Retiring Vice-Chancellor, Professor Keith Morgan is indeed a man with foresight. He has been instrumental in the changes of the past few years and in moulding this university into an institution of which Newcastle can be proud.

But the vision doesn't stop there. On the eve of his retirement, Professor Morgan is encouraging others within this university to plan for their own vision. "One of the things I think this university ought to do for the future is to take time to decide what sort of a university this is. What characteristics will differentiate us from the 35 other universities around the country?" he asked.

"One takes it for granted that it is going to be a fine teaching institution, and that it is going to have an international research reputation, because without that it is not going to be the sort of university that one would encourage," he stated.

According to Professor Morgan the University of Newcastle has more to offer. A great deal more. A university would not exist without its student body, and it is Professor Morgan’s belief that we should build on our "rather good reputation" of looking after our students.

"We must establish ourselves as a caring institution, where the needs of students are recognised," he said. At Newcastle, students don't suffer the anonymity of the major metropolitan universities, which can be both remote from their immediate surroundings and, by their very nature, removed from their local communities.

"We must continue to assist our students while they are here, support them academically and personally, encourage them to think in terms of developing their future careers, to make good use of their skills, and provide support for them through other activities within the grounds of the campus," he said.

"The other characteristic I think the university ought to be building on, is the role of this institution - and this is a dangerous thought - as an educational institution," he said. These parts of the total which have yet to realise their potential and to become as strong or as satisfying as we would want," he said. "There are challenges still to resolve."

**THE PURSUIT OF SCHOLARSHIP**

"I believe that the primary role of the university is to encourage and develop scholarship. You can't teach at a level required in a university unless you do it on the basis of sound scholarship."

One way of ensuring first rate scholarship, according to Professor Morgan, is through engagement in research. "I think that in the modern environment it is easier to be a good scholar if you're involved in research. This is really the origin of the notion that good researchers do make good teachers," he said.

"To be a first rate researcher requires the ability to be creative in one's thought and to be able to relate one's thoughts into programs of research which themselves contribute to the state of the work and extend the base of the scholarship."

Traditionally teaching at universities was conducted in an atmosphere of research. And traditionally academics have made time to do the research. These days the amount of time devoted to the preparation of teaching material has increased dramatically. "People
take preparation very much more seriously now, as course content and structure are continually changing," Professor Morgan said.

"It is indeed very pleasing that this aspect of our academic work is important, but all this reduces the amount of time that is left for research. This means that the research is being increasingly done under pressure of other activities," he added.

Time constraints are not the only source of pressure on modern-day researchers. There is, of course, the matter of funding. "The pressure due to limited funds is very real. And it will remain so well into the future," Professor Morgan cautioned.

He believes that a system of priorities will have to be established to ensure that research continues at a high level and that we are able to develop new areas of research. This, he says, cannot happen instantly.

"Universities, by their very nature, operate on a much longer time scale than other organisations. The optimal time period for development within a university is 5 to 10 years," he said, adding that it would be a great mistake for universities to think that they are in the "instant solution game".

"The fundamental opportunities for a university lie in the long-term," he predicted.

WHEN TOWN MEETS GOWN

Universities are valuable members of any society - be it financially, politically, or in terms of education. But universities, Professor Morgan believes, must establish a proper perception of what their role is within the society they are a part of.

"Institutions such as ours play a valuable part in society; valuable because they are opening up opportunity for people to achieve personal satisfaction and aspiration. This is undoubtedly related to the level of economic activity and generation of wealth in the country," Professor Morgan said.

"But the real role of universities is the contribution to the general level of knowledge and the advancement of knowledge in the country, providing a secure base upon which the future can be built."

Any successful relationship involves give and take. The university has a great deal to give. However, without the support of the community, many of the programs and research projects within the university would not exist. Companies want to learn from universities and sponsor activities which they believe universities do well, and from which they too can benefit.

"I would see great strength coming from closer involvement between industry and universities," Professor Morgan said. "This university has a splendid advantage in that the community of the Central Coast and the Hunter region regard the University of Newcastle as 'our university'. That is a great source of strength for this university," he indicated.

VISIONS FOR THE REGION

Professor Morgan has a great love for Newcastle and the Hunter region. This is reflected not only in his involvement in a dozen or so organisations around the region, but also in his visions for Newcastle and surrounds.

"One of the great joys of Newcastle as the regional capital is that its development as an urban centre was not explosive in the 1960's and 1970's. This means that Newcastle is now in a wonderful position to respond to a period of major growth," Professor Morgan said.

"If we were contemplating developing an area of Australia, it would be difficult to avoid recognising Newcastle as an area with major advantages. This is the message we need to convey. The secret about our region is out and we must implement key development strategies sooner rather than later," he said.

"We must also ensure that growth and development decisions of this sort are taken on an informed and sensible basis. Again we must think in terms of longer term development rather than instant fixes," he said.

One of the better kept secrets of the region is our vast resource in the areas of music, theatre and visual arts. Professor Morgan suggested that this secret be unleashed in the form of an International Festival of the Arts, to be celebrated during 1997, Newcastle's Bicentennial.

"This is an appropriate time to celebrate the start of the next 200 years and to demonstrate internationally the high quality of life and achievements already existing within the region," Professor Morgan said.

As for his own future, Professor Morgan is planning a brief holiday with his wife, Hilary, in the UK. He will then spend at least the remainder of 1993 working in Japan.

For some, retirement signifies the beginning of rest and relaxation. For Keith Morgan it signals the beginning of new challenges.

CATALYSIS

A certain Professor Igor Ansoff of California, (of whose qualifications and philosophy I know nought), argues that "there are periods in human history during which society undergoes a profound and discontinuous mutation."

"As a result of a mutation," he says, "the structure and dynamics of a society acquire a shape which could not have been predicted through extrapolation of long-term trends during the pre-mutation period. Thus, the social actors, who wish both to anticipate and affect the mutation, face a very difficult problem which was succinctly stated by Abraham Lincoln in the midst of the American Civil war - 'The dogmas of the quiet past will not work in the turbulent future. As our cause is new, so must we think and act anew'."

Universities face just such a profound and discontinuous mutation in the coming years and there is danger in not confronting the new realities identified by Ansoff - sluggish growth, new technologies, and competition from others with different cultures and economic structures. If we merely re-affirm the dogmas of the quiet past with "logical incrementalism", (stick-ing to the knitting), we may join those focal institutions of the past that have been destroyed and replaced.

In December's Bulletin we tried to summarise 1992's media debate through a collage of headlines. We positioned quality and excellence against resources, placing universities at a cross road between teaching and research, elitism and mediocrity, selling and substance.

This election is as important for universities as for the rest of the country, but the media debate is only now catching up with the political balance sheet implied by these few unpriced values.

Even as an isolated change, the voucher system of the Hewson agenda or quality audits of the post-Dawkins era will have major long-term impacts on our priorities and operations because of their link to resource availability.

Kim Beazley at the National Press Club (October 19), accepted that with the pragmatism of government, Labour may have shifted some fire from its belly to its intellect. But whether driven by passion or brain, Government policy will force us into a "discontinuous mutation" of some sort in the next decade. The interplay of student demand and purchasing power with vouchers will drive us into a market-based...
Catalysis

Continued from previous page

operation where the bottom line will set policy instead of serving it.

And Darwinism will not.

The capacity to respond called for by such changes will affect us as it has other public sector organisations meeting similar discipline. It will shape the infra-structure (libraries, labs, computers, teaching profiles) and will sort out our traditional expectations for employment.

To merely defend the opposing values positions that are driving policy can only muddy the debate. And the sector itself has already begun to replace systems by default and without strategic analysis when it shifted enrolment patterns between undergraduate and post-graduate studies; when it dismisses vocational training as incompatible with a broad education; in the way it discusses competencies, overseas enrolments, and fee-paying students; by commercialisation and collaboration with industry; in ranking research funding and teaching as indicators of quality; and by questioning the statistical data on academic productivity.

Within this university we are also starting off with a change of C.E.O. - a change that is fundamental in itself. Furthermore, we are facing a plateau in student numbers and funding instead of the expansion of the past few years. Review of priorities and programs will take place. If we are to drive the process to outcomes that suit us we will need to explain, explore and debate the alternatives.

"Let him examine well the change", as they used to say in Olde England, apropos of something or other of great import in local politics, "because evil never travels alone".

"As our own cause is new, so must we think and act anew."

The P.R. Unit lives in hope that this "community of scholars" will put pen to paper so that the fires of both belly and intellect can burn on our pages instead of the "story-telling" approach to campus news we take now.

* Your issues. Your pens.

Evelyn

* Igor Anoss (1987) in Godet, Michel:

Words from the New VC

In coming to the University of Newcastle I come to a body which is immeasurably stronger than it was a few years ago. The amalgamation is now ancient history, and the task is to go forward with a modern University. It is with a great sense of honour that I accepted the position of Vice-Chancellor when it was offered to me, as I have had contacts with the University of Newcastle over many years through a number of personal friends, and because I have known the region particularly well for some years.

There is no doubt that the universities are suffering from the policy that has been adopted, of spreading resources more thinly and increasing the bulk of students handled by these resources. No doubt there are political imperatives operating here, and in this broader sense it is difficult to judge whether such a policy is good or bad. But there is no doubt that such policies make it difficult to conduct university life as it has always been conducted. Added to this some kind of vague pressure from the Government Department (DEET), which seems to be aimed at suggesting that universities of the older sort are not managing their resources wisely: this never comes out into the open in so many words, but the tourniquet is being applied in virtue of this principle.

Accordingly the University community as a whole will have to examine its priorities: it is always useful to have priorities when spending money, as everybody who manages a household budget knows. It seems fairly obvious that the priorities of the University are: 1. teaching the students and 2. research, and consequently expenditure ought to be aimed at the needs generated by these two priorities. Student care appears to me to be very important, and by that I mean the quality of the educational experience provided to students, the facilities provided to students, and the services provided for their benefit, such as counselling and others.

We simply cannot take the money, and then seek to escape from all student contact.

In the second place, the development of knowledge is obviously crucial to the mission of the University, and by this I mean not only the process of education, but also the process of driving back the frontiers of knowledge through research. There is nothing quite like the excitement of new ideas or new trails being blazed in experimentation or technology; there is nothing quite like the authority of science in its highest form (and I use the word in its French sense) and every university must seek to promote this, or see its authority in the community compromised.

I would like to pay tribute to my predecessor, Professor Keith Morgan and his wife Hilary, for their work at the University. It has been an extremely difficult time and the University has come out of it with a completed amalgamation and no budget deficit. The importance of this last point in the contemporary climate cannot be over-emphasised. The University has experienced some hardship, but has not had to undergo the experience of across-the-board cuts of 5% or 10% (or 50% in the case of Bond University!) which have been the experience of many other universities, and which are devastating when they hit. At the same time, an amalgamation has taken place, and these things are never easy; yet the sound effects from the University of Newcastle have been far lower in decibel level than from many other universities. This is no back-handed compliment; the fact is that for such difficult tasks to be carried out so smoothly is a considerable achievement, and a great test of powers of administration and conciliation. On behalf of the University community I do thank Professor Morgan and his wife, and wish him well for his future career.

Raoul Mortley

Professor Raoul Mortley
KEEPING UP WITH CHANGES IN THE UNION

Over the long vacation, there have been some dramatic changes in the Shortland Union - with more to come.

STATE BANK OPENS ITS DOORS

On February 2, the Vice-Chancellor and the State Bank Head of Customer Service, Brian Quirke, officially opened the State Bank's 627th Service Centre on campus.

Regional Manager, Garry Murphy, said he was pleased that in times of cutbacks, the Bank had seen fit to provide a new and competitive service on the Newcastle Campus.

A full range of services is provided including special arrangements for students and staff. Facilities include a 24 hour security A.T.M.

Greg Sturland, the new manager, is keen to establish the branch as a place where staff and students find the services and advice they want.

The bank is located on Level 1, of the Shortland Union just off the footbridge. An agency with full EFTPOS also operates at the Hunter Union.

CO-OP BOOKSHOP EXPANDS INTO COMPUTERWARE

The success of the Co-op Bookshop in its new premises for 1992, has given the impetus for expansion into computer software and hardware, with the opening on February 24, of the computer shop right next door to its existing premises.

Computerware will offer opening specials of 10% discount on software during March, and demonstration hardware models will be reduced greatly. Educational prices will be offered to students on production of their Student I.D. Card, as well as staff, and a guaranteed backup service is available.

FIRST FOR NEWCASTLE UNION

The opening of the first licensed Post Office in N.S.W. in the Union on February 15, signalled the introduction of Retail Post into N.S.W.

General Manager, John Broughton said the Union welcomed the business opportunity which would augment a range of services offered through the Union’s Information and Second Hand Bookstore.

The move also signalled the retirement of two of the University’s most respected and popular ladies, Lorna and Judy, who had served with Australia Post at the University agency for a combined total of 22 years. We will miss them and wish them well in retirement.

NEW LOOK HUNTER UNION

Refurbished Service Outlets

Overwhelming support for the refurbished Hunter Union from students and staff has certainly justified the modifications to the building over the long vacation.

In addition, the improved range of hot and cold food styles, which encompass a range of fast food, hamburgers made to order, potatoes with a variety of fillings, pasta with a range of sauces, fresh cake display and a more expansive salad bar, the walk in self-serve, offers something for everyone.

A modified entrance passing the new shop front provides some clue to the completely re-furbished shop inside.

The new shop offers a wider range of stationery, art supplies and photographic stock as well as cards, giftlines and newspapers.

Building Modification Approvals

In addition to the above, the building has been modified to meet the requirements of the Public Halls and Theatres for entertainment, as required by the Department of Local Government.

This necessitated the installation of smoke detectors, specialist fire equipment and improvement to the means of egress with the construction of additional stairs.

The estimated cost for these works, including the building upgrade, is in excess of $300,000.

CENTRAL COAST DECKING

The Union complex at the Central Coast Campus now has an outdoor deck which overlooks the lush bush of the Ourimbah Valley.

Complete with furniture and umbrellas, the deck also provides all weather protection for the student office and bookshop. Drainage and guttering have also been upgraded.

An awning will be fitted as soon as funds are available.

Union Manager, John Broughton, praised the builders T.J. & E.J. Mc Glynn, for completing the variety of work on time and wished to thank staff and students for their tolerance during the construction period.

SPORT

In 1985 the Sports Union faced a number of challenges; an inability to meet the demands of clubs, student groups and individuals for an ever-increasing use of facilities; a disposition of buildings and ovals which complicated management - both administrative and financial; and a lack of any kind of plan which would both overcome these obstacles and provide a general path for future Sports Unions to build on.

In order to address these challenges, the Sports Union invited, in 1986, all of its constituent member clubs and interested individuals to participate in the development of a master plan. During the course of this process of consultation, the key needs of the Sports Union were identified and a plan of action was developed.

In the following years, the challenges identified by the Sports Union were, however, further complicated by developments both on and off campus.

In 1989, the amalgamation of the University with the Hunter Institute of Higher Education increased the number of users dramatically and brought with it a new dimension - the need for facilities for students involved in academic courses requiring gymnasium, weight training facilities, ovals and so on. Secondly, changing community attitudes towards health and fitness promoted a shift towards the needs of individuals and away from the hitherto dominant needs of sporting clubs.

While club membership grew, many more students and staff called for the provision of recreation classes (such as aerobics) and casual use facilities (e.g. for weight training). Throughout society in general, and in large corporate bodies in particular, it was...
becoming increasingly clear that awareness of, and participation in, a healthy lifestyle would not only defray the huge costs of illness and disease but also increase the productivity and general welfare of the nation.

What was needed therefore, was a master plan which provided the following: spaces, open and closed, which could serve a multiplicity of purposes and provide a flexibility and direction for future Sports Unions, a centre which promoted the ideals of health and recreation, and facilities which could be used by scientific researchers to promote the excellence that one associates with the Olympic ideal.

In 1990 the Vice-Chancellor established a committee under the chairmanship of Professor Michael Carter to develop a brief which met the needs outlined above. In 1991 this committee called for expressions of interest from architects both local and interstate; from the 73 expressions of interest received, three were chosen to participate in a competition for the right to design the master plan. In 1992 the architectural firm Gazzard Sheldon was selected and a concept plan submitted to the relevant committees for approval in principle. Since that time the architect and the Sports Union have met on a number of occasions to improve and refine both the concept and the staging of the master plan. The final report of the architect will be submitted to the July meeting of University Council.

Academics approaching retirement frequently take the liberty of commenting on the developments that they have seen, been part of, and/or condoned or resisted, in the hope that their successors may be able to achieve what the retiring individuals have not. I hope that these remarks will be seen as constructive, and not those of a injured animal that lashes out and bites everything that comes near.

1. During my early years at Newcastle, Senate was a very demanding forum, and every phase of the development of the Faculty of Medicine and its innovative curriculum, including all of its Working Papers, was subjected to an intense scrutiny and often lengthy debate, both in Senate itself and in the Standing Committee, where I served in my role as Deputy Dean as the faculty representative. While it would be false to say that I enjoyed all these debates at the time, it would be equally false to deny that they were an essential component in the rigorous definition of the years and nays of our development, and I am grateful to my colleagues from those days for their insights and contributions.

In later years, especially since the increase in size of the University following amalgamation and the change in the structure and composition of both Academic Senate and its Standing Committee, the quality of debate and the depth of enquiry into such academic issues seem to have diminished enormously. It may be size, it may be that the perceptions of the group have altered; but I regret that the wholesale involvement of Professors is a symptom of a widespread perception that Academic Senate is no longer apparent. Also, with the new structures and an increased turnover of membership, the continuity of experience that was available in the old Senate has been largely lost. Faculties and Schools now appear to be among the major determinants of policy, and such devolution does have its problems.

2. Much of the policy development is now in the hands of Funding related Committees which are not responsible to Senate, but advise to the Vice-Chancellor, reporting to Senate more as a courtesy than as a necessity. Thus it appears that while academic policy remains the responsibility of Senate, the real control of such issues is elsewhere and the ability to scrutinise such recommendations or decisions, and to alter those seen as inappropriate, is difficult, both because of the quality of debate referred to above, and the timing of such reports referred to below.

3. A major irritant in Academic Senate proceedings has been the growing practice of tabling important reports with no time for their proper perusal and discussion among colleagues before Senate debates. It has been a great temptation to move that debate on such reports be postponed until the next meeting, but it is so frequently presented that they are urgent that this has seemed a churlish behaviour, and the relative powers of Academic Senate and Administration are sufficiently obscure to raise doubts as to the value of such a procedure.

4. The Committee to Review Academic Senate has been in limbo for many months, since its initial proposals were mothballed. While it may appear a reasonable proposal that the committee be reactivated with firm terms of reference, the proximity of the date for the arrival of the new Vice-Chancellor is such that any reorganisation will perform dependent on his plans for the University.

There has been uncertainty during that last couple of years as to the optimal structure of the University, its Departments, Faculties and Schools. There have been developments in the devolution of financial responsibility to these units, and there are overall funding uncertainties especially with a March 13 Election date and the expressed differences between the parties as to such funding.

The formation of an Association of Professors is a symptom of a widespread perception that Academic Senate is no longer the body that can debate and advise appropriately on academic issues. While I attend that association and support its perceptions, I am aware of the potential for such a split in the system to lead to conflict, from experience in other Universities.

In the light of the above remarks, I believe that it should be a prime objective of the incoming Vice-Chancellor to review the structure and function of Academic Senate in the light of other changes he may make in the structure and function of the University, to ensure that Academic Senate can, and can be seen to be worthy to, be the dominant source of debate, advice and decision on Academic Issues in the University.
BIG CHANGES AHEAD

New Memorandum and Articles, New Members, New Board = Fresh, New Start
(23 Years on!)

Every individual and organisation should have a capacity for regeneration and re-invigoration; without it, we can become terminally tired, or dispirited, or, worse still, disillusioned.

Those of us who have this capacity, and we include both leaders and followers, are not only survivors but genuine long-term pace-setters.

We can manifest and exercise this capacity in many different ways. Some individuals for example, simply move from one environment or set of relationships to another; others quietly but effectively, might move from one personal milestone to another, be it in their career or family lives.

Organisations have their parallels with individuals, but are fundamentally different in this respect: without the inputs and commitment of many individuals, organisations are, and count for, nothing. Those individuals include those directly involved with the organisation, and the organisation's friends or supporters.

So it is with great pleasure that I note that TUNRA is an organisation with not only dedicated, concerned and caring Directors and a majority of like-minded staff, but also with a good cadre of friends, both on- and off-campus.

It is from this background that TUNRA, after nearly 22 years of service to the University of Newcastle set about the process of reviewing its very existence; this process commenced in Mid-1991.

The stakes in such a game are high; whilst TUNRA properly operates at arm's-length, the company was, after all, set up by Council to serve the University. If the company were to either deviate from its original purpose, or threaten the University's reputation, then Council would properly be expected to intervene; of itself, such a move would not reflect well on either TUNRA or the University.

The review process was precipitated by the Directors on my recommendation after an extremely busy, but unprofitable, trading year.

We established a Review Committee of friends and peers, both commercial and academic, and gave them an open brief to review the structure and operations of the company; the Committee handed down its report, as promised, just before the end of 1991.

Although we are more than 12 months "down the track", much has happened in that time and fundamental structure reform was completed before the end of 1992.

You don't get a much more fundamental set of reforms than an overhaul of the Memorandum and Articles of Association, a five-fold expansion of the membership of the company, and an expansion of the Board of Directors.

On the latter point, importantly, seven of up to 10 Directors on the new Board are elected by the Members. The Members have to be acceptable to Council, but can now be drawn from beyond the ranks of members of the academic staff and Council of the University; in this respect, we have followed the lead of UniSearch Limited of the University of NSW, the oldest and one of the biggest organisations in Australia.

We have "tidied up" our Memorandum and Articles to ensure, among other things, that the University, through Council, can never forfeit control of the company.

With Council's concurrence, we have approached 32 potential new Members of the company; the responses have been enormously positive and gratifying.

We have a number of new faces on the Board; new faces mean alternative inputs; these can never be a bad thing to complement the continuity of views and opinions which are available, and important, from those existing Directors who chose to remain on the Board.

Very importantly, three of the Directorships are held ex-officio from among the most senior University Executives, being the Vice-Chancellor, the Deputy President of Academic Senate and the Dean for Research. These important appointments will ensure inputs from the University at the highest levels possible into the processes of policy formulation and governance of the company.

The "new breed" of Directors elected by the Members will henceforth be elected for three year terms, with one third of their number coming up for re-election every year.

The Directors, headed by Professor Alan Carmichael, set the essential tenor of the company.

23 years on, we have a fresh, new start!

Karel Grezl,
Chief Executive Officer

TUNRA ANNOUNCES NEW BOARD

The commercial arm of The University of Newcastle, TUNRA, has announced an expansion of its Board of Directors as part of a review of its structural operation.

Chief Executive Officer, Karel Grezl, said the expansion from seven to a maximum of ten Directors would allow alternative inputs with seven of the Directors elected by members.

He said the review was initiated last year and that the announcement of the new Board completed procedures.

"TUNRA has been in existence for 23 years and a review committee had a brief to look at the structure and operations of the company," said Mr Grezl. "The review, among other items, resulted in an overhaul of Memorandum of Articles of Association, a five-fold increase in membership and the expansion of the Board," said Mr Grezl.

The new Chairman is Professor Alan Carmichael (Director of The Newcastle Permanent Building Society and of the Hunter Development Board) and the Deputy Chairman is Professor Keith Morgan.

The new Board includes three ex-officio Directorships from the University's senior executive ranks. In addition to Professor Morgan they include the Deputy President of Academic Senate, Professor Frank Clarke; and Dean for Research, Professor Ron MacDonald.

Professor Morgan, Carmichael, Clarke, MacDonald and Roberts have been returned while retiring Directors are Mr John Risby and Dr Manuel Alves. The one vacant position on the new Board is expected to be filled in the New Year.

Mr Grezl said special mention had to go to long serving Chairman, the late Dr Alec Forsythe, who had been a Director of TUNRA since 1969. Dr Forsythe had given the company the benefit of his personal qualities and convictions of service to the community, a total commitment to fair and honest dealing and an enthusiasm for enterprise.

Dr Forsythe was a founding Director and had been Chairman of TUNRA for more than 12 years at the time of his recent death.

In financial terms, TUNRA reported a gross turnover for the 12-month period to June this year of $3,318,815 which resulted in an operating profit before abnormal items of $11,808.

Mr Grezl said the net loss after abnormal items, which included patent write-downs arising out of a rationalisation of the company's patent portfolio and a donation to the University, was $141,263.

Page 7
WHAT IS HAPPENING AT THE WESTERN ENTRANCE?

This loaded question has been asked by many within the University community who have witnessed the devastation of the lawn on either side of the western entrance. Those entering the University along this route were made aware of changes by piles of soil, then earthmoving equipment slowing chewing its way across the turf, then making seemingly random, but possibly artistic piles of regurgitated grass and topsoil. Coming as it did at the end of year break when publications too were on down-time, we had a hiccup in organisational communications that was very "directly" drawn to our attention by Professor Ron MacDonald, among others. We haven't published the letter because in the interests of finding solutions, we thought we could better address the concerns expressed by getting some answers from the horse's mouth, so to speak. We have taken on-board Professor MacDonald's comments on improving communications through the publications and will try to do our bit, but others might help by seeing that we don't operate in an information-free zone.

So, what is happening at the Western Entrance? The University's Bush Regeneration Supervisor, MIM WOODLAND, sheds some light on the mysterious changes...

People always show a great reluctance for change. Australians brought up with the English ideal of flat, green, unproductive expanses loathe to accept that Australia has a climate unsuitable to this resource and energy consuming practice.

Water conservation and large-scale erosion of our topsoil is an issue that must be addressed by all Australians. Our future depends on this.

Our teaching institutions should lead the way in practicing better land care management, and reducing the wasteful loss of our most precious resources.

By mounding the Western Entrance to the University we will turn a large labour-intensive area of unnatural vegetation into a natural bushland area for birdlife, and a habitat for native animals.

With their water retentive qualities, the mounds will initially be planted with native Acacia species and ground-covers, and so enrich the soil with nitrogen. The covering mulch, which is a by-product of local suburban development, is being returned to the nutrient cycle to provide weed control and a suitable environment for nearby bushland species.

The water retention basin will provide a storage area in case of bush fires, and a natural habitat for a myriad of local species within easy viewing of all who use the new pathway from the bus-stop. Like it or not - Land Care is essential for our future and the generations who follow.

MAJOR BUILDING PROJECTS IN PROGRESS

Extensive landscape works at the western entrance to the University are only part of a major building program underway on campus.

The road refurbishment, which was completed last month in readiness for linking with State Highway 23, will provide easier access to the campus and to on-campus parking. At the same time, the surrounding area is being landscaped to create a more environmentally sustainable and aesthetically pleasing entrance.

Funding for the upgrading of the western entrance came from a number of sources. $60,000 was provided by the Grounds Refurbishment Fund, and $60,000 by the Roads and Traffic Authority (for signage, part of the landscaping and a new bus shelter). Additional funding to re-build the road leading to the University came from the University's Deferred Maintenance Fund.

On campus, several building works are nearing completion. These are the Advanced Technology Centre, a collaborative venture between Pacific Power and the University (fully funded by Pacific Power), to foster research in a broad range of areas including power generation, electricity, coal technology and others.

Work has also commenced on the new Centre for the Advancement of Learning and Teaching (CALT) building to be located between the Shortland Union and the Auchmuty Library. This building will house the University's video conferencing facilities, television studios and editing suites, as well as Radio Station 2NUR. All the University's audio visual technology will be serviced from there.

Other buildings currently in the design stage are the General Purposes Building to be located near the Computing Teaching Building by Suters Architects Snell, and the new Architecture Studios as part of the Architecture Complex by Grose Bradley Architects (Sydney). As well, plans are underway for the new Design Building and Graduate Studios by Peter Stutchbury and EJF.

Staff architect, Mr Riq de Carvalho, said the building projects are a result of long-term planning issues that are being addressed by the University. He said the landscaping is also part of long term planning to regenerate the bushland nature of the campus.

"With the appointment of a Curator of Grounds this revitalising and enhancing of the campus landscape can be initiated and maintained, keeping in mind that good, sustainable environmental management is of utmost importance," Mr de Carvalho said.

"Other works currently underway are the extensions to Evatt House and an upgrading of the Fibre Optic Cable which forms part of the University's information network.

"Perhaps one of the most exciting developments on campus is the design development underway on the University's Sports Union Master Plan. Part of this is the design of expanded indoor sporting facilities being undertaken by Gazzard Sheldon Architects (Sydney)," he said.

"All in all we are in the midst of a very busy program of building, repairs, upgrading of facilities and design proposals. It promises to place the University in a dynamic position to cater for the educational needs of the Region," he added.
BUSHLAND REGENERATION AND THE CAMPUS GROUNDS

Landscape works are currently underway at the Western Entrance to the University, which will substantially up-grade the first impression of the University to visitors arriving at that entrance. Several years ago, as part of the works relating to the construction by the RTA of State Highway 23, the former University signage, entrance gates and bus shelter were removed to allow the construction by the RTA of the roundabout. The RTA is contributing approximately $60,000 which is matched by the University with $60,000 from the Grounds Refurbishment Fund towards replacement of signage, a new bus shelter and extensive landscape works at the Western Entrance.

Part of the planting program involves progressive aeration and mulching of compacted soils with the aim of reducing erosion and water run-off encouraging retention of moisture and assisting plant growth. The rapid growth of native plants around the Chancellery is indicative of the benefits of proper soil preparation and earth mounding. These works and similar works around the Hunter Building car park are being undertaken by University Grounds staff with some assistance from private contractors.

The costs of undertaking these works are offset against the ongoing costs of mowing and slashing areas of lawn, which is very difficult to maintain in the poor clay soil and which in many cases is simply a collection of mown weeds. With the removal of mown areas in inappropriate parts of the University, more attention and resources can be focussed on areas of lawn in key locations which can be enjoyed both visually and in a recreational sense.

As a consequence of recent rapid development and extensive building works on site, including earthquake repair work, a rapid decline in the capacity for vegetative regeneration has occurred. Increasing student numbers, unrestrained vehicle access and a large capital works program have assisted this loss of amenity. Whilst current and proposed buildings and access works continue to enhance the facilities and services provided on campus, positive measures are being taken to secure sustainable and diverse bushland.

Grounds restoration works to a number of areas on the campus have been facilitated through financial contributions of the Union, residential colleges and the Sports Union, in addition to normal provisions within maintenance funds. Rather than dilute the effectiveness of these resources the management approach to refurbishment works has been to provide an intensive program to a limited area which, once completed, requires reduced maintenance. The attention of grounds staff is then moved on to another area where refurbishment is carried out, again on an intensive basis.

Wherever site soils and subsoils from new buildings and new services (such as the CALT Building and Fibre Optic Cable Network) are removed, these are integrated into earthworks to assist in moisture penetration and add vegetative material and seed to otherwise compacted zones. This represents substantial savings as no disposal costs are incurred. Some masonry wastes (such as brickwork from Hunter Building earthquake repairs) are included in new works to provide subsurface stormwater drainage at little expense.

Materials from external contractors otherwise destined for expensive landfill disposal sites have been utilised in University landscape works (eg Sandstone from C&W Constructions excavations at Waratah) thus providing substantial resources at no cost to the University, and reducing the impact of materials wastage on the regional community.

Concurrent with refurbishment works, retention basins are being established for control of soil erosion, to provide water habitat; water supply for gardens and emergency; and to assist in the reduction of nutrient and contaminant discharges into the wetlands and Ironbark Creek catchment.

These will considerably assist in the long term grounds management, enabling reduced water consumption and wastages; lessening the environmental impact of exposed soils upon wetlands and the river system, (with subsequent long term savings in catchment sedimentation management).

In co-operation with the New South Wales Fire Brigade a full analysis of the campus and assessment of immediate and long term fire risk is being undertaken, to ensure the appropriate bushland management.

Whilst the current levels of mulching and weed control by chemical means will continue through autumn/spring 1993, the increasing production of vegetative material on the grounds will enable green mulching, and the progressive phasing out of expensive chemical usage, thus ensuring the long term restraint of invasive weeds and non native grasses by integrated means and habitat management.

The level of plant propagation on campus will increase through 1993/94 (with the grounds staff having re-established a small pre-existing glass house during 1992). It is planned to generate the majority of vegetative material on campus for revegetation and maintenance purposes by 1995. This re-allocation of existing grounds funds and labour again represents substantial savings and benefits, a more sustainable bushland, and will aid the retention of a valuable environmental education resource.

The upgrading of the University's physical presence as an inviting bushland campus will thus be assured, with attention to the reduction of wastes, appropriate planting, and the recycling of water and other resources.

Footal Bushland
## SUMMARY OF CAPITAL WORKS PROJECTS UNDERWAY ON CAMPUS

<table>
<thead>
<tr>
<th>BUILDING</th>
<th>STAGE OF PROJECT</th>
<th>ARCHITECT</th>
<th>SOURCE OF FUNDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>LETS (CALT) Building</td>
<td>Bulk earthworks to contract early '93</td>
<td>EJE</td>
<td>DEET Capital Grant</td>
</tr>
<tr>
<td>General Purpose (TEM) Building</td>
<td>Design Dev't</td>
<td>Suters Snell</td>
<td>DEET Capital Grant</td>
</tr>
<tr>
<td>Design Building &amp; Graduate Studios</td>
<td>Design Dev't</td>
<td>Peter Stutchbury &amp; EJE</td>
<td>DEET Capital Grant</td>
</tr>
<tr>
<td>Student Residences</td>
<td>completion Jan '94</td>
<td>EJE</td>
<td>University *VCDF</td>
</tr>
<tr>
<td>(Evatt House)</td>
<td>One block before Semester 1</td>
<td>Contract builder</td>
<td>DEET Capital Grant</td>
</tr>
<tr>
<td>Architecture Studios</td>
<td>Second block 3 weeks later</td>
<td>RW Black</td>
<td>Uni funds $300K loan</td>
</tr>
<tr>
<td>Central Store</td>
<td>Design Dev't</td>
<td>Grose Bradley</td>
<td>DEET Capital Grant Uni Funds</td>
</tr>
<tr>
<td>Library Refurbish't</td>
<td>Pre-design</td>
<td>-</td>
<td>DEET Capital Grant</td>
</tr>
<tr>
<td>Edwards Hall</td>
<td>Pre-construction</td>
<td>-</td>
<td>DEET Capital Grant Uni Funds</td>
</tr>
<tr>
<td>Chancellery Stage 2</td>
<td>Schematic design</td>
<td>Rodd Hay Craig</td>
<td>DEET Capital Roll-In 1994</td>
</tr>
<tr>
<td>Extension to Engineering Building</td>
<td>Near completion</td>
<td>-</td>
<td>*VCDF loan to TUNRA</td>
</tr>
<tr>
<td>Work Based Child Care Centre</td>
<td>Going quite well</td>
<td>-</td>
<td>Uni funds</td>
</tr>
<tr>
<td>Earthquake repairs</td>
<td>Various stages</td>
<td>-</td>
<td>Insurance</td>
</tr>
<tr>
<td>Advanced Technology Centre</td>
<td>Completion date April-May '93</td>
<td>-</td>
<td>Pacific Power</td>
</tr>
</tbody>
</table>

* VCDF = Vice-Chancellor's Discretionary Fund

In addition to the above, $1 million from University funds and $1 million from Departmental funds is used each year for minor projects undertaken around the campus.

Major changes are also taking place at the University's Central Coast Campus. Stage 1 of the new campus, which is part of the joint University/TAFE Ourimbah Tertiary Education Precinct, will be built with some $24 million from the Commonwealth Government. All Stage 1 buildings have had design briefs prepared by joint University/TAFE user committees. Of the $24 million, $6.25 million will be used for site works, including services and landscaping. A further $7.7 million will go towards construction of the library; $3.1 million for the construction of tourism and hospitality teaching buildings; $2.5 million for staff offices; $2.24 million for science laboratories; $1.29 million for student amenities; $0.7 million for precinct services and $2.36 million for a lecture theatre. It is anticipated that Stage 1 buildings and landscaping will be completed in 1995.

### VC OPENS CHANCELLERY BUILDING

The Chancellery, close to the geographical centre of the Callaghan campus, provides better working conditions and a closer and more effective interaction between sections of the administration. In turn, valuable space has been released in other university buildings which is essential for academic functions of teaching and research.

These comments were made by the Vice-Chancellor, Professor Keith Morgan, when he officially opened The Chancellery at a recent informal function. Constructed at a cost of $7m, the building was funded by the Federal Government as a result of amalgamation in 1989 and won the Alfred Sharp Merit Award for excellence in design of a development incorporating outstanding landscaping and urban design in the 1992 Lower Hunter Civic Design Awards.

The Chancellery accommodates about 150 staff on two floors. Staff have been working in the building for more than a year, but extensive landscaping and planting of native plants undertaken in 1992 resulted in the opening in early February.

Professor Morgan paid recognition to the excellent standard of workmanship of The Chancellery and the landscaping which added to the physical attraction. He said many people were owed a vote of thanks for their contribution to the building, including the builders, architect and landscape designer.

“The Federal Government has now provided further earmarked funds for completion of The Chancellery by the construction of Stage 2,” he said. “Remaining administration sections will be moved into the building to realise the full advantage of an integrated structure.”

About $3m is being provided for Stage 2 which should be completed by the end of next year.

One of the guests at the opening was the Chairman of Leighton Holding Pty Ltd, Mr Tim Besley AO, who unveiled a plaque to mark the company's donation towards the construction of the water sculpture which stretches across the front of the Chancellery. The building was constructed by Leighton Contractors Pty Ltd, the architects were Rodd Hay Craig Associates Pty Ltd. The sculpture was designed by university lecturer, Vlacs Nikoleski.
DETERMINING THE CAUSE OF ATTENTION DEFICIT HYPERACTIVITY

"Have you got ants in your pants?"

No doubt this question is repeated often by frustrated parents and teachers of children who simply can't sit still. The child is easily distracted, has difficulty completing tasks, is highly active and shows impulsivity - rushing into a task without thinking of the consequences. Is this simply a part of "growing up", or do these children suffer from a disorder which, if left untreated, may result in juvenile delinquency, drug addiction and teenage suicide?

According to University of Newcastle researcher, Dr Philip Hazell, children with these characteristics may be suffering from Attention Deficit Hyperactive Disorder (ADHD), a condition which is recognised in school children between the ages of six and ten. He says ADHD is a developmental, rather than a psychiatric disorder which has a physiological basis. Certain environmental triggers may, however, make the condition worse, or bring out the symptoms.

Dr Hazell's study, which is being conducted within the Faculty of Medicine's Discipline of Psychiatry, will examine the hypothesis that children with Attention Deficit Hyperactive Disorder perform just as well in effortless (automatic) tasks as "normal" children, but have difficulty performing effortful tasks. (By way of definition, an automatic task is something you do without any mental effort, such as dialing a phone number you know well. On the other hand, an effortful task requires mental effort, and will interfere with the performance of simultaneous tasks. An example of this is seen when driving a car whilst carrying on a conversation. If you have to initiate a turn - and thus concentrate more - the conversation will momentarily cease.)

During the study, children are presented with automatic and effortful tasks. It seems that ADHD children do not perform as well as control children in the effortful tasks, as they apparently lack the motivation to complete a task which requires more mental effort.

"We think that ADHD children have a normal attention capacity, but for some reason they don't use it," Dr Hazell explained. The reason they don't use it is still being hypothesised. Dr Hazell and his team (Dr Vaughan Carr, Ms Sally Dewis and Mrs Diane Heathcote) suggest that ADHD children will perform the task as well as "normal" children if given the correct stimulation.

The role of motivation among ADHD children will therefore be examined. "During the pilot study, the ADHD children were able to perform the effortful tasks as well as the control subjects if provided with motivation in the form of a reward. Even the presence of someone in the laboratory while the child is conducting the task can improve a child's performance," Dr Hazell said.

"The clinical significance of these findings is that the attentional impairment of ADHD children may be reversible, and is qualitatively distinct from the problems manifested by learning disabled children," Dr Hazell explained. Whether this improvement is significantly greater than that which is seen in normal controls has yet to be established.

The nature of the study requires a detailed diagnostic assessment to be undertaken for each child. The team of researchers have to ensure that the children don't have specific learning problems and other intellectual deficits which could interfere with the results. The children thus undergo extensive psychometric testing.

Over 200 children are expected to be assessed in the course of the study, which is due to be completed at the end of 1994. The initial study, which began early last year, is focussing on hyperactive children. Children suffering from learning disabilities, anxious children, and those suffering behavioural disorders will form three groups of clinical controls. A comparison with "normal" controls will also be conducted.

If Dr Hazell's hypothesis is correct, the appropriate treatment, may be a helpful preventative measure not only against later disturbance, particularly delinquent behaviour and substance abuse, but also the against the consequences of academic under-achievement," Dr Hazell said.

Although Newcastle and the Hunter Region do not have an excessively high incidence of children with ADHD, three to five percent of boys and 0.5 to 1 percent of girls do suffer from the disorder. Subjects are still needed for the study, in particular 9 to 13 year old boys suffering from conduct disorder symptoms. Enquiries should be directed to Diane Heathcote on (049) 211308.
HISTORICAL ASPECTS OF NSW PRISONS

The history of the New South Wales prison system will be the focus of attention for the Director of the School of Humanities and Social Science and Dean of the Faculty of Arts, Associate Professor John Ramsland, over the next two years.

The project, to write the definitive history of corrective services in New South Wales, from its origins in the transportation system at the beginning of white settlement in Australia to the present time, was announced by the Deputy Commissioner of the Department of Corrective Services recently.

Professor Ramsland, already the author of several books on Australian history as well as numerous papers and articles, has been selected from more than 80 historians throughout Australia.

He plans to spend two years researching and writing the book before the production phase in early 1995. The book, planned for release in April 1995 is intended for the public service administrators and legislators, the changing nature of prison life, routines and conditions, the experiences of inmates and warders, the work of probationary systems and officers, and the training and education of Departmental staff.

Other topics will include the changing interactions between law courts, corrective services and society at large, changes and developments in societal attitudes towards corrective services, the evolution and development of training, apprenticeship and educational schemes within prisons for inmates, public opinion and the corrective services, the evolution in architectural design in buildings controlled by corrective services, the development of Prisoner's Aid Societies and other relevant social welfare organisations, the impact of overseas influences and practices and the role of prison chaplains, psychologists, social workers and other support services.

"Where there is a massive amount of published historical research about the convict period, there is little about the ensuing years up until the present day," Professor Ramsland says.

"Of course the problems and the perceptions of society regarding prisons are now much more complex than in the early days. I am hoping my research will contribute to a better understanding of the prison system and how it is administered," he says.

John Ramsland

ICR TO INVESTIGATE ROCK FRACTURES FOR IMPROVED SAFETY IN UNDERGROUND MINES

A three year research project in which the Institute of Coal Research at The University of Newcastle will investigate fracturing of rocks under loads and directed pressure is expected to result in significant safety benefits for underground coal miners in the Hunter Valley.

The Institute (ICR) has just been awarded a $215,500 grant from the Health and Safety Trust of the Joint Coal Board to purchase a mechanical testing system for rocks and other solids such as concrete and some metals.

Director of ICR, Dr Konrad Moelle, said the grant was being complemented by a $30,000 grant from Pacific Power to equip the testing system with state-of-the-art computers.

He said the equipment would be installed in May in the Advanced Technology Centre which is currently under construction on the University's Callaghan campus.

"Rocks have different components and a number of defects such as joints and bedding planes," said Dr Moelle. "The research grant will enable us to study in a simulated mining situation the effect of loading on rocks with defects. From a safety viewpoint, it is expected that the research will make a major contribution to underground mining, particularly in the pillar extraction area where most accidents occur."

Researchers will use the testing system to learn more about fractures that have been caused by mining in rocks with defects. The equipment will subject rocks to loading pressures, and researchers will be able to determine failure mechanisms and to advise mining companies on the most efficient handling of certain rock types in the roofstrata.

Dr Moelle said the research project was designed to allow greater control of behaviour and response of rock strata in coal pillar extraction panels.

"The three year project is specifically designed for fracture mechanics research, will be problem-solution-focused, and will include close co-operation with university departments that are already involved in the specific and general fields of fracture mechanics," he said.

"The Institute is very proud to have been selected by the Joint Coal Board from a highly competitive field of grant applicants. The addition of the grant from Pacific Power for computers will allow us to control the testing process to a significant degree and to process data and results very quickly."

Preliminary work has begun on the project with major research scheduled to start towards the middle of 1993, coincident with the opening of the Advanced Technology Centre.
COMMUNICATION

The Key to Discovery

One plus one equals three, they say. This is particularly the case in the world of scientific research, where "communication" and "collaboration" are key words. The exchange of ideas and scientific information is a vital part of successful scientific research and discovery. But communication and collaboration with the great pool of researchers in the western world was not possible for Russian scientists prior to 1989. For them, one plus one could only ever equal two.

Professor Vladimir Kharitonov, Head of the Department of Applied Mathematics and Control Theory at St Petersburg University, Russia, has a remarkable story to tell. In 1977 he published an article in a Russian scientific journal on robust stability. The results of his research were not known to the "western world" until 1983, and it was not until 1989, twelve years after first publishing his work, that Professor Kharitonov was given the opportunity to actively collaborate with researchers around the world.

At the time of publishing his paper, Professor Kharitonov did not consider his work to be particularly important. He was wrong. Thousands of papers have now been written on robust control, all based on Professor Kharitonov's original findings. For those in the know, Kharitonov's research were not known to the world until 1983, and it was not until 1989, twelve years after first publishing his work, that Professor Kharitonov was given the opportunity to actively collaborate with researchers around the world.

Vladimir Kharitonov was born in a small town in Siberia. He was educated at Leningrad University and in his postgraduate years was supervised by world renowned mathematician Professor Zubov. "I had a very hard life working with Professor Zubov, because he was able to successfully guide me through the stages of learning," Professor Kharitonov recalls.

Professor Kharitonov visited The University of Newcastle's Faculty of Engineering late last year. He is conducting a collaborative project with Dr Minyue Fu from the Department of Electrical Engineering and Computer Science and is having technical interactions with Professor Graham Goodwin and other members of the Department. "The work being undertaken at the Newcastle Engineering School is very good," Professor Kharitonov said, once more stressing the importance of communication for the advancement of knowledge. "We are all on the same stage," he said knowingly.

The work undertaken by the group is concerned with the study of systems in which the parameters are ill defined. (A useful analogy may be found in the economic system - if we knew all the parameters, then it should be within the wit of politicians to control the economy.) The systems studied in the engineering context are often complex, and the parameters looked at can take a range of values.

"Most engineering systems involving dynamics can be modelled by mathematical equations," Dr Fu explained. "The problem normally is that we don't know the system well enough to have a very good model. We are therefore investigating and analysing these systems."

Engineers are faced with the problem of designing control systems which will be reliable in the "real world". The term "robust control" comes in to play when looking at systems in which conditions can and do change. Here, the model must continue to operate at the same level, despite the changing conditions.

A useful example is seen in the modern aircraft, controlled by automatic systems working under normal circumstances. If a dramatic change occurs in the aircraft, say the door is blown off (it happens!), or the left engine falls off, the control system must be able to adapt to the change. It is robust in the sense that the system continues to operate despite the change in characteristics.

But how much change can a robust system cope with? That depends on the engineer designing the system. Professor Goodwin described the limitations of the system in terms of an operating envelope - the system is designed to work satisfactorily within a given operating range. Not even the "father" of robust control, Vladimir Kharitonov, could predict how far the envelope may extend in the future. "That will depend on how clever a person enters this field of research," he said.

The Australian Government has recognised the importance of continuing research into the area of systems control. Development in this field can have a major impact on improving quality and productivity in industry.

Professor Kharitonov hopes to continue his collaboration with the team at Newcastle. "This is a very exciting time for me. I now have the opportunity to work with a whole pool of extremely talented researchers around the world," he said.

BOUND FOR OXFORD

A University of Newcastle PhD student has left for Oxford University to assist with studies on the separation, history and migration of races. The question of how and when separation between races occurred has been puzzling biologists, geologists, geographers and anthropologists for hundreds of years.

Mrs June Roberts-Thomson, who is studying with Professor Barry Boettcher in the Department of Biological Sciences, is using a genetic "marker" (a small piece of non-functional DNA) to determine when Caucasians and Aborigines first separated as races. The DNA marker contains variable units, and Mrs Roberts-Thomson has shown that Caucasian and Aboriginal DNA differs within one of these variable regions. Mrs Roberts-Thomson is looking at the evolution of these variable regions of DNA, and how they have changed since the two races separated.

Meanwhile, 11,000 miles away in Oxford, a group from the Institute of Molecular Medicine at John Radcliffe Hospital, is also conducting population genetic studies. The group has been researching the separation of Caucasians from Melanesians and Polynesians, using similar genetic markers.

Mrs Roberts-Thomson will combine her findings with those from the Oxford group. This, she says, will add to the overall pool of knowledge about the history and migration of populations. "We will compare our studies in the hope that any similarities (or differences) we find will add to our understanding of where Aborigines came from and when they separated as a race from Caucasians," she said.
OXFORD
Continued from previous page

"Current evidence suggests that the separation occurred between 150,000 and 200,000 years ago," Mrs Roberts-Thomson explained. Evidence also suggests that the Aborigines came to Australia about 50,000 years ago, however where they came from is still open to question.

Mrs Roberts-Thomson says she has always been interested in the differences (and similarities) between people. "It is exciting to look at differences at the genetic level," she said, adding that humans, regardless of race, are genetically virtually the same.

"I find this work very stimulating and challenging, and believe that science can and should extend the basis of our overall understanding of ourselves and our neighbours," Mrs Roberts-Thomson stated.

TRENDS IN RURAL SECONDARY DESIGN AND TECHNOLOGY EDUCATION

Mr Bruce Tom and Dr Roger Coldwell have completed a study of industrial schooling in the Riverina Region of NSW. Mr Tom's thesis was recently successful in completing his requirements for a Master of Industrial Education degree. He is a teacher at Batlow Technology High School.

Recent developments in Design and Technology education relied primarily on updating a model of urban prevocational industrial schooling. Whereas these were apparent in urban settings, the rural picture seemed quite different. The study gained data from thirty-eight schools and nine TAFE colleges. The 690 students completed a 21-point questionnaire, which queried demographic characteristics and, on a 5-point Lickert-scale, gained their opinions about industrial courses being offered in the region.

The findings confirmed that rural industrial schooling is also male dominated. However, unlike in more urban situations, it is narrowly centred around wood technology with limited access to higher technologies. Further, few of the students continue their industrial studies after School Certificate. The majority of them follow these courses for skill development rather than for vocational reasons. Surprisingly, perhaps, technology courses are becoming less popular in the region at a time when technology skills in Australia need upgrading! The major limitation on offering other technology subjects was found to be the limited skills of the teachers concerned. A fuller report on the study is being prepared for publication in Technology and Design Education.

Contact: Dr Roger Coldwell (049) 216837.

ACHIEVEMENTS

UNIVERSITY ANNOUNCES APPOINTMENT TO CHAIR OF COMMERCIAL LAW

One of Australia's leading experts in Trade Practices Law, Dr Warren Pengilley, has been appointed to the Sparke Helmore Withycombe Chair of Commercial Law at The University of Newcastle.

The Chair, sponsored by Newcastle's largest law firm (Sparke Helmore Withycombe) has been established in the University's new Faculty of Law which enrols its first 60 students this year.

The Dean of the Faculty of Law, Professor Neil Rees, said Dr Pengilley was the author of eight books and more than 150 articles and, as a teacher, was in constant demand by academic institutions and for professional educational courses.

"Dr Pengilley is an outstanding teacher, his teaching being characterised by positive student response and appreciation," said Professor Rees.

"His standing in the profession is marked by appropriate respect and authority and in the area of trade practices he is identified as the leading national authority."

Dr Pengilley, practised as a solicitor in Tamworth from 1964 to 1975 and was a Commissioner with the Australian Trade Practices Commission from 1975 to 1982. He is currently a partner in one of Australia's largest law firms, Sly and Weigall in Sydney, where he specialises in trade practices advice and will continue as a consultant.

Dr Pengilley is a graduate of The University of Newcastle, having graduated with a Master of Commerce and also a Doctor of Science in Trade Practices Law from the Faculty of Economics and Commerce. He originally graduated from the University of Sydney with Bachelor of Arts and Bachelor of Law degrees before being awarded a Doctorate in Jurisprudence by Vanderbilt University in America.

A Fellow of the Australian Society of Certified Practising Accountants and of the Australian Institute of Company Directors and an Associate Fellow of the Australian Institute of Management, Dr Pengilley has undertaken a wide range of visiting academic appointments in Australia, New Zealand and America. His contributions have covered a wide range of commercial law subjects, particularly notable being his teaching in trade practices and franchising.

Dr Pengilley was Visiting Professor of Law in the University's Faculty of Law last year.

Professor Rees said Sparke Helmore and Withycombe's sponsorship of the Chair of Commercial Law allowed the Faculty to appoint an experienced lawyer to offer leadership in commercial law, teaching and research.

He said Dr Pengilley's appointment was appropriate for the University's new law degree which was a practically orientated program. Dr Pengilley's academic credentials combined with his vast experience as a practitioner to provide the blend that the University was seeking in such an appointment.

A partner of Sparke Helmore Withycombe, Mr Richard Anicich, said the firm's sponsorship had evolved from his own role in the past two years in helping the University plan for the Faculty of Law.

Mr Anicich said the sponsorship was a way of contributing to the development of the Faculty which would enhance the reputation of the University and provide a local avenue for obtaining a law degree. He welcomed the University's announcement and his firm looked forward to a close association with Dr Pengilley in the new position.

Warren
Pengilley
UNIVERSITY ANNOUNCES APPOINTMENT TO CHAIRS IN EDUCATION

A leading mathematics educator in Australia and an academic whose work has included the direction of major national projects have been appointed to Chairs in Education at The University of Newcastle.

Associate Professor Ken Clements has been appointed from Deakin University in Victoria while Associate Professor Sid Bourke has long been recognised as one of Newcastle’s leading educationalists.

Professor Clements will take up his Chair in mid-1993. Professor Bourke is already in his new position.

The Vice-Chancellor of the University, Professor Keith Morgan, said it was decided to fill two Chairs in Education because of the quality of candidates.

“The position attracted an exceptionally strong field of applicants providing an opportunity for the selection committee to recommend the filling of two Chairs,” said Professor Morgan.

“Professor Clements has wide experience and is recognised nationally and internationally as one of the leading mathematics educators.

“Professor Bourke’s scholarship, research, teaching and administration has been described as quite outstanding and he would bring distinction to any Chair of Education in Australia or internationally.”

Professor Clements is a graduate of the University of Melbourne receiving the degrees of Bachelor of Arts (Mathematics) in 1963, Bachelor of Education (1966), Master of Education (1974) and PhD (1980).

He taught in high schools for nine years before being appointed to the staff of Monash University in 1974. A period as Visiting Fellow at the University of Cambridge and the Delhi State Institute of Education was followed by appointment in 1985 as Director of the Mathematics Research Project at Monash University. Professor Clements joined Deakin University in 1987 and was promoted to Associate Professor in 1991.

Professor Clements has made major contributions to research in mathematics education, having been President of the Mathematics Education Research Group of Australasia since 1987. He is a member of the Australian Mathematical Sciences Council and his work in mathematics education has received extensive recognition and support from funding bodies.

Extensive publications include articles in academic journals, academic and teaching texts and commissioned reports and monographs.

Professor Bourke studied at Newcastle Teachers’ College before receiving his Bachelor of Science from the University of New South Wales (1962), Bachelor of Arts and Bachelor of Letters from the University of New England (1969 and 1971), Master of Education from Monash University and his PhD from La Trobe University (1985).

After a period as a teacher of mathematics, Professor Bourke joined the Australian Army as an Education Officer in 1968 and rose to the rank of Lieutenant Colonel. In 1975 he joined the Australian Council for Research as Chief Research Officer and was appointed as Lecturer in Education at Newcastle University in 1986. He was Dean of Faculty in 1989-90 and promoted to Associate Professor in 1991.

Professor Bourke’s research into literacy and numeracy established his national reputation in educational research and this has been extended by studies of oracy. Recent work includes studies of mathematical problem solving, affective aspects of school life and on classroom processes.

He has an extensive record of publication which has established him as a leader of educational research in Australia and seen his election as President of the Australian Association for Research in Education.

ASSISTANT REGISTRAR FOR CENTRAL COAST CAMPUS

The enormous potential of the Central Coast Campus is one of the main features that has attracted new Assistant Registrar, Bob Prater.

Bob recently started at Ourimbah after spending the past 15 years at Coffs Harbour, originally as Regional Director of Continuing Education and more recently as Executive Officer of the University of New England’s Coffs Harbour Centre.

His knowledge of and experience in ‘satellite offices’ is being put to use at Ourimbah which has an enrolment this year of 500 students.

“I’ve taken satisfaction in seeing Coffs Harbour transform from a country town to a regional city and have been proud to see the University of New England’s participation change from a small office to be a major part of the fabric of the community,” said Bob.

“It was an exciting 15 years but I see great promise for higher education on the Central Coast.

“The Central Coast campus is developing at a very fast pace and its association with the local community is impressive. A very strong link has been established in a short time and the strategic plan for the campus shows the interest from all sectors.”

As Assistant Registrar (Student Administration and Services), Bob has overall responsibility for Student Administration and facilitates the provision of Student Services. He is also to report on the development of Student Administration and Services for the campus.

Louise Brockman has also been appointed to assist with Student Administration and Services at the Central Coast Campus.

Bob Prater

ENGINEERING PRIZE

Engineering student, Jonpaul DeAngelis, was awarded the 1992 Metal Building Products Manufacturers’ Association (MBPMA) prize at the end of last year. The prize has been awarded annually since 1989 for the best performance of a Third Year student for work relating to Coldformed Steel Structures. Jonpaul was recommended by the Engineering Department for work he had undertaken in the course of his studies during 1991. It was presented to him by MBPMA Secretary, Dennis Hill, in the Engineering Department on November 10th.

Mr Hill said the MBPMA sponsored the prizes at nine universities nationwide, to encourage young engineers to keep steel in mind as a building material. “We offer some incentive to encourage people to consider working in the area of steel construction”, he said. The Association is a national body
ENGINEERING
Continued from previous page

which contributes to improving standards for metal building products and promotes the services and products developed by their member companies for use in the construction industry. The MBPMA also sponsors the annual Metal Building Award, that rewards the innovative and effective use of metal building products. Prizes may be awarded to individuals or companies and may relate to architecture, engineering, erection or related disciplines. The prize for overall winner of this Award is a return trip to the USA and $2,000 cash.

Jonpaul said he would look toward the Metal Building Award in the future, but for the present was content with his award certificate and the $200 cash prize that accompanied it. The young engineer, who works for consulting engineers Lindsay and Dynan Pty Ltd, said he enjoyed the design aspects of his profession.

Mr Hill said the MBPMA attempted to be a responsible industry Association and hoped that its encouragement at a tertiary level would help to solve the frequent failures that occur in structural design of buildings. He hoped the awards and prizes would encourage architects and engineers to consider new uses for metal products, particularly in areas that solved environmental or economic problems. “We hope to change the way we can economically use steel in the future, as well as looking to export, not just products but the structural engineering component as well,” Mr Hill said.

Newcastle University’s Department of Physics is well known for its innovative and ground breaking research. In 1993 the Department will also be making a major contribution to the administration of the Australian Institute of Physics (AIP). At the state level, department head, Associate Professor John O’Connor, is the NSW Branch Chairman of the AIP, and Drs Bruce King and Frederick Menck are members of the Executive.

The NSW Branch Executive has responsibility for all physics activity within the state, which involves monthly seminars, interaction with schools, organising conferences and acting as a reference point for any enquiries concerning physics.

UNIVERSITY ENGINEER RECOGNISED

Professor David Hill, who holds the Pacific Power Chair in the Department of Electrical and Computer Engineering, has been elected a Fellow of the Institute of Electrical and Electronic Engineers (IEEE).

The IEEE is based in New York and is the world’s largest professional society, whose membership also includes large numbers of mathematicians, computer and physical scientists. Election to Institute Fellow is an honour, the number being strictly limited to a very small percentage of total membership. There are now three IEEE Fellows in NSW universities, including Professor Graham Goodwin from Newcastle.

Candidates can be nominated for their record as an engineer/scientist, technical leader or educator. Professor Hill’s citation was: “For contributions to the stability analysis of complex interconnected nonlinear dynamical systems and applications to power systems”.

This recognises his research work over the last 15 years and in particular his theories and analytical techniques for nonlinear feedback systems, transient stability of power systems, adaptive control and voltage behaviour power systems.

DRAWING PRIZE

Visual Arts student, Chris Denzin, who won the 1992 Reg Russum Drawing Prize for a pen and wash self-portrait, used a perspex mirror to give a distorted effect. “I wanted to do self-portraits because you always have your model available and the distortion gives the drawing a bit of character,” Chris said.

The Reg Russum Memorial Prize is an annual competition open to art students (from both TAFE and the University), who are under 26 years of age, for drawings of the human figure done in a drawing medium. Chris won a $500 cash prize at the November presentation. The Chairman of the Russum prize trust, Andy Ferguson, hopes to increase the cash offered this year. Chris said he had used perspex mirrors in the drawing room at the University and had given himself a lean and tall look in the winning portrait. The talented young artist will continue his studies for a Bachelor of Arts (Visual Arts) part-time this year. He said his work was influenced by Egon Schiele, a European artist who died of influenza at the age of 28, early this century. “He drew line drawings in such a way that they looked three dimensional,” Chris said.

Reg Russum was an art teacher at the Hunter Street Art College up to the 1950s, having originally come to Australia from New York as a press artist. His widow began the drawing prize after his death but it was only revived in recent years, when Mr Ferguson reinvested the original trust to provide for the current cash prize and an honourarium for the judge, who comes from outside the Hunter area to retain impartiality. The drawing competition is run by the TAFE art school.
ART PRIZE

Visual Arts graduate, Anne Riley, used an unusual source to inspire her work, Passages III, which won the 1992 Karrer Tertiary Art Prize. The large oil painting is one of a series of canvases, painted by Anne in her final year, based on Megalithic tombs. Entries for the annual Karrer prize include the selected works of winners of local campus art competitions from around Australia, brought to a host university (The University of Technology in Sydney last year) for exhibition and judging. The prize is a two year part-time scholarship to the prestigious Julian Ashton Art School in The Rocks area of Sydney, that boasts such graduates as Norman Lindsay, William Dobell and Brett Whiteley.

"I have long been interested in archeology and the Megalithic tombs appeal to me as they were built by an agricultural people with a strong connection to the earth." Anne said. "I used the tombs as a source for my own personal experiences, the universal experiences such as birth, death, living, growth and change." The Passages series are very large canvases, with surrounds on many that give the impression of entrances into the earthy tombs, as well as acting as frames. Many of the works use natural earth pigments. "I collected earth and rocks to make my own paints," Anne said. "The Aborigines just mixed their colours with a bit of spit, but I have made oils from earth pigments." The works in the Passages series are also related to the seasons, with Passages III representing birth, or the renewal of Spring.

The Karrer prize was initiated in the early 1980s by Rene Karrer of the Charles Sturt University and was Australia's first national tertiary art competition. Despite running successfully for six years, the Art Prize lapsed in 1989, but began again last year with the sponsorship of the Julian Ashton School. Entries are considered to represent the cream of tertiary students' art and were judged last year by five prominent art experts. The Julian Ashton School was founded in 1890 and is the oldest continuous art school in Australia. It's aim: "The object of this school is to observe form and colour accurately and the hand to record this beautifully."

Anne plans to continue working with earth pigments and explore other materials such as graphite or metallic paints. "It is believed now that those who built the Megalithic tombs were representations of the Earth Goddess, they saw the earth as alive and recognised they must be in harmony with it to survive," Anne said. "The earth is a living thing, without which we wouldn't exist."

Anne will take up the Julian Ashton scholarship this year and continue her work in Sydney. She hopes to have a solo exhibition of her work in the near future. Passages III won the University of Newcastle Student Union Art Prize, an acquittance for $500 cash award, and will be hung in the Brennan Room.

HUNTER VALLEY COALFIELDS FEATURE IN INTERNATIONAL TEXTBOOK

Newcastle's reputation as a centre of research and teaching in coal science received a boost over Christmas with the publication by the Springer-Verlag in Heidelberg of a new textbook entitled Coal-Bearing Depositional Systems.

Written by Emeritus Professor Claus Diessel from the Department of Geology, the book aims to bridge the gap (created by the increasing specialisation) between some of the disciplines serving the coal industry. In addition to its practical applications, the book addresses a wide range of basic geological problems, including the reconstruction of ancient sedimentary environments, the relative timing of sea-level fluctuations, and successive continental accretion.

The main message of the book's 721 pages, 356 figures and 40 tables is to popularise coal science, particularly coal microscopy, as a powerful yet under-used tool in geological research, beyond its current application.

The preparation of the manuscript took almost five years and included several study tours to Canada, New Zealand and the Ruhr Basin in Germany. However, most of the case studies presented in the book have a strong local flavour, and there are numerous references to the Newcastle and Hunter Valley coalfields. Former students of the Department of Geology will probably recognise some of the examples they have worked on in laboratory classes, whilst others might recognise themselves or their colleagues posing as scales in photographs showing local geological phenomena.

While the book is aimed at the advanced undergraduate and postgraduate student, it will also benefit the practitioners in the coal and oil exploration industry and all other geologists who wish to add new techniques to their analytical tool kits.

HUNTER GIRLS INCREASE INVOLVEMENT IN SPORT

Membership trends in Hunter and district sporting associations indicate that an increasing number of girls are becoming involved in sport.

And with the increase in numbers has been more coverage by local media of women's sports events.

A report prepared by the Division of Leisure Studies at The University of Newcastle and released by the Australian Sports Commission show that junior membership rates in sports such as athletics, basketball, gymnastics, hockey and surf lifesaving increased by up to 65% in 1991 and 1992.

The report, entitled 'Hunter Medialink', documents the findings of a highly successful project conducted in the Hunter Region last year. Funded by the Federal Government, the pilot demonstration project sought to improve links between local media and sporting organisations as well as develop public relations skills in sporting groups.

Project Manager and Senior Lecturer, Peter Brown, said the overall aim of the project was to increase participation rates of women and girls in sport.

"Studies have shown that three times as many men than women play sport regularly and that 60% of teenage girls 'drop out' of sport after the age of 14," said Peter.

"Hunter Medialink indicated that positive media portrayal of female athletes do provide role models for others to follow and the project demonstrated the key role of publicity officers in securing media coverage for their sport."

Peter attributed much of the success of the project to the collective efforts of individuals from sporting associations and local media, Project Co-ordinator, Helene O'Neill, the Department of Sport, Recreation and Racing and the Hunter Academy of Sport.

He said Hunter Medialink will now be assessed by the Sports Commission. The University's Division of Leisure Studies during the next 12 months will evaluate the progress of the sporting associations that took part in the project.
Dear Editor

When will the University of Newcastle Bulletin offer the same respect to women academics that it does to men? In the issue of 12 November, there are articles that refer to Dr Brown, Dr Green and Alexander, Professor Wall, Mr Bradley, Mr Wellink, Mr Tytyukanoida, Mr Grez, Mr Nikolaleti, Mr Williams, Professor Levina, Professor Goodwin, Dr Graede, and Mr Christie, and continue to use the formal address throughout each article.

In articles about women, however, you insist upon using first names after the initial mention of the full name. So that Dr Kerrie Carrington becomes Kerrie, Cathy Sidebottom becomes Cathy, Marie Williams becomes Marie. Are you deliberately attempting to demean academics who happen to be women? Do you have any idea how patronizing this is? Isn't it about time someone in your organisation corrected this habit?

Leslie Jacob, Research Assistant, Department of Social Work, and our reply...

Dear Mr Jacob,

Thank you for your letter dated November 23 in which you point out what may to some appear as a "deliberate attempt to demean academics who happen to be women". We can assure you that we are not deliberately patronising women academics. Our policy is to write articles and stories which are "reader friendly" and portray academics (men and women) as approachable, friendly members of the University community. The dilemma of whether to use the title and surname or the person's first name is usually resolved during the interview. The more approachable the person is, the easier it becomes to write an article about that person's work and his or her other interests.

It would seem as though the University's women academics are, by nature, far more approachable. As a matter of courtesy, we ask academics to proof articles before they go to print, giving them a chance to change anything they do not approve of. They rarely make changes to the form of address used in the article.

You may have noticed in the the November 12 issue that we refer to Dr Hugh Dunstan as Hugh, to Dr Cliff Hanna as Cliff, to Mr Ron Day as Ron, and to Mr Allan Mome as Allan.

We do, however, value your comments and will address the issue further in Bulletin in 1993.

Thank you again for bringing this matter to our attention.

Yours sincerely,

Sonja Duncan (Mrs)
PS. You can call me Sonja!

Dear Editor

I have found out how education is considered here in Callaghan precinct. The news was broken to me the other morning while I was quietly enjoying my breakfast and listening to the local news. A senior person from the administration side of things was interviewed regarding full fee paying students. I cocked an ear, I choked on my coffee, for this is what I found out. That we (does the interviewer mean the members of the University in general?) are not intending to open up a teaching outpost overseas because we are quite happy with our local "product". Product! Yes! Students are indeed consumers, departments are indeed profit centres (or loss centres depending on how you interpret things), and academic staff are the assembly workers, chiselling, and honing, and delivering "product" for the greater good of our macro/micro economic dream. This approach to education opens several interesting possibilities. For instance, all reputable manufacturers offer a warranty on their "product". Should we offer a warranty on the '93 model? Indeed should the consumer be entitled to a refund if not totally satisfied with his/her purchase (if it has/have failed)?

Richard Brown
Psychology Assembly Plant
(Formerly Department of Psychology)

MEN'S HEALTH - a paradox?

We would like to comment on the issues raised by the interview with Richard Fletcher which appeared in the Bulletin on October 26, 1992.

We would suggest that the apparent paradox which he outlines is in part attributable to some unexamined assumptions contained within his argument.

The first assumption seems to be that because women tend to have a longer life span and because "Women's Health" has received media attention, women are experiencing better levels of health than men. There is considerable evidence to show that this is not the case.

Many studies show that women consult doctors more and report higher levels of ill health than men especially in the areas of depression and anxiety. There is debate about why this is so but most analysts would agree that working and living conditions which women experience contribute to the experience of ill health. These factors include lower levels of earnings, lack of childcare facilities, the burden of primary responsibility for child and aged care, the double shift of paid employment and housework and the psychological burden of caring for men.

It follows from this that an understanding of men's and women's health and the relationship to the way gender is constructed cannot be obtained from looking at mortality statistics alone; different levels and types of morbidity are also important.

The article also contains an implicit assumption that health promotion or the attention given to a problem by the expert health occupations lead to better levels of health. People who are familiar with the sociological literature would dispute this claim; inequalities in health status certainly exist and may be amplified by lack of provision of access to appropriate care, but an explanation has to be sought as to why the inequalities exist in the first place. This is one difference between "men's health" and "women's health" - women's inferior health status in terms of morbidity can be explained by their relationship to patriarchal social structures. This may be illustrated by recent epidemiological research which shows that married women, whatever their class, tend to have worse health than unmarried women. Conversely single men are worse off than married men - it appears that their association with women has a protective effect.

A similar argument cannot be made for men as a group - obviously power and resources are very unevenly divided amongst men and evidence from all over the world and increasingly from Australia (see National Health Strategy Research Paper No. 1) lack of resources with both excess mortality and morbidity. This is why Richard's claim that material advantage does not equal health advantage is particularly strange.

Richard complains that no one is targeting males and that men's health is being neglected. In fact at the same Public Health Association conference he attended there were calls to include disadvantaged men as a target group (for the reasons outlined above) but also an extensive analysis of discrimination against women in terms of health research. It is true that the category "Women's Health" exists to search the medical literature, whereas no equivalent "Men's Health" is found, but this only represents the peculiar circumstance that women who are 51% of the population are seen as a "special minority". Between 1989-1992 a medical literature search finds 1,780 references including the words "men" and "health" - but what are we to make of the 118,425 papers which make no reference to gender at all? Are we to assume that gender plays no role in this research or, as suggested at the PHA conference, that it is done largely by male researchers on male subjects and assumed to be universally applicable, as happened in the case of research into heart disease.

Another theme of Richard's paper is that men's health problems can be related to the social construction of gender; many feminist analysts have addressed the idea that risk taking and some self-destructive behaviours are the "price" of masculinity as presently constituted, for example excess drinking, violence and irresponsible driving leading to head injuries. The point could also be made that much of this price is paid, although not equally, in physical and psychological health by the women as carers as well as by the men themselves.

We have some sympathy with Richard's project of analysing men's health in the wider context of gender but simply targeting men as an oppressed group without an oppressor is too simplistic. Also we fear that in the PHA conference, that it is done largely by male researchers on male subjects and assumed to be universally applicable, as happened in the case of research into heart disease.

Sincerely,

B. Hart, R. Irvine, D. McLayre, R. Morrow, A. Saul
Faculty of Health Sciences

---
CONFESSIONS OF A MATHEMATICIAN

"Which one doesn't belong?" The words struck me instantly. No wonder. They were emblazoned across his t-shirt, along with pictures of the Opera House, the Great Barrier Reef, Uluru and Nurrungar. Dressed in his t-shirt, shorts and thongs, he looked more like a "greeny" than a graduate of mathematics and university lecturer. Bob Berghout is both.

A self confessed greeny (as long as it doesn't refer only to the environment), Bob has taken an active interest in environmental and social issues around town. "I consider myself green in the sense that the German greens called themselves green," he said, explaining that this includes concerns about decentralising power, grass roots democracy, disarmament and a whole shift of power relationships in our society.

He says environmental issues such as saving a few trees and recycling household items are important, but they are not enough. "We must also ensure that people get fed and have control over their own lives."

And he'll do everything in his power to help others get control. His interests in peace and justice issues and the trade union movement were nurtured during the Vietnam War. "During that time I made a lot of friends in the area and heard their concerns," he said. His friends' concerns quickly became his own.

PRIZES DONATED TO MUSIC STUDENTS

Three deserving students of the University Conservatorium of music recently received a prize of a $50 open order at Latham's music store. The three students, Katie-Marie Kinniari, Michael Kinniari and Melanie Kinniari, all from Elermore Vale, are single subject students at the Conservatorium.

The prize was donated by the Newcastle Philomuse Orchestra Inc. a non-profit, community-based organisation, dedicated to providing adults with the opportunity to learn and enjoy playing music. The $50 open order was initially given to the winner of a logo design competition for Newcastle Philomuse Orchestra Inc. The winner, Mr Wilf Pinder, decided to donate the prize to a deserving student at the Conservatorium, and asked that the recipient be chosen by the Friends of the Conservatorium. Hopefully this donation will assist and encourage these students in their music studies.

Bob rallied (and still rallies) against nuclear weaponry and in the late 1980's convened the "Newcastle Green Paddlers" - a kayaking group against nuclear warships. "Our biggest success came in 1988 when we kept two nuclear warships (one carrying Prince Edward) out of Newcastle Harbour," Bob recalls. Since then there have been no nuclear ships in Newcastle.

He has also been to Nurrungar a few times. Right into the US Ground Control Station for Defence Support Program (DSP) satellites, where, with a group of six other people, he erected a wire cross made from the boundary fence wire. "These fences have served to keep the rightful owners, the Kokatha people, from their land while the land was placed at the service of a foreign power," Bob pointed out.

But in a court of law, that carries the label of trespassing. Bob and his wife were convicted. Bob has yet to serve his three-day sentence. To him this is a matter of course - his wife, Moya Farrell, has been to gaol a few times. "There are worse things in life than going to gaol," Bob says calmly, adding that he will continue to fight for the cause. He wants to see Nurrungar closed down: "The place is basically designed for nuclear war, not defence," he says. He would also like to see the land returned to its rightful owners - the Kokatha people of South Australia.

Locally, Bob was secretary of the Newcastle Ecology Centre for a number of years. He conducted research for the environmental movement on aluminium smelters and particularly on the waste stream. He says one of the big achievements resulting from this was that Tomago Aluminium was prevented from dumping fluoride and cyanide contaminated wastes. His efforts were, in part, responsible for the introduction of the Hazardous Chemicals Act in 1985. Since then, Bob has been an alternate member of the NSW Hazardous Chemicals Advisory Committee.

Bob, Moya and their three children - Brendan (a PhD student in the University's Engineering Department), Mali (a Biology Honours student) and Leon (a year 12 student) - share a love for their environment. Their Lambton house boasts an organic vegetable garden and citrus and nut orchards. Even some of their roast chicken is "home grown".

During his twenty-five years with the University's Mathematics Department, Bob has seen a number of changes, including a twelve-fold increase in the number of students. He recalls his wife's sacking from the University in 1969. The reason? She became pregnant with their second child. "Moya received a letter from the then Vice-Principal, Brin Newton-John, which read: It is in your interest and in your children's interest that your appointment not be renewed next year." They have kept the letter as a sign of the times.

Bob now takes an active interest in the running of the University. He is a staunch supporter of EEO policies, however adds that we haven't come too far with the EEO thing when you consider the number of female academics on staff. "There was one female professor when I arrived here in the sixties. Now there are three."

"There is still a lot of scope for change," he says with a twinkle in his eye.
Pseudoralbum variabile - Pastel flower especially prevalent along the pathway from the Chancellery to the Union building. Small perennial with a creeping root and erect stems. Flowers are pale blue, pink, white, and are borne in clusters near the ends of stems. Flowers December/January. Habitat - sheltered forest; distribution - coastal areas.