

Early start planned for building to house new tandem accelerator

A 140-foot high tower is to be built in the Research School of Physical Sciences area of the University to house the University's new tandem accelerator. Construction of the building is expected to begin shortly.

The building, which will be six-sided, will have base approximately 31 feet by 39 feet. It will be constructed of lightly coloured concrete and will have external vertical ribs.

Inside the tower there will be a staircase and lift to provide access to the particle injection room at the top. This room will also have external ribs but will be made of either pressed steel or aluminium to give a distinctly modernistic appearance.

The design and siting of the building have the support of the National Capital Development Commission, which has commented favourably on the building's colour, form and treatment. The external treatment of the building has been planned by the University's Architect/Designer, Mr Derek Wrigley, and the University's Site Planner, Mr Roy Simpson.

The machine to be housed in the tower is a Pelletron tandem accelerator of entirely new design. The techniques employed in its manufacture were developed by Professor R. G. Herb and his colleagues in the University of Wisconsin, and the sophisticated inner parts of the machine will be made by the National Electrostatics Corporation of Middleton, Wisconsin.

The Director of the Research School of Physical Sciences, Professor Sir Ernest Titterton, said this week that the machine represented a major breakthrough in accelerator design. The guaranteed terminal voltage of 14 million volts was far in excess of that of any existing accelerator of the tandem type, he said. Sir Ernest said he also expected that,

after the machine had been run in, this guarantee would be exceeded and still higher voltages obtained. An important feature of the machine would be its capability of accelerating heavy ions. This would open up an important and exciting new field of research, he said.

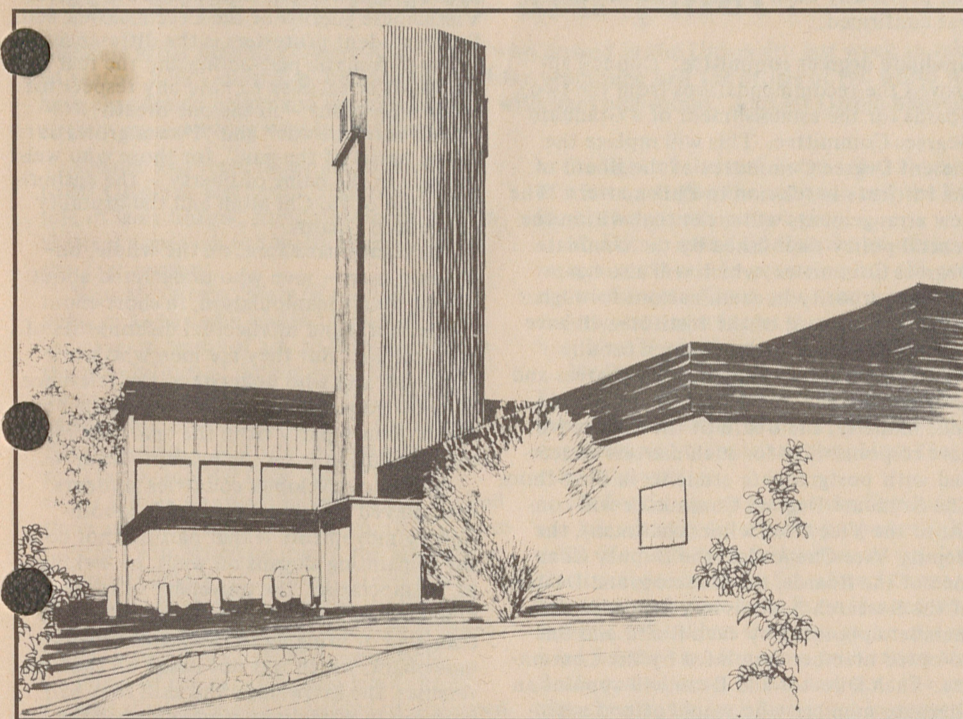
Sir Ernest said that a good deal of the equipment required — for example, the pressure vessel to house the accelerating system and the gas handling equipment — would be built in Australia. Some major items would be constructed under contracts by Australian companies, while other parts would be built in the Research School itself.

Sir Ernest expects that the machine will be completed and ready for testing late in 1972. It should be available for experimental work early in 1973.

The tower will be constructed as an integral part of the Nuclear Physics buildings of the Research School of Physical Sciences. A new target area, control room and working space will be added early in the next triennium. The old high tension laboratory has already been demolished to make way for the new building. It is proposed that, in the 1973-75 triennium, the Oliphant Building, the Cockcroft Building and other buildings of the Research School will be given a new roof facia and colour treatment to achieve a greater degree of integration in the appearance of the buildings on the Acton Peninsula.

The cost of the building is included in the total grant of \$2.365 million approved for the University in the current triennium for the purchase of a second tandem accelerator in the Research School of Physical Sciences. The new tandem accelerator will be complementary to the earlier machine acquired by the Research School in 1960 which, itself, will be upgraded in research capability by the addition of a new injection system to allow protons of energies of up to some 37 million volts to be achieved.

'The overall accelerating machine complex will be the most advanced in the world and will provide great flexibility in research,' Sir Ernest Titterton said.



Top picture: The University Architect/Designer, Mr Derek Wrigley, shows the Director of the Research School of Physical Sciences, Professor Sir Ernest Titterton, a model of the tower which is to house the Research School's new tandem accelerator.

Bottom picture: One of Mr Wrigley's perspective drawings showing how the building will look when finished towards the middle of next year.

Students and revolution

A university is neither a microcosm of society nor a Temple of Youth, Dr Eugene Kamenka of the History of Ideas Unit, RSSS, told the Pluralist Society yesterday (Thursday 25 March). 'A university as an institution', he said, 'is concerned with and embodies a particular social interest — the interest in truth as a condition of culture, of rationality and rational action, of technical competence and social and intellectual judgment. A university as an institution is thus concerned with promoting the discipline of enquiry, the intellectual organisation of knowledge, the rigour of argument and the drawing of distinctions between the true and the false, the good and the bad, the relevant and the irrelevant, the competent and the incompetent.'

Dr. Kamenka continued, 'There are good universities and bad universities, good professors and bad professors, good students and bad students. It is not the role of a university to make everyone, the good and the bad alike, feel equally at home and important within the university. A university is anti-authoritarian in the sense that it accepts no authority but the authority of rational argument; it demands, in principle, that intellectual competence and intellectual status be proved, over and over again, by actual performance in argument and intellectual endeavour. But a university has no time for that crude Communism which Karl Marx de-

nounced — the Communism which wants to eliminate all distinctions of quality and character, which wishes to abolish talent by force. This is the sentimental romanticism of nihilism, the "abstract negation" — as Karl Marx called it — "of the whole world of culture and civilisation", which is in fact a camouflaged form of universal envy, seeking to destroy what it cannot appropriate.

'It is easier to daub slogans on walls,' Dr Kamenka said, 'than to write *Das Kapital* or even — the *Communist Manifesto*. It is easier to march than to think, to "confront" than to argue, to denounce "racism" than to have a concrete vision or program for the Abori-

ginal or the Asian or African future.

'This is not to say that there is no room in a society or in a university for protest of a non-intellectual kind. It is to say that a university in which physical protest and physical protesters become the centre of student or academic activity is a university that is substituting romantic enthusiasm for rational endeavour and thereby destroying itself as a university. Among a small minority of "activists" the confrontation and the demo, the hurling of abuse and the elevation of sexpol can become a protest against the discipline of work and enquiry, including political work and social enquiry. They can become a protest against the fact that knowledge *does* count, that ignorance is constantly threatened in its self-satisfaction and must destroy or discount in order to survive. In such hands, what is proudly called the student revolution can become an act of emotional self-indulgence, a desperately phoney inflation of a pseudo-ego, insecure, aggressive, empty, concerned with status, with making itself felt and heard in obscenities and vulgarities because it is conscious of having nothing more interesting or effective to say.

'It is not uncommon for such student

"activists" to complain about the "apathy" of the majority of other students. This is a different complaint from the complaint about the unintelligence of a large number of students — a complaint that is unfashionable in "democratic" circles. What the activist calls "apathy" is all too often the combination of emotional security and intellectual judgment, the outgrowing of the need to shock one's parents or to outrage the so-called authorities, the realisation that political programs, like any other programs, need work and thought.

'In the 1950's the growing complexity of society and of world affairs led many people — including, very noticeably, many of the heroes of the Left — into a voluntary surrender of judgment and of responsibility, into a romantic belief that our "leaders", if only they be men of goodwill, could solve the problems facing mankind. This was the era of the summit conferences and of the pious declarations of faith in the power and importance of the United Nations.

'Today, the confrontation, the demo, the sit-in, have all become symptoms of a similar surrender to helplessness. They are all ways of saying to some unspecified authority: "We

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March meeting of Council

Matters dealt with by the University Council at its meeting on 12 March included the following:

University Act amendment: The Bill amending the Australian National University Act was passed by Parliament last month and came into operation on 2 March. The amendment provides, among other things, for three additional members of Council, (the President of the Students Association, ex officio, and two more representatives of non-professional staff), dropping of the requirement that those graduating with a bachelor's degree must wait three years before becoming members of Convocation; and enlargement of the Standing Committee of Council from nine to twelve. The amendment to the Act gives effect to Council's main requests except that it leaves the number of elected undergraduate members of Council at one, whereas Council asked that there be two. Council noted that an amendment moved in the Senate by Senator Murphy, to change the present procedure for handling University statutes and to require rules made under statutes to be tabled in Parliament, had been defeated. The Vice-Chancellor explained that the University had not been committed on this in advance and he believed that the proposal, if adopted, would have created difficulties for the University. He was asked to report further at a later meeting.

Woroni reference: Council noted that an amendment moved successfully by Senator McManus added the following words to the motion passing the second reading of the Bill amending the University Act: 'but the Senate believes that a university student body seeking representation in the control of a university has an obligation to show that it has a sense of responsibility and regard for the good name of the university which would be manifested, for example, in a rejection of crude pornography as a feature of official student journalism.' Council endorsed the Vice-Chancellor's assessment of the situation created by the publication of the Orientation Week issue of *Woroni* and the action he had taken. The Vice-Chancellor told Council that in his Orientation Week address to students, just after his first look at *Woroni*, he had told them that he had found nothing to be pleased about and that if the issue had been designed to shock it would do so to an extent, but to what purpose? If the purpose had been to argue against censorship the means would probably be counterproductive. The Vice-Chancellor said he had told the students that if legal proceedings were instituted, membership of the University gave them no protection. The Vice-Chancellor told Council that he had subsequently conveyed his views directly to the students responsible for the publication of *Woroni*. He had told them that while he personally felt the issue had been misguided and offensive, he did not propose to initiate action under the University's disciplinary rules, partly because he understood that enquiries were being made by the police. He had, however, reserved the right to take action over future issues if he felt it necessary. A report on resolutions passed by a meeting of the Students Association on the same day was received by Council.

Part-time students survey: Council referred the matter of the survey of part-time students to its Education Committee for consideration. The part-time students survey, which was requested by Council in 1967, was carried out by the Education Research Unit. In May last year a condensed report of the findings of the Education Research Unit was presented to Council and referred to the Board of the School of General Studies for discussion. The Board subsequently appointed a working committee to prepare recommendations. The report of the Board's committee was transmitted to Council as representing the Board's views. Council also had before it comments on the Board's report by the head of the Education Research Unit, Mr. D. S. Anderson, and articles about the matter which have recently been published in *Woroni*. In recommending that the matter be referred to the Council Education Committee, the Vice-Chancellor said that the Education Research Unit report, the Board's comments and the decline in the proportion of part-time students in this year's enrolment

invited a fresh consideration of policy by Council. He said this reconsideration would be assisted by a prior review by the Council Education Committee and any further comments the Board wished to make. The Education Committee will consult widely. Its members are: the Pro-Chancellor, the Vice-Chancellor, the Deputy Chairmen of the Boards of the Institute and School, Mr. K. E. Beazley, Mr. A. Crombie, Dr. J. J. Dedman, Mr. J. G. Fennessy, Sir Brian Hone, Mr. Justice Mason, Dr. G. L. McDonald and Sir Frederick White.

Committee on Vice-Chancellorship: The Council received with great regret the Chancellor's report that Sir John Crawford planned to retire in August next year. It set up a Committee on the Vice-Chancellorship to consider the next appointment and to take steps to make a submission to Council. The Committee will consider suggestions from all members of the University including Convocation, staff and students, and will have discussions with representative groups. The committee consists of: the Chancellor, the Pro-Chancellor, Mr. J. Darling, Mr. J. Q. Ewens, Sir Frederick White, Professor R. D. Wright, and Mr. A. J. R. Yencken.

University finances: The Vice-Chancellor drew Council's attention to the serious position which the University faced in the absence to date of a government decision to make available additional funds in relation to the increasing cost of non-academic salaries. It had become not only prudent but necessary to ask all sections of the University to revise their estimates for 1971 so as to achieve an overall reduction of five per cent. The impact on the University's work would be very serious and the full reduction had not proved feasible in the School of General Studies, where students had already been accepted for 1971. New developments, previously accepted by the Australian Universities Commission and the government, could not go ahead. He naturally very much hoped that the government would make an early decision to provide the necessary additional funds, to cope with what were undoubtedly exceptional circumstances, so that the sums now cut from the estimates could be restored.

Student numbers: Provisional figures for the University's 1971 undergraduate enrolment are as follows: 1,280 new students (1,312 in 1970); 2,910 re-enrolments (2,526); total 4,190 (3,838). The breakdown of new enrolments is: 857 full-time students (690 in 1970); 407 part-time (622). The final figures for this year's enrolment will not be known until next month. The Deputy Chairman of the School of General Studies, Professor C. A. Gibb, told Council that as a result of the new admission procedures introduced by the University last year approximately 550 early offers of admission for 1971 had been made, of which about 220 had been taken up. There had not been time to compile an analysis of the home locations of the 220 students but as only 81 early offers had been made to the A.C.T. it appeared that there had been a general spread of acceptances.

University calendar: The Registrar reported to Council that as an economy measure there would be no 1971 University Calendar. The booklet *General Information* was being slightly expanded to act as a revision of the 1970 Calendar on the information it contained, for example: the principal dates, membership of Council and academic staff. There would also be published shortly what in future years would become part two of the Calendar, comprising University legislation.

Standing Committee: As a result of the legislation amending the University Act, Council appointed three additional members of Standing Committee and noted that the Pro-Chancellor was now the chairman in place of the Vice-Chancellor. The new members of Standing Committee are: Mr. J. Q. Ewens, Dr. G. A. Joplin and the President of the Students Association.

Membership of Council: Council approved a recommendation by Standing Committee that Mr. J. Darling, whose term expired on 9 March, be reappointed a member of Council for two years from 10 March. Council noted with regret that Mr. G. J. Dusseldorp, whose term also expired on 9 March, was unable to continue to serve as a member of Council.

Council election: The recently passed amendment to the University Act provides for the

election of one additional Council member each by the non-professional academic staff of the Institute and of the School. Council noted that the elections would be held between 7 April and 5 May.

Obituary: Council recorded its sympathy with the family and its appreciation of the work done by Mr. W. G. Butterfield, Finance Officer in the Research School of Physical Sciences, who died suddenly on 11 February after having been with the University since 1956.

Medical Education: Council received a draft supplementary submission to the Australian Universities Commission following its approval in principle in November that the University should be prepared to enter the field of undergraduate medical education. Attention was drawn to the need for Council to be assured of cooperation from the medical profession and for proper representation by the University on the bodies concerned with the planning and development of Canberra's medical facilities and services. Considerable progress in both directions was reported. The Vice-Chancellor assured Council that these matters would be closely pursued. If the proposals are accepted by the AUC and the Government the first intake of students would be planned for about 1977.

Emeritus professors: Council considered a paper, for which it had asked at its October meeting, setting out the present policy and procedure in relation to the granting of the title, 'Emeritus Professor'. Council asked that the University's academic bodies consider the matter and report back to Council. The main question is whether the granting of the title 'Emeritus Professor' should be a normal means of conferring appropriate status on a professor who leaves the service of the University or whether it should be a means of recognition of distinguished service.

Burgmann College rules: The rules for Burgmann College were approved and the affiliation of the College with the University, which had previously been granted provisionally, was confirmed.

Graduate degrees committee: Council approved the recommendations from the two Boards for the establishment of a Graduate Degrees Committee. This will replace the present Degree Committee of the Board of the Institute in relation to PhD matters. The new arrangements will mean that within the general policy established by the Graduate Degrees Committee, which will also have general authority in examinations for higher degrees, the Board of the Institute will have the responsibility under Council for all matters relating to postgraduate degrees and scholarships for students in the Institute and, similarly, the Board of the School will have responsibility for such matters concerned with postgraduate students in the School. The Graduate Degrees Committee will consist of the Vice-Chancellor (chairman), the Deputy Vice-Chancellor, the Deputy Chairmen of the Boards, the Directors and Deans of the Research Schools and Faculties, one member appointed by each Board and one co-opted member appointed by the Committee. Each Director and Dean will appoint an alternate member who would attend whenever he is unable to do so.

RSBS Director: Council appointed an electoral committee to make a recommendation to Council for the appointment of a Director of the Research School of Biological Sciences to succeed Professor Catcheside, who will retire at the end of next year.

Student accommodation: Council had before it a paper setting out the position of student accommodation in the University this year. The figures reveal that at 1 March of a total of 1,416 undergraduate places available in halls and colleges there were only eight vacancies (seven at Ursula and one at Burton), although Burgmann College, because it was unfinished, was housing only 153 of its 233 residents, the rest being temporarily accommodated outside the College. Council was told that at the beginning of the academic year there had been a small waiting list of undergraduates seeking a place in a hall or college. This year there had been a heavier demand for private accommodation but all students seeking this type of accommodation had been placed. Last year it had been thought that there would be unfilled places in halls and colleges in 1971. The unexpected heavier demand for places was probably largely due to the unusually high proportion (sixty five per cent) of full-time students

among the intake of new students (compared with slightly more than half in recent years.)

Honour for professors: Council conferred the title of 'Emeritus Professor' on Professor A. W. H. Phillips and Professor W. E. H. Stanner, who recently retired from the service of the University.

University House membership: Council approved a recommendation from its committee appointed to review the policy and functions of University House, which had endorsed a recommendation from the Master and Fellows of University House that membership be extended to those enrolled in a course of study leading to the degree of master. Pending the necessary amendment to the rules the Master is prepared to admit masters students under the rule providing for membership by invitation. □

STUDENTS AND REVOLUTION

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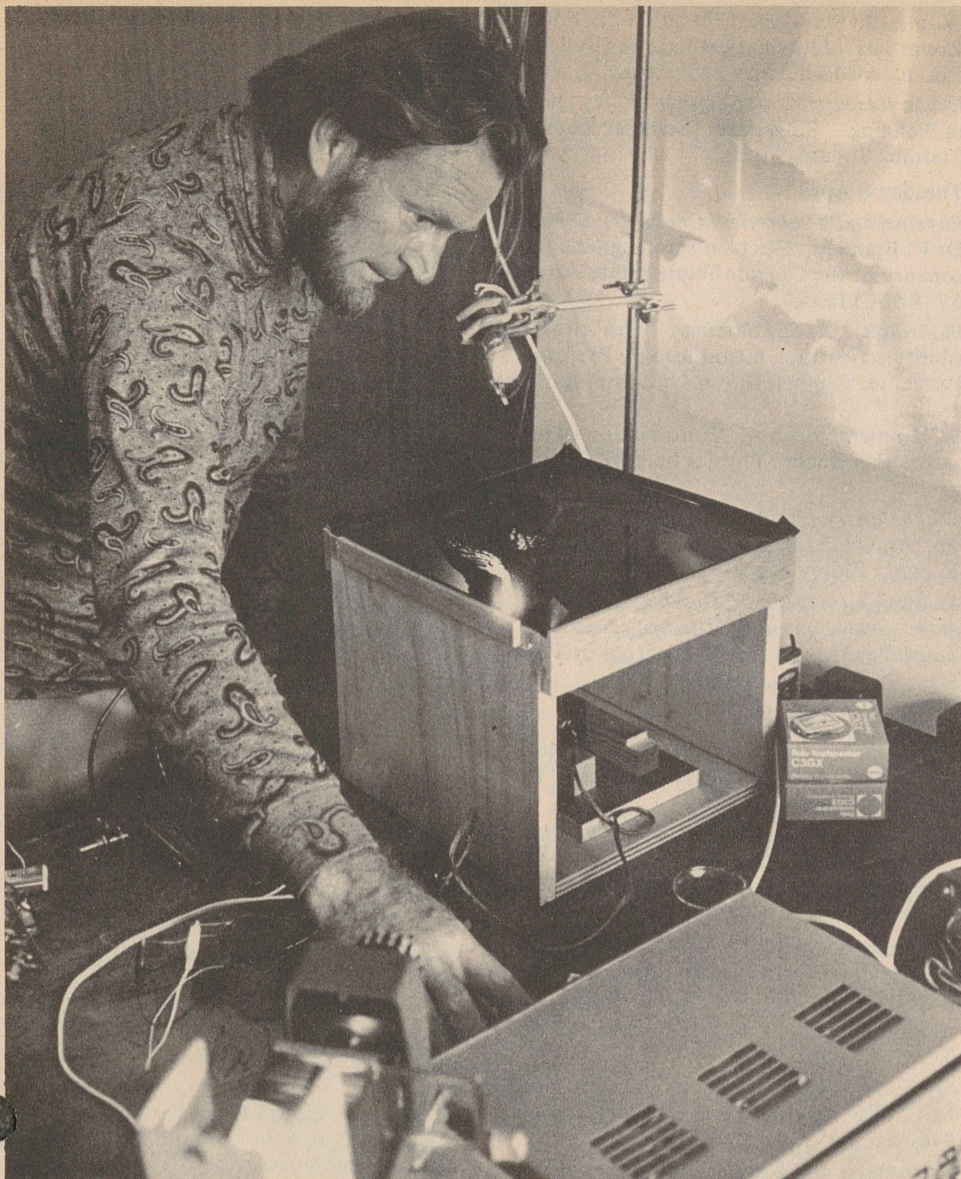
are the problem — you find the solution". Just as the student revolt within the universities, where it occurs, strengthens — rather than weakens — the power of the Administration and the bureaucratisation of universities, so radical unrest in society at large is strengthening rather than weakening the forces of "law and order" and the public support for them.

'Revolution,' Dr Kamenka continued, 'is a desperate remedy for a desperate disease. All too often the cure has proved very much worse than the complaint and never have the actual achievements of the revolution been significantly like the utopian dreams that were sold to those who made it. There is no question of denying that revolution is an important and not infrequent vehicle of social change, but one would have to live in a society in very desperate straits indeed, to have no knowledge of history whatever, to welcome revolution as the best and most purifying of all alternatives. The difference between the Western student radical and the Vietnamese guerilla or the Czechoslovak and Polish student protesters is the difference between romantic play-acting and the real world. It is not easy to have any respect for those who shout — in the one breath — "Make love not war" and "Power grows out of the barrel of the gun", for those who welcome — in the name of liberty — the authoritarianism of Ho Chi Minh and the brutality of the Red Guards.

'Revolutionaries are, on the whole, unpleasant men — men who understand about power, about manipulation, in short about all the moral and intellectual dishonesties of political life. But they are men who work and think and who understand the relevance of knowledge. This is what distinguishes the revolutionary party from the anarchist movement and the Revolution from the peasant *jacquerie*.

'In underdeveloped countries students have played an important part in revolutionary movements — that part did not consist of painting slogans on walls, of seeking to "democratise" the university or of denouncing and abusing Vice-Chancellors. It consisted of bringing to the revolutionary movement, which was not based on the universities, the knowledge and skill they had acquired in disciplined studies within the institution or in emulation of its traditions. It was precisely this recognition of the relevance of knowledge and discipline, this rejection of romantic nihilism and romantic anarchism, which made revolutionary parties significant, while Pugachev and the leaders of the Great Peasant Rebellion in Germany rotted in chains as a warning to those who thought that rage was a sufficient substitute for social understanding and social power.

'The university, then, is relevant to politics; people within a university, as people, will have social interests and social demands — they will, like all others, engage in politics. The call to politicise the university, however, is not a call to people within a university to take more interest in politics. It is a call to substitute "political" standards for intellectual standards. Politics, as the pursuit of worldly success, as an attempt to persuade and cajole, puts a high premium on intellectual dishonesty on manipulation and the glossing over of distinctions and differences. Prime Ministers learn to behave in this way; so do the chairmen of revolutionary councils and Vietnam Moratoria committees. It is the central task of the university to teach men to recognise and expose the confusions and dishonesties of all three.' □



An end to brush and paint?

Adelaide artist Stanislaw Ostoja-Kotkowski, who arrived in the University last week to take up a Creative Arts Fellowship, believes that in fifty years time half the artists of the world will have abandoned paints and brushes to work with light and sound. And Mr Ostoja himself has already moved a long way in that direction.

Science and technology are as important to Mr Ostoja as aesthetics, and to hear him talk of laser images, computer poems and an abstract approach to theatre suggests art of the 21st century.

Says Mr Ostoja, 'Only in the last fifty years or so has man begun to emerge from the cave, in terms of art, to fully appreciate the possibilities of colour and light. This move began with the French Impressionist painters and the architecture of the German Bauhaus school, and who knows what we shall see in another fifty years?'

Mr Ostoja was born in Poland and studied there and in Germany before coming to Australia in 1950, when he joined the Melbourne National Gallery Art School. His training had been conventional enough, but in Melbourne he began to turn to modern technology as a medium of artistic expression.

Some of the experimental works he exhibited then were either derided or dismissed by the critics, but now he has the ironic satisfaction of seeing overseas artists in the field winning enthusiastic acclaim for works which use ideas he employed years before.

Mr Ostoja later moved to Adelaide, which he found much more open to new ideas than Melbourne. In Adelaide his paintings, light shows and theatre sets aroused the occasional murmur, but never an outcry.

'I found I could do things in Adelaide that I could never do in Sydney or Melbourne. Adelaide is a smaller community and when several people have an idea they want to follow, they just get together and try it,' he said.

'One of the first things I did was an "abstract" set for *The Marriage of Figaro* in 1962 and the audience accepted it. I'm not sure that I would have got away with anything so unconventional in the bigger capitals at that time.'

Deep within the Cockcroft Building last week Mr Ostoja refracted laser beams through a glass ashtray and a cut-glass decanter top to throw shimmering red images onto a small screen to illustrate how beauty could be created by technological means. In explanation he said, 'Lasers give a much clearer and more exciting light than do normal incandescent bulbs. No matter how beautifully one paints a sunset it will not be as beautiful

as the light of the real sunset. But the light of a laser can give the radiance and the brilliance that paints cannot give.'

Mr Ostoja admitted that the resulting images could not be preserved but this was not a concern. 'Once you have seen an aurora you never forget it, so it is with the best laser images,' he said.

Mr Ostoja admits to only a superficial knowledge of the complex equipment he uses and he usually works with electronics engineers and technicians to achieve the effects he wants.

Mr Ostoja claims he was the first man to use laser images for artistic purposes in Australia. He used them in 1968 in an Adelaide theatrical production, *Sound and Image*, but the Australian daily Press showed no interest. Yet when the same technique was used for the first time in a production at La Scala opera house, Milan, last year the event was given front page treatment in papers here.

While in Canberra Mr Ostoja plans to give public demonstrations of his art along the lines of those he has given at the Adelaide Festival of Arts. These demonstrations could possibly combine visual images with electronic music or introduce poems written by a computer.

Mr Ostoja warned that the quality of the poems would depend on the capacity of the computer and the patience and artistry of the programmer. He said, 'The poems often make no sense, but linked with sound and images they create a certain "atmosphere". Because of the haphazard choice of words each member of the audience will try to make sense of it after his own fashion.'

Mr Ostoja says virtually all the money he has ever earned has gone into his experiments with light and sound. He earns money with commissions, such as the 55-foot long mural he has just completed for the Adelaide airport, and uses the money for the experimental work he most wants to do.

'The ANU Fellowship means that for the first time in my life I do not have to worry about what I am going to live on,' he said.

Picture: Creative Arts Fellow Stanislaw Ostoja-Kotkowski adjusts an amplifier which is part of the equipment he uses to create patterns of reflected light in rippling liquid. □

Letters to the Editor

BOOKSHOP DEFENDED

Sir — In reply to Disgruntled Student (*Reporter* 12 March) let me say it is difficult to deal with a correspondent who takes refuge in anonymity.

Suffice it to give the following detail relative to his or her complaint. Of the fourteen books set for English 1A, eleven were in stock and on the shelves, or in stock on the tables for ready access by 24 February in the case of the latest of these books to reach us. Some were there in January. The only three deficiencies were: Lawrence — *Selected Poems*; Conrad — *Nostramo*; and Faulkner — *The Sound and the Fury*, which were reprinting and have still not arrived. The Department of English substituted another title for one of these and this we were able to obtain immediately.

If your anonymous correspondent would care to throw off his cloak and call on me I should be happy to show him the arrival dates for each of the books in question.

(Mrs.) J. Tippetts,

Manager, Canberra Branch,
University Co-operative Bookshop Ltd.

BOOKSHOP LOSER

Sir — As a Player with five years' experience in the Bookshop Game, I have followed Disgruntled Student's (*Reporter* 12 March) opening moves with considerable interest. Full marks to him, as a novice, for anticipating the three-month delay and opening negotiations for March books the previous December. Few beginners grasp the significance of the 6c reservation-fee-move in time to alter play before Second Year.

As a semi-retired Player (final honours students get only an occasional Game), and to some extent freed from personal involvement, I'm better able now to appreciate the value of the Bookshop for dining out anecdotes — there's a special sort of one upmanship among students, in capping someone else's Bookshop Story. And I can look back over my years of being where the action was, with a certain academic (sociological and psychological) interest.

For instance, there's the study of new staff reactions, when they find their lecture fixtures dictated by the state of play in the Bookshop Game. Characteristically they go through three stages: Stage 1 incredulity; Stage 2 frustration; and finally, since like most of us they're Losers in the Bookshop Game, Stage 3 inertia. Example of Stage 1: A new lecturer from the United States, finding that he had to alter the content of his course because only 12 copies of the text (the only available report of recent experimental findings) had arrived for a class of 80, although the book, for a *Second Semester* course, had been listed at the end of the previous year, commented: 'It's bizarre. They tell me you folks over here do all your courses on texts that aren't available.' Example of Stage 2 (a new professor): 'They have the mentality of greengrocers: they think if they keep stock on the shelves it will go bad.'

I have a rich fund of personal recollections, too, like the time I asked why it should take one month to obtain a paperback which was published and printed in Melbourne (and was not out of print), and was told: 'All our orders have to go via the Sydney Co-op. They wait until they have enough orders to make it worth sending them on to Melbourne.' It could take anything up to a fortnight, I gathered, to justify a 6c stamp (no, 5c then).

Out of this experience I developed my own rules of play. Those books for which I could afford to wait two months I ordered direct from Blackwells in Oxford (only two months' wait as against three or four through the Co-op, plus the advantage of avoiding the mark-up of from 50 to 200 per cent charged by the Bookshop in common with other Australian booksellers, although the Bookshop is a co-op for the benefit of students. Those books which I needed immediately I ordered from the Queensland University Bookshop, not a member of the Co-op, so only a 10 per cent discount, not 20 per cent, but no shareholding required, and all the benefits of a bookshop run by an efficient manager as a thriving business. I have never failed to receive my required book within three days of ordering (payment after receipt), even when the book was not on a Queensland

required reading list.

I have some new rules to suggest for the Bookshop Game: Give away the Co-op. As Disgruntled Student implies, what is the value of 20 per cent on purchases you can't make, and the idea of service is a travesty. Let's settle for 10 per cent and someone who dares to risk surplus stock on the shelves, not only required reading, but even — is it too much to expect — books to browse among. Browsers sometimes buy.

Maybe we can even take a tip from Bourke's and (in the case of bulk supplies of First Year texts) do some direct ordering from overseas, passing on the benefits to customers without mark-up.

Bad sportsmanship, perhaps, to change the rules of the game if you can't win. Well, okay. But I wouldn't mind if the Bookshop stopped being a game and became a business.

Loser.

SATISFIED CUSTOMER

Sir — For a combination of arrogance and ignorance Disgruntled Student (*Reporter* 12 March) takes the bun! If one removes all the 'inconsequential vagaries' — how D.S. loves that word! — one is faced with an overbearing 'Fresher' who, devoid of sufficient gumption to place firm orders for required texts, is now stamping a foot at the rewards of foolishness. Diddums then, did some nasty student beat you to the shelf!!

The University Co-operative Bookshop on this campus is run by an efficient staff working under the most appalling difficulties; continual lack of storage space for books and accommodation for their thousands of customers being glaring problems, they are also faced with the fact that they require more staff but have nowhere to house them. One only had to witness the continuous queue on the first Monday of term to appreciate their plight.

The rules of the bookshop are not local and the staff are bound by these rules to charge \$5 membership fee and 6c postage notice fee; neither are they 'hanging on' to D.S.'s precious twenty cents, when that arrives it will come direct from Sydney.

Having had experience both in university libraries and two bookshops I would point out to D.S. that one can but place the required order, wait, follow-up and eventually produce the goods; one cannot run around the shelves of various publishing houses plucking the required titles therefrom — it just isn't done!

I have found the staff of the Bookshop both efficient and helpful at all times; if I cannot find what I need my order is placed and given prompt attention. Keep up the good work UCB, you are doing an excellent job!

One last word to Disgruntled Student; it is your right, nay your duty to criticise, but for heaven's sake let that criticism be constructive and not just a 'sop' to your own deficiencies.

Jean N. Barnes

REPORTER NOT WANTED

Sir — When the governments of Australia are engaged in a highly publicized campaign to curb expenditure and University departments are forced to make drastic cuts in their academic budgets, it is perhaps time to enquire into the purpose of an expensively produced fortnightly newspaper such as the *Reporter*. A generous estimate will allow that about two pages of the issue of February 26 contain useful information. The rest, I am very sorry to say, is devoted to inconsequential chit-chat. If anything more than a regular information circular is thought necessary, I suggest that the contents reflect the fact that this is an institution set up for the sole purpose of the pursuit and dissemination of knowledge. Gossip, even if it is about academics, is no substitute.

Gehan Wijewardene.

CONFERRING OF DEGREES

Degree conferring ceremonies of the University will be held in the Canberra Theatre on Thursday 1 April and Friday 2 April at 2p.m. The degrees will be conferred by the University Chancellor. A brief meeting of the Standing Committee of Council will be held on Friday 2 April to confer degrees in absentia on graduands unable to attend the ceremonies. □

DIARY OF EVENTS

Monday 29 March

History of Ideas Seminar. Mr A. C. Wilson, 'The Soviet Orthodoxy in Aesthetics'. Seminar Room 4, Coombs Building, 11a.m.

Computer Centre Lecture. Dr K. Atkinson, 'The Numerical Solution of Integral Equations'. Room 105, Mathematical Sciences Building, 11a.m. Also Thursday and Friday.

Efficient Reading Retest for those who took courses in 1970. Childers Street Laboratory, 12.30p.m. and 4p.m.

ANU Theatre Group, general meeting to decide on play for Festival of University Arts. Union meetings room, 8p.m.

Sports Union annual general meeting. All affiliated clubs to send at least two representatives. Those interested in Sports Union activities also invited. Physics Lecture Theatre, 8p.m.

Tuesday 30 March

RSC Lecture Series. Dr S. H. Walmsley (University College, London), 'Group Theory and the Solid State'. On Tuesdays and Thursdays until 6 April. RSC Lecture Theatre, 9.30a.m.

Philosophy (RSSH) Seminar. 'Psychological Explanation', introduced by Dr J. B. Maud. Seminar Room 6, Coombs Building, 11a.m.

Efficient Reading Retest for those who took courses in 1970. Childers Street Laboratory, 12.30p.m.

SCM general meeting. Richard Campbell (Philosophy, SGS) on some passages from Martin Buber's work on I-thou relationships. Physics lecture room 5, 1p.m.

Christian Science lecture. Thomas O. Poyser of Dallas, Texas, 'A Higher Humanity'. Sponsored by the Christian Science organisation of ANU. Haydon-Allen Lecture Theatre, 1.10p.m.

American Studies Seminar. Papers and topics welcome from volunteers in any of the appropriate fields. Every other Tuesday, room 208, Haydon-Allen Building, 2p.m.

Soccer training. North Oval, 5-6.30p.m. and every Tuesday at the same time.

St. Mark's Institute of Theology lecture program: Dr J. Udy, 'Changing Concepts of Mission' St Mark's Institute of Theology, Braddon, 8p.m.

Wednesday 31 March

Computer Centre Lecture. Dr D.E. Lawrence, 'The Small Computer in the University Environment'. Room 105, Mathematical Sciences Building, 9a.m. Also on Wednesday 7 April.

ANU General Staff Association. Annual general meeting. Open to all members of non-academic staff. Coombs Lecture Theatre, 10.30a.m.

Organic Chemistry Seminar. Mr P. Foss, 'Some Aspects of Biosynthesis of Prostaglandine.' Room 134, RSC, 11a.m.

Forestry seminar. Mr R. Grant, 'Rate of Interest and Evaluation of Public Projects.' Room 103, Department of Forestry, 1p.m.

Efficient Reading Retest for those who took the course in 1970. Childers Street Laboratory, 4p.m.

Thursday 1 April

Efficient Reading Retest for those who took courses in 1970. Childers Street Laboratory, 10a.m.

Inorganic Chemistry Seminar. Dr D. J. Francis, 'Kinetic Studies of Carbonato-Co (III) ammine Complexes.' Room 134, RSC, 11a.m.

Conferring of Degrees. Canberra Theatre, 2p.m.

Far Eastern History Work-in-Progress Seminar. Dr J. A. A. Stockwin, 'The Japanese Political Opposition: A political irrelevance?' Seminar Room 4, Coombs Building, 3p.m.

Geophysics and Geochemistry Seminar. Dr A. R. Crawford, 'Modern Concepts of Iranian Geology and Geochemistry'. Seminar Room, new Geophysics Building, 4p.m.

Theoretical Physics Seminar. Dr K. Amos (School of Physics, University of Melbourne), 'Spin Flip and Inelastic Proton Scattering'. Seminar Room 105, Mathematical Sciences Building, 4p.m.

Soccer training. North Oval 7-8.30p.m. and every Thursday at the same time.

ANU Film Group. Charles Chaplin's 'The Kid', with Jackie Coogan. Coombs Lecture Theatre, 7.30p.m.

Australian Computer Society (Canberra

Branch) meeting. Mr E. Dobson (Department of Foreign Affairs), 'A Survey of On-line Communications Terminal-Computer Hardware Trends Over the Last Decade'. Florey Lecture Theatre, 7.45p.m.

ANU International Law Society meeting. Professor Julius Stone (Law, University of Sydney), 'Love and Hate in Interpretation: Thoughts on the "November Resolution" on the Middle East'. All interested welcome. Faculty Library, Law Building, 7.45p.m.

Canberra Association of University Women. Dr Gwen Woodroffe on her recent visit to America. RSC, 8p.m.

Canberra Archaeological Society meeting. Mrs J. Flood, 'Moth Hunters of the Snowy Mountains and A.C.T.'. Seminar Room 1, Coombs Building, 8.15p.m.

Friday 2 April

Conferring of Degrees. Canberra Theatre, 2p.m.

Research Students Association entertainment evening. Tickets \$1 (including drink and food) from Liz Sommerlad (Psychology), Ed Schipper (RSC), Mike Worthington (Geophysics and Geochemistry), Alastair Crombie (Sociology, RSSS) and Janet Butlin (Biochemistry, JCSMR). Northbourne Hall (new postgraduate residence), 8.30pm.

Sunday 4 April

ANU Film Group. Before the Revolution, a film of Jean Renoir. Coombs Lecture Theatre, 2p.m.

Concert on Campus. Canberra Sinfonietta conducted by Christopher Nicolls (Canberra School of Music). Music by Mozart, Beethoven, Schubert, Respighi and Milhaud. Tickets \$1.20 (students 50c. on production of student card) from Staff Club, SRC office, Bruce Hall, Burton Hall, Garran Hall, Bouchiers and Travel Post. Bruce Hall, 8p.m.

Monday 5 April

History of Ideas Seminar. Dr R. Banks, 'The Christian-Marxist Encounter I: From anathema to analysis'. Seminar Room 4, Coombs Building, 11a.m.

Computer Centre Lecture. Dr K. Atkinson,

FROM THE DEPARTMENTS

Chinese. The Department held a special showing of the Chinese historical romance film, *Hsia Nu*, in the National Library theatre on 18 March. The film, with subtitles in English, was directed by King Hu, who also produced the famous *Dragon Inn* which gained him an international reputation when it was shown at the annual meeting of the Association of Asian Studies, U.S.A., in 1968. The *Hsia Nu* is partly based on a story found in P'u Sung-ling's (1640-1715) *Strange Tales from a Chinese Studio*. This story was woven into a historical romance vividly depicting the tragic death of a loyal minister of the late Ming (1555) at the hands of some treacherous ministers and eunuchs, and the chivalrous deeds of a number of knight-errants who went through thick and thin to rescue the daughter of the wronged minister.

Far Eastern History. Dr I. de Rachewiltz returned from a year's study leave in Europe at the end of February. He also attended the Second International Congress of Mongolists at Ulan Bator in September and lectured at Copenhagen and Prague. On his way back he visited Japan, where he collected new materials for his research on Mongol history.

Professor J. Lebra of the University of Colorado, Visiting Fellow in the Department, arrived on 8 March and will be giving a series of seminars and lectures on modern Japanese history.

Mr R. Rigby of the ANU and Mr A. Chan of the University of Canterbury have taken up their Research Scholarships in the Department.

The Department has moved from the Asian Studies Building to the Coombs Building and is now located on the first floor of the new hemi-hexagon occupied by the Research School of Pacific Studies.

History of Ideas Unit. Dr Maximilien Rubel of the Centre National de la Recherche Scientifique in Paris, one of the world's foremost authorities on the life and work of Karl Marx, will be Visiting Fellow in the History of Ideas Unit for three months from June of this year. During Second Term he will read six papers in the History of Ideas seminar. Three of these will deal with the Paris Commune and Russian Soviets, the Russian peasant *mir* and the thought and

'Numerical Solution of Integral Equations'. Room 105, Mathematical Sciences Building, 11a.m. Also Thursday and Friday.

Urban Research Unit Seminar. 'Policy Questions in Planning - Singapore'. Seminar Room 4, Coombs Building, 2p.m.

Tuesday 6 April

Physical and Theoretical Chemistry Seminar. Dr R. Bramley, 'Electron Paramagnetic Resonance of the Organic Triplet State'. Room 57, RSC, 11a.m.

Philosophy (RSSH) Seminar. 'Man's Responsibility to Nature', introduced by Professor J. Passmore. Seminar Room 6, Coombs Building, 11a.m.

SCM general meeting. Continuation of discussion on Buber. Physics Lecture Room 5, 1p.m.

Biochemistry (JCSMR) Seminar. Miss J. Butlin, 'An Oxidative Phosphorylation Mutant of *E. coli*'. Florey Theatre, 1p.m.

St. Mark's Institute of Theology lecture program. Dr N. Gunson, 'Missionaries in the South Pacific'. St Mark's Institute of Theology, Braddon, 8p.m.

Wednesday 7 April

Organic Chemistry Seminar. Dr J. Blake, 'GC-MS of Insect Gland Components'. Room 134, RSC, 11a.m.

Forestry Seminar. Mr R. Thistlethwaite, 'Rainfall Interception in *P. radiata* Plantations'. Room 103, Department of Forestry, 1p.m.

Thursday 8 April

ANU/CSIRO Joint Computing Seminar. Dr P. Fenwick (Computer Centre), 'Computer Arithmetic with Overlapped Addition'. Florey Theatre, 2p.m.

Medical Chemistry Seminar. Dr R. P. Agarwal, 'A Clinical Application of COMICS?'. Florey Theatre, 3.45p.m.

Geophysics and Geochemistry Seminar. James Gill, 'The Geochemistry of Fiji'. Seminar Room, new Geophysics Building, 4p.m.

Friday 9 April

Good Friday. University closed. Reopens Tuesday 12 April. □

writing of a little-known member of the Commune, Jules Andrieu; another three will discuss Marx, Engels, and the historical mission of the proletariat and of the bourgeoisie.

Dr Rubel's books include *Karl Marx: Pages choisies pour une ethique socialiste* (1948, 2nd ed. 1970); *Bibliographie des oeuvres de Karl Marx* (1956, supplementary vol. 1960); *Karl Marx: Selected Writings in Sociology and Social Philosophy* (with T.B. Bottomore, 1956); *Karl Marx - Essai de biographie intellectuelle* (1957, 2nd ed. 1971); *Karl Marx devant le bonapartisme* (1960); *Marx-Engels: Die russische Kommune. Kritik eines Mythos*, with an introduction and postscript (in the press); *Jules Andrieu: Notes pour servir a l'histoire de la Commune a Paris* (in the press). He is also the editor of the well-known Pleiade edition of the works of Marx and of the journal *Etudes de marxologie*. □

NOTICES

P. & O. Lines free Passage Scheme. The P. & O. Company offers a return first class sea passage from Australia to North America for post-graduate scholars who wish to spend at least two years abroad before returning to Australia. The students are expected to devote the whole of their time abroad to study or research.

Canadian Pacific Airlines Travel Award. Canadian Pacific Airlines offer a return economy class flight from Australia to Canada for graduates of an Australian university wishing to study in Canada on a full-time basis. Applicants must be able to show that they have been accepted at a Canadian university and that they are able to support themselves while away. They will be expected to return to Australia on the completion of their studies.

The award is not available to permanent staff members, to students who already hold or are enrolled for a PhD, or to students who hold another award that will pay all or some of the fare.

Application forms for both the above awards are available from Mr K. B. Kaus, room 38, Chancelry 2A (ext. 4241), and should be returned to Mr Kaus (addressed to the Academic Registrar) by 17 May. □

VISITORS

Departments are asked to notify Mr Black (ext. 4171) when senior academic visitors arrive, giving their room number and telephone extension, and briefly mentioning their particular interests. This information will be published in the *Reporter* so that interested members of the University can readily make contact with the visitors.

Dr V. Arkhipov, Academy of Sciences, Moscow, Exchange Visitor with Department of Economics (RSPaCS) until mid-April; main interest - economic development of Southeast Asia; room 131, Coombs Building, ext. 3097.

Professor K.S. Inglis, University of Papua-New Guinea, Visiting Fellow in History, IAS, for one year; main interest - Australian history; room 142, Coombs Building, ext. 3052.

Professor J.C. Loper, University of Cincinnati, Visiting Fellow in Genetics from 17 December for one year; main interest - examination of the structural requirements for the histidinol dehydrogenase catalysed reaction in microorganisms salmonella and neurospora; room 3001a, JCSMR, ext. 3090.

Dr A.R. Luff, University of Toronto, Post-doctoral Fellow in Physiology for two years; main interest - various aspects of muscular contraction; room 1055, JCSMR, ext. 2564.

Professor J. MacQueen, University of Edinburgh, visiting appointment in Department of English until May; main interest - medieval studies, particularly Scottish medieval studies; room 134, Haydon-Allen Annex, ext. 2744.

Professor D. Schwartz, Indiana University, Honorary Fellow in Genetics for six months; main interest - control of gene action in maize; room 57, CSIRO, 487722, ext. 396.

Dr F. Smithies, University of Cambridge, Visiting Fellow in Mathematics, IAS, until July; main interest - functional analysis; room 211, Mathematical Sciences Building, ext. 2962.

Dr S.H. Walmsley, University College, London, Visiting Fellow in Research School of Chemistry until September; main interest - theory of molecular solids; room 3, RSC, ext. 3574. □

CONTINUING EDUCATION ACTIVITY

Sir Allen Fairhall, former Minister for Defence, will chair a day-long symposium on defence policy and procurement in the Academy of Science on 23 April. The symposium is being arranged by the ANU Centre for Continuing Education and the University of Sydney Extension Board.

Speakers will be Dr R. O'Neill, Head of the Strategic and Defence Studies Centre, Research School of Pacific Studies; Dr P. Groenewegen, Senior Lecturer in Economics, University of Sydney; and Mr P. Robinson, Editor of *The Financial Review*.

The symposium, which will be held in camera, will explore the relationship between long-term strategic policies in defence and procurement policies with particular reference to business and industry.

The Centre for Continuing Education and the University of Sydney Extension Board are also responsible for organising a conference and training course in small group learning to be held in ANU in May.

The conference, which will be held from 20-23 May, will discuss issues arising from papers that will have described and analysed new developments in work with small groups or conceptual problems relating to such work.

After the conference there will be a training course from 23-29 May for those wishing to improve their competence as leaders of small learning groups.

The organisers believe the course could be of interest to such people as youth leaders, extension officers, training and retraining officers and teachers.

The fee for the conference (excluding meals) is \$17. Applications for enrolment should be sent to the Centre for Continuing Education by 3 May 1971, accompanied by the fee or by a deposit of \$10. The fee for the training course (excluding meals) is \$100 and applications for enrolment should be sent to the Centre for Continuing Education by 2 April, accompanied by the fee or a deposit of \$30. □



Not the aftermath of a bushfire, but of the destructive root rot fungus *Phytophthora*.

Forestry leads fungus fight

The Department of Forestry in co-operation with other University and outside bodies is leading the fight against a destructive root rot fungus. The fungus, *Phytophthora cinnamomi*, was so called because in 1922 it was first identified attacking cinnamon plants in Sumatra.

It damages a wide range of agricultural, horticultural and forest crops throughout the world and is of great concern to pathologists. Interest in the fungus arose originally through its attacks on crops such as pineapples, avocados, peaches and flowering plants such as rhododendrons.

In 1965 the fungus was found to be causing a serious decline in production of Western Australian native forests and particularly the Jarrah forests, where large trees were killed. This was the first record of the fungus being associated with die back of native forests in Australia.

The Forests Department of Western Australia, concerned by the economic consequences of die back, provided research funds to enable the Department of Forestry to study the disease. Additional support is now being provided by the Parks and Gardens Branch of the Department of the Interior, the Australian Research Grants Committee, the Forestry Commission of New South Wales, the Queensland Department of Forestry, the Forestry Commission of Tasmania, the Victorian Forests Commission, the South Australian Woods and Forests Department, Australian Paper Mills Forests Pty Ltd, Australian Pulp and Paper Manufacturers and Australian Newsprint Mills Ltd.

The research team in the University Department of Forestry is being led by Dr. W. A. Heather and Dr. B. H. Pratt, and includes a research assistant, honours and graduate students. The Forestry Department is working in collaboration with Mr R. W. Rickards and Dr K. Moody of the Research School of Chemistry and Dr C. J. Shepherd and Dr J. Philips of the CSIRO Divisions of Plant Industry and Biochemistry. Close liaison is also maintained with the various

forest services and private industry in field sampling and trials.

Part of the research program is aimed at finding out the distribution of the fungus in Australia. Members of the Forestry Department have discovered the fungus in native and planted forests in Tasmania, Victoria, South Australia, New South Wales and Queensland. They have also found the fungus associated with dying trees and shrubs in the University grounds.

The disease fungus attacks and destroys the fine roots of plants. Without their fine roots the plants wither and die because they are unable to take in water. Depending on the plant's environment or physiological condition, death can appear to be a slow or an almost 'overnight' process.

It is not known for certain whether the fungus is a native Australian organism or whether it has been introduced from overseas. All of the available evidence indicates the fungus has been present in Australia for more than half a century at least. Due to the improved techniques of detection that have been developed the fungus is now known to be more widespread than was previously thought and to attack a wider range of plant species.

One reason for its success as a pathogen and the difficulty of control is the ability of the fungus to attack plants of many species in a variety of environments. This may be because it is a primitive, non-specialised fungus without the characteristics of other fungi which attack only a small variety of plants or parts of them.

At present there is no way of controlling the disease. The Department of Forestry is investigating various possible techniques. One method that has proved promising is the compounds produced by other soil organisms and which are antagonistic to the root rot fungus. One soil fungus has been discovered by the Department of Forestry which produces such a compound. This antagonistic compound has been identified and synthesised in the Research School of Chemistry and the synthetic chemical is now being laboratory tested against the disease fungus by the Department of Forestry.

Because of the growing interest in *Phytophthora cinnamomi* an entire section of this year's Australian Plant Pathology Conference will be devoted to a discussion of the disease.

Faith shown in Territory's future

Dr P. F. Sinnett, who is to leave his position as National Heart Foundation Fellow in the Department of Clinical Science in July to become Foundation Professor of Human Biology in the University of Papua-New Guinea, believes that New Guinea offers unique opportunities for the establishment of research and teaching in medicine.

For example, in research the Faculty of Medicine is in an ideal position to study the health aspects of acculturation. 'Papua-New Guinea is one of the last of the emerging countries and we have a rare opportunity to participate in its emergence and to contribute to the health standards of the indigenous people' said Dr Sinnett.

Dr Sinnett has no doubt that the people of the Territory have the competence and capacity to make the intellectual change necessary to move from a traditional culture to one embracing tertiary education. He has worked extensively on research projects in New Guinea and has been impressed with the capacity of the people who have worked with him after graduating from the Territory's high schools or the former Papuan Medical College.

He said his experience with the people of the Territory over the past four years had led him to accept the Chair of Human Biology at Port Moresby. However, he looks forward to the day when a member of the indigenous population will be qualified to accept this chair. 'As Papua-New Guinea moves to independence it is important that the country provide its own leaders in the academic as well as in the political field,' he said.

Speaking of the role of the University of Papua-New Guinea, and especially of its Faculty of Medicine, Dr Sinnett said that the Faculty had a primary responsibility to produce graduates who would provide medical services in a country that was extremely short of qualified doctors. However, he said this must be achieved without sacrificing academic standards. 'The new graduates should be as acceptable internationally as are graduates from Australian universities,' he said.

Dr Sinnett also stressed the importance of stimulating interest in medical research, especially in areas appropriate to the University's opportunities in an emerging country.

Dr Sinnett's Department of Human Biology will embrace the traditional disciplines of anatomy, physiology, biochemistry and pharmacology. In devising his curriculum Dr Sinnett is taking what he considers to be the best of the traditional forms of medical teaching from the established universities of Britain, America and Australia, and adapting them to a completely new situation that does not involve an established hierarchical structure of disciplines. Dr Sinnett said he hoped the result would be a truly integrated curriculum that would fit in with the principles that guided the foundation of the Department of Human Biology in the John Curtin School of Medical Research.

Dr Sinnett also sees the University of Papua-New Guinea as offering a unique challenge to young men and women graduating from Australian universities to make a contribution to academic life in an emerging country for which Australia has a special responsibility.

Chemicals influence insect behaviour, scientists find

Scientists in the Research School of Chemistry have succeeded in determining the structure of a compound used by termites for marking trails to food to be followed by other termites of the same species. Having found that chemical substances can have a specific influence on the behaviour of insects, scientists believe this behaviour is potentially controllable.

The termite used in the experiments was *Nasutitermes*, one of the two principal termites found in the Canberra area.

Speaking of the work last week, Professor A.J. Birch, Professor of Organic Chemistry, Research School of Chemistry, said the compound had been found to be a diterpene hydrocarbon. Professor Birch said there had been many difficulties to be overcome in the course of the work, which had been proceeding for about eighteen months. The work in this area had already been initiated by Dr B. Moore, of the Entomology Division of CSIRO. The chief difficulty lay in the fact that there was only a minute amount of the substance in any one insect. About twenty kilogrammes of termites were needed to yield three milligrammes of the substance, and even then it is mixed up with other things and so was difficult to refine to anything like a state of purity.

Professor Birch said that the success of the work had been made possible by the sophisticated nature of the equipment available in the Research School of Chemistry, where the work is being carried out by postgraduate student Mr John Corrie, under Professor Birch's supervision.

Professor Birch said that the nearest chemical relation to the hydrocarbon found in the termites occurred in the resin of certain pine trees. The substance in the pine resin had also been found to have some biological activity and there was speculation on the possible interaction of pine trees and termites.

Attempts are now being made in the RSC to synthesise the compound, but this is no easy task.

Professor Birch will report to a congress on pure and applied chemistry in Boston in July on the work being done in this

field in Canberra.

Last week Professor Birch described the work as 'one more facet in the interesting story that is being unravelled of chemical influences on insect behaviour.'

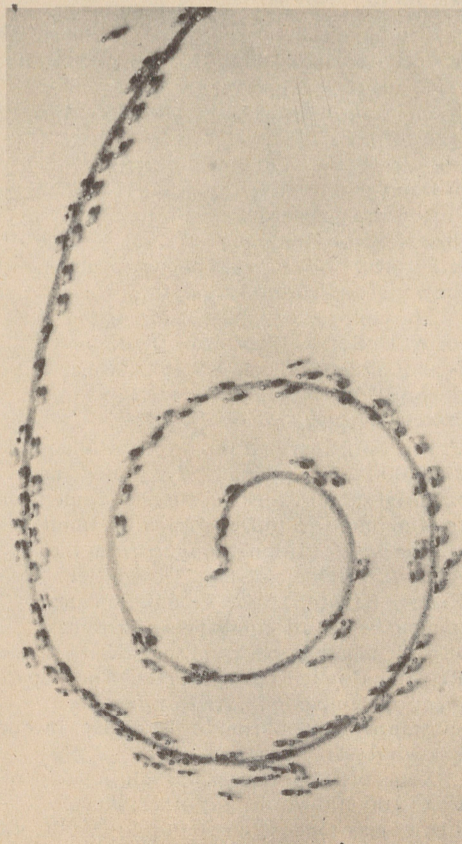
'The social behaviour of insects is controlled to a considerable degree by chemistry,' he said. 'Sex attractants enable mating to occur by the selection of partners over a wide area; the emission of alarm compounds in the case of attack warns other insects in the nest; and toxic protective substances provide protection by acting as "poison gases" on enemies. These are all examples which involve the intervention of fairly simple chemical substances.'

Having found that chemical substances can have a specific influence on the behaviour of insects, scientists believe this behaviour is potentially controllable. Thus, the chemical knowledge now being gained could possibly be used for the specific control of insects, in contrast to the wholesale and indiscriminate destruction caused by insecticides such as DDT.

The difficulty of getting enough of the compounds for use in experimental work underlines the value of being able to synthesise them in the laboratory. But even if this were achieved there would be other problems to be overcome before compounds such as the trail substance could be used for the biological control of insect pests. For example, females attract males by minute quantities of sex-attractant compounds. If these compounds or mixtures could be synthesised and used to lead the male insects to a bait, it would only be effective if all males were attracted, and this would be extremely difficult to achieve.

Also, the compound would have to be

in just the right concentration. 'Just to pour the stuff out of a bottle would do no good,' said Professor Birch.



Blind termites (*Nasutitermes exitiosus*) follow an artificial scent-trail laid on a pencil trace.

CORRECTIONS

Concerning the article 'The role of the research student in "a community of scholars"' (p. 2, *ANU Reporter*, 12 March), it has been pointed out that it is not a fact that students are represented on faculties in the way the writer, Mr Alastair Crombie, suggested. However, it is a fact that some faculties have invited students to attend and have accepted the principle of student representation in various ways in the various Research Schools, but the amendments to the statutes and rules to formalise such arrangements have still to be made.

Also, it was incorrectly stated in the article 'Visitor makes it permanent' (p. 3) that Professor Leonard Broom had been appointed to a Chair of Sociology in the Research School of Pacific Studies. Professor Broom will in fact hold his chair in the Research School of Social Sciences.

APPROACH ON UNIVERSITY BUS ROUTE

A member of the University, Dr Clive West, is trying to enlist support for an approach to the Department of the Interior to improve the bus service between Garran - Hughes - Deakin and the University.

In co-operation with the Property and Plans Division, Dr West, of the Department of Experimental Pathology, is carrying out a survey of potential bus users from those suburbs to prepare a case for negotiating with the Transport Section of the Department.

Dr West believes that the large number of tenants in University houses at Garran and Hughes provides the basis of a profitable bus service between that area and the University. There are also large numbers of other academic and non-academic staff as well as students who would benefit from an improved bus service from Garran, Hughes and Deakin.

Dr West said that at present few people travelled to the University by bus from these suburbs because it involved a long walk at the University end from London Circuit. 'If a bus service were arranged to travel to the University site and possibly the hospital and CSIRO more people would probably be encouraged to use it,' Dr West said.

Persons who would make use of a University bus service from the Garran - Hughes - Deakin area are asked to cut out the following slip and return it to Dr West through the internal mail. Dr West said the more who replied the greater the chance of negotiating the service.

To: C.E. West, Experimental Pathology,
JCSMR.

I would use the proposed bus service from Garran - Hughes - Deakin 1,2,3,4,5 * days a week. I would like to arrive at the University at 8.30, 9.00, 9.30a.m. or at () * I would like to leave the University at 5.00, 5.30, 6.00p.m. or at () *.

* Circle that applicable or fill in space

Name:

Department or Faculty:

Home address:

SPORTS UNION NOTES

The annual general meeting of the Sports Union will be held in the Physics Lecture Theatre at 8p.m. on Monday 29 March. All affiliated clubs are obliged to send at least two representatives to the meeting. People interested in the Sports Union and its activities are also invited to attend.

Lunchtime intracampus volleyball and basketball will begin on Monday 29 March. The competition will be conducted over six weeks. During Second Term a further competition will be run to cater for groups unable to be accommodated in the first competition.

All important notices concerning Sports Union activities are posted to each Faculty and hall of residence for placing on notice boards. Sections which have not been receiving the notices are asked to phone the Sports Union office (ext. 2273) and ask to be placed on the mailing list for all future notices.

-Neil Gray

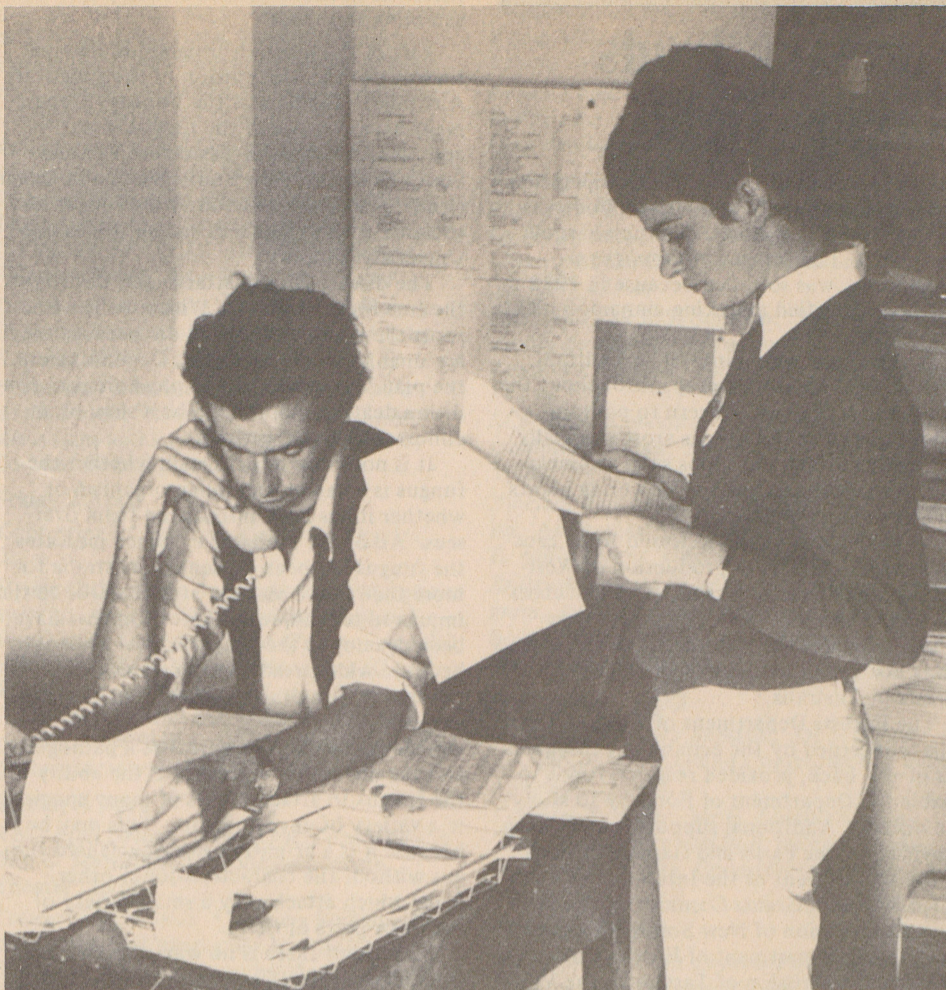
CONCERTS ON CAMPUS

There are plans for five concerts on campus in the University this year. This follows the success of last year's concerts, which were three in number.

The first concert for 1971 will be given at Bruce Hall on Sunday 4 April at 8p.m., when the Canberra Sinfonietta will perform works by Schubert, Beethoven, Milhaud, Respighi and Mozart. The orchestra, which is of chamber size, will be conducted by Dr Christopher Nicolls of the Canberra School of Music.

Tickets for the concert are available from the SRC office, Bouchier's, Travel Post, Bruce, Burton and Garran Halls and the Staff Club. They cost \$1.20 each and 50c. for students who produce their student card. Wine will be served free during interval.

A second concert on campus is planned for the end of First Term, with two more in Second Term and a fifth early in Third Term. □



FESTIVAL ACCOMMODATION NEEDED

Organisers of the Festival of University Arts to be held in ANU from 15-22 May are appealing to members of staff to help accommodate some of the 10,000-15,000 interstate visitors expected in Canberra for the Festival.

Festival Director David Laidlaw said last week that halls of residence could possibly take 1,000 visitors but no more because many ANU students would be remaining in residence. Mr Laidlaw said that the Festival organisers were planning to erect a vast tent city to take a large proportion of those coming to the Festival but billets would still be necessary.

A letter from the Chairman of the Festival, Miss Penny Chapman, has been distributed to all members of staff asking for billets for the eight nights of the Festival at \$1 per student per night.

Mr Laidlaw said that the organisers were relying on a sympathetic response from

University Arts Festival Director, Mr David Laidlaw, and Festival Chairman, Miss Penny Chapman, at work on accommodation plans.

members of staff and asked those members who could help, to fill in the form they should now have received from Miss Chapman and return it as soon as possible to the Festival office, Union Building. □

THEATRE GROUP FESTIVAL PLAY

The ANU Theatre Group wants to hear from members of the University who have scripts or who would like to produce the Group's First Term play, which will be performed during the Festival of University Arts. Alex Stuart or Alison Richards of the Theatre Group can be contacted at the Festival office, downstairs in the Union, ext. 4394. The Theatre Group will hold a meeting on Monday 29 March to decide on a play. □

Immigration study under way

ANU Press is to publish a series of books that will offer the most intensive investigation and assessment available of the economic, social, political and cultural effects of postwar immigration to Australia.

The series is being sponsored by the Social Science Research Council of Australia, with Professor R. T. Appleyard, Professor of Economics in the University of Western Australia (and formerly of ANU), and Dr Charles Price, Professorial Fellow in the Department of Demography, ANU, as honorary directors. Professor Appleyard will be responsible for the economic and industrial studies of the series, while Dr Price will be responsible for the social and cultural studies.

The editorial committee comprises Professor W. D. Borrie, Director of the Research School of Social Sciences and Chairman of the SSRC Immigration Research Committee, Professor Appleyard and Dr Price.

It is estimated that the project will cost \$300,000 over a period of five years. Major financial support for the series has come from the Commonwealth Department of Immigration with additional support from the Australian Research Grants Committee, the Reserve Bank, the Myer Foundation and a number of private companies. There have also been large grants from the Social Science Research Council's own reserves. The Department of Demography, ANU, is making a substantial contribution to the project through its own research program.

Some of the studies will result in books of up to 100,000 words, but other, shorter studies may range from 30,000 to 60,000 words. The result could be as many as eight books of the longer length and several books each containing two or three of the shorter studies.

Research for the project began several

years ago, so it cannot be claimed that it is a response to current suggestions that Australia's immigration program is unwarranted either for economic or environmental reasons.

Dr Price said last week that the immigration program had been questioned periodically since it first got under way in 1947. For example, in the face of inflation in 1951-52 it was suggested that the program should be reduced considerably. There was similar criticism at the time of the 1961 recession and the same comments are being heard again, partly as a result of inflationary pressures. But there is now a new element - that of environmental concern.

The environmentalists are concerned at problems of pollution and population growth. There are also those who urge a slowing down of the immigration program to ensure that the non-British migrants who have already arrived are given time to be assimilated into the community before more come to swell the concentrations of ethnic groups in Australian society.

Dr Price said the SSRC first proposed the study when it was realised that post-war settlers and their children totalled about one-fifth of the country's total population. Although considerable research had already been undertaken in such fields as demography and social psychology there was much work still to be done. Among the questions under investigation are patterns of immigrant settlement and employment, labour mobility and productivity, savings and expenditure patterns, the immigrant family, and the effect of immigration on the professions, arts and politics. □

ANU BOAT CLUB WINS

The University VIII won the three-mile inaugural race between ANU and RMC Duntroon, contested on 13 March. The course for the race was from the mouth of Sullivan Creek to a point near the entrance of the Mungo River into Lake Burley Griffin.

Although the University crew led all the way, they were under considerable pressure from the fitter RMC crew, which fought back after the University had opened up an early 1½ lengths lead. In the last mile the University crew managed to hold off a desperate challenge and went on to win by two thirds of a length.

The trophy for the race was donated by Dr H. C. Disher in memory of the AIF No.1 crew which won the Kings Cup at the Kenley Peace Regatta in 1919.

On 27 March the Boat Club will compete in the ACTRA Regatta, which is the climax of the rowing season. The Club will contest several A.C.T. championship events, including the Uriarra Cup for senior-junior Vllls. □

ANYONE FOR SQUASH?

The ANU Squash Club holds practice-coaching sessions on Saturdays from 9.30 a.m.-12.30p.m. at the National Tennis and Squash Centre, Lyneham. New players are welcome and the club has arranged a concession price of 45 cents per half hour, including ball. □

REPORTER DEADLINES

Contributors are reminded that copy for the next issue of the Reporter (9 April) must be submitted to the University Information Section by Friday 2 April. This deadline applies for news items, letters to the editor, notes from departments, notes on visitors, classified advertisements and diary items for the period 11 April - 25 April. □

CLASSIFIED ADVERTISING

Position vacant

Assistant Supervisor, Student Amenities - University of New South Wales.

Duties include maintaining the financial records of the Sports Association and the Physical Education and Recreation Centre, and organising intersarsity contests and official functions.

Salary range \$6,471 - \$8,257 p.a. For further information contact Sports Union Office, ANU, on 49 1710 or ext. 2273. □

Public Notice

ANU General Staff Association Inc. Annual General Meeting. Agenda will include opening and address by Mr R. A. Hohnen, Secretary of ANU; president's report for 1970-71; hon. Treasurer's report and financial statement; 'The Site Plan and Central Services' - an address by Mr D. Dexter, Assistant Registrar (Property and Plans); election of officers 1971-72; other business.

The meeting is open to all non-academic staff, including members of other ANU groups, unions and associations. Permission has been given by the Registrar.

Coombs Lecture Theatre, 10.30a.m. - 12.30p.m.

For sale

MGB, 1968 o'drive, many extras, long reg. immac. cond. Ring ext. 4171 for inspection.

Puppies, eight weeks old, black, very pretty. Mother pedigree Scottie, father anonymous. Ext. 4142.

Pedigree Welsh Corgi pups - immunised and extremely affectionate. Phone 88 1111, ext. 212 (working hours) or 81 0156 (evenings and weekends).

1970 Datsun 1000 coupe de luxe (fastback), white with black interior trim. Radio, tachometer, tow-bar. Rego to March 1972. 11,200 on clock. \$1,750. Owner taking delivery soon of new wife and Mazda 1600. Contact 49 4387 (day) or 48 7103 (evening).

VW beetle, 11 years old, well kept and cared for. In excellent condition. \$350 o.n.o. Please phone ext 3163.

Tow bar, FE Holden. \$10. Ext. 3433.

Wanted

Portable typewriter. Phone Chris Cunneen. Ext. 2755. □