Brighter employment prospects

Students who completed their studies at the University at the end of 1984 appear to have found employment opportunities more readily and at an earlier date than their counterparts in the previous four years.

In particular, employers showed considerable interest in accounting, economics and computer science graduates.

Banks and computer marketing companies, major employers last year, have continued their interest again this year.

These and other findings were produced in the annual survey made by the University Careers and Appointments Office in conjunction with careers offices from other universities.

The Careers and Appointments Officer, Mr. Hugh Floyer, who carried out the survey, said the following interpretations were indicated by the survey:

* The number of students proceeding to further studies has dropped dramatically since 1979/80 (in fact almost halved).

* The number of students employed by Government Departments and agencies has remained steady over the last three years after a dramatic drop in 1981/82.

* Private enterprise employment of graduates has returned to the high levels of 1980 and

Gathered in the plaza, looking across to the Great Hall, members of SUN (Society for Uniting Nations), which has worked this year to promote good understanding between the cultures represented on the campus, held a picnic on October 23.

1981, after a heavy fall in 1982.

* Graduates employed in education continues to fall from the high levels of the late 1970s.

* The percentage of students unemployed and seeking full-time employment as at the 30th April has decreased from 8.1
per cent in the previous year (1983/84) to 6.4 per cent this year (1984/85).

* The number of students proceeding overseas after completion of studies or returning home has increased from 5.5 per cent in the previous year (1983/84) to 8.5 per cent this year (1984/85).

Over the past five years, graduates still maintained median salaries, which on average were 21 per cent higher than average weekly earnings. However, a decline in earning power of graduates is evident especially in law and medicine. This is complemented by the fact that graduate unemployment rates are at a much lower level than the general population, with the worst affected areas being the earth sciences and architecture town planning.

These are the results of a survey carried out by Philip Coyte, University of Sydney, on graduates in the Labour Market, based on 1979 graduates from the Universities of Sydney, Melbourne, Newcastle and Western Australia.

It was also found that those in professional private practice earned less than those graduates employed elsewhere and that women in general earned less than men attaining the same degree with the greatest salary differences in psychology, economics and education.

The report concludes: "The graduate employment market is highly concentrated in a few areas of the economy (which) also happen to be the principal growth areas of employment of the Australian economy, both in absolute and relative terms".

Letters

Has the Positive Initiatives Committee struck again? Did the Bursar requisition a new Gov. Stores crystal ball for the Vice-Chancellor? Is the University at last gaining a new sense of direction?

A large advertisement in the Newcastle Herald on Saturday, October 26, under the banner "The University of Newcastle Looks Ahead", announces that dowser Mr. Des Wyatt of Hobart will teach water divining. It states that "The course is especially valuable to people who need to locate sources of water." The course fee is $35.

Let us hope that the University has applied for a permit under the Lotteries Act to avoid being subject to prosecution by disgruntled members of the fee-paying public who do not appreciate dry humour. At least I always imagined that games of chance are covered by either the Lotteries or Gaming Acts.

Should there happen to be some real basis for dowsing, Mr. Wyatt could earn far more than the modest WEA remuneration and (I would suppose) return fares from Hobart. He could easily claim a prize of over $33,000, offered jointly by Dick Smith, Philip Adams and the American magician, James Randi, to any person willing to have their dowsing claims scientifically verified.

If Mr. Wyatt can prove his claims, unlike other dowsers who invariably fail in tests under controlled conditions, will the University offer courses in other paranormal subjects? Weekend schools in levitation might "lift" the University's image (if nothing else). A degree in psychic surgery would be a big hit with applicants failing to make it into the Medical Faculty.

We might not have a Department of Political Science, but Applied Astrology 1, 11 and 111 would be the next best thing. And a unit or two in Practical Clairvoyance could work wonders for graduates from the Faculty of Economics and Commerce. And just imagine a brand new Faculty of Phrenology, Palmistry and Parapsychology with a highly qualified staff of leprechaun lecturers led by a poltergeist professor (what is so strange about that)?

With the ever-gullible public forum out hard cash to enrol, the University would be well on the way to satisfying the Government's new marketing policy for tertiary education.

Now, having boggled my own mind, I'll believe anything. My tea-leaves tell me that I will become famous if I head off to Loch Ness with my wet-suit and spear-gun. Anyone coming along for the ride?

Colin Keay, Department of Metaphysics.

Term dates 1986

Term dates for 1986 (for Faculties other than the Faculty of Medicine) will be:

First Term: February 24 to May 2. AVCC Common week: May 12.
NEWS BRIEFS

Blanche d’Alpuget

Novelist and biographer Blanche d’Alpuget will be the speaker at the next Lunch With a Writer arranged by the Friends of the University and supported by The Newcastle Herald. To be held in the Common Room at the Students’ Union, Newcastle University, on Wednesday November 13 at 12.15 p.m.

Blanche d’Alpuget is the author of Robert J. Hawke, a biography which in 1983 won both the New South Wales Premier’s award and the Braille Book of the Year award. Other books include Mediator, a biography of Sir Richard Kirby, Monkeys in the Dark, set in Indonesia and Turtle Beach set in Malaysia, which won a number of prestigious awards.

Her topic will be the problems of writing the biographies of living subjects.

The Friends of the University have established an ongoing series of Lunch With a Writer functions. Previous speakers have included Barbara Kerr Wilson, Olga Masters, Roger Mills, Carol Odell and Donald McCaig. Their aim is to bring writers to the city and campus to give people a chance to meet and hear them.

Tickets are $13.50 and are available from Arthur Warner’s bookshop, the second-hand bookshop at the University, or phone Marie Tietze on 63 2774 or Eileen Billie on 22 674.

... 2. Dr. John C. Thomas, Department of Physics, University of New England, Armidale, will speak on Torsional Motion in DNA. The seminar will commence at 1.00 p.m., on Thursday November 7 in seminar room DG 12.

3. The Department of Chemistry will present a seminar with speaker Assoc. Professor Cooney, Department of Chemistry, Newcastle University on An Osp Report: Hail and Farewell! The seminar will be held on Friday November 8, at 12 noon in Lecture Theatre GG05, Chemistry Building.

4. The Hon. James McClelland, former Minister for Labour and Immigration in the Whitlam Government, and currently Head of the Royal Commission into British Nuclear Weapons Tests in Australia will speak on Constitutional Reform - 10 years on as guest speaker at the 11th November Committee annual luncheon. The luncheon will be held in the Common Room, Union, Newcastle University at 12.15 p.m. on November 11, cost $12.

5. The Australian Institute of International Affairs will hold its final meeting for 1985 on November 22 at the University Staff House. The meeting will be addressed by Dr. Wilfred Bowsk, Deputy Consul-General of the German Federal Republic. The evening will begin with a short film, The Atlantic Alliance followed by talk on NATO’s Defence Policy: the German View. The address will be procedured by dinner at 6.00 p.m. and a $10 charge will prevail.

Applications for VC’s Position

Being Reduced

The Selection Committee for the position of Vice-Chancellor has reduced the number of applications which will be actively considered.

In a report to the Council on the progress being made by the selection Committee, The Chancellor, Sir Bede Callaghan, said five candidates had been identified as definitely meriting short-listing for interview, and four others might also be placed in this category when further referees' reports were available.

"Of the candidates still being actively considered, five are from overseas, including the U.K. " Sir Bede said. "A further potential candidate is from Australia. The ages of those being further considered range from 46 to 56.

"The Committee made active efforts to identify suitable women who might be considered and invited applications from two women whose names had been suggested; both indicated that they did not wish to become applicants."

The Committee intends to meet again shortly to consider further referees' reports and to seek to arrive at a final short-list of those who should be called for interview.

Win for Gateshead High

Gateshead High School won first and third places in the National Chemical Analysis Competition conducted by the Royal Australian Chemical Institute during Science Week.

The competition attracted 52 school teams, including two from the Hunter Region. Gateshead had previously won first and second places in the N.S.W. Year 12 competition.

Students were required to analyse, as accurately as possible, the concentration of an acid using acid/base titrations.
October Council

Council members debated at considerable length a notice of motion from Mr. M. Yates, a student member of council, that a committee be formed to enquire into current and future residential accommodation in the light of recently reported problems at Edwards Hall and, further, that the committee comprise of at least the following members: Chair elected by Council, a member of Council elected by the general staff, a member of Council elected by the academic staff and a member of Council elected by the student body.

The motion was lost.

Instead, Council decided to ask the Board of Trustees of Edwards Hall for a report on the state of discipline and advice on how any problems in the hall could be resolved.

It was suggested that the Board of Trustees obtain advice from the President of the Resident Members' Association of Edwards Hall and invite comment from residents of the Hall.

Following a recommendation from the Buildings and Grounds Committee, Council approved the formation of a broadly representative committee to examine alternative options to meet future students needs for residential accommodation, including an assessment of the financial viability of the proposals.

Mrs M. Henry argued that Edwards Hall was remote from public transport and the University and discussions with developers and representatives of public organisations, such as the Housing Commission, suggested that alternative forms of accommodation were worthy of investigation. The range of accommodation available in the city, together with sources of funding, should be investigated.

The Vice-Chancellor reported to Council recent developments of interest.

Members were provided with the Vice-Chancellor's letter to the Minister for Education, Mr Cavalier advising him of the discussion held in the Council about the Minister's proposal to change the composition of the Council.

Professor George told Mr. Cavalier that the Council preferred to retain the present arrangement of three members elected by the other members.

"The experience of the University since autonomy has been that considerable value has derived from this provision," Professor George said. "When all other positions have been filled, there is often a noticeable absence of certain experience, invaluable to the operation of the Council. Positions in recent years have been occupied by businessmen, industrialists, medical practitioners, a person with ethnic experience, etc., and their contributions to the work of the Council and its committees have been notable."

There had been no further advice from the Minister's office, the Vice-Chancellor told the Council.

Professor George referred to a staff vacancy in the Department of Mathematics, Statistics and Computer Science and said that, with financial assistance from the Faculty of Medicine and TUNRA, it had been possible to convert the vacancy to a new Chair in the discipline of Statistics, with an emphasis on Biostatistics - a field in which the University had particular interests and strengths.

Professor George said next year's graduation ceremonies would be held on Friday evening, May 2, and the morning and afternoon of Saturday, May 3.

The Vice-Chancellor informed the Council of discussions held recently about the possibility of the University becoming a centre for aviation studies. The establishment of a privately funded Chair within the Faculty of Science was a possibility being investigated.

Council made a stand against the Federal Government's new policy on quotas and fees for overseas students. It decided to press the Federal Government that the proposed substantial fee increases for overseas students should not apply to overseas students already part through their course and recommended that overseas students should not be subject to any quota restrictions insofar as postgraduate studies are concerned.

Council members had before them a report on issues flowing from the Report of the Review Committee of Metallurgy, Materials Engineering and Materials Science.

Senate recommended, among other things, that:

The Department of Chemical Engineering and the Department of Metallurgy be disbanded on January 1, 1986, and on that date a new Department, named the Department of Chemical and Materials Engineering, be established.

The Department of Chemical and Materials Engineering comprise all academic and non-academic staff of the existing Departments of Chemical Engineering and Metallurgy.

All resources of the Departments of Chemical Engineering and Metallurgy be transferred to the Department of Chemical and Materials Engineering.

The Department of Chemical and Materials Engineering exercise all responsibilities for teaching and research which were previously exercised by the De-
partment of Chemical Engineering and Metallurgy.

Council approved the recommendations.

### Charges

Council agreed to increase the General Services Charge and the fees for residing in Edwards Hall.

It also imposed a new levy of $5 for Sports Union Sporting Facilities development.

Moreover full-time and part-time students will no longer pay differential General Services Charges.

The new General Services Charge will be $161 for both full-time and part-time students. This year the charge is $154 for full-time students and $148 for part-time students.

In addition, an entrance charge of $20 will be paid by students who join the Union for the first time. This is increase of $5 on the present charge.

The President of the Sports Union, Dr. B. Curran, argued that his organisation was unlikely to receive grants from state of Federal Governments to assist with development of sporting facilities and it could not hope to raise sufficient finances from its facilities to initiate new developments. For this reason, the Sports Union proposed the $5 levy to be used solely for the development of new sporting facilities or major up-grading of existing facilities.

The fee for a standard room at Edwards Hall will be increased from $79 per week to $82 and the fee for a room in the self-catering unit will be increased from $39.50 per week to $46.50.

At this level of fees Edwards Hall is expected to have an income of $729,456, whilst expenditure is estimated at $734,207 leaving a deficit of $4,751 for the year.

### Committee Recommendations

Council approved the naming of Block 3 of the additional self-catering residential accommodation currently being constructed at Edwards Hall FRIENDS HOUSE in recognition of the contribution made by the Friends of the University towards new student housing. The "Friends" have donated a total of $55,000, the proceeds of two Book Fairs, to the University.

Council approved a further stage of a feasibility study of a separate Building housing a Council Room being constructed west of the Executive Suite in the McMullin Building.

### Development

Council had before it a submission from the Warden of Convocation on discussions between the Vice-Chancellor and the Warden concerning the development of Convocation.

Father Bromley said that following the Report of a Joint Working Part of Council and Standing Committee of Convocation specific matters requiring immediate attention included administrative support for Standing Committee and its Executive.

The Vice-Chancellor is to consider the needs when resources for 1986 are being allocated.

Council appointed Professor W.F.J. Pickerling Head of Head of the Department of Chemistry for three years from December 16.

Professor C.A. Tisdell was appointed Head of the Department of Economics for three from January 1, 1986.

Assoc. Professor P.K. Smrz was appointed head of the Department of Mathematics, Statistics and Computer Science for three years from October 19.

Dr. John Fryer was appointed head of the Department of Civil Engineering and Surveying until February 18, 1986.
ARGS Provides Increased Support

The University has received a total of $682,402 in Australian Research Grants Scheme (ARGS) grants for next year an increase of more than $70,000 over 1985.

Support has been given by the Australian Research Grants Committee for 15 new research projects valued at $228,085 and 21 continuing projects worth $362,549.

Further, the ARGC has continued one of the prestigious Program Grants worth $91,768 in 1986. The grant was awarded to Department of Electrical and Computer Engineering staff, Professor G. Goodwin, Professor A. Cantoni, Dr. R. Evans and Dr. D. Hill, this year.

The ARGC programme compares with 31 grants worth $610,950 this year. As the University News was going to press, only the list of ARGC awards had been released. The University was awaiting the full details of the National Health and Medical Research Council (NH and MRC) and the National Energy Research, Development and Demonstration Council (NERDC) grants to be awarded in 1986.

Professor J.F. Burrows, Relationships Between Natural Language and the Language of Fiction, $16,350.

Professor C.A. Hooker, An Evolutionary Epistemological Theory of Scientific Progress, $22,144.

Dr. D.I. Wright, History of Methodism in New South Wales from 1812, $3,233.

Professor M.G. King, Pinenal Principles: Adaptive Behaviours and Brain Biochemical Profiles, $29,987.

Dr. A.F. Asman, Generalisation Following Cognitive Training With Mentally Retarded Adolescents, $7,000.

Assoc. Professor B. Fenelon, Brain Responses in Predicted and Unpredicted Stimulation Sequences, $24,300.

Assoc. Professor B. Fenelon and Dr. D.C. Finlay, Electrophysiological Study of the Perception of Apparent Motion, $20,000.

Dr. R.A. Heath, Parallel Distributed Models for the Storage and Retrieval of Spatiotemporal Information in Human Memory, $12,500.

Professor J.A. Keats and Dr. R.A. Heath, Individual Differences in Experimentally Derived Parameters and Their Relationships to Intelligence and its Development, $17,120.

Dr. J.R. Kirby, Effects of Text Structure and Learning Strategies Upon Comprehension, $5,000.

Professor R.J. MacDonald, Low Energy Ion Scattering For Surface Crystallography and Atom Location, $28,243.

Dr. D.J. O'Connor, Medium Energy Ion Scattering For Surface Structure and Composition Analysis, $11,400.

Assoc. Professor C.A. Croxton, Statistical Mechanics of Complex Molecular Systems, $19,000.

Assoc. Professor B.J. Fraser, Propagation Studies of Hydrodynamic Waves Between Spaced Stations, $45,673.


Professor R.J. McDonald and Dr. D.J. O'Connor, Neutralisation and De-Exitation of Ions and Atoms Scattered From Ion Bombarded Surfaces, $15,800.


Assoc. Professor R.P. Cooney, Vibrational Spectroscopy in Electro-Chemistry and Surface Chemistry, $7,000.

Dr. G.A. Lawrence, Carbon Acid Metal Template Syntheses of Multidentate and Binucleating Ligands, $17,350.

Professor W.F. Pickering, Factors Affecting Ion Retention by Soil Components, $13,000.

Dr. C.E. Ollier, Pathway of Phloem Unloading of Photosynthates, $14,527.

Assoc. Professor R.C. Jones and Professor B.P. Setchell, Regulation of the Functions of the Initial Segment of the Epidermis, $13,500.

Dr. R. Ollier, Illite Crystallinity, ... and Polytype Study of K-White Mica in Rocks From Forearc Basin and Subduction Complex Sequences, New England Fold Belt, $5,000.

Assoc. Professor B.A. Engel and Dr. L.N. Norris, Evolutionary and Palaeogeographic Studies of Carboniferous and Permian Bryozoan and Trilobite Faunas of Australia, $8,000.

Dr. P.K. Seccombe, Fluid Inclusion Studies and Ore Genesis at Cobar, NSW, $6,500.

Dr. R.E. Betz, Nonlinear Control of Voltage and Current Source Fed Induction and Synchronous Machines, $12,000.

Professor J.L. Keedy, The Leibniz Programming Language, $12,000.
Mr. R.H. Roberts, Surface Compositions of Alloy and Re-colli Implanted Metal Surfaces and their Relation to Corrosion and Wear Resistance, $11,850.

Professor A.W. Roberts and Mr. W. Doms, Understanding the Boundary Forces Between Particulate Solids and a Solid Surface with Measureable Topography, $16,872.

Professor R.A. Antonia, Dr. A.J. Chambers and Dr. L.W.B. Browne, Transfer Processes in Turbulent Shear Flows, $70,929.

Dr. L.W.B. Browne and Professor R.A. Antonia, The Viscous Sub-layer Underneath a Turbulent Flow, $10,304.

Professor G.C. Goodwin, Professor A. Cantoni, Dr. R.J. Evans and Dr. D.J. Hill, Robust Control and Communication Systems, $91,768.

Professor G.J. Jameson, Fine Particle Entrainment and Drainage in Flotation Froths, $16,000.

Assoc. Professor W.A. Oates and Dr. J.D. Browne, The Structure and Thermodynamic Properties of Alloy Hydrides, $12,309.

Dr. A.W. Page, The Deformation and Failure of Brick Masonry Under Biaxial Stress, $12,750.

Dr. J.A. Raper, Evaporation of Droplets in Moving Gas Streams, $6,340.

Dr. D.H. Wood and Dr. C.A.J. Fletcher, (University of Sydney) Internal Swirling Flow, $23,000.

Home for Supernova

Vacancies will exist for part-time demonstrators in the Physics I and Physics II laboratories in 1986. Demonstrators usually find the experience to be interesting and valuable for their future careers.

Present remuneration is approximately $39 per three-hour laboratory session.

Applicants should preferably have a degree with a substantial background in physics. For the Physics I laboratory demonstrating, senior undergraduates in Science, Engineering or Mathematics will be considered.

Those interested should leave details at the Physics Department Office, including their curriculum vitae, address and telephone number. Enquiries may be directed to Frank Bagnall, Physics Department (ext. 289).

Demonstrators Sought

Supernova will occupy part of the second floor of the old Newcastle Store in Hunter Street West.

The University, Carrington Slipways Pty. Ltd., A. Goninan and Co, Newcastle Permanent Building Society, Young and Green Holden and MAMI Insurance are acting as guarantors for the first year's rent of $20,000.

After the signing of the lease, Dr. Roberts said the science activity centre would be fully developed at a cost of between $2 million and $3 million and would be integrated with the Newcastle regional museum in 1988.

The initial displays of working modules are being set up in the Store building by volunteers and staff members employed under a $140,000 CEP grant.

The display centre will be open to the public at weekends before the end of this year and will be expanded into daily operation early next year.

Dr. Roberts is director of Supernova, Professor Carmichael is a member of the Management Committee and Mr. Helman is Supernova's Solicitor.
Engaged to prevent RSI

The University has for some time been concerned at the growing problem of Repetition Strain Injury (RSI) among staff who use electronic keyboards.

An initiative has now been taken by the Vice-Chancellor with the engagement of a consulting occupational therapist, Mrs Elizabeth Turner, to serve as an adviser to those staff members already suffering from RSI and potential sufferers.

Mrs Turner says there will be two tasks at the forefront of her association with the University:

* Assessing staff with RSI to try to identify factors which might cause the problems, and

* Educating staff about RSI and the need to comply with guidelines aimed at preventing RSI.

Mrs Turner says she will evaluate the design of work stations used by keyboard operators - the seating, the keyboard platforms, the document holders, etc. - to see if ergonomic requirements have been met. She and the operators will discuss organisational matters, such as time spent on keyboards, the kinds of work being done, incentives, the training that has been given, and individual aspects, such as stress and posture.

Mrs Turner says there is an urgent need for people to understand the facts about RSI, because many cases can be satisfactorily resolved if people did not become hysterical.

"I am seeing women who are very young, who are more afraid of the possibility of having RSI than of learning how to prevent it. RSI is a management problem, not a health problem, and every organisation has to plan how it is going to cope with RSI."

Mrs Turner says that personally she believed the overloading of muscles combined with stress led to RSI.

Mrs. Elizabeth Turner takes photographs as part of her evaluation of the growing problems of RSI among electronic keyboard staff. She is pictured advising Mrs. Alison Milligan, of the Secretary's Division.

Mrs. Turner will report to the newly formed Occupational Health Committee through the University's Safety Officer, Mr. Maurice Edmonds, who serves on the Committee, with Dr. R. Burke (Chairperson), Professor G. R. Kelman and Mike Covill.

He says the Vice-Chancellor has provided funds for the University to make the move into the next phase of preventing RSI and getting sufferers back to work.

Mr. Edmonds says the University's main priority is to develop a positive approach to preventing RSI. As well as arranging educational sessions for keyboard operators, seminars will be held for Heads of Departments and other supervisors.
Staff House Has Same Committee

All members of this year’s committee of the University’s Staff House accepted reelection at the annual general meeting on October 21.

Election of the committee resulted: President, Professor Michael Carter; Vice-President, Mr. Bill Warren; Treasurer, Mr. Peter Day; Secretary, Mr. Duncan MacDonald; Committee, Mr. Aubrey Everett, Professor Daphne Keats, Dr. Kevin Bell and Professor Ross Deamer.

According to Professor Carter, membership of the Staff House is steadily increasing and is currently 345. Minor changes in services have been made and some of the ideas put forward, such as enlargement of the cellular, a machine to make cappuccino coffee and a salad bar, are still on the committee’s agenda. Time is needed to make improvements, he says, and an opportunity may come after Mrs. Tredgold signs a new contract.

Mrs. Tredgold and her staff were given a special vote of thanks and Professor Carter said that the Manager, Mr. Sandy Sanderson, deserved “more thanks than we can bestow.”

The balance sheet showed that there was a loss of $5,896 after income tax and that expenses had increased significantly, particularly due to increases in repairs and maintenance ($3,005) and a provision for Long Service Leave ($2,019).

Professor Carter said the Vice-Chancellor had agreed to raise the University’s grant ($7,200 in 1985).

E.E.O. News

After nearly 18 months of preparation by the staff of the E.E.O. Unit and a large number of other interested members of the University, the objectives contained in the University Management Plan have been approved in principle by the Council. The Council resolved that, subject to the comments in the Executive Response to the draft Management Plan, it approved the objectives of the plan, with the knowledge that the implementation of some of the strategies to fulfill the objectives may depend on the resources at the disposal of the University.

Final modifications and corrections have since been made to all three Volumes of the Plan and it has been submitted to the Director of Equal Opportunity in Public Employment for her comments. We are printing further copies and will circulate these to Departments/Divisions/Sections when available.

The next task is the implementation of the plan through the achievement of identified objectives within the time limits specified. In the next few months we intend to publicise the contents of the plan and the objectives around the campus. We will also be informing staff of the progress already made and being made.

A current major activity is the development of E.E.O. grievance procedures. This process is in its final stages and when complete will be submitted through ACED to Council. Members of staff interested in the details of the Management Plan or the Grievance Procedures are invited to contact the E.E.O. Unit Ext. 317 or 687380.

Myall Lakes Camp Site

Members of staff and their families, and members of student clubs, who would like a quiet area in which to camp and relax, are welcome to use the Les Gibbs Field Station on Boolimbayte Creek at the Myall Lakes during the summer vacation.

The field station is quite isolated and, hence, there is a continual security problem. The risk will be greater over the school holiday period when more people are in the area. It would be helpful if the station appeared to be occupied.

There are cooking facilities, utensils, a large shelter, toilets, etc. at the station. As beds, etc. are there, a small group could sleep in the shelter and so would not necessarily need tents.

Boolimbayte Creek is suitable for small boats, canoes and swimming. It is an easy walk down to the Lake.

People or groups interested should contact the Manager, Dr. Brian Conroy, at Extension 534, or the Secretary of the Department of Biological Sciences at Extension 566, for a list of facilities and more details.

A nominal charge is made for use of the facilities.
Growing Plants on Treated Wastes

Mr. Stuart Thompson, Research Officer (Environmental Studies) at BHP's Central Research Laboratories at Shortland, has recently been awarded an M.A. for his thesis on the amelioration of steel works wastes. He carried out the project while he was a student in the Geography Department, supervised by Dr. J.C. Turner.

Mr. Thompson began with the point of view that, though the large-scale production of industrial wastes is inevitable in the functioning of a society such as ours, there are possibilities for altering some solid wastes in ways such that they can be used directly as substrates on which to grow plants. Top-soil is of course often used to cover dumps of solid wastes, but, because of the extremely high biological value of good top-soil, this is an expensive and wasteful process.

The aim of the work was to investigate methods whereby certain wastes from iron and steel production might be used as substitutes for top-soil in a land-fill and vegetation-establishment programme in which native trees and shrubs would be a major component. Mr. Thompson considered, as an example for study, the wastes produced by BHP, Post Kembla, and the particular problems associated with land-fill and vegetation establishment in the Illawarra region. Two kinds of slag (steel-making and iron-making) and coal washery refuse form highest tonnages of solid wastes produced from iron and steel production - so only these materials were considered.

There are critical chemical and physical limitations on the use of wastes as effective soil-substitutes. For the wastes being considered, they are: low water-retaining capacity, high water permeability and, in the case of the slags, high alkalininity and salinity as well as nutrient imbalance. The wastes are also biologically sterile; they lack microorganisms beneficial to the health and growth of plant roots.

Amelioration of slags by natural weathering reduces alkalininity and salinity but it takes a long time, so treatments to speed up this process were devised and tested experimentally. In particular, the slags were leached with water and with acid. Here it was found that another steel works waste product, spent pickle liquor, was a cheap and effective acidulating agent for iron-making slag. Steel-making slag however was less tractable; acid treatment caused only a partial reduction of the high alkalininity.

Of the plants tested, two introduced species, a grass (Rhodes grass) and a legume (woolly-pod vetch) were found to be tolerant of substrate environments provided by the acid-treated slags and by untreated coal washery refuse (with added fertilizer, the latter was quite favourable to plant growth). Amongst native woody plants, an Acacia and a Leptospermum also performed well.

Mr. Thompson recommended that dumped raw slags be covered by layers of, in sequence, coal washery refuse and acid-treated slag (with added fertilizer). A succession of plants, starting with Rhodes grass and vetch and progressing to woody natives should then be established systematically in the acid-treated slag. The aim of the succession is to gradually improve fertility, including such characteristics as organic matter content and the presence of beneficial micro-organisms.

Since completing his thesis project, Mr. Thompson has continued his investigations into the establishment of plants on wastes as part of his research programme at Central Research Laboratories.
**REVIEW**

By D H CRAIG

Barry Dickins' The Banana Benders and Jack Hibberd's The Overcoat were the Drama Department's last, double-barrel offering for the year. Both plays are products of the Melbourne theatre revival of the last two decades, but beyond that they don't have much in common: The Banana Benders is a one-act sketch set in sub-tropical Queensland, somewhere near Tweed Heads; The Overcoat, a more complex and developed play adapted by Jack Hibberd from Gogol's short story, has an indeterminate setting, but certainly an urban one where the climate makes radiators and of course overcoats essential.

Dickins' play is slight, and depends on the hackneyed devices of the half-cracked overgrown son and the devoted but confused and unsatisfactory mother-mistress figure. The gimmicky blending of the Australian vernacular and pastiche high-sounding is meant, presumably, to show the poetry that is beneath the surface of even the most inarticulate white-trash culture. Despite all this pretentiousness in the script, Davis Yarrow did make something of his Len Jackson character, expectantly when alone on stage. Among his convincing and sympathetic moments was that spent trying on ties which might impress the first girl he's entertained at home ('white-nah, too virginal, a dead giveaway...'). Sande Hughes played both the mother and the mistress, and managed some ocker humour as one and some authentic plaintiveness as the other.

The Overcoat is quite different, a surprising and exciting work. The songs, prosaically announced by the pianist, may be occasionally a bit leaden and puzzling, and goodness knows what it all means in the end except that corruption is rife, and bureaucrats really are the lowest form of life, but the whole production did catch a rare and remarkable quality of drollery. The anchor of all this was Paul Makeham's Kak, the ageing base-grade clerk who is ordered by a peacock supervisor (played with careless ease by Phillip Bilton-Smith) to get a new overcoat. Makeham's Kak is relentlessly adenoidal, sycophantic and optimistic; and grindingly and absurdly pathetic. All this while managing to look at times like a cowering Jack Nicholson, at others like Nigel Stock with a wasting disease. His quest for an overcoat involves a hilarious visit to the tailor (played by Stewart Happ), who turns out to be not only (seemingly) blind but drily corrupt, egged on by his lascivious wife. Adam Macaulay's performance as a rotently butch police officer was another hit of the show. The singing, performed mainly by Anita Holgate and Natalie Downing (who also act other minor parts) was professional, confident and competent, the costumes by Annette Dale excellent.

The achievement of this production for the director, Tara Barfield, and all her team is to have created a vital and appropriate style, which carries the whole piece and whatever disjointedness in meaning and action there are in it: a cabaret style, lewd and knowing and disillusioned, fitting the play's material of oppression and exploitation. Something strikingly original and substantial was thus created for the Drama Department's 1985 swansong.

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**Visitor to Chem. Eng.**

Professor John Davidson, Professor of Chemical Engineering at the University of Cambridge, recently visited Newcastle for discussions with Professor Graeme Jameson and colleagues.

Professor Davidson, a fellow of the Royal Society, is distinguished for his work on bubbles and gas-liquid reactors and also in the field of fluidisation. He gave a seminar on Bubble properties and behaviour in bubble column reactors.

He has also been a frequent advisor to the government on matters relating to the chemical industry, and during his visit he gave a talk to the Newcastle Chemical Engineering Group on Lessons from Flixborough, resulting from his experiences as a member of a Commission of Inquiry into the Flixborough disaster.

Our picture shows Professor Davidson (centre) with Mr. Neil Holley of the Metallurgy Department (left) and Professor Jameson.
Radiothon '85

Locally recorded music will be a feature of 2NUR-FM's Radiothon '85.

The Radiothon, to run from Friday evening, November 8, to the afternoon of Sunday, November 10, will make extensive use of the station's archives of jazz, rock, folk, blues and band music.

According to station manager, Mr. Anton Donker, there has been increasing demand from listeners for replay of some of the recordings made by 2NUR over the past six years.

"To meet this demand we are presenting many of our original recordings as part of a special fund-raising weekend," he said.

"The aim of Radiothon '85 is to raise more than $10,000 largely towards the cost of our live broadcasts and recordings for next year."

Mr. Donker said local music recording was dependent on financial support from the community.

"We have the basic equipment and the skills to run special music broadcasts and recording sessions, but there are still costs to be met," he said.

For Sale

The Sport and Recreation Officer invites written tenders for the purchase of the under-noted secondhand equipment. Inspection may be arranged by telephoning Ext. 500 (Mr. John Hay):

- Two gas barbecues (one damaged), two catamarans with trailers, kayaks, three wind-surfers, two beach craft wind surfers, fency vests.
- Weight equipment, including: inverted leg press, leg extension machine, wooden wall rack, incline sit-up board, rowing machines, column mounted calf-raise machine, free standing pipe rack stand, inversion machine and pottery wheels.
- Ski Boat - Gilgile Spitfire (EY587N), as new condition 1984 model, full instrumentation, metallic Blue/Silver, with cloth seats, fully carpeted 350 Chev Engine and low hours, with registered trailer and boat cover.

Tenders should be forwarded to the Sport and Recreation Department in a sealed envelope marked "Tender for Boat". Closing date Friday, November 8.

Advertisements

A Steelcraft 3-in-one pram set ($75); Bouncer ($5); Queen size Quilt/Quilt cover/Ruffle/Pillowcases ($150); Kenwood cheff ($140); Cassette deck ($150), Player $100, AM FM Tuner/ampifier/Speakers ($250) or complete stereo system ($450). Many other household items also for sale. We will accept reasonable offers. Phone extension 588 or 524957.


Holiday Accommodation

Warrane College, a men's residential college on the campus of the University of NSW, offers accommodation over the summer months to students and academics. Attractive concession rates are available for students who wish to remain in college for extended periods. Accommodation is provided for individual rooms serviced three times per week, with 21 meals per week. For more details, free reverse charge enquiries may be made on (02) 662-6199, or by writing to The Deputy Bursar, Warrane College, P.O. Box 123, Kensington, NSW 2033.