

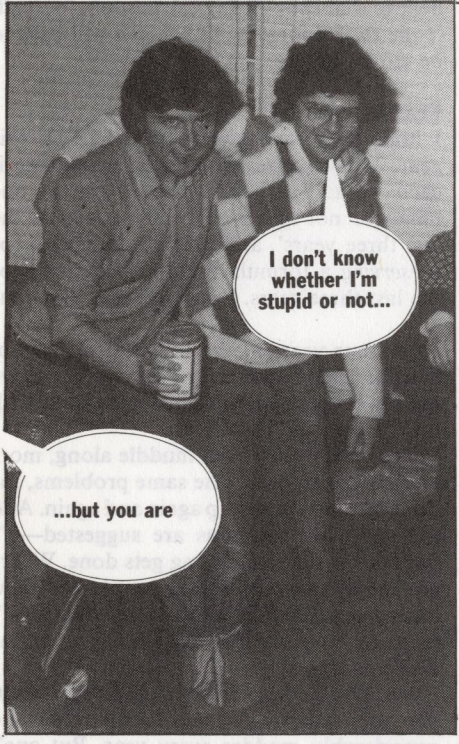


FELIX

Founded 1949

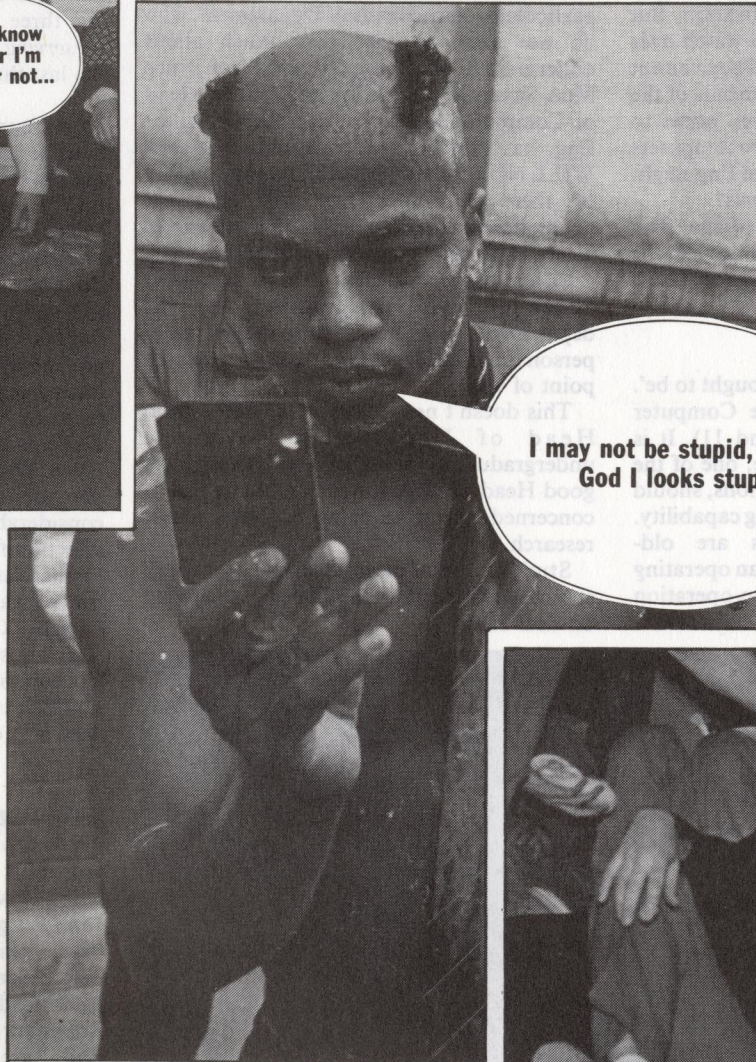
The Newspaper of Imperial College Union

Successful year ahead

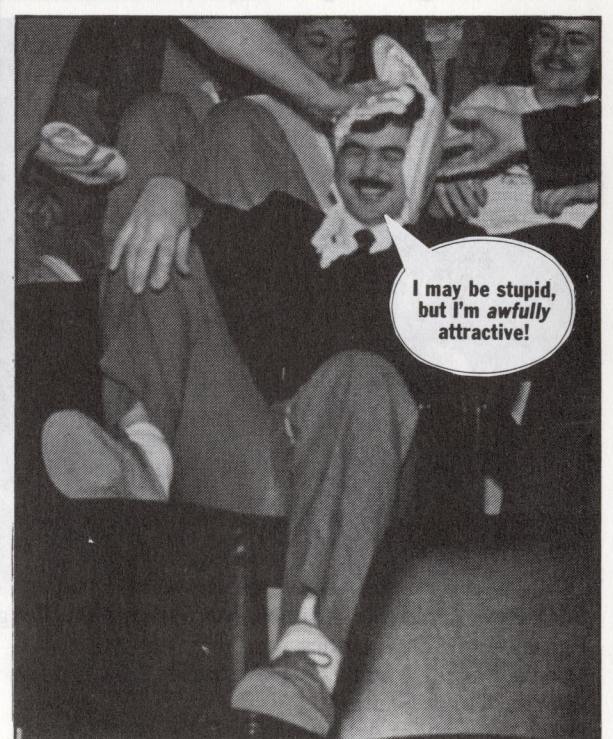


I don't know whether I'm stupid or not...

...but you are



I may not be stupid, but by God I looks stupid



I may be stupid, but I'm awfully attractive!

Hope for the future!

FELIX

The freedom of the press is not a freedom to publish any rubbish that comes your way. But it sometimes carries with it a responsibility to publish the unpalatable truth. A lot of people will criticize me for publishing a map of the tunnels this week, and say that it is irresponsible. I reject this entirely. The map should bring home to the College authorities how lousy campus security is. This is not to criticize the security guards themselves. Most of them do a very good job, and deserve our admiration. But their superiors get the guards to watch over locked doors on ground-level. They cannot know who enters and leaves by means of the College underground. Did it even occur to the authorities that the ten microcomputers stolen this year from Aero/Chem Eng might have been removed via the tunnels?

No. Up to now the College has conveniently ignored the existence of the tunnels. Now they can no longer do so. It will be interesting to see how they react.

Computers

'The College is not as good as it ought to be'. One of its main failings is the Computer Centre facility (see pages 10 and 11). It is ridiculous that Imperial College, one of the world's leading scientific institutions, should have such poor central computing capability. The Control Data machines are old-fashioned, user-hostile and have an operating system so non-standard, that co-operation with other colleges throughout the world is

hampered. The College must act quickly to put the situation right.

Catering

Mr Northey is interviewed on page 5. When speaking to him informally, it is obvious that he has a lot of good ideas for the refectory. He seems reluctant to see them in print though—you won't find any specific plans in the interview. To be successful he is going to have to sound out student opinions about their refectory requirements, and how they correspond to his plans. To this end he deserves our co-operation.

Teaching Standards

What is the rôle of a University—undergraduate teaching or research? The glib answer is to say both, and further to say that they are eminently compatible.

But there are those in the College, particularly some Heads of Department, who do not seem to care very much about undergraduate teaching. In fact, Prof Bruce McA Sayers, Dean of City and Guilds, Head of Computing and sometime Head of Elect Eng, has told his academic staff that they **WILL NOT BE PROMOTED** on the quality of their teaching. They will only get promotion on the quality of their research. There is no career incentive to lecture well.

Sayers has had a great deal of success in attracting research contracts to his department, and he is probably a good person to have in charge from a research point of view.

This doesn't necessarily make him a good Head of Department from the undergraduates' point of view, though. A good Head of Department should be just as concerned about teaching as he is about research.

Students' complaints about teaching standards throughout the College seem to fall on deaf ears.

Next Year

Next year's sabbaticals are not going to have an easy time. Most of their problems will be financial. They must address the question of ex-subvention income. They must get the Bookshop back on its feet, even if it means making unpopular or painful decisions. The Bookshop cannot and must not be allowed to continue losing money. Make no mistake—when a shop with a turnover of £350,000 a year makes a loss, there is something seriously wrong. And I don't believe that shop-lifting can account for it all. If the shop continues like this, it will have to be closed down.

FELIX

I hope that you have enjoyed FELIX this year. I have certainly enjoyed producing it each week. I've been criticised on the one hand for not making FELIX a copy of the last three years', and on the other hand for *preserving* a formula that *has* been used for the last three years. You can't win, can you?

After four years at the Imperial College of Science and Technology, you must forgive me for being a little disillusioned, both with the College and the Union.

Year after year, both muddle along, more or less side-by-side. The same problems, the same questions crop up again and again. And the same old solutions are suggested—it's only rarely that something gets done. Where are the dynamic go-ahead people with new ideas and sparkling enthusiasm? They don't seem to be in the Sheffield building or the Beit building.

No. The College is rather like an aged aunt. She gets rather older and rather fatter and considerably madder every year. But one's affection for her doesn't cease. One loves her for her faults and tetchiness as much as for her endearing qualities. And so it is with Imperial College.

To those of you who, like me, are leaving College this week, and to those of you whose sentence is still to run, may I wish you all the very best of luck in the future.

Acknowledgements Many thanks are due to the following for their help throughout the year: Maz Fellows, Grenville Manuel, Hugh Stiles, Dave Jones, Chris Martin, Jon Jones, John Burgess, Judith Hackney, Sarah Kirk, Nigel Atkinson, Alan Barnett, Peter Hobbs, Pete Coleman, Hugh Southey, Patrick Coll, Peter Rodgers, Rich Archer, Phillip Milne, Rosemary Ivor-Jones, Tony Churchill, Ian Bull, Eric Darbyshire, Dave Parry, Diane Love, Tony Spencer, Ajay Kapadia, Richard Weissenberg, Luke Boucher, J Martin Taylor, and to anyone else who I've missed out.



Back Row: Grenville Manuel, Jon Jones, John Burgess, David Rowe, Hugh Stiles, Patrick Coll, Dave Jones

Middle Row: J Martin Taylor, Sarah Kirk, Judith Hackney, Chris Martin, Peter Hobbs, Hugh Southey

Front Row: Nigel Atkinson

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Imperial wins wine trophy

IMPERIAL COLLEGE won the Peter Dominic inter-university wine tasting competition last Wednesday, beating five other universities in the final. Each IC team member won a magnum of Château Lafite 1975.

The teams from Bath, Southampton, York, Birmingham and Edinburgh had all previously won their regional finals before coming to IC to compete in the final.

The competitors tasted eight wines, all from the Peter Dominic

list, and had to identify country, district, sub-region, grape variety, vintage, and if possible the name of the wine. The most readily identifiable was a 1976 Rioja, and the most difficult a 1982 Mersault. Out of a possible total of 800 points, IC scored 294, Southampton 261 and Bath 256.

Team member Mark Masento said that his magnum of Lafite 1975 will be 'laid-down' for a few years. Lafite is the finest of the clarets, and one of the world's great wines.



Pictured from left to right are Keith Russell, Duncan Kerr, Mark Masento, John Craven, Miss Margaret Howard (making the presentation) and Julian Watson. The other team member, Anthony Broadbent, was unfortunately unable to compete.

Imperial Professor honoured

PROFESSOR SIR David Cox was honoured in the Queen's Birthday List, being created Knight Bachelor. He is Professor of Statistics in the Mathematics Department, and the citation noted his work in that field.



Professor Sir David Cox recently honoured

Joint Council

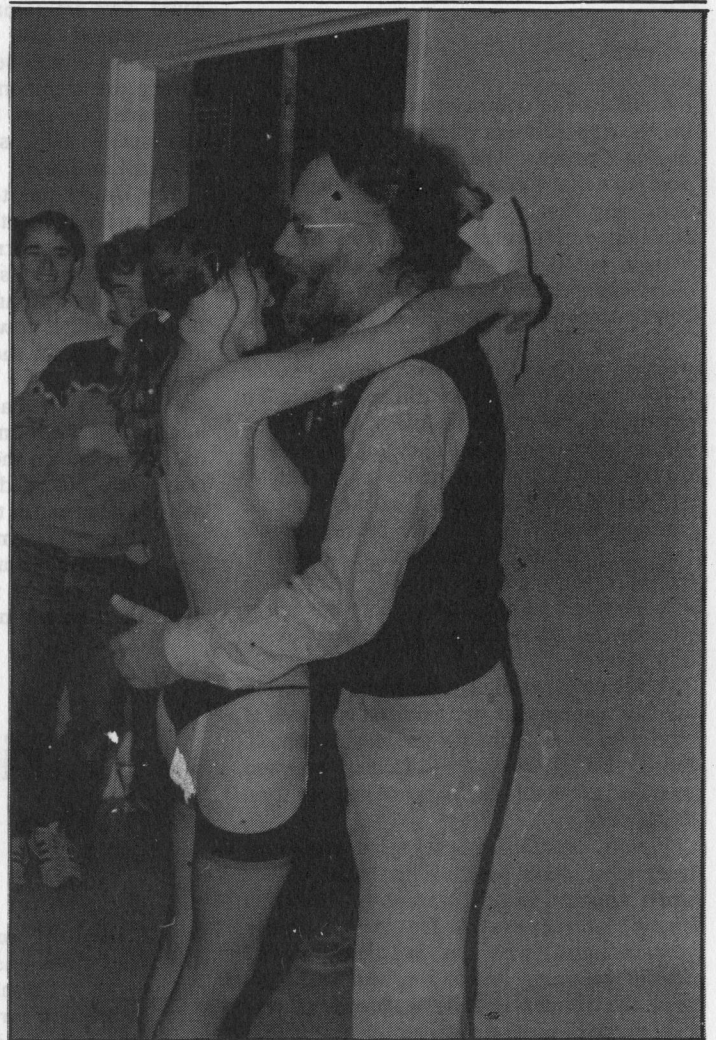
JOINT COUNCIL ON Monday referred back Union Welfare Officer Mike Stuart's annual report after Ian Bull, ICU President, had described it as almost totally factually inaccurate.

The meeting also awarded ten people pots, seven people Honorary Life Memberships and the Dave Chance Memorial Award to Delyth Morgan, ULU President.

The recipients of Pots were Ian Bull, Dave Parry, Eric

Darbyshire, Dave Rowe, Hugh Stiles and the University Challenge team. Honorary Life Membership was awarded to Nick Shackley, Doris Retsina, Dave Allen, Steve Lane, Graham Thorpe, Chris Hendy and Hugh Southey. The award of HLM is also given automatically to UGA recipients.

Ms Morgan received the Dave Chance Memorial Award, which is awarded to the person who is the biggest nuisance to Council, for her organisation of the Hon Porn Night picket.



DR P J FINLEY of the Aeronautics Department got rather more than he bargained for when he attended an end-of-term presentation. A young lady presented herself to him, semi-naked.

It seems that some of his students clubbed together to hire a strip-ogram.

An enterprising photographer captured the event on celluloid, and made it clear to Dr Finley that either he gave him a first or the picture would appear in FELIX.

The unbribable Finley wisely chose the latter course.

Letters

Not a single excuse

Dear Sir,

I would like to comment on the ICU policy for the appointment of student wardens for Evelyn Gardens. The adverts for any such post state that a married warden is preferred, indicating that a single one would still be considered. However, in practice a single person would not get taken on under any circumstances, as it is felt that they would not be able to handle the job. For a mixed house, there are definite advantages of having married wardens, but for a male-only house there appears to be no justification for it. To say that a single person could not handle the job, whereas a married one could is totally ridiculous. In my experience as a (single) warden of the Fremantle Hall for the past eighteen months (a hall with more students than any of the Evelyn Gardens houses), I have never found being single a disadvantage, as the amount of time spent running the hall would put severe pressure on any partner.

Also one of the main arguments for having student wardens (as opposed to staff ones as in the halls) is that they are not as remote from the students. However, married wardens are liable to be more remote than single ones.

Finally, restricting the wardenships to married students severely limits the choice when appointing new wardens. I certainly know of several very able single postgraduates who, as wardens, would devote the energy and enthusiasm to the job that the residents deserve. However, my experience of present married wardens is that they have very little interest in really getting involved with students. I believe that until the Union changes its policy in the appointment of wardens we will continue to get second-rate wardens like the ones we presently have running the student houses.

Yours faithfully,
Nick James
Warden, Fremantle Hôtel

Ring out the old...

Dear Sir,

Having seen the various letters and articles printed in FELIX over the last few weeks I feel that I ought to set some matters straight.

Last January I asked the CCU/MSC heads for their next year estimates. Myself, Ian Bull and Ken Weale (ICU HST) had already pointed out that we could not expect much of an increase from College at all. However when the estimates from the various sections arrived it became clear that we were going to be looking for a large increase.

In the end we faced an expected deficit of £24k. We did not have as much money as last year to give to the MSCs and CCUs. Therefore UFC came to the conclusion that we ought to start trying to make clubs more equal. Two areas immediately came to mind; subscriptions and travel subsidies. On inspection it was seen that the amount of money the members of a club contributed compared to that the Union gave varied enormously. UFC is therefore attempting to bring all into line.

The Union was to spend about £32k on travel subsidy next year. Again levels of subsidy varied enormously and UFC agreed to make the travel subsidy standard.

Tours were originally seen as subsidised holidays but it is now clear that some, at least, are necessary for the operation of an active club.

Previously we had asked some clubs to justify their continued receipt of Union funds. This was done to see how much value these clubs provided. Next year the situation will not be as bad as this, but no doubt, further cuts will have to be made and at some point in the future (sooner rather than later) a club is going to be cut out from IC Union funds in order that the rest may survive.

Yours faithfully,
Dave Parry

...ring in the new

Dear Sir,

I would like to, if I may, take up a bit of space to remind clubs and societies that wish to have a stall at Freshers' Fair next term, that their application forms must be returned to me by the end of this week. Any club which returns its form after the end of term cannot be guaranteed a space, and will be charged £10 for their stall. And as for those clubs who turn up on the day without having asked for a stall...

Yours faithfully,
Dave Kingston
ICU Deputy President Elect

Rag madness

Dear Sir,

With the forthcoming production of our Imperial Rag Mag after a year's absence I think the Union should seriously look at the whole concept. The main aim of a Rag Mag is to raise money for charity yet the Imperial offering has consistently failed to do so. The Union has laid great emphasis on the printing quality of our publication yet there is great resistance to a realistic price being charged. The result is a Rag Mag which is unlikely to break even and incurs more cost due to the method of sale. In the past there were selling trips to one college, which frequently cost nearly all of the money collected. This year saw the development of Rag Mag selling tours, instigated by RCSU. While the trips cost less per Rag Mag sold this cost is still significant and the practice leads to Rag being associated with clique rather than the whole student body.

If Rag is to raise money for charity via our annual Rag Mag there are two obvious requirements. The price of the publication should be sufficient to cover the full production cost with a significant sum remaining and this expected revenue should be based on a realistic selling target. I see little point in printing thousands of Rag Mags which will sit in boxes for years to come. Let's have a Rag that works for charity, rather than pandering to the ego's of those involved.

Yours faithfully,
Nigel Atkinson

An Irishman writes...

Dear Sir,

I have just read the article 'Not a single human being' in FELIX 705 and while I agree with much of it, sadly it ignored a most interesting type of student whose contribution to the quality of life at this College has been inestimable—let's call him Patrick.

Typically Patrick was educated in a Christian Brothers School in a small market town somewhere in Northern Ireland before arriving at Imperial College where he proceeded to take the College and Union by storm.

Neither his smalltown up-bringing and its sole electoral doctrine of 'vote early and vote often' nor his sometimes musical, most times incomprehensible brogue seemed able to halt his inexorable progress towards the upper echelons of the Union.

Patrick's only weakness is drink, his only enemy the police, and his only fault staying at College too long. A veritable human being indeed.

Yours faithfully,
John Bull,
The Other Island

Rob Northey

the *FELIX* interview

Rob Northey, the new Catering Manager, and Victor Mooney appear to have almost nothing in common. Northey gives the impression of being young, ambitious and full of ideas, attributes hardly applicable to the Mooney of recent years. He also seems determined to talk to students, to find out what they want, and tell them what he thinks about refectories.

Bars

But first impressions of Northey were not very good. Stories circulated suggesting that he wanted to put a television in the Union Bar, and raise the price of a pint to a pound. Northey claims he was misquoted.

'When I first came here, I had to ask people questions to get reactions and I asked them if they had tried different things. At the moment the Union Bar has had quite a lot of money spent on it and there is a very successful formula. We have no real ideas about changing anything in this area.'

In general, Northey is happy about the performance of the bars, although he would like to see better use of the Real Ale Bar and other areas that he believes to be under used.

Improvements

In the refectories, on the other hand, he believes that he must make significant improvements. His priority is to 'modernise the refectories and bring them up to date, considering that the last major investment was twenty years ago. Hopefully we can put the refectories on a sound financial footing with modern facilities.'

At the start of the year College approached a firm of consultants to redesign the Sheffield Refectory. The firm responded by producing a plan that involved equipping the JCR as a refectory, and converting the present Main Dining Hall to a JCR. College was initially keen to carry out the plan, and even considered starting the work this summer. This idea now seems to have been shelved. Northey believes that the plans were 'not totally satisfactory'. The consultants, in his view, 'put such



Rob Northey became Catering Manager just over a month ago, after several months of working with Victor Mooney. Since coming to College he has refused to be interviewed. Last week he made his first public comments on his plans for the future.

a degree of luxury into the area, making it so inflexible that it wouldn't fulfil the requirements of the College, and the furniture wouldn't last for the time we are looking for'. The College needs furniture that 'will look good in five years time'.

'The Refectory needs to be a modern, adaptable area that can keep up with the times and therefore with modular aspects. Therefore, in the future, if we find that a particular aspect of the catering trade changes, we can keep up with the trends, which we can't with the present rigid system.'

Southside

Northey sees Southside Refectory as one of the most urgent problems, there needs to be a facelift there in the immediate future.

His hobby is Chinese and Indian cooking and he intends to experiment with some exotic meals. One possibility being considered is having specialist food evenings. He does realise the problems, however.

'The present system is very hampered by the present serving arrangements which restrict the versatility of the types of food that can be served. This will be taken into consideration when

we are designing the new refectory areas. We would like feedback from the students about what we should be producing. A lot of attention will be given to the ethnic minority groups, although it will be impossible to cater for all of them. Unfortunately we would need twenty refectories.'

Staff

Unlike his predecessor, Northey is determined to try to create a good impression. He is very adept at answering awkward questions. He avoids the issue extremely well, when he wants to. On the subject of staff, he is quick to praise those in the kitchens.

'The kitchen brigade is one of the finest you will find anywhere, for the actual work that they have to cope with, and with the equipment they actually have. I am full of admiration for them. Considering the basic conditions, many of them do a very good job.'

He isn't prepared to comment on the performance of his other staff, however. When pressed, for example, about his middle management, the group of his staff which has received the fiercest criticism in recent years, he will only comment that he has

prepared a document detailing the changes that need to be made to the management structure.

Northey does not intend to try to mislead students. He is prepared to speak his mind on certain issues, even if it is likely to make him unpopular with students. He believes that the quality and price of the food is reasonable, given the constraints placed on the refectories. He doesn't believe that there will be any major price cuts. He doesn't believe that Southside Shop can compete with Sainsbury's prices and must always be regarded as a corner shop.

He seems determined to make the changes that he recognises are needed. He doesn't believe, though, that the changes will take place overnight.

'I can't cope'

'We have a lot of schemes, but most of them take some time to implement. If we can start a scheme, plan and implement it in year or year-and-a-half's time, we are doing fairly well. With the sort of money we're spending it would be very, very silly to rush into any new scheme without doing proper research and similar work. Otherwise the end result might not be quite what we would want or desire or the students would want or desire.'

In what can only be interpreted as a warning to College administrators he adds,

'If there isn't a significant change in a year and a half I will leave. I will have failed because I can't cope with the job or because I haven't received the support that I need.'

Mr Northey is an ambitious man who sees the job as another step in his career. He certainly doesn't intend to remain in the job for over thirty years as Mr Mooney did.

'One always looks for a challenge. I'm afraid I'm not a Mr Mooney, the incumbent for 31 years. Any job that's worth doing is worth spending five or six years on. Obviously it depends on the job market, what comes along, and how well FELIX and other people look after me.'

Summer

· I · D · E · A · S ·

Inter-rail

In the last few years a new word has entered the language.

'I'm going Inter-railing this summer', you will have heard people say. And there are few better ways of spending a summer.

The inter-rail card costs just over £100 for a month and entitles you to free railway travel in most of the countries of Europe and Scandinavia. The route is entirely up to you. You can go wherever you fancy, and wherever an appropriate train will take you. You can sleep on the train overnight and wake up in a new city every morning. If you find somewhere you particularly like you can stay there for a few days, using it as a base to explore the surroundings by 'free train'.

Every inter-railer has their favourite place which 'musn't be missed'. For me it is Budapest, the capital of Hungary. To go to Budapest is to take a step backwards in history—it is a *fin-de-siecle* Vienna, not preserved in moth balls, but full of a bustling and friendly populace. It is still possible to eat like a king in one of Buda's many fine restaurants, serenaded by gipsy musicians, and it won't set you back more than £5 for a three-course meal

with wine and a taxi back to your *hôtel*. Oh, and the youth hotels are about £1.50/night for a shared room. Don't worry about the language problem—German is the second tongue throughout Eastern Europe.

A certain amount of planning helps before you set off on your holiday. Make sure you have visas for all the countries you might visit. Make sure you find out rates of exchange as well—some one *will* try to rip you off. (Not just abroad, either. I saw someone hand over \$90 at Charing Cross—they got £15 back.)

Another decision to be made is who to go with. My own view is that it's best to go inter-railing alone. You meet far more people, you go exactly where you want, and there are no arguments. In fact half the fun for the lone inter-railer is watching groups of 'bosom-pals' having raging rows about what to do.

Inter-rail tickets are available price £119 from the STA Office JCR (above Southside Shop, as from July 1). You will need your passport when you buy the ticket, and every time you use it. It entitles you to half-price travel in the UK and on Sealink.

STA Handbook

The first starting-point for that world tour you've promised yourself is almost certain to be the STA office in the JCR. While you're in there it would be foolish not to pick up a copy of their new *Let's Go* handbook. It contains 60-odd glossy, colour splashed pages crammed full of facts and prices. Did you know that you can fly from London to Karachi and back for as little as £336? It takes a lot of saving I know, but what a story to tell the grandchildren...

The handbook starts by launching into a country-by-country lowdown giving good points, bad points and costs. The countries are arranged in what might be called 'order of easiness', starting with Greece and Spain (which are easy to get to and cheap) working up to South-East Asia and Australia (which aren't).

After that there is a good general section on visas,

innoculations, insurance and the like. It also has a nifty little checklist of things you should take which could avoid embarrassing little incidents like arriving at the East/West Berlin border and finding that you've forgotten your passport. Lastly all those abbreviations that travel agents love to use are explained.

The author obviously has a sense of humour, and it is small enough to carry with you—early field-testing of one of the first issues also revealed that it can be drooled over with total discretion during lectures.

About the only blemishes that were apparent were a mildly sexist ad on page 2 from BCal, the lack of captions for the photographs (where is that sunset on page 24?), and the fact that I'm not going to be able to visit every one of the 457 places that have caught my eye while reading it.

And you don't even have to buy it.

JOBS FOR A CHANGE

ASWAD
AZTEC CAMERA
BILLY BRAGG
ORCHESTRAL MANOEUVRES IN THE DARK.
THOMAS HAPFUMO
WORKING WEEK
FREE

ESTIVAL

SUNDAY JULY 7th BATTERSEA PARK

STUDENT TRAVEL HANDBOOK

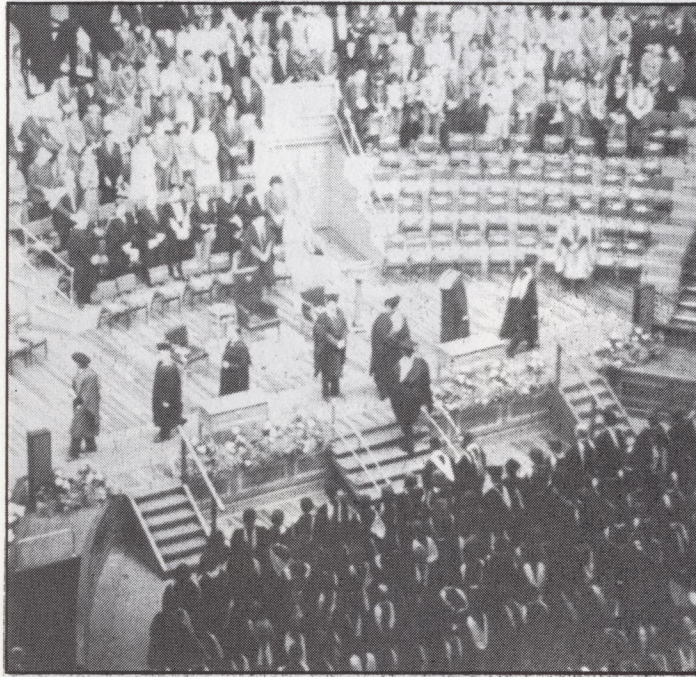
Win A Trip For Two To NEW YORK On Virgin Atlantic Airlines

LET'S GO
STA TRAVEL

The year started on an optimistic note with news of a possible new hall of residence on top of the Sports Centre. Little progress has been made, however, and the financial viability of the scheme is in doubt. Further exciting news was the proposal of science parks at Silwood Park and South Kensington. Again, progress has been slow, but the plans are still under way. Also during the summer a new telephone exchange was introduced. As an exercise in causing the maximum disruption and confusion it went very well. For several weeks callers found it almost impossible to phone in to the College.

The Freshers' issue covered the major crime at IC this year—an armed bank raid on the NatWest sub-branch. A shot was fired and £26,000 stolen. Also in the news was the opening of the Union Snack Bar under the management of Norman Jardine. The first non-Mooney food in College for many years was an instant hit with students and staff. Meanwhile Mr Mooney's outlets were continuing true to form with a spate of incidents where beef was being sold as lamb.

A story which appeared in several issues of FELIX was the



The year Commemoration day was interesting

Southside fire alarm saga. The newly installed system went off at all hours of the day and night causing much annoyance to residents. The situation is still not fully resolved although the number of false alarms has been reduced.

A division of opinion in the higher ranks of the College hierarchy was publicly revealed when Sir Henry Fisher (chairman of the Governors) made his closing remarks at the Commemoration Day ceremony in the Albert Hall. He openly

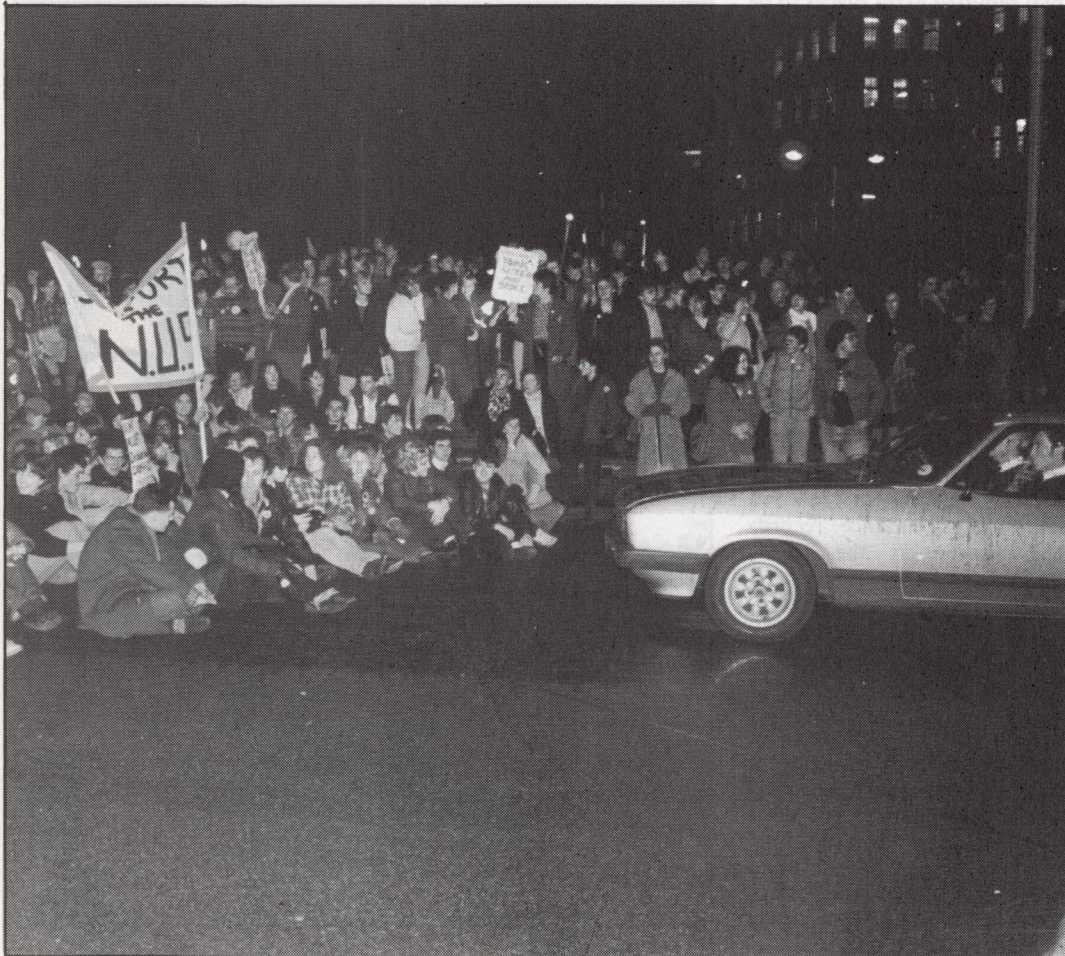
Review FELIX

criticized remarks the Rector had made in his speech minutes earlier in the ceremony welcoming the broadening of sixth form studies.

Refectories again hit the headlines in November when a motion committing the Union to organise refectory boycotts if there were further price increases was passed at a UGM. Prices have not gone up since, so there have not yet been any boycotts, but the policy remains effective until a new computerised pricing system is introduced.

Later in the month the Government announced that the minimum grant would be abolished and some parents would have to pay tuition fees from next year. There was a wide-ranging campaign opposing these changes, including a NUS organised (or more accurately, NUS dis-organised) march which ended in confusion and confrontation with the police. In the end Sir Keith Joseph had to make an embarrassing climb down in the teeth of opposition from the middle-class Tory voters who would be hit by the move.

Closer to home, the Union ran into financial difficulties caused by a shortfall in expected income. Just before Christmas a 3% cut was imposed on all clubs and societies to avoid overshooting the budget. Troubles of a different kind also afflicted the annual Hon Porn night organised by RSMU. Anti-porn campaigners had raised the issue at the University of London



Blocking bridges-does it help?

Union which resulted in about two hundred students from other London colleges arriving to picket the event. Fearing bad publicity the Rector persuaded the RSM President to call the event off at the last minute. However, a large number of demonstrators still turned up and weren't easily persuaded that the event was not taking place.

Shortly after the Christmas vacation it was announced that the Rector would be leaving to take up the position of Vice Chancellor of the University of London. The search for a successor started soon after but none of the more obvious candidates wanted the job. Soon after the announcement was made Lord Flowers was rushed to hospital with a heart attack. He was off work for several months and is still only working part-time.

Students in Evelyn Gardens were told in January that work to improve the properties would be carried out in term-time, requiring some residents to move three times during the spring and summer terms. Eventually the College was persuaded that the work could be done in the vacation. The work was the first stage of improvements required on all the Student Houses by Kensington and Chelsea Council. The College has now agreed to draw up a timetable for the remaining work to satisfy the Council and to avoid disruption during term-time. The total cost of the repairs will probably exceed £250,000.

NEWS Review



Pascal Carr and friend in the Union Bar

The loss of the Fremantle Hotel required extra places to be found to maintain the guaranteed places in residence for first year UGs and overseas PG freshers. The Student Residence Committee (SRC) decided to reduce the number of re-applicants who have a second year in hall or house from 10% to 8% overall.

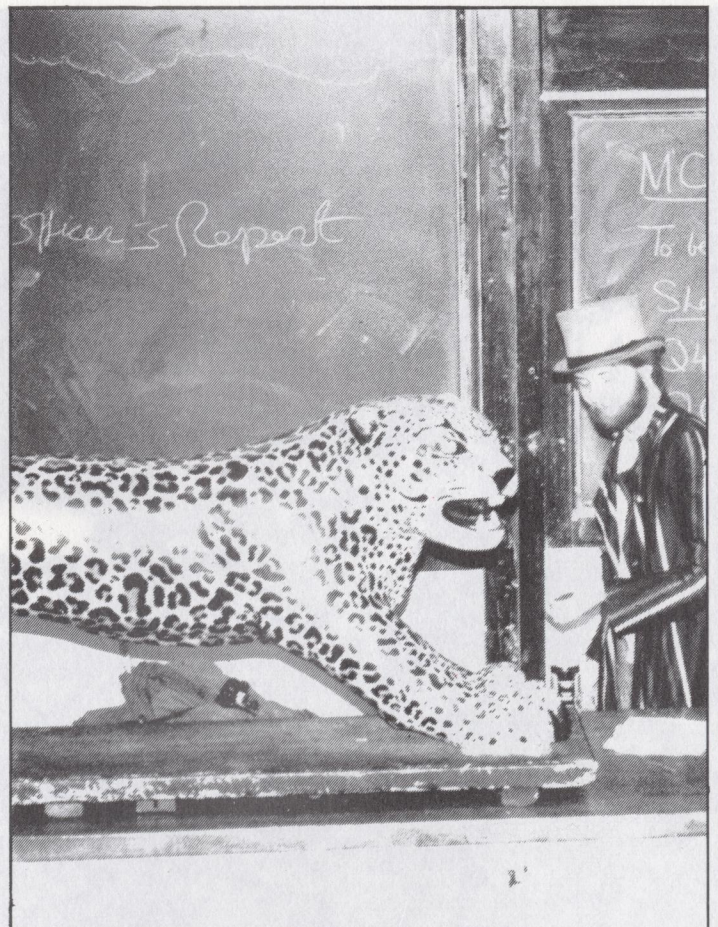
Still in January, the Union's finances were again in the news. The Union Finance Committee (UFC) decided that Constituent College Unions (CCUs) should not be able to carry over funds left at the end of one year to the following year. Next month the decision was reversed by Council, meeting at Silwood Park. The attendance records were broken as the CCUs brought out their full voting strength to push the decision through.

Two successful Rag Mag selling trips were held in January and February. The first visited fifteen universities in four days. The RCS party was banned from Keele and Loughborough and other complaints were received about the Rag Mag's contents. However the two trips raised around £2,500 and enabled Rag to sell off many of their large stockpile of old Rag Mags.

Early in February it was announced that Michael Arthur was to move from his job as Student Services Officer in July to a position in College administration. Mr Arthur was much criticized in FELIX last year for not being concerned with the problems of students. He is to be replaced by Donald Ferguson.

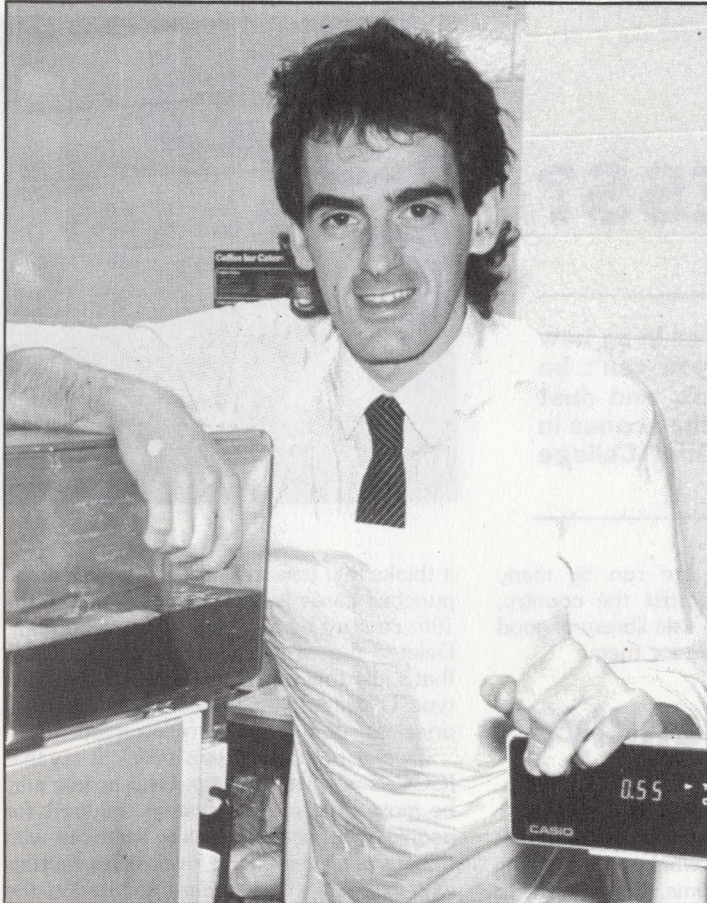
A stripper in the Union Bar appeared on the cover of FELIX the following week. She had been sent by a strip-o-gram service to surprise a regular customer on his birthday after a whip-round. The tongue-in-cheek comment in FELIX that if they behaved like this perhaps women shouldn't be allowed in the bar was quoted in 'NUS News' as an example of sexism at IC.

The mascot of QMC student union, Mary (a wooden Leopard), was stolen by a RCS team posing as QMC University Challenge supporters. In a revenge attack QMC students disabled an ICU minibus, which was at QMC for a business quiz. The tables were turned when QMC students were hoaxed by RCS into an attack on ICU which they thought was organised by Chelsea College. They were ambushed by superior forces and well and truly flanned.



Mary meets Parry

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Norman Jardine - Snack Bar Manager and part-time Combo Zombo

The Union organised a delegation to present our case for better facilities to the University Grants Committee on a rare visit to the College. The UGC said they were 'impressed by the student representatives they met', but said they couldn't do anything for us. A new effort to solve the Union's finance problem was proposed at a UGM—the President would have to check all the Daily Union bingo cards sent in to him. So far nobody has sent him any.

The College was evacuated at the end of February after a caller told the switchboard there was a 'bomb in the building'. Most people were evacuated from academic buildings, but alarms in halls were largely ignored due to the many fake alarms.

The City and Guilds College Centenary was marked by a series of events in March. An exhibition, Tech 2000, was opened by the Prime Minister, a banquet in the Guildhall was attended by HRH The Duke of Edinburgh, and many distinguished academics addressed a 'Symposium on 21st Century Technology'. Students were given three days off lectures and many treated it as a holiday although enough were eventually

persuaded to stay and act as guides for the thousands of school pupils who visited the College.

The IC team reached the final of University Challenge for the first time, but were defeated by Jesus College, Oxford. However they did defeat Somerville, Oxford; Queens, Belfast; Birmingham and Edinburgh on the way to the

final.

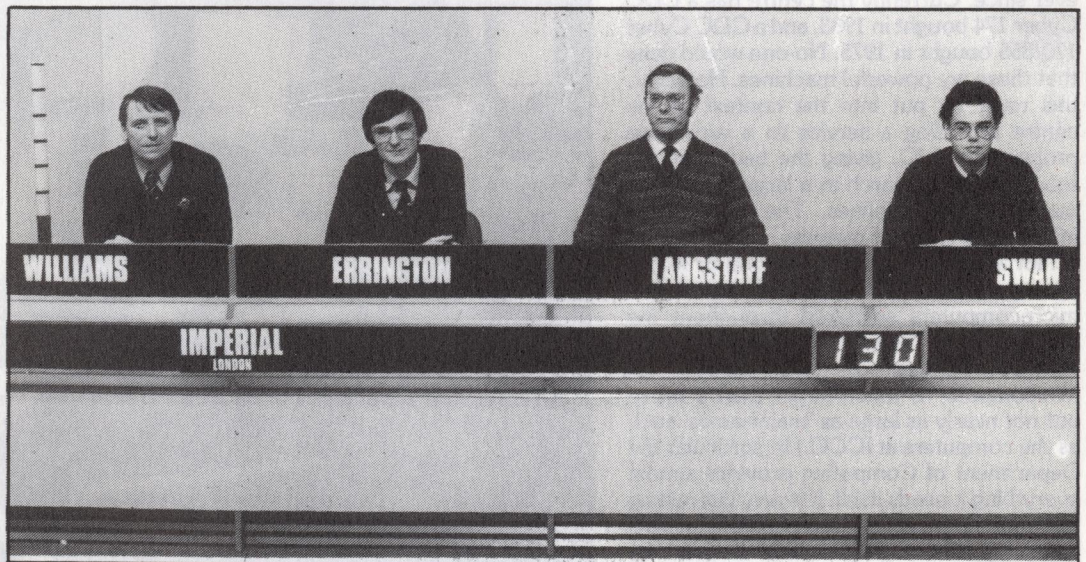
The setting up of a National Student Services Organisation (NSSO) by the NUS at a conference during the Easter vacation is likely to be a continuing story next year. The conference voted to exclude non-NUS colleges, and this includes IC, from the NSSO even though they are members of the smaller consortia that the NSSO is swallowing up. The competence of the new organisation is also in doubt.

The Union's financial crisis came to a head early this term with hard decisions having to be taken. Initially UFC decided to abolish tour grants and cut travel subsidies for IC clubs in an effort to reduce the £28,000 shortfall of next year. Five Year Plans were also pruned heavily with the most notable cut being the proposed new boat for Boat Club, although Audio and Micro Clubs also lost their allocations. Tours were subsequently reinstated subject to certain criteria.

Mr Mooney's retirement at the end of May was marked with a special farewell issue of FELIX. Whilst many will feel IC is poorer with the loss of one of its great characters, few will miss the food which his successor will hopefully be able to improve. The special issue featured the highlights of 32 years of FELIX coverage of Mr Mooney's successes (few) and failures (many).

The end of the year was marked with bad news about the financial position of students next year. It was already known that parental contributions

would rise steeply and the delayed grant announcement gave the expected 3% rise in the main rate. Students are likely to lose their entitlement to Housing Benefit and Supplementary Benefit in proposals to be put forward in a Green Paper due out soon. A Green Paper already published has announced the squeeze on universities with a 2% cut in real terms each year being proposed. Also there is to be a 5% rise in Hall rents, decided at a stormy Student Residence Committee meeting three weeks ago. Caught in the middle and being squeezed from both sides students are likely to lose out badly next year.

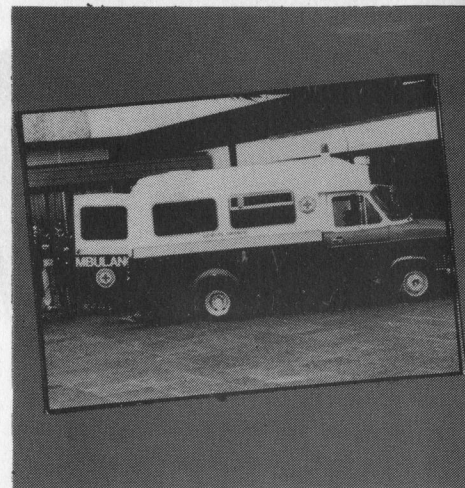


IC's University Challenge Team - pipped at the post

Has ICCC got a

TERMINAL ILLNESS?

So the computing project should have been handed in by now should it? Well, even if it you haven't done it you can't be bothered. The cobwebs lie in the terminal rooms, and dust gathers.. Now is the time for FELIX to go behind the scenes in IC's very own temple of technology, the Imperial College Compter Centre.



IF YOU PASS the FELIX office to get to the Union Snack Bar at lunch times you may have noticed a change in number of people inside. Every day at 12.30pm thousands of Chemical Engineers, Physicists, and Electrical Engineers have been handing in letters complaining about ICCC (the Imperial College Computing Centre). They say that if they had wanted to do a degree in computing then they would have done a degree in computing. They don't want to spend all day messing around in CEDIT watching the internals of ICCC churning round in front of their eyes—they want a decent editor, a decent screen, and therefore a chance to get on with the job instead of spending all day looking through a NOS 2.1 reference guide.

Monolith

So where did this monolith that is ICCC come from? The centre was born in 1964 when the college got an IBM 7090 as a gift (in a christmas cracker?). In 1969 the centre got its first CDC manufactured processor, a CDC 6600, and ICCC has been with CDC ever since. Currently the centre has a CDC Cyber 174 bought in 1983, and a CDC Cyber 170/855 bought in 1975. No-one would deny that these are powerful machines. However, this must be put into the context of the centre providing a service to a very large proportion of IC, giving the backbone for teaching and research in a large number of maths-based disciplines. The 170/855 for instance, is short of memory.

Not all computing at IC is done by ICCC by any means. There are vast numbers of microcomputers scattered throughout the College, and many departments run minicomputers of their own. (A minicomputer is much larger than a micro but not nearly as large as 'mainframes' such as the computers at ICCC.) In particular the Department of Computing provides almost everything it needs itself. It is very interesting to compare the ease of use of ICCC (or not) with, say, the S-VAX which is used by undergraduates in DoC. Machines of the same type as the the S-VAX provide good

value for money and are run by many academic institutions across the country, and therefore there is a vast library of good programs already written for them.

User-friendly?

Most of the time that is spent at a computer terminal is spent in the editor. On the S-VAX you can see what you are editing on the screen all the time. If you want to delete a line you move the cursor to that line using arrow keys, type 'D' to delete, and it's gone. On ICCC, you list a bit of program, then mess around a while. Now you've got to list a bit more, because you've forgotten where you are or what you've changed since you last listed it. (Not that you can see the last listing that you did—it scrolled off the top of the screen three minutes ago.) This takes ages because ICCC sends data to you very slowly. Why does it send data very slowly? Because it thinks that you are a printer. And

it thinks that you are giving it information on punched cards (which were invented in the 19th century by the way). Made a mistake? Deleted the wrong bit of code? On ICCC that's just tough isn't it. On the S-VAX just type 'U' to undo the last command, and that priceless routine can be resurrected.

If we want to use jargon we might say that ICCC is not user-friendly. User-hostile may be more precise. The system is superb for people who need to invert matrices with trillions of elements, but for ordinary mortals who happen to be undergraduates in the Chemistry Department it has about as much charm as having a ferret shoved down your jeans.

Virtue

So when are things going to improve? ICCC and their CDC machines certainly seem to have been left behind in some

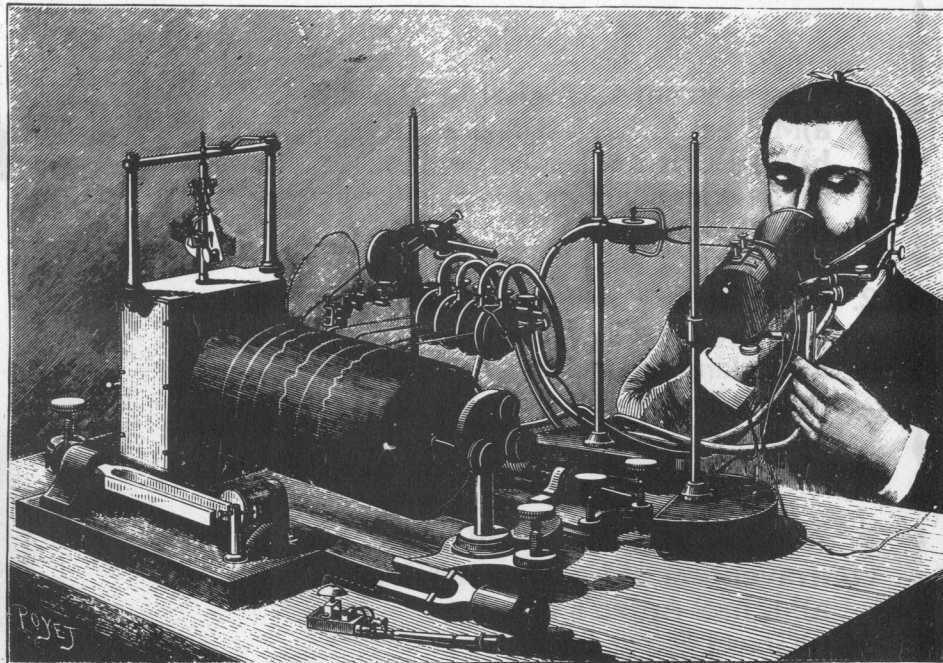


ICCC nerve centre—beam me up Scotty!

regards. Well there is some very good news—this summer a bumper memory upgrade (paid for by the winnings of a top secret consortium which used the MINITAB statistical package to predict horse races) will mean that the machines can support 'virtual memory'. This swaps programs and data in and out of the processor in such a way that the machine can appear to handle more work than at first seems possible. And then CEDIT will be thrown in the in bin where it belongs and a screen editor installed instead. Those arrow keys which have lain dormant for so many years will actually come into use. Many of the terminals currently running at about 30-40 characters per second will be upgraded to eight times that speed, which will remove many of those annoying delays when the screen is filling up. And all of this before the beginning of the Autumn term.

VAX for the memory

More significantly perhaps is the news that ICC is thinking of buying a VAX 8600. This is a recently announced machine which can handle a respectable numbers of terminals in a very user-friendly way. This would be bought for the teaching of Computing Aided Design, and as this requires a lot of computing power it seems that initially it won't be used for anything else. However,



STOP PRESS ICC's first voice recognition equipment!

once people use a machine like the 8600 they realise what a difference in productivity a decent system will bring. In the future it may well be that two networks are run in parallel. One would be a number crunching system consisting of the current CDC machines which would be used mainly for research where real data is being processed in large quantities. The other would be a less

powerful but still useful network of new machines like the VAX 8600, which would allow greater productivity through increased ease of use. This second network would be used mostly by (contented?) undergraduates. Then maybe Chemistry 3 would be able to get on with their course instead of wondering how to unblock the printer queue.

The Phoenix



The literary magazine of ICU

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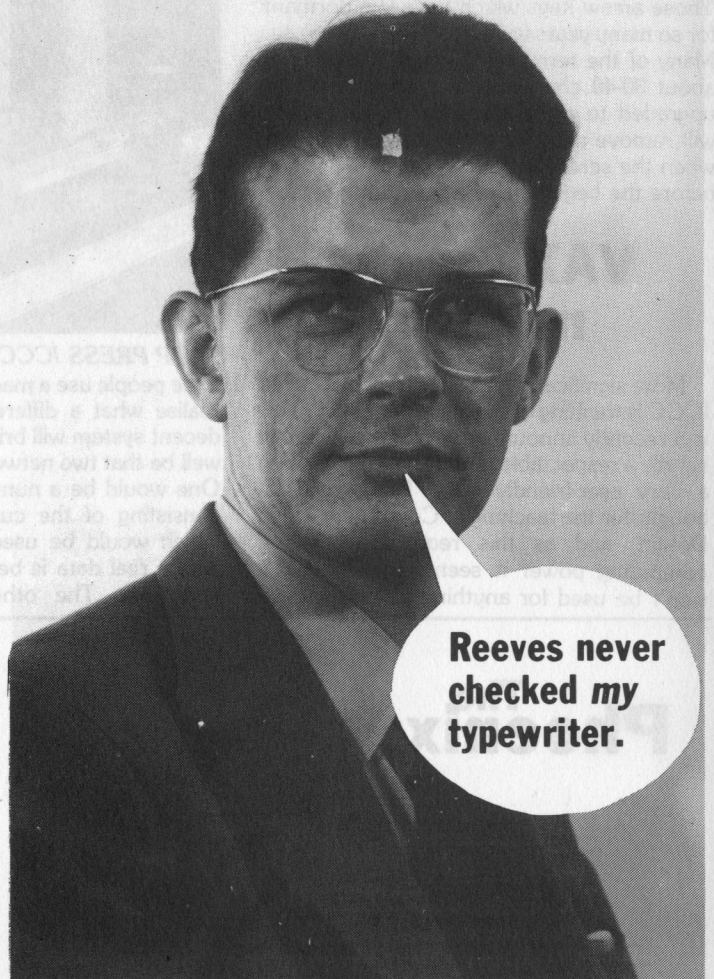
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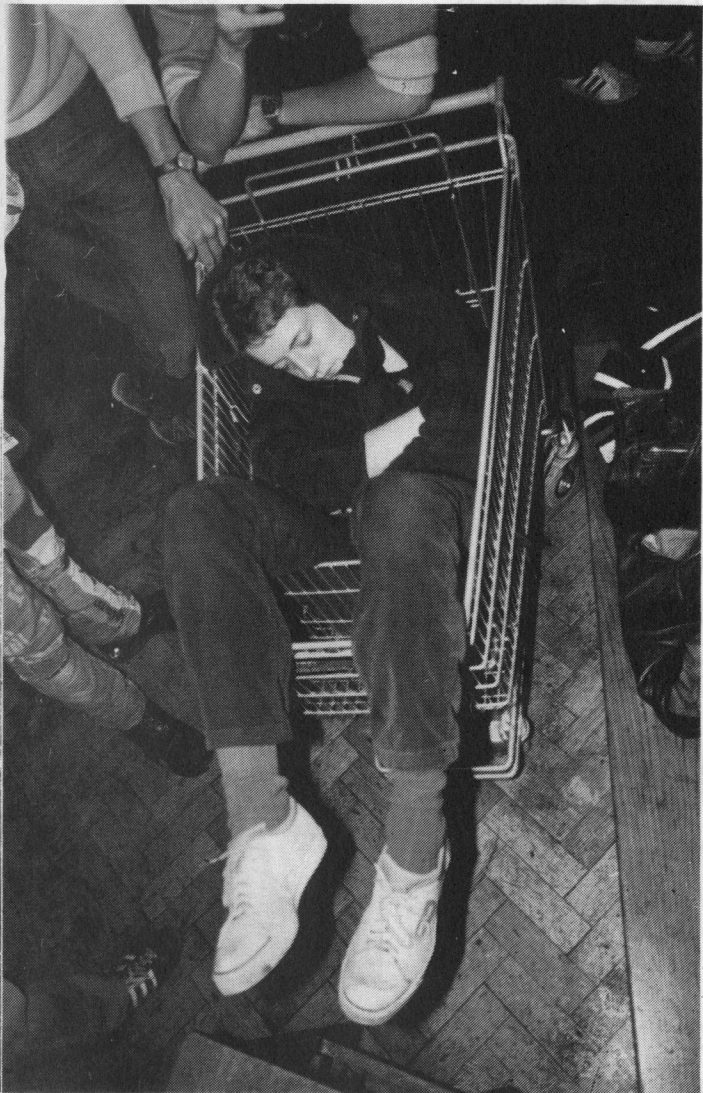
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News Quiz

- 1. What was set to rocket in March?**
 - a) Michael Arthur's temperature.
 - b) Wages for the Estates Section.
 - c) The quantity of beer in Eric Darbyshire.
 - d) Bar prices.
- 2. What is the main occupation of the union executive in the afternoons?**
 - a) Drinking sherry.
 - b) Sleeping.
 - c) Playing table tennis (DP only).
 - d) Horse racing.
- 3. Which student residences are in contravention of housing regulations?**
 - a) Michael Arthur's office.
 - b) Gower Street Squat.
 - c) Most of the private residences in London.
 - d) Benches in Hyde Park
 - e) Evelyn Gardens
- 4. Which traditional College landmark died in January?**
 - a) J Martin Taylor.
 - b) Victor Mooney.
 - c) The Lounge.
 - d) Imperial College Union.
 - e) Royal College of Science executive.
- 5. What controversial happening at IC never occurred.**
 - a) Mines Hon Porn Night.
 - b) Prof Swanson's appointment as Rector of IC.
 - c) A useful decision by the union executive.
 - d) Production of a good Guildsheet.
- 6. Who was found in a Sainsburys trolley in the middle of Princes Gardens?**
 - a) Lady Flowers, the Rector's wife.
 - b) Hugh Southey's brains.
 - c) The whole of the Estates Section.
 - d) A sausage trumpet.
 - e) The union Honorary Secretary.
- 7. At a general Meeting of ICU, President Ian Bull was told to do what?**
 - a) Regurgitate all the free sherry.
 - b) Join the 'Sooty and Sweep Show'.
 - c) Check 'Daily Mirror' Bingo.
 - d) Marry Gaynor Lewis.
 - e) Keep regular checks on his deputy, and activities in the table tennis room.





8. How many Freemasons attended the Centenary Banquet at the Guildhall?

- a) None.
- b) One (HRH Prince Philip).
- c) 600.

9. What raised £55 for Rag live on IC radio?

- a) Hugh Southey's brain.
- b) Eric Darbyshire's Sainsbury trolley.
- c) A Victor Mooney meal.
- d) A station strip show.

10. In November a serious outbreak of woodworm was discovered in College. In what did it occur?

- a) Mooney meat sausages.
- b) Victor Mooney's head.
- c) Ian Bull's head.
- d) The internal telephone system.

11. Who was slammed for sexism at the beginning of the year?

- a) The Union Office door.
- b) Michael Newman.
- c) The Rector.
- d) Victor Mooney's beef stew.

12. Where is the most famous student squat?

- a) Michael Arthur's office.
- b) Gower Street.
- c) Sean Davis's flat in Fulham.
- d) The Union Bar after closing time.

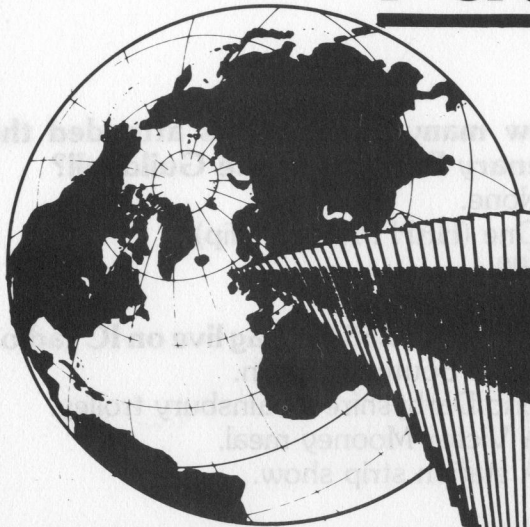
13. What facilities are available on the new telephone system?

- a) One-way communication.
- b) International dialling.
- c) Depends on the day of the month, your star sign, and when you last used the recall button.

14. What can you buy at the Union Snack Bar?

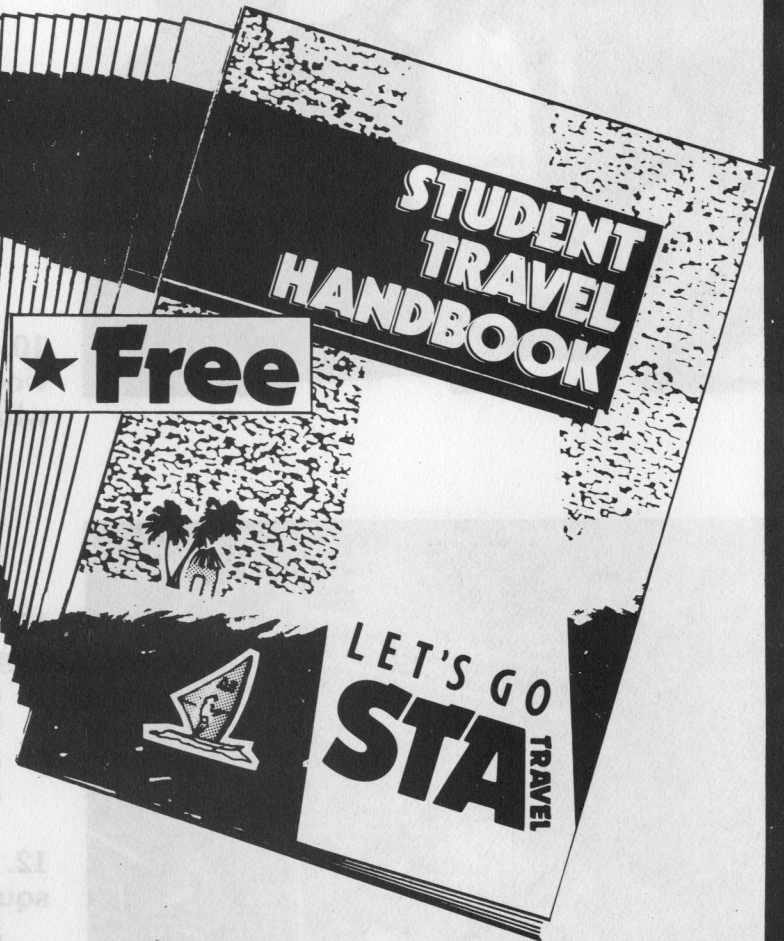
- a) Cold food.
- b) Lamb that isn't beef.
- c) The latest product from Combo Zombo.

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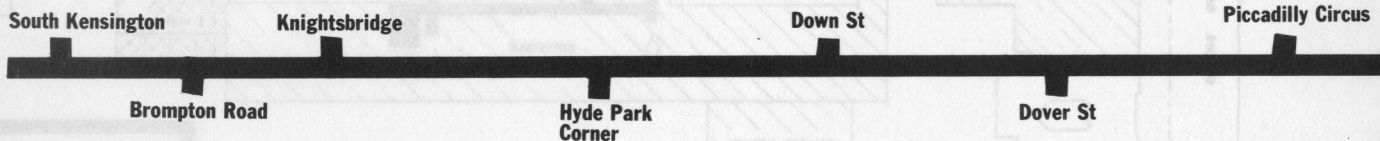
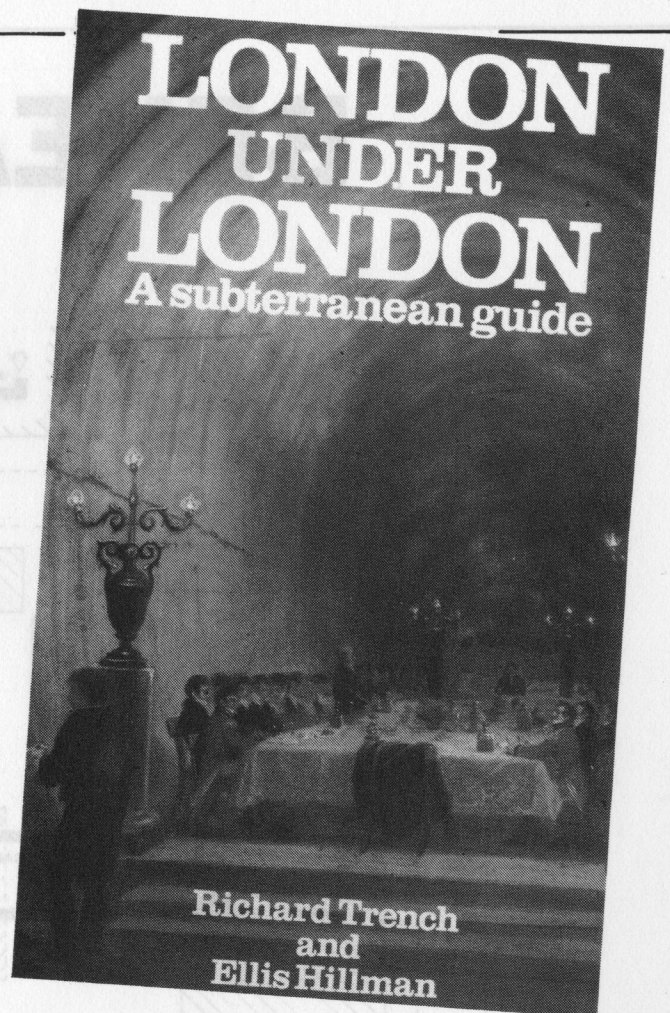
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Beneath the city streets

One of the most fascinating books to be published this year is *London under London* by Richard Trench and Ellis Hillman. This excellent book is a must for anyone who possesses a mind remotely agile enough to have enquired as to what lies beneath his feet. When something is too dirty or too secret or too dangerous to co-exist with us, on our level, it is consigned to the depths, and thus sometimes to obscurity. *London under London* seeks to put this right with an intriguing catalogue of the rivers, sewers, railways, pipes, cables, and secret buildings that lie beneath the city streets. It manages it do so in an always interesting style, and with occasional humour. At £14.95 it is not a cheap book—but what glossy hardback with colour plates is cheap today? An invaluable work of reference, the book is packed with information. For instance, did you know about.....



The Underground War

At the beginning of the Second World War, London Transport forbade the use of underground stations as air-raid shelters. By the peak of the bombing, however, 79 stations were being used as shelters—the public purchased the cheapest ticket available, and went down below. On the night of 27 September 1940, 117,000 people were sleeping in the tubes. A whole subterranean society developed and some stations had their own lending libraries, canteens and even newsletters.

Conditions were pretty awful for the shelterers—often there were no lavatories and lice soon spread from mattress to mattress. And yet people still came to the comfort and security that being beneath the ground afforded.

Official disapproval for the shelters ended when Churchill came to power. He established a War Room beneath the Treasury

and a whole underground citadel in Horseferry Road. He also built the Civil Defence headquarters which were under the Geological Museum on Exhibition Road. This was linked to South Kensington Station via the familiar passenger subway. The station itself was used—London Transport's emergency engineering equipment was located in two disused deep-level tunnels. These were originally intended for a high-speed District Line which has never been completed. A number of disused stations along the Piccadilly line were also employed (see plan).

Brompton Road station (1909-1932) is near the Oratory (opposite the Midnight Shop) and can easily be identified from the distinctive maroon tiles. It housed the wartime anti-aircraft control centre, and since the war has been used by the Territorial Army. Further up the line towards Piccadilly Circus, were Down Street and Dover Street

stations (Down Street is long closed and Dover Street is now Green Park). Down Street was used by the Railways Executive Committee and Dover Street as the London Transport Emergency HQ.

The Post Office

Although the Underground system is known to all, few are aware of the Post Office 'Tube'. Started in 1913, the Post Office system of small, un-manned electric trains extends from the Mount Pleasant Post Office to the mainline railway stations and to district sorting offices. Construction was halted during the First World War when the tunnels were used to house the Elgin Marbles and other national treasures. It was opened in 1927, though, and within a year, one quarter of London's mail vans had disappeared from the streets. Each station platform is connected by lifts to the sorting office.

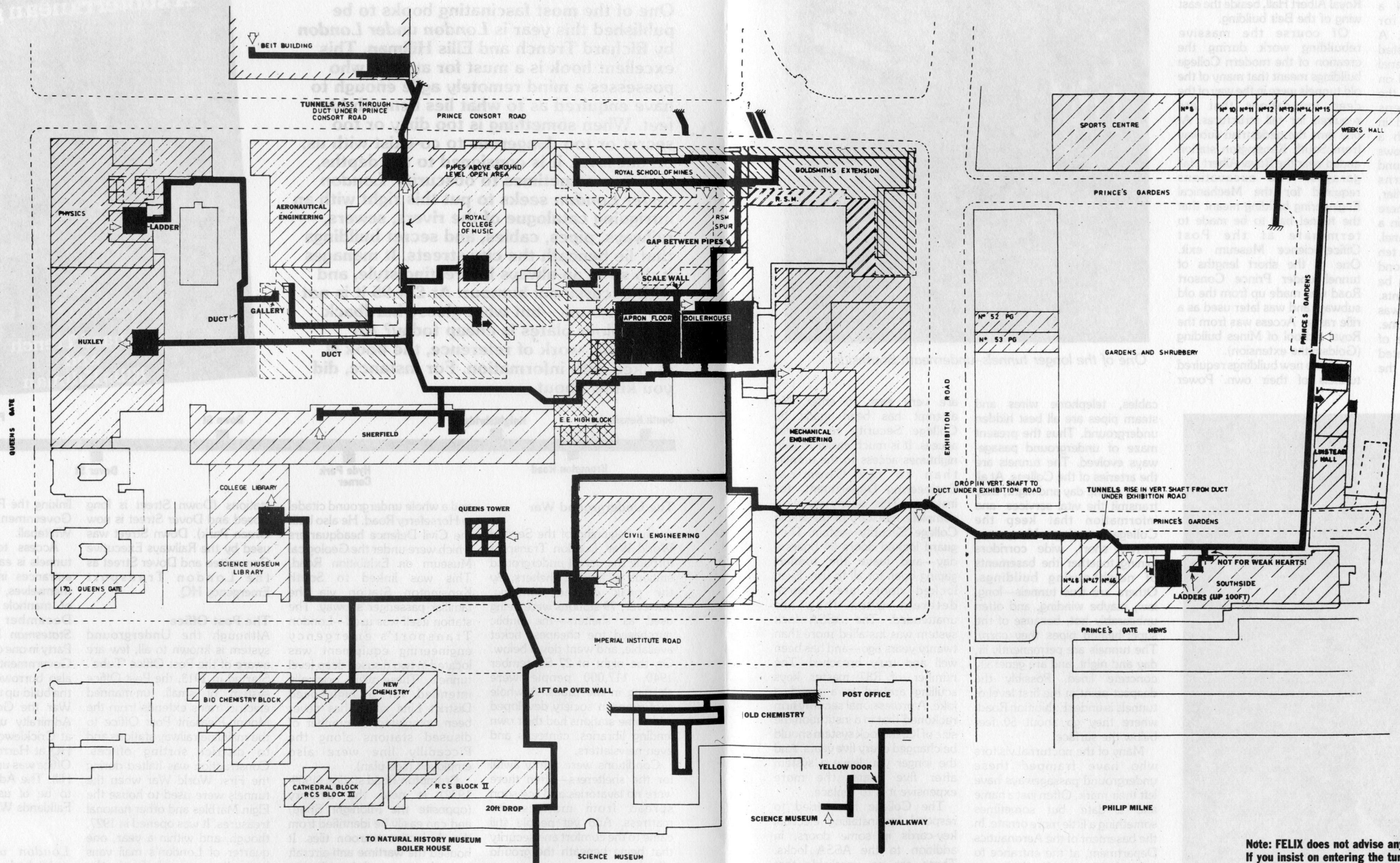
Expansion took place in 1951

linking the Post Office with the Government's tunnels under Whitehall.

Access to the Post Office tunnels is easy—as well as the entrances in the Post Offices themselves, there are a number of manhole access points. In December 1980 the *New Statesman* held its Christmas Party in one of the tunnels! Other Government Departments have also burrowed underground. In the build-up to the Second World War the Government built an Admiralty underground centre at Cricklewood, an Air Ministry HQ at Harrow and the Cabinet Office was underground at Dollis Hill. The Admiralty Centre was to be of use later during the Falklands War.

London under London is published by John Murray priced £14.95, and is available from all good booksellers. Ellis Hillman, co-author, is a governor of Imperial College.

BENEATH THE COLLEGE STREETS



Note: FELIX does not advise any student to enter the tunnels.
 If you insist on entering the tunnels then
 Do NOT cause any damage
 Do NOT steal anything
 Do close all doors as you leave the tunnels

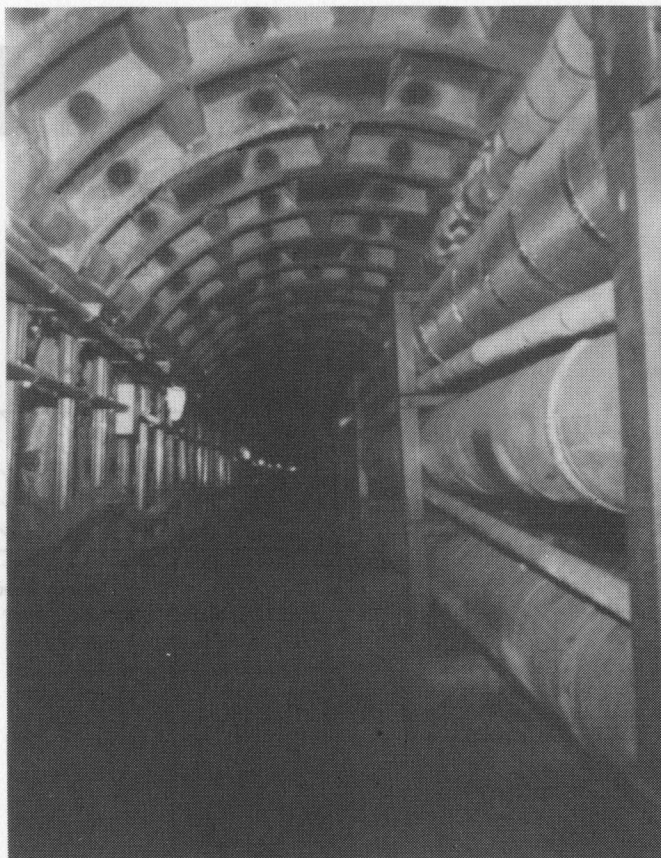
Tunnel Vision

TUNNELS HAVE BEEN a source of fascination for students at IC for years. A network of tunnels existed underneath the old Imperial Insitute, which was situated on the site of what is now the Sherfield Building/Queens Lawn. A map was printed in FELIX in 1957, along with a rather jaunty article which shows that even then, students found the lure of the caverns irresistible. Two years earlier, FELIX had reported that there was an unexploded bomb in a blocked-off section of tunnel. This was published less than ten years after the end of the Second World War, and seems to be based on eye-witness accounts. If it was a hoax, then it was certainly a very elaborate one. The bomb was said to be of about 250lbs, and to be located under the steps leading to the

Royal Albert Hall, beside the east wing of the Beit building.

Of course the massive rebuilding work during the creation of the modern College buildings meant that many of the old tunnels were in the way of the deep foundations that are required for tall structures. At one time the pedestrian subway from South Kensington station ended near the Royal Albert Hall garages. The excavations required for the Mechanical Engineering building meant that the tunnel had to be made to terminate at the Post Office/Science Museum exit. One of the short lengths of tunnel under Prince Consort Road was made up from the old subway, and was later used as a rifle range. Access was from the Royal School of Mines building (Goldsmiths extension).

But the new buildings required tunnels of their own. Power



One of the longer tunnels—underneath Southside



A typical IC tunneller

cables, telephone wires and steam pipes are all best hidden underground. Thus the present maze of underground passageways evolved. The tunnels are the arteries of the College. At all hours of the day and night, they transmit the vital services and information that keep the College running. Many are merely short, wide corridors joining together the basements of neighbouring buildings. Others are true tunnels—long, low, maybe winding, and often unbearably hot, because of the super-heated pipes they carry. The tunnels are permanently lit, day and night, and are generally concrete lined. Possibly the deepest point in the first level of tunnels is under Exhibition Road, where they go about 50 feet below the surface.

Many of the nocturnal visitors who have tramped these underground passageways have left their mark. Often just a name and a date, but sometimes something a little more ornate. In the basement of the Aeronautics Department, at the entrance to one of the tunnels, there are some excellent portraits done in coloured chalk on the wall.

It is a constant source of surprise to many that the tunnels

are very easy to enter. No attempt has been made by College Security to restrict access. It is much easier to gain nighttimes access to the tunnels than to the Chemical Engineering Department, for instance. This clearly makes a complete mockery of the whole College 'Security' system. They guard locked doors 24 hours a day—and leave the tunnels gaping open for all to use. Even locked doors aren't much deterrent when they are unattended. The ASSA lock system was installed more than twenty years ago—and has been well and truly breached. The number of R37 master keys sculling around is a standing joke. A professional security firm reckoned that in a institution the size of IC, the lock system should be changed every five years. And the longer you leave a system after five years, the more expensive it is to replace.

The College have tried to respond by installing electrical key-cards in some doors, in addition to the ASSA locks. These are so unreliable that people go to great lengths to prop them open—if they cannot get in then they smash the door down. Great security, eh?

1984-5 rpm

REVIEW OF
THE YEAR'S

Records

Despite the banality of the music, and the continuing rigours of recession, 1984 had the biggest grossing record sales in all time, and in relative terms, the biggest for over five years. The beginning of 1985 has been even better and the fat men at the top of the company conglomerates are once again showing those Cheshire Cat grins of the mid '70's as they mercilessly cream off the rewards of the musicians' hard work.

So why do we carry on buying? Possibly the reasons relate to the way young people use music these days - wherever you go there are radios on, people wearing walkmans. Perhaps it's the still incredibly low album prices (where else in the world can you still get an LP for under £8?) At Cut Price Records on High Street Ken, you can buy Top 40 material still at £3.99. Quite remarkable. Or perhaps we carry on buying simply because we enjoy the music. With charts ranging from the biting indie edge of bands like *The Cult* to the ingratiating *Duran Duran*, there really is something for everyone. Pity it's all so boring.....

Bands

The past year has seen the demise of the gender benders, the loss of omnipotence for *Duran Duran*. Even *Frankie Goes To Hollywood* no longer have a guaranteed number one, after people finally got fed up with buying the twelfth mix of the fifteenth title of the same song. Instead we have Soul one hit wonders (like Phyllis Nelson), producer stars (like Paul Hardcastle), the return of political idealists (Billy Bragg), and the charity mega-hits. It's all the same. It's all so nice. It in reality challenges nothing.

And where in the past there



have always been new ideas breaking on the pub scene, now there is only more of the same. All is retrospective, all has rounded edges.

Music Radio

Students at IC are in the very fortunate position of being able to tune in to around fifteen music stations on radio at any one time, from the ever consistent Radio 2 to the ever consistent Capital! IC Radio plays your requests and chats in a surprisingly informed student manner (plug, plug),



N-n-n-n-Paul Hardcastle

the pirates offer everything on the musical spectrum (especially if you like Greek folk dancing!) and even the establishment Radio London has been breaking new ground with its reggae and soul shows (despite the unfortunately irrepressible Tony Blackburn) and Radio 1 has moved away from its 'Yes

indeedy' reputation with the Rankin' Miss P, imported from the now defunct Dread Broadcasting Company. Capital has its all new (yawn) Network Chart, and Community Radio looms on the horizon. True local community stations would completely change the face of the radio dial. Which way, we can only wait and see. Another thing about listening to radio: it's completely free. Stay tuned.

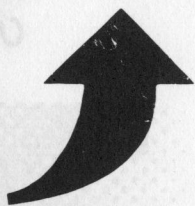
The Future

The story is always the same. In the mid '50's the charts (as they were) were full of old cronies and retrospectively bland music. Along came Elvis and rock 'n' roll. In the early '60's rock had been tamed when along came *The Beatles* and new vistas in Pop Music opened before us. 1975 we were listening to (and getting bored by) the same old sounds again, when the *Pistols* and punk broke. Now, in 1985, knowing the problem music faces will not give us any insight into what the next 'Big Thing' will be. We can only hope, and while we wait, enjoy the brief trends; as Soul turns to Funk and then to Jazz next year, as Reggae finally receives popular recognition, and as maybe you become the next 'Rock 'n' Roll Messiah'.



SCIENCE

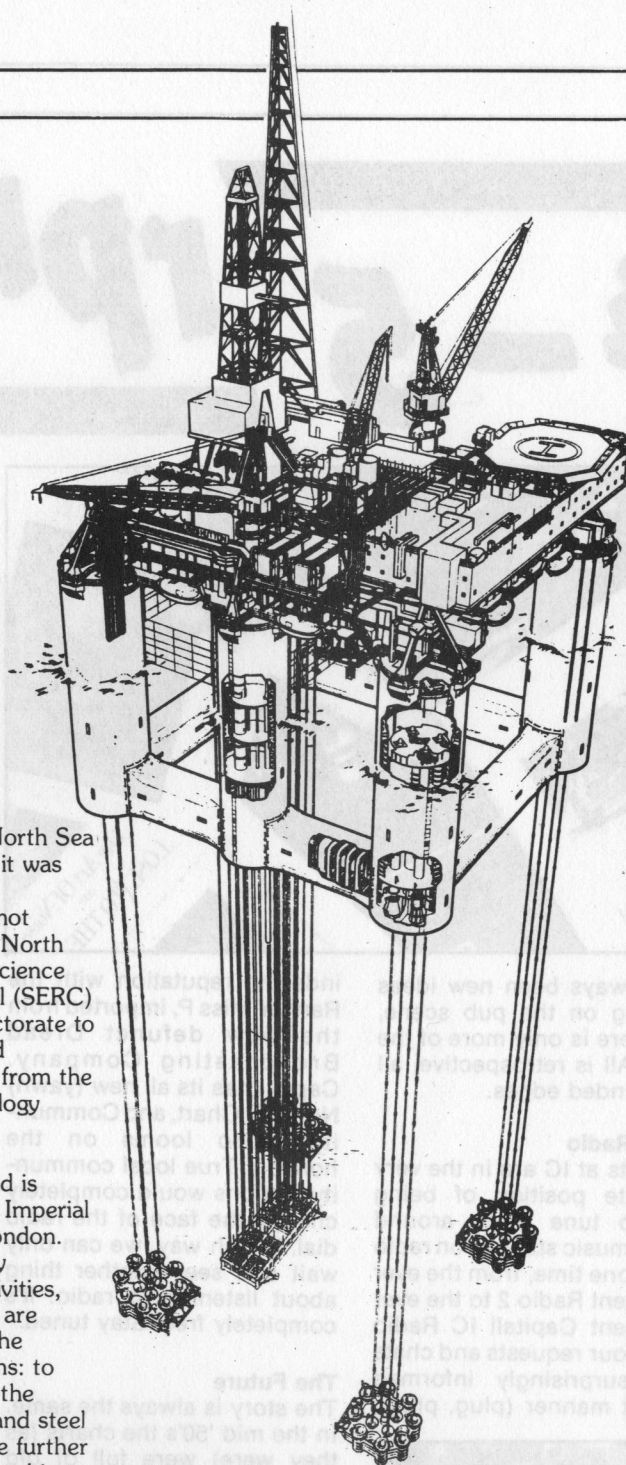
• Marine Technology



In the early seventies, when the North Sea Oil Industry was first established, it was heavily dependant on American technology. This technology was not necessarily suitable for use in the North Sea, so to help the industry the Science and Engineering Research Council (SERC) set up a Marine Technology Directorate to co-ordinate research in the United Kingdom. With the aid of funding from the Directorate seven Marine Technology Centres have been established.

The London Centre for Marine Technology was set up in 1976 and is essentially a joint project between Imperial College and University College London. These two colleges play an equally important role in the Centre's activities, with other colleges in the London area becoming increasingly involved. The Centre has two important functions: to obtain a greater understanding of the fundamental aspects of concrete and steel offshore structures, and to provide further education for undergraduates. To achieve these aims, expertise from a number of disciplines, including Civil Engineering, Mechanical Engineering, Metallurgy, Aeronautics, and Mineral Resources is required. The existence of a Centre for Marine Technology provides a way of co-ordinating these research activities throughout the colleges. The Centre is keen to attract funding from industry, and at present many of the research subjects are generated by consultation between academic staff and industry. There is an Industrial Steering Committee which provides advice and management, but the Centre is maintaining its long term fundamental research as well as being involved in short term projects.

The marine technology research funded by the SERC in the United Kingdom is currently moving into a new era with the setting up of twelve nationally co-ordinated research programmes. Each of these



'managed programmes' will represent the whole of the SERC funded research into that particular subject. There will be 'management agent' for each programme who will be responsible for representing the views of the academics to the steering committee.

All twelve of the programmes will follow a similar organisational pattern. One example is 'Concrete Offshore in the Nineties' (COIN), which is headed by Professor J Dougill from Imperial College. This programme consists of twelve individual projects, six of which are to be based at Imperial College and six elsewhere. The SERC is providing 50% of the funding, but the rest has had to be found from other sources. For this particular project there is a steering committee which includes representatives from industry and the Department of Energy.

The Centre also runs seminars and short courses which are aimed at people already working who need education about new technologies. These help to disseminate the findings of the research as well as increasing links with industry.

The discovery of natural gas and oil beneath the bed of the North Sea and other areas on the Continental Shelf was important for the United Kingdom. To enable the valuable resources to be tapped quickly, economically and safely new technology was needed. Work carried out at the London Centre for Marine Technology has played an important rôle in the developments so far, and will continue to do so in the future.

At present the London Centre is working closely with industry to develop methods of designing new types of platforms needed to produce offshore oil and gas in deeper waters. The Centre is also involved in a number of major programmes which are looking at topics including the fatigue and fracture of steel, buckling of steel structures, concrete and concrete structures, fluid loading due to waves and currents, and others. Another important area of work which is based at Imperial College is aimed at recovering other offshore minerals. For example, ocean floor mining of deep sea sediment to obtain manganese nodules, or the mining of coal which can be found much nearer the surface than oil.

The Hutton Tension Leg Platform

The Hutton Tension Leg Platform, shown in the figures, was installed in July 1984 by Conoco, and represents a major advance in the design of oil production platforms of the North Sea. It is the first of a new generation of floating oil production platforms, and many aspects of the new technologies used in its design and construction benefitted from research carried out at the London Centre. The Tension Leg Platform is essentially a floating structure stabilised and held in position by groups of vertical tethers. This compares with conventional offshore structures which are typically of the 'gravity type', resting on the seabed under their own weight. The major advantage of this new system is that marginal oilfields in deep water can be developed at relatively low increase in cost with depth. The system can also be re-used several times with only minor costs for disconnection and reinstallation. The aim is to develop this conception further to exploit oilfields that have already been discovered in deep water.

Offshore Concrete

Concrete is already widely used in offshore structures and this use is likely to be further extended in the future. One of the Centre's major research programmes which is based at Imperial College is looking into the use of concrete offshore. Existing offshore concrete structures include underwater oil storage and concrete gravity platforms in the North Seas, and in the future there is the

prospect of offshore windmills, floating airports or concrete liquify natural gas carriers. This trend is towards more and larger concrete structures exposed to deeper and more severe sea waters, also a good understanding of the behaviour of concrete under these conditions is of the utmost importance. The direction of the research programme is towards improving the understanding of the material and the development of future offshore applications.

The impact of an accidentally dropped object can cause damage to a concrete oil producing platform which is difficult and dangerous to locate and inspect. In recorded incidents, objects weighing as much as nineteen tonnes have been dropped onto structures. Although damage is often only superficial, it can sometimes be more serious. One of the projects at Imperial is looking at how to guard against a specific accident. For example, underwater oil storage tanks have domed roofs which are particularly vulnerable to accidental impact, and their resistance to damage is being investigated.

Concrete structures are fairly durable in the North Sea, but the harsh environment undoubtedly has a damaging effect on them. Another project at Imperial is studying ways to quantify this effect and find ways to improve the resistance to degradation. The durability of concrete in the sea depends on its low permeability, and it has recently been discovered that on immersion in sea-water some concretes exhibit a significant reduction in permeability. The reason for this is that on immersion the concrete grows a protective 'surface-skin'. During tests, 25mm thick samples of two of the most permeable mortars showed a reduction in permeability of 45% after only two weeks.

After three months of sea water exposure the layer could be as thick as 100 micro meters. Initial tests have shown

that the permeability reducing phenomena have a considerable effect upon the absorption capacity of concrete even after drying out, which would be important in tidal and splash zones. The next phase of the research will be looking at the development of methods to deliberately enhance the permeability reducing phenomena, which could ultimately lead to impermeable and hence far more durable concrete.

Small Scale Model Testing

One of the fundamental problems encountered in model testing of offshore structures in wave tanks, is that of extrapolating small-scale laboratory data to full scale. A project based at Imperial College is hoping to overcome this problem, and the results should provide useful information to aid design of offshore structures for the North Sea.

Because of a scale effect the flow induced by waves past small diameter tubes, such as those used to construct small scale model offshore structures, is not the same as that around a typical 2m diameter tubular member of a steel platform. There exists a certain critical level beyond which the fluid loads behave differently. Full scale structures are in the post-critical range where as most small-scale measurements to date have been in the sub-critical range. There is no reliable way to extrapolate small scale data to full scale, and tests on existing structures in the open sea cannot be systematic enough to provide any help. To try and overcome this problem large-scale experiment have been conducted at the giant Delta flume at the Delft Hydraulics Laboratory in Holland. The flume measures 230m by 5m with a depth of 7m, and regular and irregular waves of heights up to 2m can be generated. The tests which have been carried out on a 0.5m diameter cylinder, represent some of the closest to full scale that have been carried out in laboratory

conditions. The results should be useful for the design of new offshore structures and will also provide guidelines for future model testing.

Fatigue

In the North Sea the wave climate is more severe than in almost any other area of the world where offshore platforms have been installed. As a result of this fatigue cracks can develop in structure during its operation, and it is important that they do not grow to a significant size. There is a major research programme studying fatigue in offshore structures based at University College, and an underwater non-destructive test centre has been established there. The work involves corrosion fatigue test on welded steel joint and threaded connectors, which are the areas where fatigue most frequently occurs. Alongside this area more fundamental studies on the behaviour of high strength steels exposed to the marine environment. One major advance resulting from this work has been the development of techniques that allow significant cracks in offshore structures to be detected and measured both in air and underwater.

The production of oil from small fields in deep water poses considerable problems. At University College there is a research programme which is investigating the use of a number of novel systems in this situation. The tension leg platform, the guyed tower and various ship or barge based floating production systems are amongst the possibilities being considered.

The London Centre for Marine Technology has made an important contribution to the development of North Sea Oil Industry, as well as in the recovery of other valuable offshore resources. For the future, research in this areas will continue to be important as the requirements for offshore structures change to meet new conditions.

EXEC PISS UP

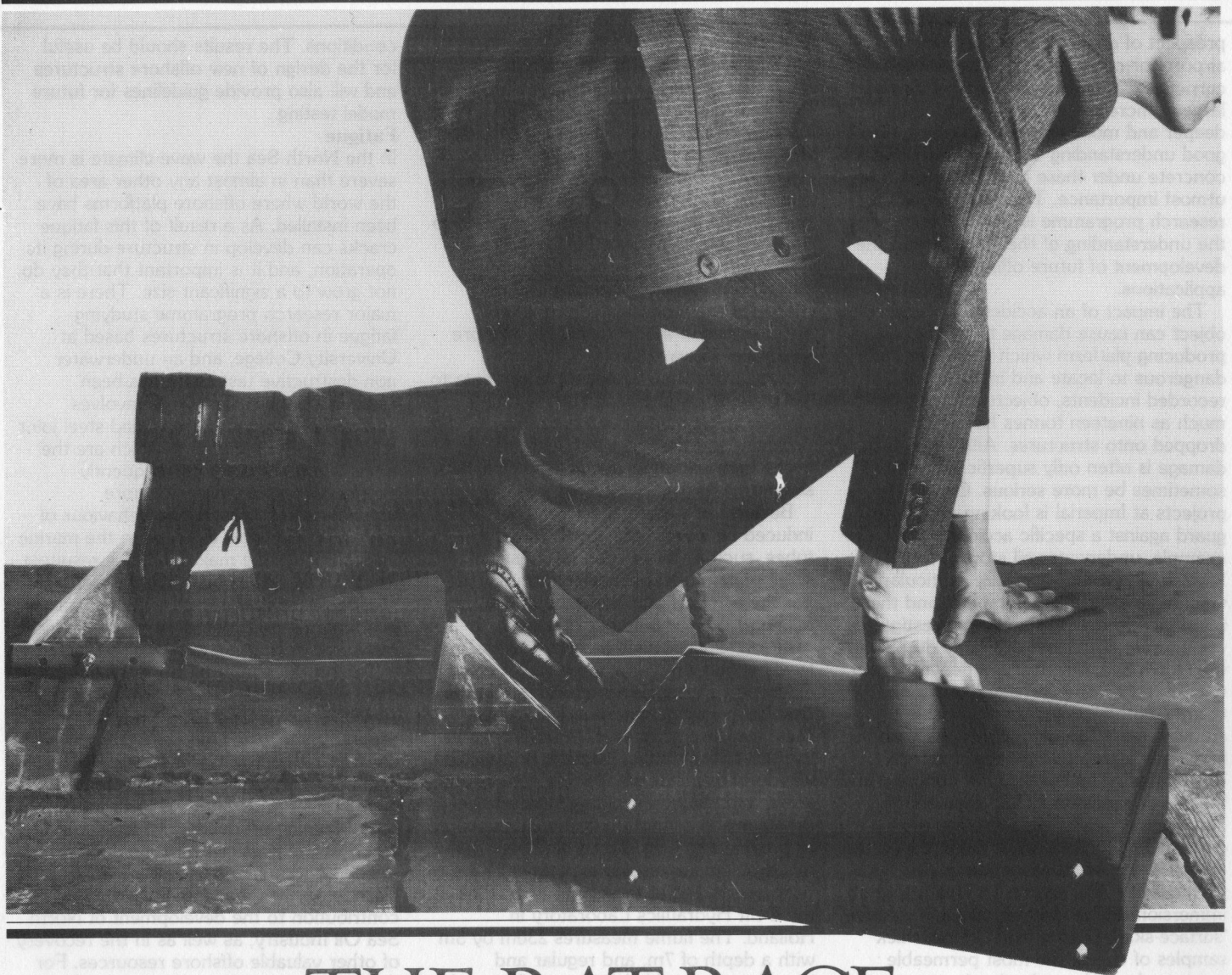
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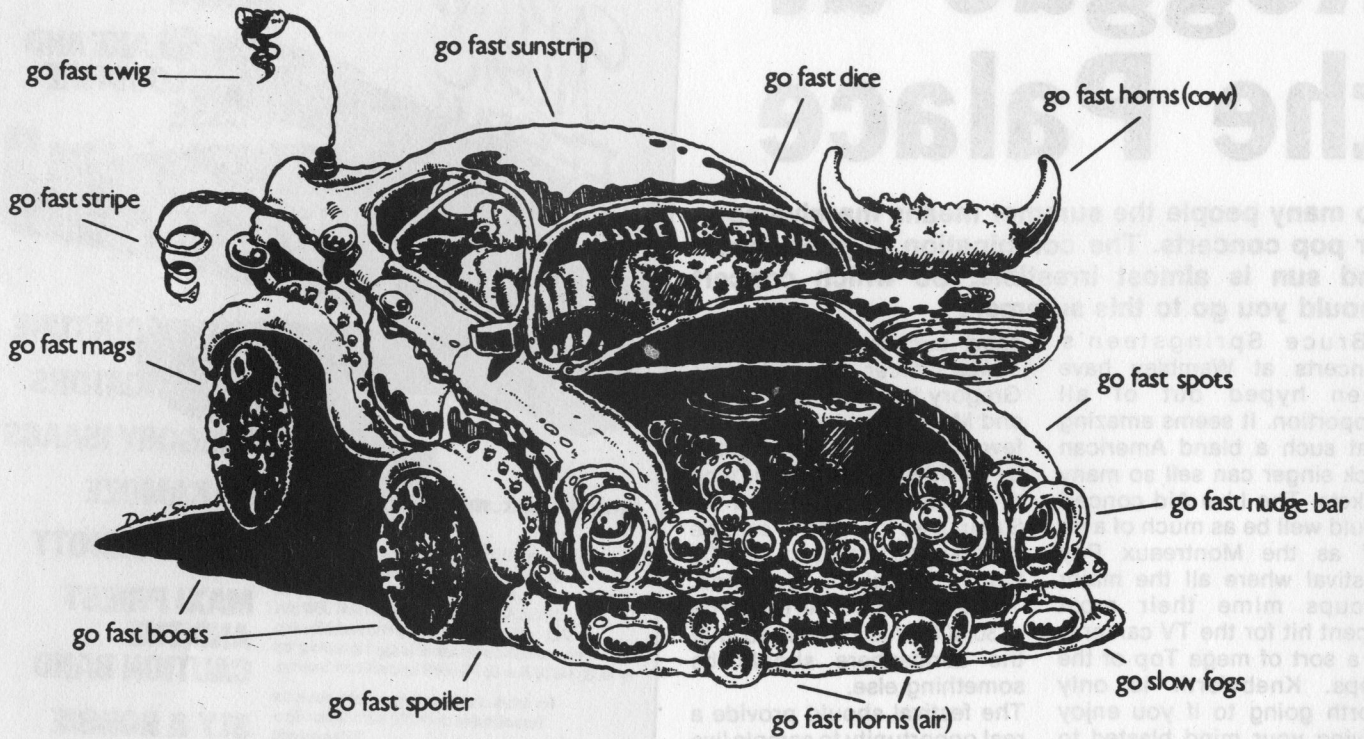
The courses are held in September at Cirencester, Durham and Warwick, so you'd better be quick off the mark.

For details, call Student Recruitment on 01-928 2000 or ask your Careers Office for an application form.



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



The only accessories required for the FELIX Motor Rally are a go fast A—Z and a go fast team. The condition of the team transport is not important, although current MOT and insurance is advisable.

FELIX RALLY, Sunday 23rd June, 9.00am

Please return entry forms to the FELIX Office

.....

NAME	CAR/BIKE MODEL
DEPT/ADDRESS	REGISTRATION NO
.....	TEAM MEMBERS
PHONE NO	1)
HOME	2)
COLLEGE/WORK	3)

Reggae at the Palace

To many people the summer means massive open air pop concerts. The combination of good music and sun is almost irresistible. So which concert should you go to this summer?

Bruce Springsteen's concerts at Wembley have been hyped out of all proportion. It seems amazing that such a bland American rock singer can sell so many tickets. The Live Aid concert could well be as much of a rip off as the Montreux Pop Festival where all the major groups mime their most recent hit for the TV cameras in a sort of mega Top of the Pops. Knebworth is only worth going to if you enjoy having your mind blasted to pieces. However Sunsplash is the one event not to be missed.

Music critics keep telling us that reggae is about to take over from soul as the hippist music around. Recent chart successes for Smiley Culture and Barrington Levy suggests that the record buying public may be starting to appreciate good reggae music. Live reggae however is still to reach a mass audience. Reggae is the sort of music which should really be heard live to be appreciated. The raw enthusiasm of the performers combines with the normally ecstatic crowd to make reggae gigs a unique experience.

Sunsplash is probably the biggest festival of reggae every to have ever been held outside Jamaica. Capital Radio have brought many of the worlds top reggae acts to London as part of their music festival. Bands appearing include Third World who have had hits in the clubs, as well as in the reggae charts, with singles such as *Now That We've Found Love* and more recently *Sense of Purpose*. Arrow whose underated single *Hot, Hot, Hot* should have a major summer hit. The master of, rapid-style toasting Smiley Culture, who had a

chart success recently with *Police Officer*, Sly and Roby, Gregory Isaacs, Sugar Minott and Maxi Priest to name but a few. The show will be hosted by David Rodigan, the DJ who presents Capital Radio's Saturday night reggae programme and Barry G, a DJ from Kingston, Jamaica. There will almost certainly be a 30,000 plus crowd, so that the atmosphere should be something else.

The festival should provide a real opportunity to sample live reggae music.

Why not listen to David Rodigan on Capital or Tony Williams on Radio London or the excellent Rankin' Miss P on Radio One and find out exactly why Sunsplash should be such essential entertainment?

CAPITAL MUSIC FESTIVAL
SUNSPASH

ARROW
 INI KAMOZE
 SUGAR MINOTT
 MAXI PRIEST AND THE CAUTION BAND
 SLY & ROBBIE
 THIRD WORLD
 D.J.'S DAVID RODIGAN & BARRY 'G'

SMILEY CULTURE
 GREGORY ISAACS

In Association with
 NORWOOD JUNCTION

CRYSTAL PALACE EC., SELHURST LONDON SE25
 SATURDAY, 29 JUNE

Doors open 10.00 am. Performance 12.00 - 8.30 pm.
 Tickets £10 in advance, (send cheques/postal orders payable to Capital Radio SUNSPASH to: SUNSPASH, PO. Box 65, London NW1 3BW plus SAE), or £12 on the door, subject to availability. Also from specialist ticket agents (subject to booking fee) or Tel: 01-240 0771 or 01-741 8989 for credit card bookings.

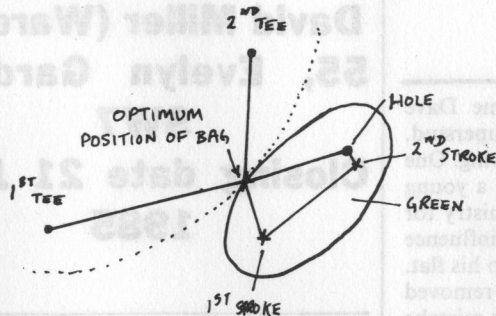
For details of all Music Festival events phone the Festival Hotline on 01-222 8075. (10 am - 7 pm 7 days a week)

Above the complete Sunsplash line-up
 Below Smiley Culture



Tinker

Here are the answers to the unsolved puzzles.
First the golf puzzle:

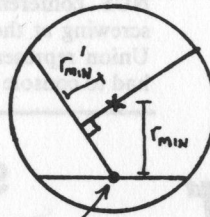


Since the distance between the two foci of an ellipse via any point is the same for all points on the perimeter, we need not worry about the green, since the distance walked there is fixed. To minimise the remaining distance then, the Mathematician must imagine larger and larger ellipses for which the two tees are foci. When the ellipse is large enough to just touch the edge of the green, the point of contact marks the spot where he must leave his bag.

The number puzzle was ridiculously straightforward. Simply count the number of letters in the English spelling of the preceding number. Hence:

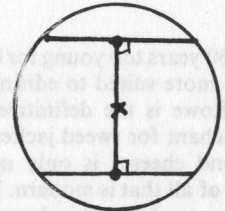
23, 11, 6, 3, 5, 4, 4, 4

The biscuit dunking problem is quite delightful, though a little long-winded. In the three dunk problem the way to minimise the distance R'_{min} in is to dunk the biscuit such that the edge

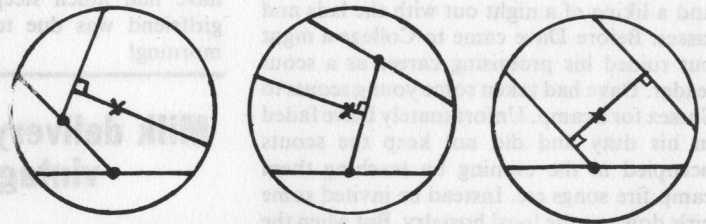


of the cup, at the second dip, is half-way along the straight edge incurred by the first dip. That way, one edge of the cut is brought as close as possible to the centre of the biscuit. Then the new R'_{min} (R'_{min}) may be computed from the recursion formula.

Unfortunately this method is inferior to the simple strategy of cutting top and bottom from the biscuit with the first two cuts.



Of the three likely looking ways of solving the four dunk problem:



The last is marginally the best.
Thanks for puzzling...bye!

Reasons to be Cheerful

R e l e v a n t

FELIX is the student newspaper of Imperial College Union and as such it should reflect student views, interests etc. Next year FELIX will attempt to be *your* newspaper. If you support FELIX it won't be dominated by a few hacks. It needs *your* support, though. FELIX has to come out every Friday. As a result, if the hacks are the only people to have contributed they have their articles printed. Why not drop into the office any Friday or Monday and tell us what *you* think is right and wrong with FELIX. It's *your* newspaper so use it.

I n n o v a t i v e

FELIX has barely changed in the last few years. The articles are on the same subjects and presented in the same manner as they were three years ago! Recently things have started to change, however there is a long way to go. FELIX next year, for example, will include pieces of prose

and poetry, something that has never been tried before. There is only a limited amount, though, that the current FELIX staff can do. We need *your* ideas if we are to change. Why not come and work on FELIX? *You'll* certainly be welcome in the office.

H u m o r o u s

FELIX next year will be amusing. There is no point in trying to report on rag events in the manner of the Times Higher Education Supplement. FELIX next year will have a regular diary column covering anything humorous that happens

in college. If *you* know anything amusing about *your* warden, lecturer etc. then tell someone in the FELIX office.

V a l u e

If *you* are a final year student *you* may be irritated that *you* won't be at college to see these changes in FELIX. Don't worry-for only £9 you can have next year's FELIX mailed to you anywhere in the UK. It's an excellent way of keeping in touch with college. All you need do is fill in the form below and send it with a cheque to the FELIX office.

Please return to: The FELIX Office, Beit Arch, Prince Consort Road, London, SW7 2BB

I enclose a cheque for £9 made payable to 'Imperial College Union Publications Board (FELIX)'

Name

Address

.....

.....

FELIX The Newspaper of Imperial College Union

The truth about this year's FELIX editor...

Wild Rowe-ver

A man 30 years too young for his age, with an attitude more suited to editing 'The Tatler', David Rowe is the definitive young fogey. His penchant for tweed jackets, cricket, fine wines and cheeses is only matched by his distaste of all that is modern. Indeed, it is his ambition to be remembered as Imperial College's answer to Noel Coward.

Before his election as editor, David was renowned for his caustic wit, a lack of money and a liking of a night out with the lads and lasses. Before Dave came to College a night out ruined his promising career as a scout leader. Dave had taken some young scouts to Sussex for a camp. Unfortunately Dave failed in his duty and did not keep the scouts occupied in the evening by teaching them camp fire songs etc. Instead he invited some girls down to the local hostelry. But when the cat's away..... The bored scouts occupied themselves by sending dirty postcards to their hometown dignitaries, who provided a welcoming party upon the scouts return. David was promptly drummed out.

Screwing at the Union's expense

As a chemistry undergraduate, David still liked a good night out. He only became interested in FELIX after being nominated for the post of Alternative Prospectus editor while drunk. But as David's interest in FELIX grew, so did the stories about his



Rowe-timeless dress sense

sexual antics. Last year their were rumours that David spent a great deal of time at the NUS conference drinking, 'smoking' and screwing at the Union's expence. The other Union representative, Hugh 'Noddy' Stiles, had to console himself with a good pork pie.

Superstud

It was probably about this time Dave developed a reputation for being a superstud. Regretably the truth is far more boring. One of Dave's best kept secrets concerns a young lady who was well known in chemistry for 'putting it about'. Whilst under the influence of alcohol, Dave invited her back to his flat. Unfortunately by the time she had removed her stockings Dave had realised his mistake and instructed the young lady to get into bed.... while he slept on the floor. He can't have had much sleep though because his girlfriend was due to arrive at ten in the morning!

Milk delivery replaced by vintage port

David's transformation from vagabond to true English gentleman ocured last summer with a session of eating in South Kensington's best, and most expensive, restaurants so that he could review them for the Handbook. Maybe it was the pressure, but something persuaded Dave that he had the wrong idea of what a good night out entailed. Dave attempted to turn the FELIX office into a select gentleman's club. The daily milk delivery was replaced by one of vintage port. J Martin Taylor, FELIX business manager-cum-butler, was instructed to fetch port, paté and a crisply ironed copy of 'The Daily Telegraph' from Piccadilly.

Renowned for his caustic wit, lack of money and liking of a night out

Perhaps the most marked change in personality this year has been his extravagance. Dave was renowned last year for the way he would search Waitrose high and low for goods that had passed their sell-by date. He would then haggle with the manager to obtain a reduced price. It is believed that if all the money he owes was gathered in one place at one time the sudden movement of such large sums of money would cause the collapse of the world banking system.

Dave is planning to progress from FELIX to a career in journalism where his ready wit should serve him well in the news room and his appreciation of good wine should serve in El Vino's. If and when Dave leaves the FELIX office it will have lost one of its characters and most talented editors.

Subwarden required for Mining House
Apply in writing to David Miller (Warden)
55, Evelyn Gardens SW7
Closing date 21 June 1985

Emergency Rag Committee Meeting
Thursday 20 June 12.00pm
in the Upper Lounge

Beer and Bangers say Goodbye to Lord and Lady Flowers
Wednesday 19 June 5.00pm
Queens Lawn and MDH

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WITHOUT THE PERMISSION OF A CERTAIN WELL KNOWN RIVAL PUBLICATION, WE PRESENT

THE VERY NASTY COLUMN

THE PAGE THAT GUARANTEES A LIBEL ACTION FROM EVERY COLUMN INCH

Well, here i am writing a column for FELIX (gone professional at last), ICU's answer to the Times.

Not so very long ago I was grubbing around in various CCU waste paper baskets (looking for my lecture notes you understand) when I happened upon the following document;

After a special injection of ~~XXXX~~ (oops!) cash obtained by deceiving ufc into thinking we were broke, we can now announce a special CCU party to be held ~~XXX~~ in the summer.

Their ~~X~~ will be free BEER for everybody, loud singing, and some people will remove some or ~~all~~ all of there clothes. All ~~XXXXXX~~ students are welcome but were holding it in the summer when most of the booring ones will have gon home, which means much more free BEER for those who are still hear ie the hacks. ~~XXXX~~

The ~~XXX~~ Execs of the other CCUs are to be given a severe slugging off.

There incompetant financial managemet (*!*) nearly led to colledge finding out about our financial mismanagemnt.

It is not the ~~X~~ done thing to slag off your own Exec in print (whither press freedom now, Lemmingspeak) the place to do it is in a crowded

Union ~~XXX~~ Bar whenyou hope everybody is listening. Our mascotry group, the black Whore has been highly sucesful, grabbing nine mascots and one of the Recktrs artificial limbs. Other CCUs mascotry groups ~~XXXX~~ are absolute morons and could gain this college a reputation for drunknes and theifing.

Last week ~~XX~~ we held a special CCU ~~XXX~~ pub crawl. All the hacks enjoyed it very much and got drunk and were sick on the paivment and their was lots of BEER.

Next weak their will be a joint CCUspecial Gen Comm, so ALL h_acks can call each other names, and their will be a free barrel of BEER.

Interesting eh?

Why not have a sweepstake on which CDU it comes from and I will reveal all in next week's column.

Remember walls have ears and dustbins have eyes!

Yours

Norma Nastyperson.

100% GENUINE LIBEL

Rupert Everett, (*Dance With a Stranger*)
 Miles Davis, (*You're Under Arrest*)
 Electro-Pop and Soul
 Blue Note, (*Jazz record label*)
 Awkward itching piles
 Emu, Boggle and Grotbags, (*silly animals, The Pink Windmill Show*)
 Lonsdales and ear-muffs, (*silly fashion, The Face*)
 Swatches, (*smelly watches*)
 Frankie Goes To Hollywood, (*pop-group*)
 Starlight Express
 Stonehenge, (*hall of residence*)
 Victor Mooney, (*caterer*)
 Examinations
 Being sick, (*anywhere*)
 I.C. Radio reception, (*everywhere*)
 Gabriela Sabatini, (*tennis pro.*)
 British Telecom
 David and Barbara Hunter, (*Crossroads*)



Miles Davis - dear-oh-dear-oh-dear

*** GOING OUT

REVIEWS

There is that in people, the will to place everything in neat little boxes. One person's personality, summed in a small box. Placed here, in another box, his home his friends and the city busy, raging around outside it all. The play starts in confusion and echos instantly rendering this desire useless, boxes caught up in strands and feelings.

It starts all wrong! She doesn't love him at first when he sees her flirt passed one day. He, the prince of Cleves, has a friend, the Duke of Nemours, and they are in love! The Prince becomes devoted to the girl he saw and they marry, she might grow to love him. But the Duke has seen her too and he is slowly to become obsessed with her. Her mother protective, but still this can not halt the tragic story as she starts to love the Duke and is torn between guilt and desire.

It is too much, there is no peace and time to be alone, watched and desired constantly be one of the men, her mother or her friend too who plays a voyeur role moving between all the characters. She asks to leave for the

T H E A T R E

THE PRINCESS OF CLEVES

By Marty Cruickshank



ICA THEATRE

country, but returns soon with her dying mother and the Duke waiting for her.

The Princess is, perhaps, more ruled by her mother than might be shown, as later she still manages to influence her even after her death. She tells her daughter to love the Duke.

The real comedy—the irony—of the play is with held right up until the end when the Duke has finally grasped the princess at the expense of his friend who watches them two, only to find out what she is really like and that he could never love her. Comedy used to hit home the real tragedy and waste of the plot. Surprising, shocking you almost, a technique not yet used to its full potential, leaving you only to sure that there is a difference between obsession and real love. It is really a make up of both these extremes of emotions; a very personal thing, yet infectious, causing each member of the cast to mistrust and eventually haunt each other.

The play appears constantly full of echos which enhances the inability of the box characters—perhaps real life parodies and coincidences—the mothers

death when they return from the country is followed by the prince's illness. At one point the mother is talking about an old escort friend she used to have, then later the Duke momentarily fills this rôle until he is noticed by the others. These echos to obvious to be co-incidences; but then how often do we think it in real life?

The whole play is shrouded in a unique atmosphere, partly because of the stuttered action and comedy but mainly due to the mysteries of stage design. The ingenious lighting taken from a huge variety of lamps most of which appear actually on the stage. Too, the 'Designer Label' set of clothes and chairs adding the final touch to the prince's home, a sweeping staircase, and the whole atmosphere of the play.

R A D I O

Pirates off parade

Summer sounds appear dire in the extreme for the next few weeks with three of London's major pirate radio stations, *Solar*, *Horizon* and *Skyline*, temporarily off the air. This comes in the wake of a new pirate of the airwaves, *K Jazz* on 93.8 FM, broadcasting jazz of every calibre between 10.00am and 10.00pm on Sundays alone. Time was when *Giles Petersen* used to play all this for us, but *Horizon*, now mute, thought better of him. That'll teach 'em.

A View to a Kill

A racey start leads into the normal happy go lucky adventure we know and and love. 'Soviet Micro-chip'... bla...bla...bla...Max Zorin... ..bla...deadly assistant, fittingly played by the zealous Grace Jones who manages to act right up until the last few scenes. Bla...bla...bla...plans to gain control of the world...bla. All comes to an exciting climax on the top of Golden Gate Bridge.

It was enjoyable but kept you waiting for that one new thing—that was still to happen. A new gadget perhaps? But no despite the great expense and skillful production, the film still lacks that one thing to distinguish it from the other James Bond films. It is by no means the best one yet.

C A B A R E T

Nico's Night

She walks in through the front door, five minutes after the doors open, and without changing from the black clothes she is wearing, she gets up on stage and starts to sing an old, sad song. The deep, sensual core is still there, despite the coarse, aged exterior.

She turned to singing in clubs and cabarets when the Velvet Underground left her, and she still uses the same wooden organ that she used to sing with them. It is clear that her voice is still beautiful, her head reaching back for those high notes over the drum and piano that play behind her. Another night and another song, on into those self-obsessed songs from the mid-seventies, 'for the rebels in the audience'.

Everyone was there for what she was then and not for what she is now. It would seem unlikely that many people have heard those songs she did since 1969, when the Warhol, Superstar, Underground glamour died down. Its true she cannot write the best of songs, but she knows it. There is still something very special about seeing her, a cabaret singer really, but always very worth seeing.

1985 RANK XEROX / ROYAL COURT THEATRE YOUNG WRITERS' FESTIVAL

The 1985 *Young Writer's Festival* opens at the Royal Court Theatre on Wednesday, 26 June, with three new productions and two rehearsed readings from contributions aged between 19 and 14 year old. The plays revolve around a variety of topics, family life, holidays by the seaside and most, if not all, have children as the central characters. In addition to the plays themselves, the Royal Court are running two side events. *The Younger Young Writers Event*, on 2 and 3 July, exhibits work from authors under 14, and was proposed as a response to the enormous interest to the Festival, (over 400 plays were received in all). In addition, the theatre will present *The Glimpse*, a collection of paintings and ceramics contributed by students at the Royal National College for the Blind.

Last years festival winners, Jane Anning and Eileen Dillon, received exceptionally high appraisal for their work, and Anning's play, *Unity* is being performed at the Edinburgh Festival in a new production by Beit Theatre. This years productions are *Stalemate* by Emily Fuller, *Who knew Mckenzie?* by Brian Hilton and *Gone* by Elizabeth Krechowiecka. For further details, please ring 01 730 2554.

2029 is an imported fashion, art and design magazine. It appears about four times a year, is of enormous proportions, (600mm x 420mm) and at a purchase price of £2.00, is arguably the best value international portfolio currently available. Although published in Germany, many of the articles are in French or English. The magazine's emphasis is on stimulating the eye rather than the mind, and with size as well as style: extravagant areas of space, full or double page blow-ups and expanded type are all commonly used. Text is kept to a minimum.

I often question the purpose of international magazines such as these. The pages present numerous images with captions in often indecipherable languages, so that the artists' work is forced to be self-explanatory, (which, in general, it isn't, as 'fashionable' art, although facile, can often rely as much on clever word-play as it does on visual impact). To me, such magazines exist entirely for their own sake. They are entirely one dimensional, displaying one aspect to all: **Style. Style**, so often misunderstood as the ability

to impress, rather than the desire to maintain standards of excellence. And where there's style, there's brass. Style is for the rich, or for the handsome poor. *Die Einrichtung*, (furniture manufacturers): 'not the useful, but the moving and exciting will survive of what man creates'. Francesco Scavullo, (photographer): 'I know from the minute they walk in the studio, that I will make them better than they have ever looked in their lives'.

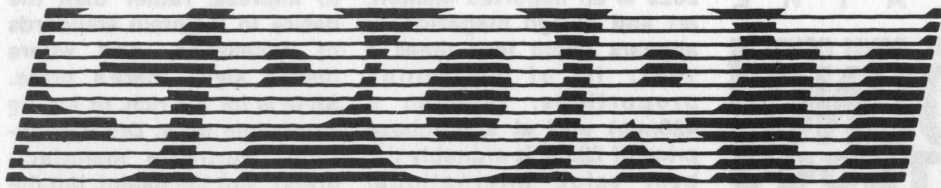
Moreover, if the emphasis on style is to impress, then its appeal is based on deception, either through seduction or, preferably, confusion. Never mind the quality, feel the width: Hold a foreign book or magazine in your hands. Leaf through it. Unable to understand the text, you glance at the pictures, study the cover, look at the content, the quality, the price. And if you like it, you buy it, despite being oblivious to its opinions or objectives. Opinions, objectives. Who needs them? *Blinded by style*, that's 2029.

Issue 3 of 2029 is available from *The Photographer's Gallery*, 5-8, Great Newport Street, London WC1, sometime in July.



COMING OUT * * *

- Miranda Richardson, (*Dance With A Stranger*)
- Helen Richards, (*Hyper-Hyper*)
- Terence Blanchard, (*Jazz-trumpeter 19 years old*)
- impulse! (*jazz record label*)
- Germoloids (*ointment*)
- Joseph Tricot (*autumn knitwear*)
- Pocket watches (reliable and cheap, £25 at Camden Market)
- Man Jumping (*bop-group*)
- Wetherby (*film*)
- The Roundhouse (*restored theatre*)
- Harry Dean Stanton (*after 30 years*)
- Hugo Weaving, (*Jardine, Bodyline*)
- The Edinburgh Festival;
- British Aerospace
- Lift repairs (*Southside*)



Review

An in depth analysis of sport at IC over the past twelve months.

Writing a sports review has been a trifle difficult, having had only a complete set of this year's issues of FELIX as a source of information. From these one gets a rather distorted impression of sport at IC. Although several clubs took part in the prestigious UAU competitions this year, many of them chose to document this only very sporadically. Some of the larger clubs submitted no more than two or three match reports in total, which is really rather poor.

Sides from only three clubs—rugby, badminton, and cricket—got through the opening rounds of their UAU competitions. IC rugby 1st XV secured their position at the top of their group with a resounding win over Kent, having already defeated Surrey and Sussex, but failed to get any further. Regrettably, one of the few well publicised matches was the annual fixture between the RSM and Camborne School of Mines, when the visitors did little to improve their reputation for bad behaviour.

Members of the badminton club did well in the mens' doubles, ladies' doubles, and

mixed doubles in the individual UAU competitions, with all three pairs reaching the quarter-final stage. IC also reached the regional finals in the ladies team event, only to be defeated by Brunel and Bradford. The club was also one of the few to publicise its achievements adequately.

The 1st eleven cricket team fought their way into the second round of the UAU earlier this term with a win over the powerful Reading. Unfortunately they were then defeated by Brunel in the next match. The 2nd eleven did rather poorly in the competition, but after losing the first two matches by a wide margin they managed to achieve a measure of respectability when losing by only six runs to a Reading side captained by a man with a grudge against humanity. Apparently he has piles. The cricket club has also frequently fielded a 'Sunday' eleven, captained by Robin Graham. This has provided an opportunity for many more people to play cricket. This year has also seen the formation of a ladies' eleven.

The football club, it seems, hardly played a game all year. Mention must be made of the



Spot the ball

fifties, however, who had to carry on playing through a series of depressing results. One game which must be recorded was the annual FELIX versus ENTS fixture. Despite the absence of Rowe of the Rovers, the FELIX side achieved their first ever victory by the stunning score of 7-1.

Over the past year no club has contributed more to the FELIX sports page than the hockey club. Hardly a week has gone by without a report of the adventures of the mens', ladies', and mixed teams. Unfortunately, there do not appear to be any particularly stunning results to which to draw further attention. This also seems to be true of the snooker club.

For the water polo club, 1984-85 was a fairly successful year; as usual they won the ULU cup. They also took part in the UAU competition and only just failed to qualify for the finals in the play-off at Warwick. IC swimming club continued to be fairly strong and again won the ULU championship.

Two members of the boat club distinguished themselves this year by being selected for the national lightweight squad, and the club itself had several good results. Notably, the mens' novices squad went through the head season unbeaten, and the

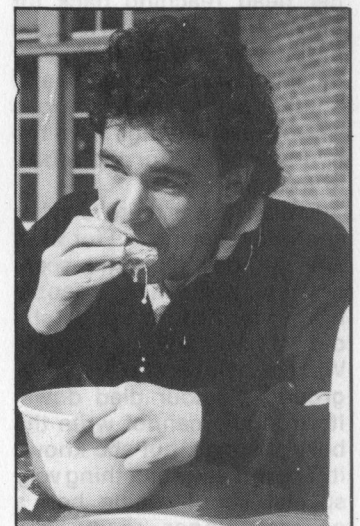
men's top squad achieved a number of wins at Henley.

Though the cross-country club had a fairly ordinary season in terms of results, IC again hosted the annual Hyde Park relay. This was the 37th running of the race, and it was won by Loughborough university for the fourth time in five years.

1984-85 was not a great sporting year for IC, though most clubs are still very well supported in terms of student membership. Hopefully this will continue next year and we will achieve greater success in more competitions.



Hockey club doing something stunning



A man with piles

Internal Services Committee

Alan Rose

1. The Past

The ISC (Unionspeak - see above) is a relatively new committee; it has had two chairmen in the past. One of them is called 'Hugh Southey' and the other one is called 'JMT' (Unionspeak - see below).

The former chairman loves to be praised by sabbaticals, he is going to become a sabbatical of sorts himself, he appears to see Mr Mooney as the personification of absolute evil, he likes to talk about refectories.

The latter chairman (sometimes called 'Martin Taylor') simply likes to talk - a lot. He has proclaimed ISC a committee without tangible responsibility, ICU's (Unionspeak - Imperial College Union) ultimate talking shop. Fine words from ICU's ultimate talking head. His main contribution this year seems to have been provided a service himself (albeit serving only a small number of students) ie. court jester to the sabbaticals. It was heartwarming to see the sparkle restored to the President's eyes and a smile lighting up his little face, at what must have been, after all, difficult times for him, as the ISC chairman revealed delightfully scatter-brained schemes like pumping raw sewage through Mr Northey's kitchens.

2. The Purpose

The area of concern of the committee is, by definition, services provided for students at this college. Thus, the committee must address itself to the issues indigenous to all such services whether they are run by the college or run by the union. With regards to college-run services, the role of chairman must be to co-ordinate opinion, to be in

touch with student representatives on relevant college committees and to ensure that the problem areas are identified and the students case is represented. The responsibility for student-run services is more direct insofar as the committee must be concerned with improvements to services. Existing services need constant examination: Are they performing satisfactorily? Can they be improved?

Where the possibility of providing a new service exists, questions like:

Is there sufficient demand for it?

COULD IT LOSE THE UNION MONEY?

3. The future

The most significant issue of the forthcoming year is likely to be ICU's future in National Student Purchasing Consortia. My predecessor believes that the NSSO (Unionspeak - (National Student Services Organisation) will alter its membership rules in such a way that IC may participate. This is indeed a possibility given that their present rules exclude such notables as ULU (Unionspeak - University of London Union), whether any changes made would be broad enough to include all student unions not affiliated to NUS (Unionspeak - National Union of Students) is another matter. In any case I feel that some form of London-based purchasing consortium is a concept worthy of consideration throughout London Colleges whether or not it is viewed only as a contingency plan. I trust that the incoming sabbaticals will take the opportunity this summer to talk turkey with other colleges union officers after certain delegates kindly

blocked all debate on the subject at the last GUC (Unionspeak - Gathering of Unrealistic Cretins).

Meanwhile, several ideas for new services have been proposed, these include a photobooth, a photocôpier, a second cash dispenser, contraceptive dispensers for the bars and a 'coffee-room' style alternative for students who do not wish to drink in the bars. Some of these proposals have been bobbing along on the crest of a wave of hot air for quite some time and must be either adopted or killed as soon as possible.

The concept of student-run bar has been raised again recently. It is certainly an attractive idea, especially after noting figures for student run bars at other colleges. For example, at QMC (Unionspeak - Queen Mary College) their bar makes a substantial profit for the union whilst having a turnover approximately equal to one third of the bar turnover here and with beer prices starting at around 50p per pint. However, unlike the college-run refectory, which the union snack bar replaced which was an unwanted cash drain, the bars at this college send bulging sacks of zlotys Sheffield-ward and any refectory manager would be reluctant, to say the least, to lose this monopoly.

4. And Finally

I feel I must apologise to Martin Taylor if he perceives any part of the above to be a personal attack on him. What I have written is based purely on what I have observed this year. He has had, as he says, other commitments this year and I am reliably informed that he has made a good job of being Felix Business Manager in the face of adverse circumstances. He also has a valid point when he speaks in his long awaited annual report of 'personality clashes' between himself and certain sabbatical officers. At times it seemed that even if he had taken out his wallet and offered to buy every member of the committee a drink, they would still have told him to bugger off. Still, I feel that he could be even funnier if the union would buy him a funny hat with bells on and a pair of curly-toed shoes, although it may well be that the best candidate for next year's court jester lies within the sabbaticals themselves....

Alan Rose - Internal Services Committee Chairman Elect.

BOOKSHOP NEWS

Lecturers, I must now start thinking about ordering your recommended titles for the coming Academic year. So could you let me have details of the books and drawing equipment on the Bookshop Forms, they should be available through your department if not come to me and I will give you some.

NEW TITLES

Partial Differential Equations for Scientists and Engineers 3/ed Dr Geoffrey Stephenson Longman £6.95 Published July 1985.

The text, which assumes only that the reader has followed a good basic first year

Ancillary mathematics course, is self contained, this new edition contains a new chapter on numerical methods. Copies may be ordered in advance of publication date at the Bookshop.

I could do with some more sponsors or odd coins for the London to Brighton Bike ride in aid of the British Heart Foundation. Dave Parry is saving hard, rumour has it that he has put off buying a new iron until later.

Road Atlas of Great Britain Ordnance Survey Temple Press £7.95.

Travellers Britain Data File Geographia £4.95.

Concise Science Dictionary Oxford UP £12.95.

Chambers Concise 20th Century Dictionary Chambers £7.95.

Penguin Book of the Car Anthony Curtis Penguin £5.95.

Pass the Port Again Christian Brann £2.95.

On Reflection Richie Benaud Fontana £2.95.

How to Watch Cricket John Arlott Fontana £1.95.

The Dark Arena Marion Puzo Pan £1.95.

The Time of the Hunters Moon Victoria Holt Fontana £1.95.

Killing Time William S Brady Fontana £0.85

Outlaws William S Brady Fontana £1.00.

Instant Menu Translator Foulsham £1.75.

Richard's Bicycle Book Richard Ballantine Pan £2.95.

Booleny Woolenry

Randy

ICU President, Ian Bull is generally believed to be content with having only one woman in his life. In fact however Ian is far from content. Ian was overheard last term reminiscing about his antics while on an 18-30's holiday. Ian told his friends how he would get up at 4.00pm, go down to the Disco and find another woman to sleep with. Ian then told his friends that he intended to send Gaynor, his girlfriend, to her mothers' while he went on another 18-30's holiday.

Drunk

Regular customers of the Union bar were amazed to see senior college administrators such as College Tutor Lester Kershenbaum, Falmouth-Keogh

Warden, Paul Jowitt and Student Services Officer, Michael getting totally paralytic last Thursday. They had just come from an extremely good Welfare party. This had been preceded by a welfare meeting on, you've guessed it, alcoholism!



Wacky, American College Tutor, Lester Kershenbaum

Handsome Parody

Quentin Fontana ICU Hon Sec elect certainly has a high opinion of himself, even if nobody else has. Quentin went out for a drink



earlier this term with Jane Ryder and Jackie Pierce. During the course of the evening the two ladies persuaded Quentin that they were both lesbians. Quentin couldn't believe his ears. How, he demanded, could any women not find a man like him attractive.

Just when you thought you'd got rid of mad ICU deputy president, Dave Parry it seems he'll be back for another year. Dave has been offered a job with the Finance Section in Student Services. So be warned, if hall bills start whizzing randomly around College next year, you'll know whose fault it is.

Large

Large FELIX photographer, Nigel Atkinson, is a bit of a dark horse when it comes to ladies. Many an IC Student has dispaired at the lack of women at IC, and resigned themselves to remaining single. Nigel, though, refuses to give up. On one occasion last term Nigel is known to have offered his substantial body to at least five women. Unfortunately their replies were not recorded.

SMALL ADS

ANNOUNCEMENTS

●**There will be** an EMERGENCY Rag Committee Meeting on Thursday 20 June 1985 at 12.00pm in the Upper Lounge, to discuss the Rag Mag and Charities for next year. It is IMPERATIVE that all members of the Rag Committee attend (Including all Soc Reps).

●**Anyone who witnessed** a gold Renault 18 pranging my blue Citroën GS outside Chemistry on Monday 10 mid-late afternoon please contact Alan Breeze, Biochem 416,int 4180.

●**Will the bastard** who dented the door of my blue Citroën GS on Monday afternoon outside Chemistry come forward and cough up, or I will have no option but to hire a concrete mixer. Alan Breeze, Biochem 416 int 4180.

URUP

●**Vacation Research Project** Ignition by plasma jets and plasma vortices for lean-burning internal combustion engines. Financial support—up to College maximum available. Would suit experimentally oriented students. Apply: Prof Felix Weinberg, FRS, Room 336, Dept of Chemical Engineering and Chemical Technology. Tel 4360.

●**The Electrical Engineering Dept** has numerous individual facilities for text processing (professional wordproces-

sors, micros, the ICC mainframe etc.) and for outputting (laser, daisy wheel and dot matrix printers) situated in various places. A bursary is available for the summer vacation for a student to investigate linking these facilities through the Campus Network and to produce a clear report for E E dept users of what is available and how to use it. Apply to: Mr P R Mason, Dept Computing Rep, Elec Eng, Room 1003, tel 5191.

ACCOMMODATION

●**Looking for somewhere** to live next year? One person required to share a house (central heating and Garden) in Willesden, £30 per week. Contact either, David, Room 136 Falmouth Hall, Southside, Mark, Room 374 Keogh Hall, Southside, or Elizabeth, Room 137 Falmouth Hall Southside. Tel 589 0762 for David/Elizabeth and 589 9247 for Mark.

●**Houseshare:** Two people wanted to live in modern gas c/h house beside Wimbledon Common. £30 each, from 27 June. Big kitchen, living room, garden and garage. Contact Nick Wooder 789 9796.

●**Single and double room** available in family house in Chiswick. Full board provided. Contact Mrs M Davies 994 2803.

●**Single/double room** SE20, available October. Bathroom kitchen and

lounge, gas c/h, house newly decorated, rent £25/£18 pw and bills. Tel 778 6893 7.00pm.

●**Two rooms** and a kitchen, situated in Tooting, suitable for two people. The house is five minutes walk from Tooting Bec tube and rent is £208 per month. For further details contact Susan on 672 8274.

●**Subwarden** for Mining House rent free accommodation in a single room is provided in return for assisting the Warden in the day-to-day running of the House. Which is a mixed residence. Apply in writing to the Warden, David Miller, 55, Evelyn Gardens, SW7. Closing date 21 June 1985.

FOR SALE

●**Five-speed** Puch racing Bike, Good working order £30 ono. Chris 736 5631.

●**Ladies Bike** five gears, good condition £70 ono. Contact I Morgan Room 6011 South well House.

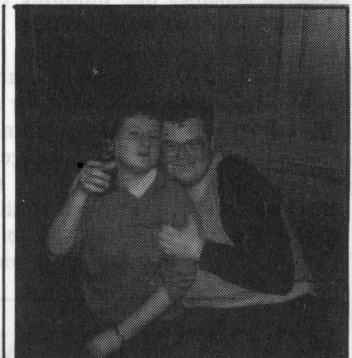
PERSONAL

●**Be ready with** the first aid kit, for those who grass on glass will need it.

●**A Wendy**, je te souhaite bonne chance avec tes examens!

●**Jackie, Jane, Kathy, Eric and Pete.** Your all megastars—Tom.

●**Alan Secombe** wishes to announce his engagement to Miss Annette Thomas. 'Cymru, mwa boys!!'



Nigel with one of his many women

Empty

The Union office has found a new way of occupying itself when ever the bookmaker is closed and there is no cricket on television. Dave Parry is sent down to the refectory to pick up an empty plastic milk container. This is then blown up and used as a volley ball.