Feature:

Graduation
1994

Achievements
Catalysis
Research & Scholarship
Letters
EMERITUS PROFESSOR BARRY GORDON

By Allen Oakley, Bernard Curran and David Dockrell

Barry Lewis John GORDON, Mhic, PhD, DSc(Econ), Emeritus Professor in Economics of the University of Newcastle and Fellow of the Academy of Social Sciences in Australia, died suddenly of a heart attack on 17 March, 1994 at the age of 60 years. During his long career, from his first appointment as a Teaching Fellow in 1956, he faithfully served the academic and wider interests of the University with skill and distinction. As an economist, his work was characterised by an awareness that economics is essentially a human science, a point not often enough recognised by people at large, or explicitly by economists themselves.

Barry was one of the few economists whose work always gave this human dimension the emphasis that it warrants. It manifested itself in the choice of and approach to his research and teaching specialisations.

Within the academic community, he was most widely recognised as a scholar of the history of economic doctrines and methodology. His published contributions to this broad field span more than thirty years and comprise five books and around 40 shorter articles and papers which appeared in a range of monographs, journals and collections. Of the wide range of topics that he addressed over the years, two stand out as being of central importance in his intellectual legacy. First, he took on the intellectually daunting challenge of tracing and giving some coherence to the most distant origins of economic ideas in the writings of the Greek, Biblical and Scholastic periods, most notably Economic Analysis Before Adam Smith (1975), The Economic Problem in Biblical and Patristic Thought (1989), and Economic Analysis in Talmudic Literature (1992) with R.A. Ohrenstein.

Secondly, in the more recent history of the discipline, he made a specialisation of the impact that the Classical doctrines of the early nineteenth century had on British history by way of the debates in the Westminster Parliament of the era which gave rise to two authoritative books, Political Economy in Parliament (1976) and Economic Doctrine and Tory Liberalism (1979).

His concern for the human facets of economics was also reflected in his choice of the problems of labour economics and industrial relations as a second general area of research. This research resulted in some 25 monographs, journal articles and contributions to collections. His special focus in this work, much of it carried out jointly with his wife and colleague, Dr Moira Gordon, comprised the serious labour redundancy problems afflicting the heavy industries of the Newcastle region of Australia. Outside of his chosen discipline, Barry was a man of varied and well developed interests. He was an avid collector of jazz records and an enthusiast for his parish church and an obvious desire to live wholeheartedly in accord with the requirements of the Gospel.

Intellectually, his faith helped foster his professional interest in understanding the determinants of human welfare as well as prompting more general questions about religion and life, some of which he sought to address over the years at meetings of the Newcastle Theological Society which he had helped found in 1962.

With any form of religious humanism, the value of faith is largely centered in the celebration of human virtues and individuality within the divine economy. In Barry Gordon's life, these virtues helped make him a devoted family man, a determined and independent thinker, personally modest but certain of the worth of his scholarly vocation, a good friend, a sociable and convivial companion, a willing partner in worthwhile causes. He remains a person whose loss is very hard to accept. Barry's many University friends and colleagues join together in expressing their profound sorrow at his passing.
SHAKESPEARE PART OF AN INTERNATIONAL CULTURE:
JOHN BELL

In May this year Mr John Bell was admitted to the Honorary Degree of Doctor of Letters by the University.

The dream of the boy is not always fulfilled in the man but in John Bell’s case, it was not only fulfilled but abundantly so. One of Australia’s greatest actors, a distinguished director and founder of his own theatre company, he was intensely passionate about the theatre as a school boy. A family acquaintance vividly remembers being shown a project book that John had just completed for a junior high school assignment and the pages were filled with intricate, beautifully executed drawings for a Shakespearian stage production, complete with costumes for the characters and set designs.

The passion has never died.

In May this year John Bell was admitted to the Honorary Degree of Doctor of Letters by the University. The citation was read by Associate Professor John Ramsland, Dean of the Faculty of Arts and Social Science.

In that citation Professor Ramsland noted that John Bell had been ranked as one of the 10 best Australian actors of all time by the veteran theatre critic, Norman Kessel.

“He was rated above Peter Finch, Ron Haddrick, Leo McKern, and Keith Michell,” Professor Ramsland said. “But be that as it may, he stands easily in such company. At his best he is in a class of his own, harmonising naturalism, theatricalism, impersonation, tradition and bold experiment. He has scrupulous taste and, on appropriate occasions, Dionysian power.”

John Bell was the eldest of five children and was captain and dux at Marist Brothers Maitland. He went on to study in the Faculty of Arts at Sydney University and graduated with a BA (Hons).

In several major student productions he demonstrated the compelling authority over the audience that many actors spend a lifetime trying to achieve.

Soon after leaving university he met his life partner, Anna Volska, an equally brilliant and aspiring young actor who had recently graduated from NIDA. They appeared on stage for the first time together in The Cherry Orchard at Sydney’s Old Tote Theatre in 1963.

“They’re early performances together were electrifying, fresh and memorable,” Professor Ramsland said.

John Bell spent a number of years acting in England, first at the Royal Shakespeare Company and later at the Theatre Royal in Lincoln. He saw Olivier perform at the National and made him the benchmark for his own theatrical career. “In 1971 he became co-founder of Sydney’s Nimrod Theatre where for 15 years he made a significant contribution in shaping the development of Australian theatre both as a classical actor and as a director,” Professor Ramsland said.

Four years ago John Bell reached another milestone when, with private sponsorship, he founded his own company, the Bell Shakespeare Company.

In his address to the University John recalled an occasion when the French Canadian director, Robert Le Page, was asked who his favourite living playwright was. His answer – William Shakespeare. “Shakespeare is a fundamental part of Australian culture,” he said, “not just because he helped create the language we still use today but because he has broken all international boundaries to become part of a universal culture. He is no longer a British possession.”

John went on to say that if Shakespeare was to continue as a major force in Australian theatre, it must not be through slavish imitations of foreign models or deference to any supposed “tradition”. “If they are really to touch and reflect the lives of Australians in the 21st century, Shakespeare’s plays must experience a metamorphosis and be presented in ways we understand and relate to,” he said.

“We have to discover them afresh in the light of our own personal experience, reflecting impressions of the world around us or those which come to us daily via satellite. We must put the aesthetics on hold to ask ourselves what are the real issues of the play, what is it saying to us and how do we communicate that message?”

His belief, he said, was that we must disregard the weight of tradition, the accretia of past practice, of other days which necessarily saw the piece through different eyes and constructed different connotations.

“We may very well reach the same conclusions as our predecessors did, but we have to hack out our own pathway to those conclusions,” he said. “It is the process of re-discovery that will make our work both timely and unique.”

Dr John Bell is congratulated by his wife, Anna Volska.
"This University is justly proud of the community orientation of its programs which enable students to be not only academically proficient but able to apply their practical knowledge to the communities they will ultimately serve," said Professor Ann Wilcock during her Occasional Address marking the graduation of the University's first Occupational Therapy students.

Professor Ann Wilcock spoke of the University's successful relationship with the community - a theme that was echoed in a later speech by Patricia Tynan.

Presently staff at the University of South Australia's School of Occupational Therapy, Professor Wilcock lived and worked in Newcastle for eight years in the 60's and early 70's and said she remembered her time here with great pleasure and affection. She was an occupational therapist at the Royal Newcastle Hospital and a part-time lecturer at this University in postgraduate clinical psychology. The Faculty of Art and Design, for example, encourages community participation and I am aware that, among many endeavours, student exchange exhibitions at Warl Space were a highlight in 1993.

Professor Wilcock said the University had an impressive reputation for the problem-based approach to teaching and learning adopted by many of its faculties and mentioned our Faculty of Medicine as a pioneer of this approach in Australia.

"Because of the success of this program, it is being emulated by other disciplines and faculties," she said.

The main thrust of Professor Wilcock's address, however, was the different directions in which occupational therapy was taking health care.

Occupation, she explained, encompasses all the things that people do.

"It is not just the object of human function but is an integrated part of each person's being in relationship with the world."

What does this have to do with health care? A great deal!

People living in post-industrial countries, Professor Wilcock suggested, did not appear happy or satisfied but frequently experienced what has been termed, "drifting dissatisfaction."

"They can not be described as experiencing well-being despite many apparent material and social welfare advantages," she said. "It has been observed that these feelings do not occur in more primitive social groupings, nor in the less developed countries where the occupational demands and occupational freedoms differ."

In light of this, occupational therapists, as part of a new interdisciplinary movement, are beginning to realise the importance of rigorous study of occupation. "Such study," Professor Wilcock said, "is not only concerned with the nature of occupation but with understanding better how occupations impact upon individuals throughout life, how they promote coping and competence, how they affect health and well-being in a positive way, and how people can be enabled to flourish. Such study is being called 'occupational science'."

"I believe that as we progress there will be greater emphasis on the need to understand social and political policies and programs from this perspective and that roles for those involved in such study will develop far beyond a narrowly defined health care arena."

Professor Wilcock concluded her address by saying the Western world was in the midst of an occupational revolution which was changing rapidly, almost from day to day.

"It is going to be necessary for those with important community based occupations to take an active role in the ongoing restructuring of societal values as this occupational change occurs. It is an enormous challenge."
SINGLE COURSES - THE WAY OF THE FUTURE?

"I'm sure that most of the graduates here today are breathing a sigh of relief that they have completed a major task and that they're unlikely to see a university again. I have to inform them that really what they have done is to get themselves a ticket to start on continuing education for the rest of their lives."

In his Occasional Address to the University during this year's graduation ceremony, Pacific Power's Manager Technology Development Dr John Sliger, looked at the issue of change - the rate of change in our society and the effect it was having on graduates, industry and the University.

Dr Sliger noted that he had graduated some 40 years ago and had worked at his profession during those 40 years without the need to change direction at all. He suggested it would not be like that for today's graduates.

"They will change direction a number of times over the next 30 to 40 years because of change in our society," he said.

"I think that both time and money will become more difficult and I think that while a proportion of graduates will go on to do higher degrees, there is a very great need for a little bit more in particular topics. There is a great need for people to be able to do single subjects," he said.

"A biologist might find that he needs a little more statistics; the statistician might find that she needs a little more psychology; psychologists? Well who knows what they might need! But in essence, the graduate of today has got to start on a long and continuous education experience."

Dr Sliger said that those people in the audience who were in business and industry and who would employ the new graduates, were also going to find themselves having to deal with rapid change.

"You have buildings, you have land, you have computers, you have machinery and when you come to think about it, your survival does not depend on any of these. Your survival depends on your ability to detect change, your ability to cope with change and above all, your ability to take advantage of change. And the one single asset that your organisation has to achieve this, is the people that you employ. They are the only ones who have any chance of doing anything about change which is going on around your organisation," Dr Sliger said. He suggested that just as those in industry took care of their property by keeping it in good repair, so too should they look after the educational needs of their employees.

"You have to make it easy for them to be capable of defending your organisation and preferably, taking advantage of change," he said.

Dr Sliger reserved his final comments for the University.

"I have made some enquiries and there are some 3,000 graduates this year," he said. "There are also less than 100 students doing single subjects. I personally predict that within five years the number will be 10 times greater than that, and that soon after, the number of students doing single courses will probably equal the number of graduates."

This would be brought about, he suggested, by the fact that people wouldn't have the time to complete full extra degrees nor the ability to pay for them.

"I feel that the single course is an area where the University can build major links with its graduates."

Dr Sliger said that if we could get these linkages right - both between the University and its graduates and between industry and its employees; we would be better placed to cope with change.

"Successfully taking advantage of change will result in a better State, in a more prosperous Newcastle and in a far more competitive Australia," he said.

Dr John Sliger is conferred with an Honorary Degree of Doctor of Engineering
CALL FOR NURSES TO MAKE A DIFFERENCE

"Make a difference to the health and well-being of the individuals, groups and communities you serve."

Dr Megan-Jane Johnstone, Senior Lecturer and Nurse Ethicist from the Faculty of Nursing, Royal Melbourne Institute of Technology, was invited to deliver the Occasional Address at the Faculty of Nursing Graduation Ceremony.

Her address contained a message for the new nursing graduates of the importance to society of the profession of nursing.

She urged them to always care and "always make a difference" to their profession, their patients, to society generally and to themselves. She stressed the importance of nurses upholding not only their patients' rights, but their genuine welfare and well-being in health care contexts.

"It is perhaps helpful to remember that today over 90 percent of nurses are women, and that it was not that long ago (less than 70 years in fact) that women in common law countries had no legal right to enter into a profession of their own choosing or to gain a university education. Further, one of the remarkable things about nursing is that it was established in the 1860's as a profession for women (of all backgrounds) and to be controlled by women, almost 70 years before women were given formal legal recognition as 'persons' (prior to 1929, women in common law countries had historically been regarded by law as being 'civilly dead') Johnstone 1994).

In light of nursing's historical accomplishments world-wide, I think we can agree that the early modern nurses succeeded in responding effectively to the many awesome challenges they faced in their efforts to establish and develop nursing as a safe, therapeutically effective and culturally relevant profession.

"As extraordinary as nursing's professional accomplishments are, however, there is no room for complacency - either by new graduates or by veterans of the profession. At this very point in time, there are political forces mounting which are aimed at stripping nurses of what authority and legitimacy they have to practice their profession safely and effectively.

"Nurses are increasingly losing control of nursing practice within health care settings and, as a result, are losing their ability to ensure the quality of care that is given to patients. There is mounting anecdotal evidence that patients are already suffering as a result - and will be, in essence, a 'backlash' against nurses and their increasing potency as ethical and therapeutically effective practitioners.

"The nursing profession, like other health care professional groups, also face challenges of a more general nature. Notable among these are the challenges of how to care in a society which has become increasingly careless; and how to be ethical in a society which increasingly has come to value money more than morality, and which has learned to turn a blind eye to the genuine human suffering that is caused as a result of valuing 'things' more than people.

"How well the health care professions, including nursing, will be able to respond to the moral problems in health care will, I believe, depend on the extent to which health professionals will accept compassion rather than economics as 'the lawful sovereignty of our age' (adapted from Fonsen 1994). It will also depend on the ability of all health professions to recognize the specific instances of human suffering, to identify the causes of that suffering, to understand and interpret correctly the meaning of that suffering for the individuals or groups concerned, and ultimately to alleviate that suffering in culturally appropriate and therapeutically effective ways. And it will depend on the extent to which health professionals are prepared to commit themselves to upholding not just patients' rights but their genuine welfare and well-being in health care contexts.

"Make a difference. During the course of your careers, always strive to make a difference.

"Make a difference to the health and well-being of the individuals, groups and communities you serve.

"Make a difference to the way the public perceives the nature and value of nursing.

"Most important of all: make a difference to the status quo by challenging the taken-for-granted world which has long failed to serve the moral interests of those who are vulnerable and most in need.

Dr Megan-Jane Johnstone with (from left), Vice-Chancellor Professor Raoul Mortey, the Acting Dean of Nursing, Ms Robin Walmsley and the Chancellor, Justice Elizabeth Evatt.
1500 YEARS OF UNIVERSITY EDUCATION

University Medal winner in Psychology, Ms Jane Chidgey, undertook a Psychology Honours Degree after working as a Rehabilitation Counsellor, BHP Trainer and high school science teacher.

Ms Jane Chidgey, University medal winner in Psychology, believes there's nothing better to motivate you than interest. A Chemistry and Metallurgy graduate from Newcastle, Jane has worked as a Rehabilitation Counsellor, a trainer for BHP Transport for its sea going cadets and as a high school science teacher. Jane decided to pursue her interest in working with people and thus undertook a Psychology Honours degree.

Her Honours thesis, supervised by Dr Richard Brown, on the effect of REM sleep on people's ability to learn, earned her a University Medal for outstanding academic performance.

Jane is now studying for a PhD in Psychology, her research still based around sleep, learning and behaviour. She is also tutoring in the Department and runs a consultancy for industry, specialising in human resource management, total quality management, communication, goal setting and motivation.

In recognition of her fine academic effort, Jane was invited to deliver the student speech at the Graduation Ceremony for the Faculty of Arts and Social Science and the Faculty of Science and Mathematics.

The following is an extract from Jane's address:

"Before you today is the collective accumulation, by our graduates of more than 1,500 years of university education. This is an awesome intellectual resource. If you consider this simple statistic the knowledge in this hall alone is overwhelming."

"How do we and the community at large make use of this knowledge? As graduates we must see the great benefits that come from integrating our knowledge with that of others, not just in our own disciplines but more importantly interfacing with those from other disciplines.

"Einstein once said that 'The significant problems we face cannot be solved at the same level of thinking we were at when we created them.' To achieve this advance in level of thought we need to step out of the processes and paradigms of our own discipline and extract insight from other approaches. Only then can we examine and solve our problems from a new perspective.

"We can write, research, hypothesise, challenge, compose, analyse, titrate, measure, balance, discuss, consolidate, assess...the list goes on and on... but our most crucial skill is that we can solve problems. We can define a problem, explore the options and most importantly suggest an answer.

"The future is important to us all, particularly since it is where we will spend the rest of our lives. But the future seems dogged by change. In fact, we complain about the rate at which the world is changing. We must develop the ability to adapt to the challenges that change will bring. Since we cannot predict what is around the corner the most valuable skill we can possess is that of solving problems as we meet them.

"There is a symbiotic relationship between the academic world and business which has largely gone unnoticed, perhaps because it has been the case that these worlds exist apart and are often not only ignorant of the mechanisms of the other, but in fact hold each other in contempt. As graduates, having insight into both worlds we have the unenviable but challenging role of bridging this gap.

"The insight gained as you struggle with a difficult topic provides options of which we were never previously aware. It requires a discipline and self-reliance that we can be proud of and that we can draw on in the future.

"To quote from Toffler's Learning for Tomorrow, 'The best of courses blend the science of charting the probable with the art of imagining the possible and add a deep concern with the delineation of the preferable'.

"This is not the end of our learning, merely the beginning..."
Dr Patricia Tynan has enjoyed a career as a professional social worker spanning four decades.

Professor John Ramsland, Dean of the Faculty of Arts and Social Science who delivered the citation, said that Patricia Tynan had been, variously, a caseworker in family services, a teacher to welfare students, a senior administrator and a consultant.

"Above all, she has been a dynamic participator and leader in community action and community development," he said.

Patricia was born in the USA in 1924 to Australian parents. On the family's return to Australia, she was educated at Loreto Convent, Kirribilli, the State Conservatorium of Music, and Sydney University where she completed a Bachelor of Arts and the Diploma of Social Studies.

On graduation she worked for the Australian Red Cross in Sydney, predomnantly in the area of migrant welfare, refugee resettlement and trauma. During this time she also established a Branch Welfare Office for the Red Cross in Newcastle to extend urgently needed services to migrants from the camps at Gieta, north-west of the city.

Subsequently she worked with International Services and with the Family Welfare Bureau in Sydney.

In 1953 Patricia married Patrick Tynan, a medical student who became a doctor and administrator in rural Australia, Cairo, Rome and Vienna. They had four children and Patricia used her social work skills in a variety of volunteer contexts in these places.

The Tynans returned to Australia in 1970 and arrived in Newcastle in 1971. Patricia then worked here for nearly 20 years, retiring as Deputy Director of Centacare in 1990.

But to say she actually retired would be quite misleading.

She immediately took up duties as the Social Issues Co-ordinator in the Earthquake Renewal Co-ordination Unit of Newcastle City Council. She was the initiator and principal author of the Personal Services Disaster Welfare Plan for the city and her efforts led to the Council's recently created Social Impact Consultative Panel.

"This particular initiative is an excellent example of her deep commitment to the implementation of social justice as well as her professional skill, keen intelligence and vital determination," Professor Ramsland said.

Patricia’s ties with the University of Newcastle are strong.

She was instrumental in establishing its degree course in Social Work and to this day maintains close links, acting as an occasional lecturer and serving on various University ethics committees.

"In my view, the University of Newcastle is a clear, analytical thinker on social issues and a wise counsellor who has richly earned the respect of the profession and the wider community," Professor Ramsland said.

"At times it is a reference point in the development of city, urban and rural planning. In the 1989 earthquake, the University was immediately consulted not only for its geophysical, engineering and architectural expertise, but rendered valuable social service in directing our response to the event," Patricia said.

This was done through its longitudinal studies of the attendant psychological traumas on individuals and in the support of individual University members for the Renewal Co-ordination Unit which aimed at the holistic rebuilding of what was for a time, a shattered community.

Patricia said she thought that University research and expertise were a recognised though under-utilised part of local as well as national disaster planning.

"This University can, and I believe, should be (even more so than it has been in the past) a truly integral and active part of the Newcastle regional community," she said.

"This means not merely the big bang contributions of responses to White or Green papers, budgets, election policies and so on, important as all this is.

"The University contribution is needed in a process of helping 20th century communities in their developments towards becoming 21st century communities."" Patricia Tynan was awarded honorary life membership of the Australian Association of Social Workers at the 23rd AASW National Conference held at this University last year.

"She is a clear, analytical thinker on social issues and a wise counsellor who has richly earned the respect of the profession and the wider community," Professor Ramsland said.
CHANCELLOR PRESIDES OVER HER LAST GRADUATION CEREMONY

University Chancellor, Justice Elizabeth Evatt

Most people would expect a university to be good at gathering facts and statistics, but few would have expected the statistics that were announced at the last session of the 1994 Graduation Ceremony.

In a speech of thanks to the Chancellor, Justice Elizabeth Evatt, after one of her last official public duties, the Vice-Chancellor, Professor Raoul Mortley, announced that she had presided over 49 graduation ceremonies and had shaken the hand of 15,361 new graduates.

Justice Evatt's term as Chancellor will end in July this year as she wishes to devote more attention to her duties and responsibilities as Head of the United Nations Human Rights Committee. Professor Mortley paid tribute to her saying that her contribution to the University since her appointment in 1988 had been carried out with great care and commitment and that she had served the University with great distinction.

Professor Mortley said Chancellor Evatt had always seen the graduation ceremony as a most important part of her responsibilities to the University.

"She has presided over a difficult period in the University's history with common sense, tolerance and wise judgment. She will be remembered by many for her gracious demeanour at University graduations, her good humour and her interest in University welfare," Professor Mortley said.

"Justice Evatt came into a turbulent situation, but throughout the ensuing years displayed her great qualities of calmness and fair play. She will be greatly missed," he said.

Justice Evatt's last official duty will be the June University Council meeting.

Afterwards she will be the guest of honour at a farewell function organised by University staff.

MEDAL WINNER HEADS FOR USA

Astrid An Huef who graduated with a Bachelor of Mathematics (Hons) and was awarded the University Medal says that the question of gender and maths has never arisen.

As an HSC student at Toronto High School studying Level 4 maths, she was never discouraged from the subject.

"No distinction was made between the girls and the boys, our encouragement was the same - the issue of girls and maths never came up."

Originally Astrid began her degree in computer sciences but decided to change.

"I realised I didn't like it so I switched to a combined computer science and mathematics degree and the maths took over - that was the aim," she said.

Astrid's honours thesis was on Cuntz-Krieger C* Algebras and it has clearly made an impression.

Not only did she win the Medal but she has just been offered a Fellowship to Dartmouth College in the USA to undertake her PhD.

The Fellowship is in the College's Mathematics Department and will mean that apart from working on her thesis, Astrid will also have teaching responsibilities. "The Fellowship is for five years and I'm very excited about it. They say New Hampshire, where the College is located, is a beautiful part of the States and I'll be getting there in Autumn so I'm really looking forward not just to the work but also to seeing something of the countryside."

University Medal Winner, Astrid An Huef
CHALLENGING THE ORTHODOX

In the last session of the 1994 Graduation Ceremony, Mr David Boyle was presented with a University medal in recognition of his outstanding academic performance.

Medal winner in architecture, David Boyle, had an unexpected honour when he was the last graduate of the University of Newcastle to be presented with his degree by the Chancellor, Justice Elizabeth Evatt.

In the last session of the 1994 Graduation Ceremony, David was presented with a University medal in recognition of his outstanding academic performance.

As well as the University Medal for Architecture, David won the Board of Architects Prize and the Royal Australian Institute of Architects Prize. In 1990 he won the Suters Architect Small Design Prize and in 1992, The University of Newcastle Summer Vacation Scholarship.

Currently an assistant lecturer in the Faculty, teaching design to third and fourth year students, David intends to seek work in a small architecture practice where he can pursue his interest in designing residential and small scale commercial buildings.

Originally from Albury, he said he enrolled in the Newcastle architecture course because of its highly regarded reputation and its problem based learning approach.

"Newcastle's architecture course is so practically based and directly related to project work that you can see and understand the uses and results of architectural practices in relation to the theory," David said.

"In this way all the different topics are brought into context and become relevant to the design task at hand.

"I put in a lot of late nights and long days to complete my course, but even so I was surprised to win the medal. I suppose I can say that I was enthusiastic about what I was doing so the medal is a great reward as well as an honour," he said.

Invited to deliver the student speech at the Graduation Ceremony where graduates from the Faculties of Education and of Architecture received their degrees, David said that for most students their experience at university can be compared with the writing of a novel, a task that often seemed insurmountable, but ultimately enlightening.

"We pause to look over our work, remembering how we laboured over it, the people we worked with, the experiences we shared.

Some of us knew from the beginning the novel's structure and purpose; others took it one chapter at a time, hopeful that it would come together at the end. At times it was difficult to focus on the goal at hand, sometimes we were sidetracked, sometimes we lost the plot altogether, but in the end we persisted dedicated to the completion of our work.

"During our academic education we have been encouraged to question, to think critically and laterally and to respond creatively, to challenge the orthodox and open our minds to a wide range of views.

"The isolation of academic education has been bridged by the problem-based learning system adopted by parts of the University. Its approach has been widely accepted by business and professions and has brought acclaim to Newcastle University as a role model for other educational institutions.

"However, the process of learning at University extends far beyond the lecture theatre, the studio and the library. A complete education offers more than academic development, it offers the chance to discover and develop our human potential, an opportunity enriched by sharing our experiences with others.

In this way, the diversity of University life - the O Ball, Autonomy Day, membership of sporting, artistic, religious and political groups, pub crawls and Thursday night at the Bar on the Hill, have helped us to develop as well-balanced and mature people. The experiences have exposed us to the richness and diversity of human nature."
GRADUATION A FAMILY AFFAIR

It was a real family affair when Linda Barcan was presented with the University Medal for English.

Her father, Dr Alan Barcan, recently retired from the Faculty of Education took part in the academic procession; her stepmother, Mrs Meg Barcan, was awarded a Bachelor of Arts degree; and her brother, Mr Geoff Barcan, systems analyst with the University Administrative Systems Project, was in the large crowd who attended the ceremony.

Linda, whose outstanding academic performance in her honours year brought her to the attention of the University Medal Committee, was also invited to deliver the student speech at the Graduation Ceremony of the Faculty of Arts and Social Science.

From receiving her initial arts degree in 1988, Linda worked in Australia, France and Germany. She returned to the University of Newcastle to complete her honours year.

In her speech Linda made reference to the benefits of a university education and exhorted her fellow graduates to always pursue the 'quest for knowledge'.

"I am aware that choice is one of the benefits of a university education," she began. "Coming back to the University of Newcastle to tackle English honours eight years after I first began my Bachelor of Arts degree was a momentous and largely rewarding experience. By using the words 'coming back', I do not mean to suggest a regression, but rather a progression. In the course of my honours year, I discovered that the past could inform the present, and conversely, that the honours experience could provide new perspectives with which to view, or review, the events of the past years.

"I was receptive to at least two of the requirements made by university life - the need for structure and for self-discipline. Paradoxically, the relatively structured environment in which I found myself had a liberating effect, and I was able to restimulate and hone those faculties of reflection, analysis and interpretation which had been developed all those years ago.

"The heterogeneity of this graduating population exemplifies on a smaller scale, and in an institutionalised form, a broader society composed of multiple interests and traditions. What I can and would like to do now is firstly to embrace this diversity; secondly, to celebrate the potential of this diversity for academic debate, for 'intellectual dissent'; and thirdly, to hope that these voices will all speak and be heard. I believe that an increasing willingness to admit a multiplicity of voices, and to hear them, has allowed advances, however insufficient, in areas of the broader community such as aboriginal welfare and feminist policies.

JOYCE GETS HER LIFE DOWN ON PAPER

When Joyce Barry began her Bachelor of Arts course at the University she found it difficult to adapt to essay writing. Since it was some 50 years since she had been at school her difficulty was not surprising.

Now having graduated with a BA majoring in English and English Literature, Joyce is preparing to help other students who are having similar difficulties.

"I've offered to help some HSC students at a school on the Central Coast where I live," she said. "But I'll be doing it in a voluntary capacity. I don't want to be in the workforce - I just want to be able to help."

Joyce will be working with the students on essays as well as creative writing. She said she had always loved creative writing and her flights of fancy in university essays tended to cause her a few problems.

"They'd say 'we love your writing but...'," Joyce recalled with a chuckle.

Joyce has now begun work on a book which is mostly autobiographical but written as fiction. "I've had such an eventful life and I wanted to get it down on paper. When I'm writing, time passes so quickly. I'm taken back to happenings in my past and I relive it - it's just wonderful. I love it."
There can be little doubt that when it comes to women's health, breast cancer is quickly moving to the top of both the political and medical research agenda in Australia. The national media have carried the issues regularly for the past few months and the involvement of the Prime Minister's wife in fund raising for breast cancer research has given the area a much needed boost.

Dr Kerrie Clover, who was recently conferred with a PhD in Behavioural Science in Relation to Medicine, has been a part of this expanding research effort. The research work for her doctorate, Strategies for Increasing Utilisation of Mammographic Screening, not only resulted in a significant increase in women in the target age group seeking mammographic screening, but her results have been included in the report of the National Evaluation of Breast Cancer Screening.

"What I did was to compare media advertising and promotions of breast screening with both a community participation program and a strategy involving local GPs. "This involved finding a willing group of women in the target age group (50-70 years) in a number of Hunter Valley towns and asking them to form a committee to promote the screening service prior to its arrival in their area. "They used talks, videos, and newspaper advertising, "GPs in each town were also approached and asked to compile a register of their female patients who would be willing to receive a letter reminding them the mobile screening bus was in town," Kerrie explained.

Kerrie found that both strategies were very successful in encouraging attendance - far more so than the traditional media approach. She is now working for the Hunter Area Health Service as Project Manager on a research project looking at surgery waiting lists. Dr Tim Smyth, the Chief Executive Officer of the Service, heads the project which is being funded by a Commonwealth grant.

"We are looking at the length of time people wait for surgery, their health status during that waiting period and their satisfaction with the system," Kerrie said.

Kerrie began her studies at the University of Newcastle with a BSc(Hons) in Psychology then worked as a research assistant in the Department of Behavioural Science in Relation to Medicine in which she also did her PhD.

"My time at the University provided a really good opportunity to develop a lot of skills at a high level," she said. "The Department is one of the best of its kind in Australia." Kerrie hopes that in the future she can take up an academic career in health research specifically dealing with health related behaviours.

Dr Julie Byles, a medical practitioner, was awarded her PhD last month for her four year study into effective ways of encouraging women to have regular pap smears.

Dr Byles and her team used three different ways to encourage women to have pap smears and then compared their effectiveness. The first was a television campaign developed by the NSW State Cancer Council; the second was a combination of the television campaign and personally addressed letters sent to all women between 18 and 70 years living in 12 communities throughout the State; the third involved local GP's promoting pap smears in their local communities.

The study reached about 60,000 women and indicated that all three approaches can be effective but the best results occur when GP's work together with their community to promote screening. Dr Byles' study was financed by the National Evaluation of Screening for Breast and Cervical Cancer and her results are now being used in current programs.

Recently there have been a number of stories in the media casting doubt on the effectiveness of pap smears but Dr Byles is adamant about their effectiveness. "A screening test is for women who have no symptoms in order to establish whether or not they are at high risk of cervical cancer," she explained. "For people presenting with symptoms, a screening test is not appropriate. They need a special diagnostic test and ideally they should be under the care of a gynaecologist."

Dr Byles is now a lecturer in clinical epidemiology at the University of Newcastle and is working on research into women's health and how to improve services for them.

PhD Graduates Kerrie Clover (Breast Cancer Screening) and Julie Byles (Cervical Cancer Screening)
EDUCATION PATHWAYS QUESTIONED

Mr Tom Griffiths, who has just graduated with a BEd (History and English) with first class Honours and the University Medal, will soon begin his Masters by research with a comparative study of education policy and practice in Cuba and Australia.

He strongly believes that, despite being a third world country and one undergoing enormous social and economic upheaval following the collapse of the Soviet Union, Cuba may just have some lessons for us.

"Cuba has some of the best student/teacher ratios of any country, third or first world," he said. "Since 1959 Cuba has devoted a large percentage of its Gross National Product to education and is still doing so."

"Despite the collapse of the Soviet Union and the country’s terrible economic problems, not one school has closed," Tom said.

"The same could not be said of NSW." Tom who was a little surprised to win the University Medal, wrote his minor thesis on education reform. It was, for the most part, an examination of the NSW Education Department’s Pathways document which deals with the different paths now available to the HSC and to further education.

"My view after researching the document and other related material, was that the system will end up producing two distinct HSC groups," Tom said.

"On the surface it appears to be broadening the range of subjects but they are in two groups - A and B. If you have more than two units of B you are then excluded from tertiary entrance.

"What you have is the appearance of equity and the availability of different pathways to the Higher School Certificate but many kids will end up with a HSC that’s of little use to them.

Tom is currently working as a research assistant in the University’s Faculty of Education and hopes eventually to complete a PhD.

MEDALLIST HAPPY TO BE TEACHING

There are those with their eyes on the main prize and then there are people like Alison Kruzins. Alison graduated with Honours in Education and won the University Medal in Physical Education but, by her own admission, it was not something she even thought about let alone hoped to win.

"I didn’t actually know that such a thing as a medal existed," she said laughing. Even so she was delighted by her success as were her parents and it has clearly helped her in the employment market.

"Everyone in year four studying education is interviewed by the Department of School Education" Alison explained. "Where you are in the ranking then affects when, or even if, you are offered a teaching position. I became a targeted graduate and was lucky enough to be offered a full time position pretty quickly."

Alison is now a PE teacher at Rutherford Technical High School and loves it. "I’m finding the job very challenging because there’s a large cross section of people in terms of ethnic and socio-economic background as well as ability," Alison said.

And how do the students take to PE these days? Pretty much the same as they always have apparently. "The kids either love it or they hate it and it’s not always easy to motivate those who don’t like it," Alison explained. "I have to offer a great deal of variety, expose the kids to lots of activities and then hope they’ll find one they like well enough to stick with."

"Alison really enjoyed her degree course but sees it now in a slightly different light. "When I was at the University there were some things we studied which I just couldn’t see the value in at the time and they’ve turned out to be really important. "There were also a number of areas I thought were vital when I was studying them, but they’ve turned out to be not nearly as useful as I thought they’d be."

Although Alison would eventually like to come back and further her studies, at present she’s just happy to be teaching and gaining valuable on-the-job experience.
When Surveying graduates, Mr Ian Harper and Mr Matthew Somers of the Hamilton surveying firm Harper-Somers, came up with the idea of endowing the Department of Civil Engineering and Surveying with a Fellowship, they were a little uncertain as to how they might go about it.

"After all, the only time we had been in contact with the Department, on an official basis, in the past, had been to explain why our assignments had not been handed in," explained Mr Harper.

They need not have worried. News of the Fellowship was welcomed and applauded by the Vice-Chancellor, Professor Raoul Mortley, the Dean of Engineering, Professor Graham Goodwin and the Professor of Photogrammetry, Professor John Fryer.

"The Fellowship will provide annual funds which will enable the University to invite and accommodate an international surveying lecturer for up to one month," Professor Fryer said. "While at Newcastle, they will present some undergraduate lectures, assist with research projects and present a topical seminar on a surveying theme to the profession. I really see this as forging new and strong links between practising surveyors in Australia, academic surveying staff and current international developments in this rapidly changing profession."

"The staff in the Civil Engineering and Surveying Department were extremely good to us during our student days and we still receive a lot of technical assistance from them in our work today," Mr Somers said. "We see the Fellowship as a tangible way of saying thank-you; of giving them something in return.

PIPING IN HIS PHD

When it comes to handing in a PhD thesis the normal procedure is that the author must deliver four copies in person to the appropriate authorities. In the case of this University that means the Graduate Studies and Scholarship Office. Usually such a delivery is quite unremarkable.

The PhD candidate simply walks over to the building, delivers the four copies and that's that.

Not so for Shaun Manning. He felt that after taking 8 years to complete his PhD, that the handing in should be a significant event. And so it was. Dressed in full Scots regalia, Shaun piped himself into the office playing his much loved bagpipes!

Shaun is a member of the Royal Australian Corp of Transport Pipes and Drums, a part of the Army Reserve and playing the pipes is clearly a great love.

"I could have done officer training (he's a corporal) but the chances are I would not have been able to stay in the Pipes and Drums, so I declined," he said.

"Playing the pipes is one of the main reasons I joined up - I'm part of the only dedicated corps of pipes and drums in the Australian army."

Apart from playing the pipes, Shaun's other love is engineering. While working on his PhD he was a lecturer in the University's Chemical Engineering Department. He now works as a professional officer in Civil Engineering. Shaun's PhD was titled Factors Effecting the Sizes of Bubbles in Impeller-Stirred Vessels and it has implications for the big mining companies as Shaun explained.

"When a particular ore is being mined, the slurry is put into a flotation tank (an impeller-stirred vehicle) and the air pumped down its shaft creates bubbles. The valuable ore then attaches itself to the air bubbles which rise to the top of the tank as a kind of froth. This froth goes through the process again and again until it reaches maximum ore saturation. It's then ready for smelting."

The collection efficiency depends on the size of the bubble.

"If the bubble is too big, the fine ore particles will pass by it. If the bubble is too small, it won't be able to carry the ore's weight," Shaun said.

"So being able to regulate bubble size is important for a mining company's efficiency and ultimately, its profit."

But back to the bagpipes. Will Shaun's piping in of his PhD be a one-off event? The answer is no.

"I've since piped in a couple of my colleagues' theses and I'm determined to make it a tradition - well at least in engineering!"

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A SECOND CHANCE

Newstep, a course offered by the University as a means of entering tertiary study, has paid dividends for Natasha Theilan who graduated with a Diploma of Health Science (Nursing).

Natasha, who attended Kempsey High School, undertook the Newstep course in its inaugural year in 1990. The course was initiated by the Student Equity and Access Committee to allow students, whose HSC mark did not qualify them to enrol in a University course, a second chance. This gave Natasha the opportunity she needed and she hasn’t looked back.

Natasha describes how she worked part-time throughout her high school years, a necessary fact but one which took her attention away from her studies. Newstep came along just at the right time to enable her another chance to enrol at University and follow her dream of being a nurse.

"Newstep gave me an insight into what uni life is like and what is expected of you. It prepares you for what is ahead and I can recommend it to anyone who finds themselves in the same position as me. It gives people a second chance," Natasha said.

Natasha now works as a nurse at the Royal Rehabilitation Centre in Ryde.

"I have always wanted to be a nurse. I love my job and I am happy that I stuck it through to achieve my goal," she said.

REFLECTIONS ON QAR

by Terence J. Lovat, Associate Professor Department of Education

"...I have learned to respect its power, for, invariably, that IS what it is about. Whatever else it will not achieve, the review process will normally deliver further power to those who already have it..."

In Part 1 of his Reflections on QAR, Associate Professor Lovat offers some insight into the Quality Assurance Review genius. Although a sceptic of the process, he nevertheless respects the review process. Read on to find out why.

I feel compelled to offer some thoughts on the recent Quality Assurance Review (QAR), not so much from a sense of expertise with the various species (for they vary too much to allow for that) but from a certain sense of exposure to the genus.

Indeed, at times, I have felt that I may very well be the most reviewed victim of the twentieth century. I spent some 15 years at the heart of a church in a time of aggiornamento and, hence, constant evaluation and review.

I was associated with education in South Australia in the early years of Dunstan and the sweeping away of 30 years of dust, with Victorian education during an earlier, and happier, time of change, and with NSW education through the multidirectional shifts of the past 15 years. Review, evaluation and quality assurance mechanisms (the reality and much of the language) have been part of all these.

Finally, I was on the less prestigious but, in terms of accountability, perhaps more honest side of the old binary divide (bad for the ego, great for the soul!), where being reviewed was a little like painting the harbour bridge: if you weren’t actually doing it, then you had just finished and were about to start again. One cannot suffer so much without gaining a feel for the art!

My first impression is that these processes do vary enormously in their quality, rigour and objectivity, and so in their capacity to bear on reality. Even when in the hands of eminent and rigorous experts at such things, and when the face value has been high, I have often been disappointed by what has amounted in fact to a certain perfunctoriness in the way the process has been administered.

It is the inevitable perfunctoriness that ensues from a brand of social science that believes too uncritically in its capacity to bear on reality. I was once part of a review conducted by a European team of master social scientists (or so it was said) who had developed and trialled tailor-made instruments through long-term reviews of European public and private institutions.

Never has a review process been preceded by such fanfare, and yet, even this one proved a disappointment in terms of its capacity to scratch the surface of what seemed to all the participants to be ‘reality’, that is, to identify the problems which people were experiencing, to provide solutions, to offer a vision for which people could realistically strive.

So, when perfunctoriness becomes an art-form, and a process is in the hands of artificers with no reputation nor apparently trialled mechanisms for such things, I am little surprised that people feel reality has not been borne upon.

I have developed into, simultaneously, a sceptic about, but, nonetheless, a respecter of, the review process. I am a sceptic regarding its integrity: I no longer take for granted that a review is an objective process, truth-seeking, striving for the best for its victims, nor necessarily in the hands of impartial artificers.

At the same time, I have learned to respect its power, for, invariably, that IS what it is about. Whatever else it will not achieve, the review process will normally deliver further power to those who already have it (its victims) have managed to acquire.

Just look at the effects of the relatively inexpensive QAR exercise. It has finally delivered to the Federal Government the power over universities that it has sought for so long. We are now no longer only dependent on the government for most of our funding, but for our public image as well. Regardless of the truth of it, the Government will now construct a reputation for us, and hence determine how much power we will have in the system. Whatever we may think of their game, we now have no choice but to play it.
Many students do pick up stereotyped notions involving passive, beautiful, dependent women and active, handsome, silent men.

Dr Pam Nilan's thesis is highly praised. It shows that many students do pick up stereotyped notions involving passive, beautiful, dependent women and active, handsome, silent men. But the study also shows that students are not uncritical nor impervious to challenges to these constructions.

Dr Pam Nilan's thesis is very much a practical example of one of the recommendations of the Review of the National Policy for the Education of Girls in Australian Schools, which was released in 1993. The Review recommended a careful consideration of the day to day process of the social construction of gender. Pam's analysis shows that this has potential for promoting equity because gender construction is an on-going process into which teachers and others can have an input - if they are sensitive to the issues.

The thesis was highly praised, particularly for the fine detail in which it describes the way the students express and challenge various notions of masculinity and femininity, all the time developing their own versions of the ideas they absorb from their everyday lives. While not all students contributed equally to the development of the characters, each had their own ideas about how they believed male and female characters should act. The play itself took on many of the characteristics of the television serials which the teenagers in the group watched. Tensions within the classroom over the development of the characters of film was expressed as a tussle to put forward characterisations from competing television programs or from different literary genres.

It was very clear that in such a drama class the students are simultaneously negotiating their own sense of gender identity, at the same time as they are carrying out the formal tasks set for the class. For practicing teachers, the thesis has a great deal to offer. It shows that many students do pick up stereotyped notions involving passive, beautiful, dependent women and active, handsome, silent men. But the study also shows that students are not uncritical nor impervious to challenges to these constructions.

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The French philosopher, Jacques Lacan, was the first to emphasise the mirror stage as an important phase of infantile development. The ability to recognise yourself as a subject, and the consequent exploration of the ‘I’ experience, marks the whole of human life thereafter. But what is it that the child sees in his reflection, and what constitutes the true human self? In an inaugural lecture to mark his appointment as Vice-Chancellor, Professor Raoul Mortley explored this complex and fascinating subject using the tools of his academic discipline, philosophy.

Delivering his lecture, entitled Narcissus and Christ, Professor Mortley said the first point in the mirror phase is seeing yourself as one, not as variegated or multiple. But the mirror image is perpetually challenging, there is an otherness about the image which is both threatening and comforting.

Professor Mortley related the myth of Narcissus, who falls in love with his own image reflected in a pool and dies of grief upon recognising it as himself. “Contemporary psychoanalysis uses the term ‘narcissism’ to refer to a form of self-love, not necessarily negative. It is thought that there has to be a phase of self-recognition and self-esteem which is necessary to the development of human relationships; some self-love is healthy.”

Unlike Narcissus, Christ showed no interest in his own physical image but he had followers who were preoccupied with it, and who believed that the icon-style portrait would provide a sense of privileged access to the self of Christ. Warfare raged for decades over the right to venerate icons until the Iconoclasts (or “icon-smashers”) were finally put to flight.

“The issue I have sought to raise... by comparing Narcissus and Christ, is that of the true portrait of the self,” Professor Mortley said. “There is an ‘other’, which belongs to us and that ‘other’ is the mirror of ourselves which walks and talks and works and lives in the eyes of other people - the cultural self. This cultural self is myself, but equally belongs to other people and there is a sense of alieness about it which carries a kind of threat, and a kind of limitation, as well as a kind of reassurance.

“It is necessary to consider the limits of the self. Perhaps we consider ourselves to be defined by the perimeters of our physical bodies - but this would be absurd. If the self is partly what is held in the minds of others as our cultural self, then we must look much further than the physical limits within which the self is apparently contained. The self is part of our relation to society, our relation to the physical world, and to the world of nature.

“Obsessive interest in the physical limits of the person is to be condemned as much for Christ as it is for Narcissus, as a blind alley. Souls are not bodies or faces or portraits. Our real selves are realities which we cannot sum up or grasp, but develop an otherness which belongs to the minds of hundreds and thousands of people who meet us during our lifetimes, and which we cannot eventually retrieve. The attempt to delimit a self to an historical and corporeal event is a kind of blindness to the nature of humanity.

“It would seem that Lacan was wrong to present the personal assumption of one’s mirror image as a major developmental stage,” Professor Mortley concluded. “To adopt one’s physical outline as one’s own may indeed be a step towards true humanity, but it is also a step towards a major human illusion and, to a mental limitation of very great significance: the belief that that physical icon is a self, is a closing of the imagination, not an opening.”
Wind power is an established source of energy in Europe and parts of the United States but research being conducted at the University of Newcastle may enable individuals in isolated Australia to harness this inexpensive and environmentally friendly power generation.

Mechanical Engineer Mr Paul Ebert has been working on wind power technology during his PhD studies and will have the opportunity to investigate other research in the field thanks to an Institution of Engineers graduate scholarship. The $13,000 Commonwealth Science and Technology Awareness Program Scholarship will enable him to visit a respected research centre at Delft, in The Netherlands, Riso in Denmark and a number of UK universities looking at wind power generation.

He will also present papers of his own and his colleagues' work at the 1994 European Wind Energy Association Conference in Greece. His work and the papers he will deliver focus on a five kilowatt horizontal axis wind turbine for stand alone energy systems which has been developed and built and is being tested at the University of Newcastle.

"If there is any aim to our project, it is to produce an affordable, highly efficient technology machine which is also simple and easy to assemble and repair," said Paul before leaving for Europe. "If a guy is using wind power on a farm and the turbine breaks down, he needs to be able to fix it."

While wind farms in California generate up to 20 percent of the region's power, Australia only has one large community which relies on this particular source of energy. The Western Australian town of Esperance relies on wind power for 30 percent of its total power needs, the remainder being supplied by diesel fuel powered generators. Western Australia's State Energy Commission believes Esperance is one community in the State where wind is economically viable. But, according to Mr Paul Ebert, most of the figures which take into account environmental and health costs as well as infrastructure (such as trucks using the roads to transport coal), put wind power in front as far as cost efficiencies are concerned, especially where a decent wind resource exists.

Much of the European research has been done using larger turbines whereas University of Newcastle researchers have been concentrating on smaller machines. "A Western Australian manufacturer, using blades we had designed, was able to increase, by 50 percent, the amount of power generated. His machines are marketed all over the world," Paul said.

The project's work has been funded by the Australian Research Council and has Shortland Electricity and the University's Centre for Industrial Control Science as collaborative partners. Professional skills in aerodynamics, finite element analysis, electronics and control systems were harnessed for the project.
THE HOT TOPIC OF CLIMATE CHANGE

There’s been a lot of talk about the weather in the Geography Department recently but it’s more than just idle chit chat. Current research on climate change in the Hunter will contribute data to the overall climate picture, enhancing the ability of politicians to make the tough decisions necessary to limit greenhouse warming and ozone depletion.

However, the more immediate purpose of this research is an engineering geology conference to be held in February next year at which Associate Professor Howard Bridgman will deliver a paper entitled “Climate of the Gosford-Newcastle Region”. The work was begun with the help of Visiting Professor and eminent climatologist, Professor John Oliver, from Indiana State University, who offered a welcome northern hemisphere perspective.

The project is two pronged. Initially the research will assess changes in rainfall and temperature during the past 100 years. Later it will be extended to include periods of extremes - droughts and floods. The task is not an easy one as the historical data has limitations and is often not complete.

A total of 120 rainfall recording stations in the study region (called Area 61 by the Bureau of Meteorology), which extends from Bulahdelah in the north, out to Merriwa and Murrurundi in the Hunter Valley and south to Gosford, have proved useful for providing data on rainfall patterns over time.

However, according to Howard, the region is complex and does not fit easily into the models on climate change. Rainfall, he said, is affected by circulation patterns and when rainfall is compared with circulation indicators (eg. the Southern Oscillation Index) the correlation is not always consistent. “There are problems with using averages because when the Upper Hunter was in severe drought during 1982, it was still raining on the coast,” he explained.

“It was also discovered that a shift in circulation patterns occurred in 1945 and this affected rainfall.”

The same anomalies exist with temperature data. “According to global trends you would expect to see a decrease in the difference between minimum and maximum temperatures. But here (in the Hunter Region) we see no pattern. This suggests that the coastal influence is strong and, on a regional scale, trends will be different compared to global averages,” he said.

Future research to explain climate variations in Area 61 will occur in two parts. The frequency of weather systems and types will be related to the rainfall and precipitation characteristics and this information package will be analysed for changes over time. Spatial variations of climate features within the region will also be investigated in the hope that a better understanding of meso-scale (10 to 100kms) changes can be established.

“It seems that in this area the coastal influence is very strong and is a compounding factor, it’s a complex area to study.”

Before the conference in February next year the project will also look at extremes in temperature and relate them to circulation patterns to provide explanations.

Climate Change in Area 61 is very much work in progress but, when complete, will add to the big picture on climate. This information could be important in the environmental debate over what (or what not) to do about global warming and ozone depletion.

“We need a much stronger data base and we need to establish why things are going in the direction they are,” said Howard. “This then can become a base for serious decision making. We have already done much work but we still haven’t answered all the questions.

“We need to be able to say to politicians that, although we don’t have all the facts now, we need to make some hard decisions now because if we’re right then 30 years down the track we will have some major problems. Rises in sea level and storm surges can be catastrophic in some regions. The ozone layer has been thinning since 1979 - how long can it go on? We must face the consequences of these things now.”
THE RESEARCH SIDE OF MATHEMATICS

by Professor Iain Raeburn

The following article has been reprinted in this issue, due to a typographical error in the previous issue of Van Gogh's Ear. Our apologies to Professor Iain Raeburn.

"How on earth can you do research in mathematics? I thought it had all been worked out."

Every mathematician has heard and dreads these words. Especially when they are spoken in social situations where the mathematician has to keep the answer light, entertaining, and less than a minute long.

There is a good reason why people think mathematics has all been worked out. Mathematicians and high-school teachers are practical people who concentrate on teaching students how to solve problems. In fact it is appallingly easy to write down problems which nobody knows how to solve. Thus, for example, everybody learns how to solve quadratic equations, but not quintic ones - because, after centuries of trying, mathematicians proved that there is no systematic way of solving quintic equations. But people do sometimes need an answer, so mathematicians have since done a lot of research on efficient methods of constructing approximate solutions.

The Mathematics Department at the University of Newcastle has two main research groups. There is a long-established group whose members work on mathematical problems associated with relativity theory and astrophysics. The object of this kind of research is to develop and analyse models which explain and predict what actually happens. To this end, the group at Newcastle has acquired skills in a broad range of modern mathematics, from the pure mathematical theory of differential geometry, to the numerical analysis necessary to calculate approximate solutions to complicated systems of equations.

Following the appointment of Iain Raeburn to the Chair in 1991, the Department has built up a very strong research program in functional analysis. Here we are particularly interested in operator algebras and representation theory, which have developed from their origins in quantum mechanics into the two of the most exciting research areas in mathematics. The group at Newcastle has quickly earned an international reputation, and has already attracted visitors from Britain, Canada, Denmark, Germany, Norway, Russia, the United States and Uruguay. This kind of activity stimulates our own research, and gives our postgraduate students valuable exposure to the leading experts in the field.

So, how does one do research in mathematics? Typically, one assembles a few like-minded mathematicians, a pot of coffee and a blackboard, and the debate will start. Ideas are thrashed out, ridiculed, maybe even proved. Jokes are cracked, parenthood questioned, and finally - the hard bit - someone has to lock themselves away and write it down. Jokes? Yes. Indeed, mathematicians have a recognisable taste in humour. Next time you find yourself making a joke out of the literal meaning of something, remember that there are people who find that kind of thing funny.

SCIENCE PROMOTION SOCIETY ON CAMPUS

"A major challenge in science communication in the future will be to educate the public, not just about the new industrial technologies and environmental and resource management strategies and tools science is developing, but also about how different the new scientific world view is from the old: more organic, less mechanistic; more inclusive, less alienating; emphasising our inter-relationship and inter-dependence with nature. This new world view could well transform Western culture."

Richard Eckersley

The relevance of science to the national economic good is slowly being recognised, although it largely remains peripheral to the mainstream of public and political debate. According to Gascoigne and Metcalfe, in their publication Public Communication of Science and Technology in Australia, "Science needs to push the relevance message hard, to bring science into the centre of national debate - and it also needs an image change, to begin to attract the best and brightest of university entrants."

Media coverage of science has increased over recent years. Scientists are being made more accountable for their research, particularly in terms of its relevance to national objectives and benefits to industry. As science has come under pressure, scientists have become more political and more ready to regard communication as an acceptable activity.

While this may be the case, communication of scientific research to the layperson is a skill which needs to be learnt by many scientists. The fear and mistrust often associated with the media has to be overcome if our scientists are to communicate their message fluently and effectively.

At a local level, University of Newcastle PhD student, Ms Vicki Clifton, understands the importance of science communication and promotion and has taken steps to
increase the profile of science in Newcastle.

"Science promotion is important for a number of reasons. We need to increase community awareness of the research activities taking place in our University and hospitals, we need to promote science and research as a rewarding and interesting career path, attract more research funds, improve the self esteem and self worth of our researchers and promote our University," Vicki said.

In co-operation with the University's Public Relations Unit, Vicki established a Science and Research Promotion Society, which quickly attracted the support and membership of a number of University academics and researchers. Although Vicki's main focus this year is on writing her PhD thesis, she maintains contact with the Society and is currently liaising with the Footlice Theatre Company to produce a science play for school groups aimed at demystifying science and changing the stereotypical image of our scientists. The society has applied for an Arts Council grant to fund the play.

Professor Tim Roberts from the Department of Biological Sciences, says the Society as a grass roots organisation with enthusiastic members spanning three University Faculties (Science and Mathematics, Medicine and Health Science, and Engineering). "The idea of a Science and Research Promotion Society struck the right chord with active researchers at the University and in the Region's hospitals," he said.

Now in its second year, the Society has already completed a number of successful projects and activities. Media awareness of the University's research has increased, following the release to the media of some 20 articles highlighting our research activities. A media skills seminar was held last year to broaden our researchers' understanding and knowledge of the media. The Society has also applied for a Commonwealth Staff Development Grant to run further media training workshops for scientists and researchers. Radio interviews will also be encouraged through the presence of Graham Steele from 2NUR FM on the Society. Abstracts about science research are being sought by the Public Relations Unit for use in University publications and for wider media distribution.

In May this year, a Community Resource Booklet was published which outlines the interests of a range of staff members willing to speak to schools, clubs and the wider community about their work.

The Science and Research Promotion Society meets regularly to discuss ongoing projects and ideas and invites anyone interested to attend its meetings. The next meeting will be held on June 30 in Engineering Block EF, Room 104 at 8.30 am. Your ideas on science promotion will be most welcome! Please contact Professor Tim Roberts (ext 5630) or Dr Andrew Spray (ext 5743) for further information.

Ms Vicki Clifton understands the importance of science promotion.
CONVICT ENGRAVINGS

A rare and valuable copy of James Wallis's Historical Account of the Colony of New South Wales, published in London by Rudolph Ackermann in 1821 has been donated to the University Library by Mrs E.H. (Mollie) Steere of Adamstown Heights. James Wallis was Commandant at Newcastle from 1816 to 1819 and in this time transformed the penal settlement into an orderly town. Also at Newcastle at this time were the convict engraver, William Preston, and the convict artist, Joseph Lygett.

The book includes six double-page and six single page engraved plates which were based on drawings made by Wallis and engraved by William Preston. The plates depict scenes in Newcastle, Sydney, and the Hawkesbury River as well as an Aboriginal corroboree and two plates of kangaroos and black swans. Wallis's book was the first work of general landscape views of early New South Wales and the first book to consist entirely of plates engraved in the colony by a colonial engraver. The views of Newcastle are among the earliest representations of the settlement. The gift of this unique work to the University is particularly appropriate with the advent of Newcastle's Bicentenary.

The book has been in Mrs Steere's family for many years. It was sent out from England by Mrs Steere's grandfather more than 60 years ago. It will now be housed in the University's Rare Book Collection.

STRUMMING VIRTUOSO

Canberra's Carolyn Kidd calls herself a “strummer” but those in attendance at her recent lunchtime concert at the University's Conservatorium of Music would probably disagree. In a performance featuring works by David Kellner, Dusan Bogdanovich, Carlo Domeniconi and Roland Dyens, Carolyn showed why she is one of Australia's foremost classical guitarists. A graduate of the Canberra School of Music, she won first prize in the Australian Guitar Competition in 1985, winning the Duet Section the following year. Postgraduate study and performances throughout England and Europe followed until her return in 1990 to join the highly innovative guitar quartet Guitar Trek. In addition to her quartet work she is also the current Visiting Artist-in-Residence at the Victoria College of the Arts.

VISITING SOLOIST

Playing the harpsichord is a labour of love for Victorian, Elizabeth Anderson. After several years of study in both piano and harpsichord, Elizabeth decided to concentrate on the beautiful, traditional instrument only a few years ago. Since then, she has become known, not only as an exponent of historical performance practice, but also as a player of the contemporary repertoire for the harpsichord, both in Australia and abroad. A veteran of seven international concert tours, Elizabeth has performed at home as a soloist for Musica Viva, the Australian Broadcasting Corporation and the Melbourne International Festival of Organ and Harpsichord. She will soon release her second CD, Musical Portraits from the Salons of Paris. During April she visited the University's Faculty of Music where she performed Bach's Goldberg Variations to an appreciative audience during a lunchtime concert.

DR GREEN APPOINTED TO INDUSTRY COUNCIL

Another coup for the Centre for Employment Studies. Dr Roy Green has been selected to represent the Hunter Region on the Manufacturing Industry Advisory Council.

The council has 11 members, most of them Chief Executive Officers of leading national and state companies. Mr Bruce Kean, Former Chief Executive Officer of Boral is the Chairperson.

The council's main priority will be to implement the Manufacturing Industries Program, a government initiative which brings together parties interested in expansion and improvement of manufacturing activities in the State. Its brief is to provide advice to the NSW Government on manufacturing, instigate investigations into issues affecting manufacturing, and prioritise actions for implementation.

Members of the council will also form task working groups looking at issues such as business environment; planning and development approval; government purchasing; access to finance; education and training; industrial relations; image of manufacturing; international competitiveness, and regional manufacturing.

According to Roy, membership on the council provides and excellent opportunity for the Centre for Employment Studies to have its views and ideas understood and implemented.
CONVOCATION FOUNDATION

The Chairman of the Board of Trustees of the Newcastle Convocation Foundation, Mr Philip Miller, recently presented a cheque for $12,000 to the International Hall Trustees. Raised by Convocation, the University's graduate body, during 1992 and 1993, the funds will assist in the construction of a common room at the Hall. Mr Miller thanked the direct donors and the Rotary Clubs of Newcastle and the Hunter Valley for their support.

"For various reasons, the Foundation (Convocation) has not been particularly active since its establishment in 1982, but today's donation does bring the total of funds raised and distributed by it to $42,000," Mr Miller said. "I must say that I am strongly in favour of an organisation which is controlled by the graduates, raises funds from the graduates and others, and is not under the control of the University."

Mr Miller said. The Board of Directors of Convocation Pty Ltd (Trustees for the Convocation Foundation), comprises four University representatives and six graduate (Convocation) representatives.

"I think it is important that there is a structure through which graduates may raise and distribute funds on projects which are part of the University but might be for such optional extras that would not be prudent for a University controlled fund to support."

The Convocation Foundation Board of Directors, which includes the Vice-Chancellor and the Warden of Convocation, will meet in August to discuss the role and the future of the Foundation.

Dear Editor,

I write to invite readers to participate in a competition, the one and only prize for which will be a bottle of wine to the value of $20 collectable from Staff House. To win the competition, and the wine, here is what you must do.

Identify the senior member of the University administration who, after attending the opening night of Bell Shakespeare's Macbeth at the Civic Theatre, said - 'To my eternal shame I have to confess that I went along having no idea what it was about.'

Put your answer on a sheet of paper and send it to the undersigned c/- Department of Education. First correct entry wins. Both the winner, and the correct answer, will be announced in the August issue of this publication.

Yours sincerely

Robert Mackie

Dear Editor,

I must respond to the letter by Bill Geyl in the April issue of VGE, although it is not so much deep conviction as my expertise in one of the most marginal disciplines in the University which compels me to defend the editor (or whoever thought up the title Van Gogh's Ear). I think many readers miss the clever tropes encapsulated in the new title for the University Bulletin. The use of the metaphor of Van Gogh's ear for the University Bulletin is not to draw people's attention to the paper, that would be a crude corporate strategy; the title is instead a contribution towards deflating a powerful popular myth and a trap for those who forget that a little knowledge is a dangerous thing. Van Gogh cutting off his ear was more a non-event than a tragic event, since hard-hearted art scholars have shown that he rather less dramatically mutilated a small section of the lobe. Personally, I find the thought of the University Bulletin being called Van Gogh's Ghastly Gashed Lobe an appalling idea, while conceding it would appear less tragic. If there was tragedy in Van Gogh's middle-class life it was the poor medical treatment and understanding of his epilepsy, a condition which today would not be considered a demented state. To say Van Gogh was ignored in his lifetime is to confuse mythology and history. Such was his renown, that even a wealthy Australian painter, John Peter Russell, working in Europe sought him out and painted his portrait. There was a steady demand for his work which he was keen to meet, often sending paintings still wet to his art dealer brother, Theo, and painting several versions of popular works such as his Sunflowers. Finally, I was surprised that Bill Geyl referred to Van Gogh as a genius. I thought that word had been expunged from the academic vocabulary.

Ross Woodrow,
Lecturer, Art Theory

Warden of Convocation, Jean McGarry, with Convocation Foundation Chairman, Phillip Miller (r) and Mr Bart Richardson, Chairman, Property Committee, International House.