S. They are playing on Friday 31 October, in the Lounge; advance tickets available from the Union.

## DRAMSOC

## ScabNite Auditions

Anybody who's ever fancied doing something not particularly serious, pleeze come to the ScabNite auditions this Sunday at 2.00pm (meet in the Dramsoc storeroom, two and a half levels above the I.C. Union Office) 'coz we need lotz of enthusiastic and untalented people to star in Dramsoc's two ScabNite productions, both short little plays that are absolootly non-serious. Inexperience is a big advantage.

Luv, The Directors



## THIRD WORLD FIRST

## Anti-Poverty Action

Next week the College Third World First group is organising an Anti-Poverty Action campaign. We will be trying to see as many students as possible to offer you the chance to join the scheme.

So, what is "APA"? It is a scheme which encourages its members to think about the problems of the poor, the Third World, Developing Countries, the "South" or whatever term you use to describe the other part of an unequal world. Members of the scheme pay 1% of their

income (about £6.00 term, equivalent to about half a pint a week in IC units) by bankers order. This regular form of payment is used to make it a commitment, not an impulsive gesture which occurs when a collecting box and your conscience coincide.

Half of this money is paid to a group of Charities of your choice; generally these will be involved in a range of long-term projects, not emergency aid. The remainder is spent on information for members

which includes a number of special campaigns and a quarterly magazine.

If you feel the Third World deserves more thought and commitment than listening to Band-Aid or emptying your pockets outside Sainsbury's demands, think about it. We will be trying to see all those in hall, but if you want to help or we miss out, please contact us in the Union Office.

## JAZZ AND ROCK

## Calling All Rockers

Maybe a lot of you don't know what the Jazz and Rock club does or stands for. Let me explain. The club has a practice room equipped with a PA, electric piano, drum machine and microphone, for individuals and groups to use. We also have storage space for drum kits and amplifiers.

Jazz and Rock are only two of the styles that we cater for within the club, so whatever your (non-

classical) taste, feel free to come along on Tuesday or Thursday lunchtime for a look, and if you're interested you can sign up and join. If you're interested in playing a musical instrument, or you sing, your standard doesn't matter. We are particularly short of vocalists, drummers and bass players. Visit us soon, we are one floor up from the Union Office, and remember the old cliché: practice makes perfect.

## RCSU

## Do Not Pass Go

It was great to see you all turning out again for the Monopoly last Saturday, despite the horrible weather. We don't have the totals back from Mencap yet, but as soon as we do they will be posted up on your departmental noticeboards. We've had several new ideas for raising money in the next few weeks, and then we launch ourselves into Rag Week. The RCSU events this year include the Beer Festival, 1,000,001 Darts, Smoking Concert and other minor stunts - more about those in a fortnight. For those interested in statistics, we are about one fifth of the way towards our Rag target of £15,000. Not bad in just under a month.

In the coming week we've got two more Freshers' Dinners; Physics on Tuesday, followed by Chemistry on Wednesday. If you still haven't got your ticket, see your Dep Rep as soon as possible, or come to the RCSU Office in Southside.

Finally, RCSU have a new "positive coffee outlook" in the office. We have large amounts of tea, coffee, milk, sugar and a few biscuits on hand at all times to offer you when you enter the Office. Now you don't need an excuse to come and see us: pop in anytime!

P.S. Don't forget the RCSU motor club dinner on 31 October, and the Cabaret in Human Rights Week.

DB

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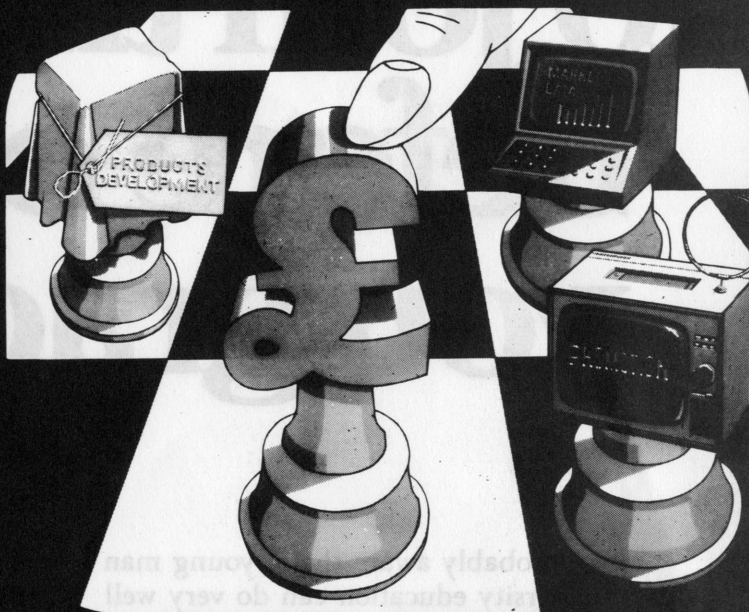
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To give you a chance to find out more about consumer marketing, P&G will be running a Marketing Course from December 14 - 17, 1986 at their Head Office in Newcastle upon Tyne. The course, which is free, will cover all major areas of marketing [including strategic planning, advertising, consumer promotions, finance and media]. You'll also find plenty of opportunity to try some moves of your own.

For an application form ask at your Careers Service or write to Peter Laing, Procter & Gamble Limited, Newcastle upon Tyne NE99 1EE. [Telephone 091 279 2278].



*Closing date for applications is November 1st, 1986.*

## **"I think variety would sum up my career with ICI"**



Chris Matykiewicz joined ICI Agricultural Division in October 1978 having graduated with a degree in Chemistry.

Since joining ICI Chris has worked as a sales representative for ICI Mond Division's solvents and in ICI Agricultural Division's Ammonia Marketing Group. Chris is now working abroad. His last job before leaving was marketing Carbon Dioxide. 'I had

responsibility for the profitability of the product, the planning of its future and ensuring that the varying requirements of the different customers were met.'

'I think variety would sum up my career with ICI to date, whether it be the problems and challenges faced, the people both inside and outside the company I have met, or the different jobs I have held.'



**ICI are recruiting graduates from all disciplines. You can discuss careers in ICI at the Careers Fair or at the Gloucester Hotel's Courtfield Suite on the 28th October at 6pm.**

# Is it better to join the Army before or after you graduate?

You're probably aware that a young man with a university education can do very well for himself in the Army.

But it may have escaped your notice that you can join and benefit before you graduate.

## **£17,000 while you study.**

If you expect to graduate before you're 25, you can apply for an Undergraduate Cadetship now.

This involves attending the Regular Commissions Board which is a three-day selection process for Officer training.

If you pass, you'll go to Sandhurst for three weeks' training before taking up your studies at university.

Apart from joining your university's Officer Training Corps and spending part of your summer vacation with a regiment, you'll live just like other students.

You'll pull in a salary of £5,362 in the first year, £6,008 in the second year and £6,658 in the third.

After graduation, you'll return to Sandhurst for a 7 month Course following which your commission will be confirmed.

In other words, you'll be a Lieutenant with a starting salary of at least £10,428.

Five years later, as a mature, self-confident young man, you can decide to continue your Army career or to make your mark in civilian life.

## **The Army Bursary scheme.**

If five years seems too long, you can try for an Undergraduate Bursary.

With a Bursary, you commit yourself to

only three years as a Short Service Commissioned Officer.

You won't be subjected to any kind of military discipline while at university. But you'll find the Officer Training Corps a useful preparation for Army life.

Naturally, this less committed approach will bring you less financial reward as a student.

Even so, we'll pay you £900 a year while you're at university to supplement your LEA grant.

With a degree under your belt, you'll earn at least £10,428 a year and pocket a gratuity of £4,440, tax free, if you leave after three years' Commissioned Service.

## **If you expect to graduate this year.**

Assuming you're under 25 with the qualities we demand of our young Officers, there is another option open to you: a Short Service Commission for three years.

You'll kick off earning £10,428. And if you decide to leave after three years' Commissioned Service, we'll hand you £4,440, tax free.

Whether you're a student or a graduate, the next step is to write telling us about your educational qualifications and ambitions and why you think you'd make a good Officer.

Brig. (Retd) R. M. Cockman, University Liaison Officer, Golden Cross House, 3, Duncannon Street, London WC2N 4NB.



# Army Officer



# Firsts Win Four Out of Four

IC 1st XI continued their fine start to the season by making it 4 wins in 4 games, and the second league victory. In the main it was a fine display of passing football but, as the scoreline suggests, defensive lapses in concentration could prove costly, particularly against better teams.

IC got off to the worst possible start by allowing KQC to take the lead in the first minute. It took IC 30 minutes or so to take control, and even then chances were squandered; it seemed like it would be "one of those days". Five minutes before half time, however, Nigel Collier equalised with a powerful left-foot volley, after he had cleverly made space for himself on the edge of the KQC penalty area.

The second half started well as skipper Alessandro Lunghi lashed home a loose ball from 12 yards to put IC in front. Nigel Collier increased the lead as he ran onto Dave Lynne's through ball and chipped past the KQC goalkeeper. IC now began to put on a show for the watching fans as passing movements bewildered the KQC midfield and defence, as chance after chance came and went. KQC pulled one back 3 minutes from time from a breakaway, but Alessandro Lunghi restored the two goal margin when a cross-cum-shot curled into the top corner.



## IC Fight Back

Hockey; IC 2nd XI 4, LSE 2nd XI 4

After waiting for the firsts to thrash LSE, it soon became our turn to compete. However our match was not to be so one-sided due to our lack of ability to control them when necessary. The game started badly when we conceded an early goal. Whenever they broke through, they seemed to do so with a 1 or 2 player overlap, which made things really difficult for the backs, who played courageously to say the least. However LSE were pushing players forward most of the time, which made them susceptible to attack from our fantastic forwards. Both wingers, Mike Foxcroft and Duncan Fitter, played brilliantly, taking the ball down the wings and playing it in front of the goal several times.

Our first goal, however, was scored from a penalty flick, by Gary Knairesborough. Somehow he sent the goalkeeper the wrong way and tricked it into the goal.

When half time came we were 4-2 down but we were more determined

than ever to win. We had controlled the game so far and yet we were losing.

In the second half they only came close to scoring once, and even this was dealt with by the backs and outside halves. Dave Whitton, who played right half, and attacked as well as he defended, set Mike up several times who, in turn, managed to beat his opponent nearly every time and got the vital cross in. With 5 minutes to go we equalised with the score at 4-4. Andy Lewis and Gary had scored 2 goals each by now, partly due to excellent support from Mark Powell.

The number of times we missed the goal in that last five minutes was unbelievable; the ball would not go in. Losing Gary when he got a stick in his eye didn't help much either.

Everybody had done their part by the end, with the scores level at 4-4. I am sure the 2nds will do very well this year, both in the U.A.U. and the Middlesex league.

## Flying Start

IC Hockey club have got off to a flying start this year. In their opening matches the 1st's slotted five past a hopelessly outclassed UC side, whilst the 2nds had a comfortable 4-1 win.

The initial round of the UAU competition saw the club pitted against the LSE, who were reputed to be very strong this year. However, the 1st's notched up another five goals, and the Ladies were just good enough to pip their opponents by one goal. The seconds displayed great character to come back from a two goal deficit to level the scores at 4-4 in a keenly contested match.

Amongst all this success let's not forget the stout hearted performance of the 3rd XI. This crack team of high class hatchet men has played with vigour and enthusiasm despite losing both their matches this season. They have now been forced to spend endless hours in the bar planning new strategies and tactics to defeat their forthcoming opponents.

The 1st XI have a testing week ahead, with an indoor fixture on Tuesday, a visit from Kent University on Wednesday and a Middlesex Cup draw on Thursday. It's early days yet but the team looks very sound and should enjoy some degree of success during the year.

Anyone who is keen to play hockey can contact the club via the hockey noticeboard situated just outside the Union Bar.

## Colemanballs

This week we started our league table at Tolworth and we have eight teams at the moment. Best performances went to Paul Gaines (190), and Richard Ingram (191). The wooden spoon went to our new treasurer Mark Thompson with a handicap score of 125, and once again Trisha Bradley won the draw.

If you would like to bowl with us, even if you don't want to take part in the league, we meet on Wednesdays at 2.20pm outside Aero/Chem Eng foyer.

NB This week we are having one of our 'fundays' where numerous prizes will be given away.

**Apologies to Cycling Club and to Cross Country, and to all those who submitted results slips. We hope to have a proper results table as from next week; please remember to include the date.**

## Resounding Win

ICSC does it again—2 weeks in succession the intrepid sailors conquer the opposition with a resounding win.

It was down to Sam (*Sam who?—Ed*), our captain, to demonstrate the key tactics and from then on it was plain sailing in the match against Portishead on Saturday.

However, in the afternoon, the wind got up to a gusty force 4 and one of the crew, who shall remain nameless, found herself in the drink. On top of it all Gareth found himself mid-water without a main sheet block. 2-boat team racing then ensued while hasty repairs were quickly carried out in the 3rd race.

This was again successful with our new helms Adam and Richard quickly learning the finer arts of team racing. Adam and David valiantly covered the rear allowing Dan and Richard (*Surnames!—Ed*) through to first position.

After a crew change, the final race increased the winning margin; Ape and Rebecca were first at the start and at the finish, with team-mates Gareth and Jeremy close behind.

A good day's sailing was had by all, with some decent wind for the first time this term. Hopefully ICSC will do as well at the National Foot Trophy next weekend.

## IC Dominate

Rugby; IC 1st XV 22, LSE 1st XV 10;

This was the most important game of the season so far, being the first match of the UAU competition. IC got off to a slow start with LSE camping in the IC half for the first 10 minutes or so, but the IC defence soaked up all the pressure that the opposition could throw (!—Ed), and went up the pitch to score. The pack took a while to get together properly, but once they did they dominated the forward play, winning some good second-phase possessions. The match ended in a convincing IC win, which made up somewhat for the matchbox sized changing rooms! This match augers well for the next UAU fixture against Kent.



# MEGABRAIN

Apologies for the lack of a new puzzle in the last few weeks FELIX's, what with the office moving and printing problems, there hasn't been enough space. This week we've got a fiendish

crossword devised by Brunhilde. As usual there's a £5 prize for a randomly picked correct entry. Answers, comments, new problems etc by 1.00pm Wednesday, please.

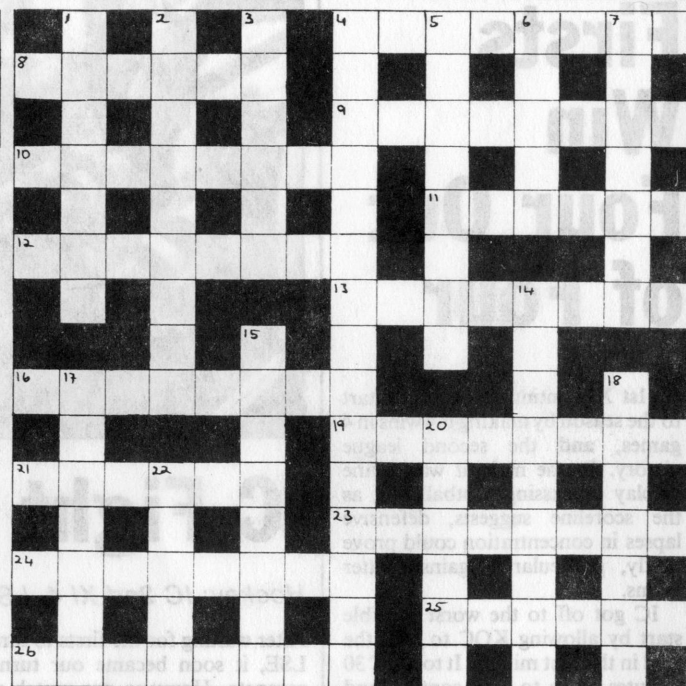
## Across

- 4 Drives on the river Po?. Not Q.E.D. (8)  
 8 The despot loses his tail and goes east (6)  
 9 ... that ends well (Shakespeare). (4)  
 10 Endless slight, charged particle is a request. (8)  
 11 Does she drive a Marina? (6)  
 12 With tea, enticer holds back. (8)  
 13 A suspended follower. (6-2)  
 16 A bulb is fifty, generates a sweet. (8)  
 19 Americans yearn for mother's cooking. (8)  
 21 Become silent to do this. (6)  
 23 The last lion on the stud. (8)  
 24 The captain aims in this

- direction. (8)  
 25 A library full of old men? (6)  
 26 Sob during fall of sleet and go unobserved. (8)

## Down

- 1 To be served is to lose one's head. (7)  
 2 A plot with 51 Imperial College hacks? (9)  
 3 A deed around Imperial is final. (6)  
 4 Consume alcohol in excess. (5,3,4,3)  
 5 Is mental what you become in this place? (8)



- 6 Argues on the river. (5)  
 7 Volvo without five passengers can become explosive. (7)  
 14 Used to be prison room ten, outstanding! (9)  
 15 A nut and band? Plenty! (8)  
 17 A mite, it changes to copy. (7)

- 18 A knighted Bismarck makes a dish. (7)  
 20 Quiet lift we applaud. (6)  
 22 Five Hundred in tour of the period. (5)



## Down&Out in London

Having run out of people to write about their favourite pop groups, we now move on to the London dance scene.

It's a good season for dance, with a whole series of foreign companies being brought in— notably by the Sadlers Wells Theatre. Last week the Central Ballet of China gave a string of brilliant performances there; this week it's the **Ballet Gulbenkian**, from Portugal. Apparently they're much improved from when I last saw them, eight thousand miles and several years away. Their best piece— Ghost Dances, by Ballet Rambert's Christopher Bruce— is set to South American folk music and is 'a primal blend of myth and politics'.

Among several other Dance Umbrella events (for which you can get vouchers to save 20% on any five concerts): at the Riverside Studios, near Hammersmith, a rather more avant-garde group— **Compagnie Cre-Ange**— combines classical music, Indonesian (or Malay) gamelan music and Parisian glamour with a choreography heavily influenced by Pina Bausch. Hard to imagine— Bausch seems

rather depressing and unglamorous to me— but it could be an interesting evening.

The Dance Umbrella artist-in-residence, **Dana Reitz**, will be at the Institute of Contemporary Arts on Friday and Saturday. She does an hour-long 'Solo in Silence' which should be very good watching, especially if you've enjoyed the similar pieces by the Ballet Rambert.

To finish off— the **Royal Ballet** this week present an evening of Frederick Ashton pieces. 'The Dream' (Midsummer Night variety), the classically abstract 'Symphonic Variations', and high drama in 'A Month in the Country'. An enthralling programme, well worth seeing. And some time in the future, watch out for the productions of the **London Contemporary Dance Theatre**— you can count on some interesting ideas from them.

Well, I'll dispense with the usual list of events culled from 'Time Out' and leave the rest of this page blank. You can look up the music and films for yourselves.





## what's on

### FRIDAY

**Rag Meeting** ..... 12.45pm  
Union Lounge, everyone welcome. Discussing Rag Week. Please come.

**Death and Glory** ..... 6.00pm  
Music Room, 53 Princes Gate. Christian Union, free buffet tea.

**Life Sciences Party** ... 8.30pm  
Union Concert Hall. Free punch with tickets. £1.50 on the door.

### SATURDAY

**Guilds Barn Dance** ... 8.00pm  
Holland Club. £1.50

**Hellenic Society Party** . 8.30pm  
JCR Sheffield. Free food, Greek wine and live band music. £2.00 members, £3.00 non-members.

### MONDAY

**RCS Gen Comm** ..... 6.30pm  
RCS General Committee in the SCR. For all academic and social reps, Union Officers and any other interested students.

**Wellsoc** ..... 7.30pm  
Physics LT 1. Michael Bentine lectures on the paranormal.

### TUESDAY

**Ents Meeting** ..... Lunchtime  
In the Ents Office. Anybody interested, do come along.

**Windsurfing** ..... 12.45pm  
Above Southside Bar. Regular trips on Wednesday and Saturdays.

**Ap-Tech Soc** ..... 12.45pm  
Windpower-talk and video by Dr Freris of Elec Eng in Elec Eng. 408.

**RCS UGM** ..... 12.45pm  
Union Dining Hall.

**Skiing** ..... 12.45pm  
Above Southside Bar. Sign up for Wednesday afternoon lessons for recreational skiing.

**Astronomical Society** ... 1.00pm  
Physics LT 3. Lecture by Mr G Webb on "Mankind at the Crossroads; The next 25 years in space transportation". Free to members (membership £1.50).

**Humanities Lecture** ..... 1.15  
"Twentieth Century Controversies Concerning the Nature of Number", by Dr Donald Gillies of Kings College. 1.15pm Read Theatre, Sheffield

**Amnesty International** ... 5.30pm  
If you care about human rights, some along to our meetings, every Tuesday in the Brown Committee Room.

**Calafornia Wine Tasting** ..... 6.00pm  
Union SCR. Believe me-those top quality Calafornian Wines will speak for themselves! £2.50 members, £3.50 non-members.

**Judo** ..... 6.30pm  
All welcome, mat fee 70 pence. It's not too late to start!

**Prayer Meeting** ..... 8.15pm  
Christian Union, in the Upper Lounge.

### WEDNESDAY

**Skiing** ..... 12.30pm  
Above Southside Bar. Meet for lessons or recreational skiing. Bring gloves, decent socks and trousers

**Appropriate Technology** ..... 2.00pm  
Meet in Mech Eng Foyer. Help make toys for handicapped children.

**10-Pin Bowling** ..... 2.20pm  
Meet every Wednesday in the Chem Eng/Aero foyer on Prince Consort Road. Return at about 6.00pm.

### THURSDAY

**Skiing** ..... 12.45pm  
Above Southside Bar. Cheap weeks skiing in the French Alps, for beginners to league racers. Lessons and skiing for the hell of it

**Lunch Hour Concert** .. 1.30pm  
Gudrun Edwards (violin) and Harold Britton (piano). Sonatas by Mozart and Schumann and Bartok's Romanian dances.

**Judo** ..... 6.30pm  
Union Gym: all welcome. Less formal than the Tuesday practice. Mat fee 70 pence.

**Sherfield SCR** ..... 6.30  
Royal College of Science Association Careers Forum. Final year and postgraduate students

**Ents Gig** ..... Evening  
Union Concert Hall. The Larks, Timothy London and Heads on Sticks...

**Tennis Club** ..... 7.30pm  
Cheese and Wine in the Union Upper Lounge. Do come and have fun!

### FRIDAY (next week)

**Halloween Party** ..... 8.00pm  
IC Ents & Richmond College Halloween party with live band: His Latest Flame! The Lounge. £1.50

## small ads

### ANNOUNCEMENTS

●**Halloween is upon us** - IC Ents and Richmond College present the Halloween party on Friday 31 October until well past midnite. Only £1.50 from 8pm onwards, live band His Latest Flame.....

●**Thank you** to Emma the Sagittarian Guineapig, Martin, Carl, Jonathan, Robert, Mahesh and Robin for helping. I love you all potato.

●**Hovercraft Flying!** The Guilds Hovercraft Club is being resurrected this year. We have two hovercraft, both fully operational, and as soon as we get enough interest we'll be organising trips to land and water sights to fly them. Membership is open to everyone, not just Guilds people. If you are interested, contact Alister Seymour (EE II) through Elec Eng pigeonholes.

●**BBC Users** come to Micro Club (top floor of the Union building) on Wednesday for discount tickets to the Micro User Show (November 7-9) at the New Horticultural Hall. It's your last chance!

●**If you live** in College residence, your name is automatically entered on the electoral role (if you are eligible) when you are billed. If you have not received a bill by November, you will not be entitled to vote-Contact student services if this occurs. (*you must be joking if you expect anyone to reply to this-Ed!*)

●**Rape Alarms** are now available! Come and see Jackie or Kathy in the I.C. Union Office.

●**A new Liberal Society** has started at Imperial. We hope to have lots of MP's, socials and discuss political issues. The next meeting will be in Normans on Monday 3 November at 7.00pm. Phone Felix Dodds on 993 2742 for more details.

### FOR SALE

●**Kawasaki GPz 250**, A Reg, approx 15,000 miles, very good condition, newly tested this month, clean bike. £675, contact U. Beyer via Aero III pigeonholes.

●**Morris Marina** 1.3 Super, year MOT, taxed. £250 ono. Tel. Morsoud on 5211 or 354 5434.

### ACCOMMODATION

●**South Kensington Flat** available. 1 single and 1 double, kitchen and bathroom. £105 pw. Could hold 4. Tel. Bill on 788 1046 (eve).

●**Male required** to share large, centrally heated twin bedded room in flat with 3 other students, right next to Queensway and Bayswater tube stations-Colour TV, phone, newly redecorated, fully furnished, £50 pw inclusive (£34 with housing benefit). Tel 0932 44374 (eve) or contact Jan Smulders (Mech Eng II).

### WANTED

●**Musicians and Vocalists** with ideas. Aim to form band. Contact Geoff Whittaker, Mech Eng II.

●**Civ Eng Postgrad Football Team** seek suitable opposition for matches on Sundays. Contact David Pullar, Civ Eng Letter Racks.

### PERSONAL

●**To Dave Hall** Happy Birthday from all his friends, Jim, Neil and Denise. (*hasn't got many friends!-Ed*)

●**S&G Expedition '87** - Five Continents in Ten Minutes.

●**The country** that brought you the space shuttle brings you wines which are out of this world. 6.00pm Union SCR on Tuesday.

●**Celebrate** the Big Bang in style with Wine Soc; 6.00pm Tuesday.

●**Liz** - Everything But The Ticket!

●**Who will win** the ten-pin bowling draw next week?

●**Who Cares?**

●**Q.** What has 4 arms, 4 legs and sits on level 2 making squelching noises? A. We don't know but we hear they are engaged.

●**Mike** - Happy Birthday for Monday - will this get me a hug?? K.

●**Yes, Annette** Andy knows all too well that balls are really handy things!

●**Andy** - six at a time is MY speciality, Annette.

●**Gutman**, one tie pin found in my boudoir - Annette.

●**Small Ads** are not as good as they used to be!



# Rape In Hamlet

A 40 year old nurse was attacked in a College residence in Hamlet Gardens at 7.15 last Sunday morning. She was walking to work along Ravenscourt Park when she was grabbed from behind, dragged into the basement of one of the blocks and raped.

Police arrived within an hour and returned twice to question residents further. A forensic expert examined the basement for fingerprints. A witness, who was taking photographs nearby, was able to give a full description of the man: he is coloured, about 6ft tall, of slim build, has short black hair and was wearing a grey jogging suit with a hood. Anyone who saw the man before or after the attack should contact Detective Inspector Phillip Shepard at Hammersmith Police Station (Tel 741 6071).

Following a meeting between the college surveyor, Mr Peter Hallworth, and the landlord's representative, the landlord,

Strollmoor, has agreed to improve security in the Hamlet Garden residences. Doors will now be fitted in those blocks where the main entrance is open, and all main doors will have locks and spring returns. Entryphones are to be installed in all the blocks, which will take about a month, and the entryphone in the block where the attack took place will be repaired by the end of the week. Lights in the stairwells will also be checked more frequently. Student Services Officer Don Ferguson remarked that any security system relies on students being sensible, for instance outside doors should be kept locked at all times when not in use. There are no open stairways in other residences, he said, but people must always be careful.

The Rector, Prof. Eric Ash, is very concerned about the incident, but he does not feel that Estates have been lax about security and repairs. "It's very easy to be wise after the event,"

he commented, adding that it was certainly worth looking at security arrangements in the other residences. Improvements could be made, but there will always be some risks, he concluded.

## Community Chest

Over 120 students in fancy dress participated in Human Monopoly for Imperial College Charity Rag on Saturday. Due to a great effort by everyone who took part, £2304.97 was raised for Mencap. Individual totals will be available soon, as will the name of the winner.

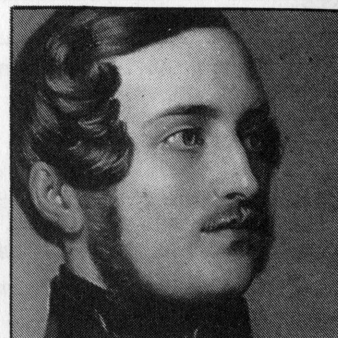
Ghostbusters, Martini men with treacle filled glasses, transvestites and people with inflatable 'accessories' went round London, armed only with an A to Z, a set of clues and a Travelcard. Some very strange items were acquired, including parking tickets, pairs of underpants, a wrenched crook-lock, matches from the Savoy and even a BBC film—all obtained legally of course. Everyone who participated enjoyed Monopoly, in spite of the weather, and all were worn out at the end of the day.

The evening concert was also a resounding success, with over 1200 people turning up at Hammersmith Town Hall. Although slightly outnumbered by sixteen coachloads of Loughborough students, IC was well represented and incurred the wrath of everyone else by making a virtual clean sweep of all the raffle prizes.

Rag Chairman Man Tai Tseung told FELIX that he would like to thank Emma the Sagittarian guinea pig, Martin, Carl, Robert, Robin, Jonathan and Mehesh, and also everyone who took part.



## Annual Report



The Imperial College Annual Report for 1986/6 was published yesterday. The report was released to coincide with the Commemoration Day ceremony. As was expected, the publication is an extreme departure from the statistic-filled reports of recent years. The new report has been printed to a very high quality and includes articles on the administration, academic research and undergraduate activities at IC, as well as a brief statistical section.

The Annual Report has been restyled to raise the profile of Imperial College, and in particular to promote links with industry.

## ULU Bash

Several hundred people converged on the ULU building in Malet Street last Friday for the ULU Intro All-Nighter: "Unstoppable", sponsored by Time Out and the National Westminster Bank.

For £10.00 students were treated to food, live bands with Terry and Jerry, The Potato 5, The Sacred Hearts and Sandie Shaw, as well as several cabaret acts, most notably Jenny Lecoat. After the bands, films were shown until 8.00am next morning including the Rocky Horror Picture Show and Taxi Driver.

## Competition Winner

A. Bedford of Chem Eng 1 won the Bouncers competition in the October 3rd edition of FELIX. She correctly identified the performers in the show as: Bruce Springsteen, Shalamar, David Bowie, Whitney Houston, Talking Heads, The Commodores, Micheal Jackson and Harold Faltermeyer.

She wins two tickets to the Hippodrome, an autographed poster and a copy of the Bouncers Rap.

# NORMAN'S

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10am-3pm, 6-9pm, Mon-Fri

\*\*\*\*\*

## Union Bar + Lounge Bar

\* Real Ale \* Snacks and coffee

\* Music, Videos, Entertainment

Open 12-2pm every day

Mon, Tues, Thurs, Sat: 6-11pm

Wed, Fri: 5-30-11pm Sun 7-10:30pm

## I.C. Students' Union