



FELIX

Founded 1949

The Newspaper of Imperial College Union

New Hall?

The prospect of a new Hall of Residence for IC came a step closer on Monday when the results of a feasibility study were unveiled at a special residence meeting.

The study proposes the building of a 147 bedroom residence above the existing sports centre in Princes Garden. The façade and height are designed to blend in with the adjoining terraced houses.

The significant problems to be faced are planning permission and finance. College Secretary, John Smith, intends to consult local residents so that any development can fit in with their wishes.

Part of the finance for the £4m project may come from gravel excavations at Imperial's Harlington Sports Ground, with the remainder being loan financed.

The plans for the interior consist of a number of alternative room schemes. The most luxurious has shower and basin en suite, and at the other extreme are Southside-style study bedrooms. The scheme shows one kitchen per eight rooms. Otherwise the provision for communal areas is minimal, although no plans have yet been finalised. In planning common rooms and TV lounges, the College will want to ensure that nuisance to neighbours is minimised.

It is not yet clear whether the hall will be used by undergrads or postgrads, but part of the reason for building a residence to a higher standard than Southside is to attract a higher income from summer users. This clearly precludes a PG only hall.

The Union representative at the meeting supported the view that a higher standard of campus residence is desirable, and suggested that some wealthier students could afford the extra rent involved.



An artist's impression of the new hall

New Rector

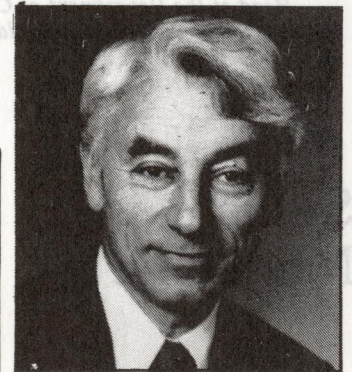
Professor Eric Ash is to be the new Rector of Imperial College, it was announced at Governing Body on Friday. Ash, at present Head of the Department of Electrical and Electronic Engineering at University College London, will take up the appointment on 1 October 1985.

After taking a BSc and PhD at IC in the early fifties Ash did research at Stanford and QMC, later becoming a research engineer at Standard Telecommunications. In 1963 he became a lecturer at UCL and was made professor in 1967.

Professor Ash turned down the opportunity to apply for several vice-chancellorships before agreeing to be considered for the Rectorship of IC because it was 'most challenging job in academia—at least on the science side'.

In an interview with FELIX Professor Ash stated he had 'a passionate interest in teaching

standards'. He added that promotion in universities must be based on teaching and not just research. He is critical of the present government's policies on higher education. 'I have, of course, read the green paper, but not with any great enthusiasm... What I found immensely depressing is the view that the resources we are devoting to higher education can, at best, be kept constant. In spite of everything this is an affluent



Professor Ash

society and education has a value quite apart from its ability to back up industry'. However he also said 'I believe we have no alternative but to redirect our resources towards the applied sciences.'

Professor Ash is said by colleagues to be hard-working, quick-thinking and easy to get on with.

IC Union President Elect Carl Burgess welcomed the appointment and wished Professor Ash well in his new job. He added that in his view Prof Ash was very easy to get on with.

Full interview: Pages 3 and 4

Biotechnology Exhibition

An exhibition of New Technology in Biotechnology is currently being held by *Nature* magazine at the Novotel, Hammersmith.

Exhibits range from fermenters to sterilisers, from incubators to automatic liquid handlers.

Of particular interest are *Applied Biosystems* who have machines on display that can sequence proteins automatically, and another which synthesises high-purity, high-yield oligonucleotides quickly and automatically.

Analytical Measuring Systems Ltd are exhibiting their image analysis equipment. A scanner mounted on a microscope

produces a TV screen image of, say, a culture specimen. The operator defines the area of interest and, at the touch of a button, the machine gives you the colony count in that area.

LH Fermentation are the only British Fermenter manufacturer with a display. They already have a good share of the UK market, but at present are trying to expand abroad. Their products are made entirely from British steels and raw materials.

Exhibitors from Leicester University Biocentre, Surrey University and Cranfield were present, but no one from Imperial College or Imperial Biotechnology.

Letters

Demonstrably Promotable

Dear Sir,

Another of your reports (FELIX 19 June) on the Department of Computing is incorrect. It is untrue that academic staff promotion in the Department is only dependent on research performance. The requirements are the same as throughout the College.

Good evidence of a serious and effective commitment to teaching is always required for promotion to the senior staff. Other factors also, of course, weigh heavily, including: a demonstrably successful commitment to research or scholarship, administrative service to Department or College, and special achievement in the transfer to industry of expertise or advances in science and technology.

While this Department has major responsibilities to the country by virtue of its internationally pre-eminent research in New Generation Computing, it continues to recognise an over-riding responsibility to its undergraduate and postgraduate students.

Your faithfully,
B McA Sayers

Head of the Department of Computing
Dean of the City and Guilds College

Sexist Magazine

Dear Sir,

I am writing to express my opinion about the two photographs of 'strip-o-grams' which appeared in this week's edition of your magazine and which I found highly offensive.

I believe that all members of this College should be able to enjoy a lunchtime or evening in the Union Bar and to attend lectures without having to witness this sort of thing. If certain members of the College wish to watch women taking their clothes off they can do this in strip clubs, cinemas or in the privacy of their own homes. I was fortunate enough not to be present at either of the events but I would have been offended and embarrassed if I had been and I am sure that a large number of women (and quite possibly men) at this College feel the same way.

The Union Bar ought to exist to cater for the needs of *all* of our membership. If activities are allowed to take place within it which offend a number of them, then it is failing to do so. By publishing photographs of these events your magazine is not only alienating some of its readership, but also condoning the use of College and Union premises for such activities. Although you state that your previous comment about banning women from the bar was 'tongue in cheek', you have redeclared your sexist attitude by unnecessarily republishing the photographs. The inclusion of a picture of a nude male does nothing to redress any balance, even if that was what was needed.

If the persons responsible for the events and for the articles in question are of the misguided opinion that women exist for the titillation of men upon payment of money, would they kindly keep it to themselves and not force either it, or its consequence on the rest of us.

Yours sincerely
S Chittenden
Post Graduate
Elec Eng

Unmarried Freebie Hunter

Dear Sir,

Poor Nick James! My heart bleeds for him. After all, he is going to be made homeless when the unfortunate residents of the Fremantle Hotel move out, and he can't get another sinecure (sorry-wardenship with free accommodation) because he isn't married. Nick James will have to start paying rent—just like the hundreds of postgraduate students at this establishment who would have leapt at the chance to be warden of the Fremantle—if the post had ever been advertised.

I am horrified that someone like Mr James can actually *Complain* about the way College appoints student managers and wardens. Just look at the facts. He was appointed warden of the Fremantle Hotel without an interview, when his sole contribution to its social life was keeping the bar open all hours for Michael Arthur. He was given free accommodation for several years, during which he made no impact whatsoever on the disgusting state of the residence, where around a hundred students were forced to pay above the going rate for damp, underfurnished and squalid surroundings.

People like Nick James ought to be shot, the old-boy network method of appointing candidates ought to be scraped, and then perhaps there will be an improvement in conditions in some of the worse hell-holes College thinks are fit for student accommodation.

Name and address supplied

FELIX

Goodbye Lord Flowers

When Lord Flowers came to Imperial College twelve years ago, he perceived that Imperial was 'supposed to be good, but not quite as good as it should have been.'

When Sir Peter Swinnerbon—Dyer visited IC with the UGC this year, he said that Imperial is 'good, but not quite as good as it is supposed to be'.

It would be a mistake, though, to assume from this that Flowers has achieved nothing during his time here. He started by righting many of the College's wrongs, like making Headship of Department a fixed-term appointment. He set up the vitally necessary inter-disciplinary centres. He saw the College through a difficult period of its history in the first round of cuts. And he leaves it in a good position to deal with the imminent difficult period.

It has been said that the Rectorship of Imperial College is the single most important job in the university system—it is Flowers who has made it so.

He has, of course made unpopular decisions. The Flowers report on re-organisation of medical education made him many enemies. But they have since come to accept the logic of it. Some of his appointments within the College have, in retrospect, seemed wrong.

But time, which modifies opinions, will put the seal on his reputation. In spite of what has been said against him, his name will never be mentioned at IC without respect, nor without calling to mind a style of administration that is truly memorable.

Welcome, Professor Ash

Congratulations to Professor Ash on his appointment as Rector of Imperial College. The Rector of Imperial College has unparalleled opportunities to influence science policy in this country. However Imperial College has too many problems of its own for the Rector to concentrate exclusively on forming national policy. The Rector must work with his staff at finding solutions to the problems of accommodation, teaching standards, government cuts. If College is to continue to be a 'Centre of Excellence' Eric Ash is described by his postgraduate students as being hard working, quick and most importantly interested in students. He certainly seems prepared to listen to students problems and work towards finding solutions. There are no easy answers to College's problems. Hopefully, though, Professor Ash will be able to use his undoubted talents to, at least, improve on the situation. He certainly seems to have many of the qualities required.

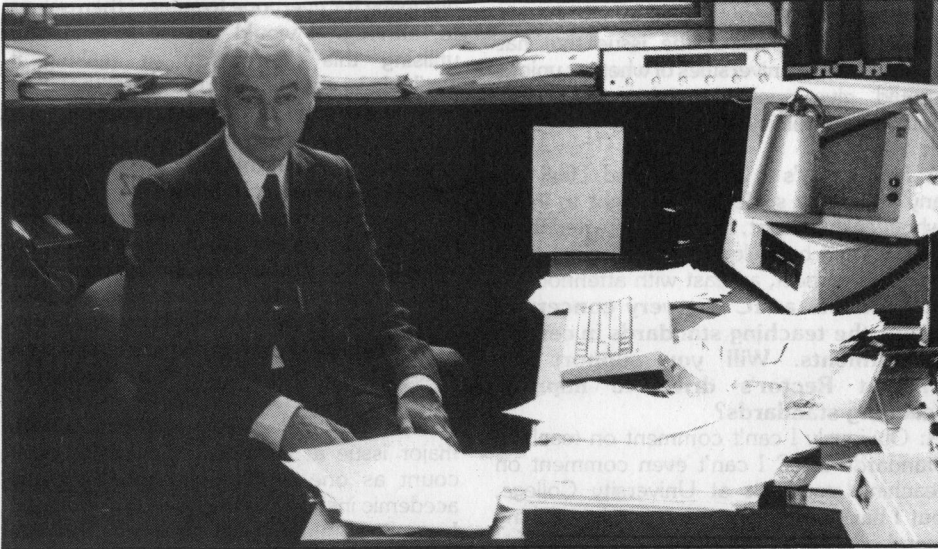
PG FELIX

In recent years there have only been one or two postgraduate issues of FELIX. When one considers that there are almost two thousands postgraduate students at IC this seems a little unfair. This summer we would like to produce a short issue every two weeks. We can only do this though with *your* support.

Credits

Thanks to Professor Ash, Hugh Stiles, Chris Martin, Nigel Atkinson, Rosemary Ivor-Jones, Tony Churchill and Lynda Davies.

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Professor Eric Arthur Ash was nominated as the new Rector last Friday. In a searching interview with FELIX he discusses his past and hopes for the future

FELIX: Could you start by telling us something of your background, family, home and childhood?

Ash: I was born in Germany. My family emigrated to this country in 1938 when I was ten years old. I have one sister. My father was a lawyer. I went to University College School and subsequently to a place called Imperial College, City and Guilds. Since then I have acquired one wife and five daughters.

F: When you were at Imperial were you involved in the Union? What sort of social life did you have?

A: I didn't have very much connection with the Union. I participated in quite a lot of activities. I used to go rowing every weekend. Since at that time I only weighed 9½ stone, the only thing I could usefully do was sculling, but I did that fairly religiously. There wasn't at that time an orchestra at Imperial College so I played in the orchestra at University College instead.

What else did I do those days? Well, we had a fair amount of social life. It seemed to involve the RCM quite a bit. I don't know whether this still goes on or not.

F: A little.

A: I think that is something to be encouraged.

F: What musical instrument do you actually play?

A: I play the violin or the viola—but I haven't played very much for the last five years so I am distinctly rusty.

F: Your CV says that you left IC in 1952 to go to Stanford. From there you went to QMC in 1954 and Standard Telecommunications in 1955. Why did you move out of the university sector and why did you return to university life in 1963?

A: I moved out of the university sector because I feel that industry is the natural habitat for engineers, or at least it is one that they ought to experience. When I went into industry, I had absolutely no intention of coming back to a university. Like everything else in my life it seems to have happened by

accident.

F: What is your research field?

A: My current field is primarily developing new forms of imaging, in particular ultrasonic imaging using acoustic waves and thermal wave imaging, and also some new ways of imaging with light. In the past I have spent a lot of my time working on microwaves, micro-wave tubes and solid state devices in general.

F: We noticed that you have just received a major award from the UGC for your research group. Are you planning to bring your group over to Imperial?

A: I have talked to my colleagues here and my new colleagues at Imperial about this. I think there really wouldn't be anything to be said in favour of doing that. The group here is well enmeshed in the infra-structure. I think if I were to take out any of my PhD students and ask them to move West, they would probably lose something like a year getting resettled, so instead I am simply going to spend a little bit of time over here. However, in the long run I would very much like to start some research at Imperial.

F: Do you see yourself primarily as an administrator or as an academic researcher?

A: I don't think there is really any choice about it. I think if one is going to play the role of Rector of Imperial College, you are primarily an administrator. But there isn't any reason why one needs to spend one hundred percent of one's time doing one thing, and so I very much hope that I can continue to be a part-time academic.

F: Why did you decide to move out of academic research and into administration?

A: Getting a letter asking me whether I was prepared to be considered for the Rectorship of Imperial College. Like everything else in my life, it really wasn't planned. In fact I have turned down a number of previous opportunities for Vice-Chancellorships cheerfully and rapidly. To me Imperial

College was different. First of all, I was there in my youth and enjoyed it enormously. It is, I think, the most challenging job in academia—at least on the science side.

F: Would you agree with the Chairman of the UGC Sir Peter Swinnerton-Dyer's comment that it is the most important job in the University sector?

A: I think it would be very unwise of me to start quarrelling with Sir Peter Swinnerton-Dyer at this stage.

F: There is a rumour going round College that you were offered the position of Head of the Electrical Engineering Department. Is there any truth in the rumour and, if so, why did you turn it down?

A: You mean recently?

F: Yes.

A: No, there's absolutely no truth in this. Many years ago there was some discussion of my moving from here to Imperial College to the Electrical Engineering Department, but at that time I really felt I was so enmeshed in the research I was doing here that it didn't seem sensible to move.

F: Do you think you'll have time to involve yourself in skiing, music and your other recreations?

A: I certainly hope to continue to go skiing. When you get to my age and you stop for a season or so, you'll probably never start again but, unhappily, that never takes up more than about ten days. We've normally gone skiing over Christmas. Now we have just reached the happy phase of life when we no longer have any children, or at least no children who are subject to school holidays, so we might go at other times.

F: Have you got any views on the UGC report on Imperial, in particular the criticisms of teaching standards?

A: I have only seen an abstract of this report, maybe in the Times Higher Educational Supplement. Obviously I don't have views on this. My knowledge of Imperial College dates back about thirty three years. Since then I have only had intermittent contact with a few of my colleagues. I obviously don't have an overview at all.

F: How do you think IC has changed since you were an undergraduate here?

A: I think that in a third of a century a place changes so much that it is hardly worthwhile trying to make the comparison; of course, all the buildings are new and the place must have doubled in size. I suspect that what I remember from my student days won't really help very much at this stage. I know a bit about it from current contacts. At the moment, for example, I am the external examiner for the applied optics course in the Physics Department.

F: What are your views on the present government's policies on higher education and on the recent green paper in particular?

A: Well I have of course read the green paper, but not with any great enthusiasm. I do have to say that I believe we have no alternative but to redirect our resources towards the applied sciences. To that extent,

Continued overleaf.

I would go along with one of the themes in the green paper. What I find immensely depressing is the view that the resources that we are devoting to higher education at the moment can, at best, be kept constant. In spite of everything this is an affluent society and education has a value quite apart from its ability to back up industry. I feel that there is an enormously strong case for having an increase in the total resources going into the applied sciences whilst preserving and perhaps enhancing the rest as well.

F: The green paper criticised four year courses saying that some of the training provided should really come from the industry. Have you any views on four year courses?

A: I do have a view, but all I can offer you at present is a parochial view. I can tell you what we have recently done in the Department of Electrical Engineering at University College. We have started a four year course where some students will obtain a BSc after three years, and some will go on for a fourth year. The decision as to who does what will be taken at the end of the second year, and will depend, first of all, on student preferences, and secondly on academic attainment. The view that I hold is that there really is a very strong case for four years of study for those people who want to engage in it. I think that if we are going to try and claim that our university courses are equivalent to those that you find on the continent, France and Germany in particular, we do have to have at least some people taking four year courses. I do not take the view that was advocated in the Finneston Report; that the brightest people should take four year courses and the less able three year courses. I believe that there will be some exceedingly able students who will leave after three years, perhaps to do research in a university, or to go straight into industry. I think that the people who want to do four year courses will all be able. I don't see it as a simple separation of the sheep and the goats.

F: What do you think about the governments proposals for two year degree courses?

A: I really haven't had a chance to look at that at all. My initial reaction is pretty negative. There are two year degree courses that I have seen in the United States, but they are really intended to be a halfway house on the way to a proper degree. There is an intention to pack into two years what would otherwise go into three.

F: The green paper was very critical of student unions. It criticised them for ultra-vires expenditure and failing in their duty to ensure freedom of speech. What do you think is the role of student unions?

A: I didn't really participate in Union activities when I was a student, and I haven't really had much contact with Union matters at University College either, have to confess that engineers on the whole tend to be apathetic, and don't participate as much as I feel they should. My general views on student unions is that they should flourish.

When you talk about the freedom of speech, are you talking about the issue that has arisen at other universities of whether unions should give speaking rights to certain unfavoured politicians?

F: Yes.

A: I think that's to be deprecated. I feel that any university society has a right to invite whoever they want, and having invited them they should be welcome and listened to; if not with respect, at least with attention.

F: Students at IC are very concerned about the teaching standards in certain departments. Will you support the present Rector's drive to improve teaching standards?

A: Obviously I can't comment on teaching standards at IC I can't even comment on teaching standards at University College, but I have a passionate interest in teaching standards in my department. It is a fiendishly complex issue. Promotion in universities has been traditionally based primarily on research and not on teaching. The arguments in favour of continuing to do this are really quite faulty. However there is one thing that one has to admit and that is that it is quite possible to judge research performance, whereas it is fiendishly difficult to judge teaching performance. Nevertheless I think it should be attempted. I've had one minor impact on the promotion system at University College during the time that I was Dean, and that relates to the criteria adopted when promoting to a senior lectureship. Very roughly the criterion adopted is that for promotion to readership, two-thirds on one's performance is judged on research and one-third on teaching and other administrative duties. In the case of promotion to Senior Lecturer the proportions are reversed. I have always emphasised that, even for a Reader, you should regard these assessments as multiplicative. In other words, if someone scores nought for teaching ability, then it should not be possible to promote him or her to a Readership; however good they are as a researcher, and vice-versa. However good one is as a teacher, part of one's life at university must involve research, and so some indication that these people have contributed to research also seems essential. One of the problems in assessing teaching is that the people who seem to know about it tend to be their person's immediate colleagues in his or her own department. I feel that one ought to seek more references from senior members of a department when promoting junior members of that department, in order to make a better attempt at assessing teaching. This is ending up as a speech but I do feel very strongly about this. There is one more thing that I've tried in my own lectures at times and which is almost universal in some American universities including Stanford, and that is where the lecturer hands out at the end of the course, a questionnaire in which the students are asked to assess all aspects of that particular course; the subject matter, the speed, the degree of stimulation or boredom and so on. I feel that it is a rather good

discipline for everyone to subject themselves to, although I would not be in favour of utilising this information or making it available to any third parties. I feel that it's a very good feedback mechanism for the lecturer himself.

F: Many departments have already adopted similar schemes.

Another problem that many students find is that of finding accommodation. College is considering building a new hall. It may use the profits from the sale of the gravel at the Harlington sports ground to pay for it. Do you see this as a solution? Do you see accommodation as one of your main problems?

A: Yes absolutely. We regard it as a very major issue at University College. It must count as one of the key issues for any academic institution in London. Obviously I can't comment at this stage on the disposition of available resources.

F: The union are very worried about the College's attitude to overseas students. They believe that the College present an unfair view of London when recruiting these students. They also believe that these students are sometimes treated differently from home students and as a result ghettos are created. What policy do you think the college should adopt towards overseas students?

A: I think I would like to duck the details of that question because it is very difficult to comment from the outside. I think one of the great things about the University of London, since its inception, has been that there has always been a high percentage of people from all parts of the world. I agree that with you that it is highly undesirable that overseas students feel that they can only talk to each other, and do not spread through the community. To give you one example, we have five Chinese scholars studying in the Electrical Engineering Department here at University College. I have made it an absolute rule that they can never share an office together, for this reason.

F: Another thing is that the Union is worried about access by the President of IC Union to the Rector. Do you feel that the President is an important person.

A: I do think that the President is important and I do not believe that access to me will be a problem, provided that people are prepared to see me at what might be called unsocial hours.

F: IC almost regards itself as a university, and often ignores the rest of the University of London. Do you see this changing?

A: Again, I would prefer to judge that when I'm on the spot, but I suppose the fact that Lord Flowers will now be the Vice Chancellor of the University might help to strengthen links.

F: Finally, have you got anything that you are very keen to change at Imperial?

A: I think that I'm going to duck that one too. I think having a new doctor come in and immediately start prescribing remedies would be a big mistake.

F: Thank you very much, Professor Ash.

A: Thank you.