Feature:

Architecture:
The Faculty, The Campuses

Research and Scholarship
Achievement
Catalysis
ARCHITECTURE:  
THE FACULTY, THE CAMPUSES  

Architecture is an inescapable aspect of modern living. We are all affected, inspired, transformed even confronted by our physical environment. In our homes, our places of work and in our travels, the structures which surround us cannot be divorced from the way we feel about the world.

Our manipulation of the physical environment, however, has challenged our relationship with nature and new approaches are necessary if we are to live harmoniously with nature and tackle the urban design issues of the next century.

Graduates of this University's Architecture and Construction Management courses will be leaders in the movement towards future environmental harmony. According to industry and professional representatives, they are well prepared for this challenge by their professional training.

Our Callaghan and Ourimbah campuses provide examples of an harmonious blend of natural and physical development and will become places of excellence in architectural design and environmental management.

This issue of Van Gogh's Ear celebrates our physical and natural environments in their totality. We hope it will contribute (in some small way) to an understanding and appreciation of our physical environment.
NEWCASTLE OFFERS ONE OF AUSTRALIA'S LEADING ARCHITECTURE COURSES

by Mr John Bilmon

A confident attitude clearly exists where a university faculty refers to its newest facility as “the students’ building”, a student focused domain where staff are seldom seen.

Yet this is what has happened with Architecture’s new open planned building designed by Grose Bradley which, in association with the refurbished Romberg building and the relatively new Wilford building, will satisfy the space needs of the faculty into the immediate future.

The University of Newcastle is located on one of the most topographically interesting and attractive sites of any education facility in New South Wales. Perhaps in response to its physical setting, the faculty’s results are equally impressive. This is evident for example, in the awards achieved by students and staff from the faculty - the 1994 James Hardie Scholarship to Virginia McLeod, the RAIA Design Medal to William Dowzer in 1993 and to Phillip Rossington in 1992 and Teaching Excellence Awards to Associate Professor Rob Cowdroy and Dr Ron Banerjee this year. The Teaching Excellence Awards reflect well on the faculty and architectural education generally and the student awards are highly competitive and prestigious.

So what makes Architecture at Newcastle special? In my opinion three factors apply. Firstly, it may be a function of size. The student population is the smallest of the four universities offering an architectural degree in NSW. Newcastle is half the size of the next largest architectural course at UTS and about one quarter the size of the largest at UNSW. This relatively modest size fosters a close relationship between staff and students and allows contact between them to be strong and personal. It is interesting to note that in a recent survey the architecture students at Newcastle recorded the highest degree of satisfaction with their course of any of the four architectural schools!

The second factor is the degree of integration of all subject areas into the design process achieved at Newcastle. The faculty, in recent years, has responded very positively to the challenge of achieving a balance between the sound pragmatic base of the course and the need to foster exploration. The work of the senior students demonstrates no inhibitions in this regard. This synthesis of course content into the design process arises from the Problem Based Learning technique and is extremely important in architecture. This, in my opinion, distinguishes the Newcastle course from the other architectural faculties in this state.

The location of the University possibly contributes to the third factor which is the degree of integration achieved by Newcastle into the architectural profession and practices. Possibly responding to a perceived isolation, students and staff alike are actively involved in the professional associations within the state and practices in Newcastle and Sydney.

During the course, students seek out real and identifiable clients with real design projects, the resolution of which hones interpretive skills and encourages mature design solutions backed up with appropriate research. A strong awareness of environmental factors and contextual response is evident in the work produced. Staff are actively involved in joint research initiatives with practices and the professional bodies and are even seeking opportunities to collaborate with overseas institutions on the export of architectural services and education.

I have participated in a number of Architecture Faculty reviews involving the professional bodies in recent years and have observed a significant strengthening of the Architecture course. My own practice employs a number of Newcastle graduates and is reviewing research opportunities with staff members. With the advent of the new facilities, I believe that Newcastle will continue to offer one of the leading architectural courses in Australia.
DESIGNING THE CITY

by Professor Barry Maitland, Dean of the Faculty of Architecture

What we want to do is put a bit of poetry into the souls of our town clerks and shire engineers - to get our planners and architects to come up with ideas with a sense of the miraculous, to focus on the wider questions of urban form....

The Prime Minister, Paul Keating, 1993

Recent events such as the Sydney Olympics bid and the Building Better Cities program have renewed interest in urban design issues in Australia, but it has long been recognised that the way in which the designs of individual buildings act together to make viable urban environments is a crucial matter for architects to consider. For this reason urban design makes up an important strand in the undergraduate architecture program at Newcastle, as well as an area of research and consultancy work in the faculty.

My interest in urban design began as soon as I graduated and began working in teams designing towns from scratch in the UK New Towns program, and then grew as I became involved in development projects in existing English cities, culminating in the London Docklands. It led to the book Concepts of Urban Design, and has continued in Australia. Newcastle provides a unique and very special setting for the study of urban design, and one which offers opportunities for the Faculty of Architecture to learn from and contribute to the development of the city. On the one hand it contains one of the most interesting historical townscapes on one of the most dramatic urban sites in the country, and on the other it is the location for the Honeysuckle Project, one of the largest current Australian experiments in urban design.

Together with other consultants, including historian John Turner and architects/planners Suters Architects Snell, I carried out a study of the urban character of Newcastle city centre for Newcastle City Council, analysing its essential features. This resulted in a comprehensive set of urban design guidelines. These guidelines aim to provide architects and developers, intending to build within the city core, with simple outlines or patterns of key characteristics, to help them relate their proposals more readily to their context.

The guidelines are now being complemented by new precinct development plans for the Honeysuckle Development area on the Newcastle waterfront. This exciting project has provided an opportunity for our students to consider the development of master plans for larger sites and the revitalisation of inner urban areas. The Honeysuckle Development Corporation has been extremely supportive in this, acting as clients for a number of projects, providing prizes for the best student results, and mounting public exhibitions of student work.

The Faculty of Architecture, through TUNRA, has also carried out technical evaluations of the likely impact of new proposals in Newcastle for a variety of clients, using heliodon and urban scope equipment in the faculty to assess such issues as the overshadowing of public spaces by new buildings, and their visual impact on existing streetscapes.

Newcastle is not the only setting for urban design projects and research undertaken in the faculty, and this year, for example, the fourth year Bachelor of Architecture program has been focused on another Building Better Cities area, at Pyrmont in Sydney, as well as on a development project set in central Singapore. In return, fourth year students from the National University of Singapore ran a short program set in the Honeysuckle area of Newcastle. Through such projects we develop an understanding of the complex dynamic of economic, social and technical forces which shapes our cities and provides the context within which architects design their buildings.
BUILDING PERFORMANCE RESEARCH

By Professor Denny McGeorge, Architecture

Our builders were with want of genius curst;
The second temple was not like the first;
Till you the best Vitruvius, came at length,
Our beauties equal, but excel our strength.

John Dryden

The Building Performance Research Group (BPRG) of the Department of Building is currently analysing the performance of 180 primary and secondary school buildings built in New South Wales during the period 1988 to 1993 in an attempt to identify the characteristics which contribute to a “successful” building. This analysis is a central feature of a three year collaborative research project on “buildability” which is jointly funded by the Australian Research Council and the New South Wales Department of Public Works.

Having reached the half way point of the project, members of the research team now have considerable empathy with Dryden’s observations on the difficulties of identifying and replicating the indicators of a successful building. The identification of indicators of success is a formidable task, particularly if this is to include user satisfaction with the finished building.

Some 25 years ago Markus observed that an organisation placed in an unsuitable environment alters its activities to make the best use of it, and in turn the environment is moulded or adapted by the organisational activities. This tenet has hitherto been mostly neglected and research in this field has been primarily concentrated on the design and construction phases of the building process, giving only scant attention to the eventual performance of the building.

The thrust of the Newcastle research is to challenge this view and to put forward a counter proposition that “buildability” must encompass the life cycle of a building. The completion of a building for handover to the users should be seen as part of a continuum rather than a closing of accounts or a situation of finality.

This proposition is not in fact an academic pipe dream, and it has been mooted that some public authorities are considering the introduction of a 10 year defects liability period for non-residential buildings in order to form a binding relationship between designers and constructors and the users of buildings. The outcome of the BPRG research project will have a bearing on these types of policy decisions.

A by-product of our research has been the development of a prototype computer graphics package which allows project participants and decision makers to locate their position in a three dimensional framework which comprises the dimensions of time, other participants and factors influencing decision making (which in the context of our research is the factor of “buildability”).

In effect what we are attempting to produce is a computer generated cognitive map which is easy to use and which will improve communication between building stakeholders. In addition the package will encourage users to make forward and backward passes through previously completed projects, thus leading to an improved knowledge base. The package is still very much at the experimental stage and is currently without a name. Perhaps when it is finally developed, it might aptly be called Vitruvius?


WRECKAIR SCHOLARSHIPS FOR WORTHY STUDENTS

Two students from the Faculty of Architecture were presented with $5,000 scholarships by the State Manager of Wreckair Pty Ltd earlier this year. Mr Kingsley Mundey presented cheques to Ms Janet Hendrikson, an architecture student, and Mr Brandon Finucane, in his third year of Construction Management, on Wednesday June 8 in recognition of their achievements.

The scholarships will allow both students to pay their Higher Education Contribution Scheme (HECS) and Union Fees as well as incidental costs for books and equipment.

The Students will also be employed at Wreckair’s local site during University holidays.

“This work experience will provide students with a valuable insight into the building industry’s infrastructure,” said the faculty’s Associate Professor Robert Cowdry. “The students will spend time at the plant hire facility and on building sites where the equipment is used.”

Wreckair plans to make these scholarships models for others to be offered around the country. The company’s aim is to provide similar scholarships to students in each state of Australia.

Speaking at the presentation, Mr Mundey said that Wreckair derives much of its business from the building and construction industries and the scholarships were a way of giving something back. “We also believe in being good corporate citizens and are happy to offer work experience to students and assimilate them into the industry.”

The scholarships are given in the final two years of the two courses, allowing students to prove themselves worthy during the early years of their studies. The two recipients of this year’s scholarships had achieved the highest grade in their respective courses.

(1 to r) Brandon Finucane and Janet Hendrikson with cheques presented by Mr Kingsley Mundey, State Manager of Wreckair.
Delegates from as far afield as the UK, Netherlands, the USA, Canada, South East Asian and Pacific Rim countries gathered in Newcastle recently for the highly successful 1994 biennial international conference for the Australasian Problem Based Learning Network.

Hosted by the Faculty of Architecture and held over four days in early July, the conference attracted 130 tertiary educators from around the world and from a wide range of educational disciplines, including medicine, health sciences, law, engineering and science, as well as the faculty's particular disciplines of architecture and construction management.

The faculty's highly successful applications of Problem Based Learning, (PBL) Integrated Learning and Problem Based Distance Learning have earned it a worldwide reputation in this field and the highest accreditation levels in Australia for its courses.

The invitation to host the conference was a result of the Faculty's leading role in research and development of theory of problem based approaches to professional education. Organisation of the conference was an inter-university operation over 18 months, with Associate Professor Rob Cowdroy and Chen Swee Eng, Arthur Kingsland and Michael Ostwald from this University, Associate Professor Penny Little from Problarc Educational Research and Development Centre at the University of Western Sydney and Mr Greg Ryan of the Professional Development Centre at the University of NSW.

First keynote speaker, Dr Michael Knowles from Monash University, set PBL in the context of a sociologist’s view of recent history of educational movements. Professor John Westrik, of the Technical University at Delft, The Netherlands, discussed TU Delft’s experience in establishing PBL across a school of 2,400 architecture students, which provided an interesting comparison with Newcastle’s application in a school of almost 200 architecture students. Professor Ann Kerwin from the University of Arizona discussed ignorance in relation to learning, and Dr Betty Anderson shared her experiences of the outreach potential of PBL based education.

The conference demonstrated that Problem Based Learning is increasingly being used in a broad range of areas and is at the forefront of educational reform, particularly in the field of professional education. Papers and discussion addressed the issues of pedagogical technique, changes in teacher-learner relationships, organisational and staff development issues, and relationships between tertiary education and the wider social systems and subsystems. They reflected major changes in thinking about educational processes and their relationships to the wider community, and a rapidly changing self perception of tertiary education and its purposes.

A selection of internationally refereed papers from the conference was published in a book, Reflections on Problem-Based Learning (Eds Chen, Cowdroy, Kingsland and Ostwald). Remaining papers were published in the journal, Research and Development in Problem-Based Learning, Vol. 2 (Eds Ostwald and Kingsland). Both are published by the Australian PBL Network. 
RED SQUARE, THE BSC BUILDING, THE STEELWORKS TRANSPLANTED

By Mr Michael Ostwald, Architecture

Landmarks are those features which the mind recalls as encapsulating the essence of a place.

The traveller who visits Newcastle University and takes the wrong path at night, wandering in darkness across an arched bridge to the north of the main campus, will be greeted with a curious sight. At first, seemingly all alone in the darkness, there is a strange sight, a warm glow with a hint of metallic sheen and, at its core, 40 tonnes of red painted steel. A structure that, at first glance, appears to have been transplanted from the Newcastle Steelworks confronts the traveller. The sight would be unusual in almost any major city but amidst the otherwise conventional bushland campus of Newcastle it was always destined to become a landmark.

In 1988 Michael Wildford, one of the worlds foremost architects, came to Newcastle to design a structure to house the proposed department of Construction Management. Whilst Wilford is better known for his large projects in Europe, Asia and America, at the request of Professor Barry Maitland (Dean of the Faculty of Architecture) he travelled to Newcastle to design this relatively small building.

Named after its sponsor, the BSC (Building Services Corporation) building is made up of three main structures, two pavilions, and a linking concourse. All are constructed of steel, clad in corrugated stainless steel and painted fire engine red. Spectacularly lit at night and dominating the once undefined northern axis through the university, Michael Wilford’s design breaks every material and form caveat the university has been cleaving to for the last 20 years. It is this negation of the brick, tile and concrete melange, a seemingly destructive step, which provides the key to the building’s identity and its capacity to act as a landmark par excellence.

The most striking element of the design is the concourse. The seven metre high roof is supported on four columns providing an undercover public space. The rest of the building expresses Wilford’s reading of Newcastle’s industrial heritage. It takes an architectural language reminiscent of the steelworks and then reinterprets this vernacular. The red colouring, the exposed steel flanges, the bolted on sun screens, corrugated metal, industrial sliding panels and repetitious porthole windows are all local industrial motifs. The design’s strengths are in its siting and interaction with the surrounding public areas. While its successes are in this greater context, the finer features of the building have encouraged lengthy and often vigorous debate amongst visitors on whether or not the building is really a success. In 1992 it won two merit awards in regional and state architectural competitions. In each case the jury process was complicated by the uncompromising nature of the design and its obvious successes and failures. Whatever the reaction, positive or negative, the building remains a landmark, not only for locals but also for the community of architectural students who have recorded ‘Red Square’ on their architectural itineraries.

Photo by Dave Cubby Photography

The BCS building, always destined to become a landmark.
HOUSING SHOULD NOT COST US THE EARTH

Mr Gareth Cole is an angry architect. He’s angry because Australians continue to desire, and architects continue to design, houses which do not harness the natural energy of the sun. These houses, he says, are costing us the earth. Literally.

Solar technology has been readily available since 1973 and the principles of solar passive design are now familiar to most people. However, according to Gareth, many architects pay lip service to the concept without really understanding how it works.

“Am often approached by architects and engineers who say they’ve heard it all before but they admit to building houses with glasshouses on the southern side of the building. They simply don’t understand solar passive design.”

One of the Faculty of Architecture’s many guest lecturers, Gareth said architects should seize the initiative in this area but it is important that they do the job properly, even to the point of climbing up in the roof and connecting insulation themselves. Too many people say they have a solar passive house that doesn’t work, he explained. “The real problem is that the house has not been designed and built properly and doesn’t include the correct details.”

“I am often asked to do solar audits on houses and I sound like a broken record. It is all so obvious and simple. Things like having curtains, insulation, pelmets and door seals and covers for skylights dramatically improve the energy efficiency of even poorly designed houses.”

Gareth’s own house (which includes his office) is a showpiece of solar passive design. Its features include a series of north-facing windows, concrete flooring for thermal mass and a wall which contains 2,000 coke cans filled with water. The temperature of this wall never varies more than five degrees. The house also features a glasshouse on the northern side which acts as a heat motor in winter and assists with cooling in the summer; solar operated curtains and external louvres; a garage roof covered with an integrated solar roof collector which provides all the family’s hot water; air locks on both the front and back entrances; and door seals installed to all external doors which prevent heat escaping in winter.

The electricity bill for this house is around $64 per quarter and that includes the running of office equipment.

This is the prime motivation, along with concern for the environment, for Gareth’s clients. The cost savings are enormous over time and the cost of the house itself need not be out of the reach of average home buyers. Gareth has designed homes from as little as $110,000 up to $1.2 million. Solar hot water systems, he said, have also come down in price and his Solar Buyer’s Guide identifies systems which cost between $1200 and $1500 at the lower end of the market and $1800 to $2800 for a more sophisticated unit.

After winning the industry’s solar design awards for eight years, Gareth is keen for competition and he wants architects to take up the issue and give it new impetus. And if architects do not know how to design solar houses, he said, they should refer clients to someone who does.

“Andrews a professional speciality developing. And those specialists will be in demand because new houses in New South Wales will soon have to comply with a compulsory energy rating system.

The next big issue on the agenda is building materials. The industry is set for dramatic changes, according to Gareth, and some of the bigger companies are already awake to it.

“There needs to be more research on building materials. What little research is being done has shown that some materials are giving off toxins and carcinogens which may contribute to phenomena like sick building syndrome.”

“Environmentally friendly building materials are available and the use of recycled timber and other materials is becoming increasingly feasible and popular. In the future, I envisage huge warehouses which deal only in recycled building materials.”

Solar architect, Mr Gareth Cole, during a lecture to students, staff and members of the profession.
For four millennia, pharaohs, caesars, bishops and princes have been the elite patrons of Western architecture. Since the Enlightenment, patronage has become commercial, commodified, almost popular.

However the dollar and time bottom-line agendas of most contemporary building procurers is hardly enlightened. Universities, gatherings of community thought-leaders, provide hope for patronage not only concerned with cost and time stewardship but also quality and excellence - however defined.

For a time the University of Newcastle produced few leading edge buildings. However, a new team of professionals has produced the kinds of briefs and adopted appointment procedures which have already resulted in two major architectural awards and the publication of three new buildings.

One of these, the Design building, is the product of an enlightened brief and a willingness to appoint young innovative talent. EJE Architecture has combined its experience with the small, design-intensive practice of Stutchbury and Pape to produce a building for which a number of claims are made. These claims can be grouped into issues of energy conservation, economy, interaction and light.

Energy conservation is achieved by applying passive solar principles, usually associated with domestic architecture, on a larger scale. Work spaces face north with terraces and overhangs calibrated to catch low winter sun and exclude high summer sun. Stack effect is used via a central void to draw in cool air and exhaust hot air in summer and to reverse the process in winter. Orientation and shading have been primary, cost free strategies. The exception is the group of southern, small-windowed, staff offices which, in Kahn's terms, lack sufficient natural light to give them presence.

If architectural award categories seriously accounted for cost per square metre, the Design building would be a formidable contender in a value for money nomination, being built for 40 percent less than the rate recommended by DEET (Department of Employment, Education and Training).

The building actively fosters interaction at a number of levels: with nature, by retaining 76 percent of existing trees and inviting occupants into the site via extensive opening walls and terraces; spatially, through three dimensional visual connections; and interpersonally, through planning and circulation strategies.

Conventional diffused south lighting for studios has been abandoned in favour of high, east facing walls of light carefully screened to prevent cast shadows on the work plane. These walls animate the studio spaces as the weather varies. Careful modulation throughout the building contributes to an ambience that almost renders light material.

These issues have been clearly addressed by the architects while some debates have been selectively by-passed.

Micro rather than macro campus planning models have been favoured - the building does not form a cloistered group with other University buildings, it eschews beaux-arts symmetry and, despite its siting, does not conform with the American free standing picturesque or quadrangulated types. Rather, the architects have accepted, in the Heideggerian sense of appropriating a standing reserve of ideas, the planning traditions of the University of Newcastle. The building is nestled among the trees and car parks and is only loosely related to other contexts.

Criticisms of the building tend to be trivial. Detailing is sometimes overwrought as in the balustrades and underworked in some material junctions. The building has a biased masculinity about it, related to its shed type, and the approach itinerary and entrance lack clarity, especially for a first-time user.

The Design building confidently asserts that a challenging functional brief can be satisfied while simultaneously addressing the wider agendas of environmental sensitivity, energy conservation and design excellence - all within a framework of stringent financial stewardship.
POTENTIALLY A PARADISE

A paradise, a place of excellence in sustainable environmental management, a valuable educational resource. These are all possibilities for the physical development of this campus, according to Curator of Grounds, Mr Peter Stevens.

Two years into a five year contract, during which he has been asked to secure the number one bushland campus in the country, Peter feels the discussion over the future of the campus and the implementation of a landscape masterplan have both begun in earnest.

The philosophy behind this masterplan is sustainability but, said Peter, no one has really defined what that means. "How do we best maintain native grasses? What is the true value of remnant bushland? Perhaps turf is only appropriate in sunny pockets where people congregate."

The identified aims of the landscape masterplan are to secure natural habitat for birds and wildlife, a fire free campus, good pedestrian flow around the campus and a valuable resource for environmental education.

"There is value in exposing all students going through every course to the environmental debate," Peter said. "What are their fears and expectations associated with the environment? Where do mosquitoes breed? Will the bush burn during summer? What about air and water quality? These issues are easily debated in a habitat with great diversity."

Evidence of the masterplan in action is increasingly obvious around the campus. Total catchment management is the explanation for the mounds and swales visible at a number of sites. "Getting hold of the water and using it," is Peter's simple description. This restricts soil erosion and consequent sediment and protects the river system. It also puts to good use the vast amounts of runoff from carparks and other hard surfaces.

The system reflects Peter's past experience with permaculture and keyline systems and other innovative land use practices. While many organisations are now responding to the need to address these problems, the approach taken here is "low key", using natural systems to achieve innovative and cost effective results.

But there's more to come. "This University has a unique opportunity to explore appropriate building technology and land use towards the expectation of sustainability," he said. "It is better equipped than most regional settings to innovate and explore what is possible. It is far more imaginable to bring about exemplary change here than in established suburban areas where systems are already in place."

So what's next on the agenda? Storage of rain water for playing fields and running chooks and geese on the ovals instead of buying in manure are just two of the many possibilities.

Support for the changes is growing, according to Peter. An increasing number of positive comments are made to grounds staff and there is a growing interest in what is being done. There are also requests to duplicate what has been done elsewhere on campus. Peter and the grounds supervisors, Mim Woodland and Herb Presker now feel more confident in seeking community involvement in ceremonial tree plantings, reducing the litter collection services and an increased recycling program. They welcome input from the University community.

The credit for what has already been achieved, Peter said, must go to Mim, Herb and the trained landscape staff who, since 1992, have done all the landscaping work. The young people from the Delando Crescent Enclave lend a hand with general maintenance.

"There's a long way to go but if we continue the rehabilitation at the current rate this will be a spectacular place to come in five or 10 years," said Peter. "You will know a sustainable balance has been achieved when you can enter the campus from any point and find yourself in a bushland sanctuary."

Grounds staff show off an example of the University's catchment management initiatives. (l to r) BACK: Mim Woodland, Karen Gory, Mark Weber, Janine Morschel, Scott Townrow, Robert Rein, Mathew Patterson, Mick Gigli, Richard Littlewood, Mark Friend. FRONT: Leonard Hollins, Jason Clarke, Carol Kelly, Scott Kelly, Scott Tindall, Kynan Buckingham, Paul Black. Karl Hitchcock (absent).
The bushland campus, for which this University is nationally and internationally recognised, is a monument to the person most associated with its early development.

Dr Don Morris, former university architect and planner, put his vision in place at a time when natural bushland was undervalued and little was known about regeneration and preservation of native habitat.

The reins have now passed to Mr Philip Pollard, senior architect/planner. While retaining a strong commitment to the bushland campus, he has embarked on an ambitious building program which will see the University into the next century. He has overseen construction of environmentally sustainable buildings and added impetus to landscape management by creating two new positions.

Don’s position, when he took it up in 1968, was challenging and without precedent at this University. The McMullin, Physics and Geology buildings, Shortland Union and Auchmuty Library were the only existing structures and the grounds were a disaster. “The campus was bare of grass and groundcover and after rain it turned into a clay quagmire,” he said in a recent interview.

A masterplan, conceived before development of the site commenced, had identified the value of maintaining the forest cover and Don’s job was to ensure that minimal damage occurred during physical development of the campus. “In those days tree preservation orders didn’t exist and the University was unique in imposing financial penalties for damaging or removing trees.”

The landscape work was experimental and Don’s team learnt as they went. Compacted soil and opening up areas for carparks and other services caused damage to the forest cover. Dieback started to occur and some trees had to be lopped in an effort to reverse this trend.

In the early years the masterplan was followed closely. The concept of “pavilions in the park” (low rise, individual buildings among the trees) suited budget constraints but later proved a nightmare for Don, who had to provide access for people with disabilities.

During the next 20 years Don was to be involved in the location and planning of more than 30 buildings and associated landscaping. These included various science buildings, the engineering complex, maths and social science buildings, the Great Hall as well as medical buildings on and off campus.

The masterplan concept changed and evolved in response to increased student numbers and departmental needs. However, the site was always dominated by the physical environment. “The forest cover unified the site, even though the style of the buildings became more disparate,” he said.

Unity was also a major issue for Philip whose first task, after his appointment in 1990, was to bring the two amalgamated campuses (The University of Newcastle and the Hunter Institute of Higher Education) together after years of separate development.

He, too, saw the landscape and bushland as a way of creating cohesion and appointed a curator of grounds and a bushland regeneration officer to promote natural bushland growth over the entire campus, introduce total catchment management and improve the soil.

Since then, Philip has overseen a major construction program, including the Language Centre, Design building, Architecture studios, Graduate studios, the BSC building, General Purpose building, Pacific Power's Advanced Technology Centre, Koorinda, and both stages of The Chancellery. All work has come in on or under budget and several buildings have been critically acclaimed in the architectural press, they have also proved that good design is not necessarily expensive.

Philip is most proud of the quality design cycle approach taken to these buildings. “The buildings work well climatically, are energy efficient, generally contain sustainable materials and are pleasant places to study and work,” he said.

Works still to be completed include The Chancellery annexe, a major new residential college, the Sports Union complex, University House refurbishment (city campus), extensions to the Biology building and Richardson Wing and much more.

These are interesting times for the University architect but they will be short lived. “Within 20 years the campus will reach its physical capacity and we may have to demolish old buildings and increase density. There will be more redevelopment than continued expansion,” he said.

To date, all construction work has been done without compromising the bushland campus. “We inherited a legacy from Don Morris which showed a great deal of vision at a time when it wasn’t fashionable to appreciate Australian bush.”
OURIMBAH ARCHITECTURE

by Ms Julie Becker, Executive Assistant to Pro Vc-Chancellor

The concept developed for the Central Coast campus centres on a low rise, informal, pedestrian orientated site reflecting its primary role as a centre of learning.

Echoing the goal of shared facilities, the village centre contains educational, social and recreational facilities used by both University and TAFE students.

Focal to the campus is the library, located at the eastern end of a formal quadrangle. At an informal level the centre also includes the primary meeting place for members of the campus - an area of terraces and plazas beside the lake and adjacent to student services, bars and shops, a place where students come to enjoy themselves.

The precinct is a joint development between the University of Newcastle and TAFE, the rationale being that with careful planning a majority of the educational and service facilities required by each of the partners could be shared, offering substantial cost benefits to both. Seventy percent of buildings have been planned as joint use facilities.

The co-operative nature of the venture has been evident from the outset. The masterplan, formulated by urban designer Tony Corkill of Tony Corkill Pty Ltd (for the University) and David Wilson of the Public Works Department Architects Office (for TAFE), was completed in 1990.

A few key decisions were made at the outset. A substantial floodway and associated boulevard was planned as a flood barrier to the main campus area. The boulevard establishes the entrance to the campus, providing an arrival point for major buildings.

The campus will eventually be a pedestrian only area, with a loop road system around the development incorporating service entry and student drop-off points. As much as possible of the site's natural vegetation has been retained, including a grove of substantial trees along a creek which is essentially the spine of the development. There is also a landscape management plan to guide re-establishment of the natural environment.

Enterprise zones are located adjacent to different academic units for private industry and other donors participating in the research/education/cultural development of the University and TAFE. Space has been allocated for a privately developed convention centre, art gallery, performance/concert hall and gymnasium.

Design principles for the buildings were also formulated within the masterplanning process. They included:

- a predominantly single level building form;
- buildings with pronounced roof forms to create visual features in the central campus area and provide terminal features to axial vistas;
- an architectural style based on masonry and lightweight panel construction reflecting a precinct style of solid forms balanced by lightweight shade structures and covered walkways;
- largest buildings located in the central area with scale diminishing towards peripheral areas;
- buildings designed for energy conservation and to take advantage of micro-climatic conditions.

Philip Cox, Richardson Taylor & Partners Pty Ltd were chosen by the Joint Management Team from a field of six architectural firms to design Stage 1 of the precinct.

Their work has resulted in a style that both reflects the intent of the masterplan and exploits the flexibility that predominantly single storey construction allows - development of an exciting roofscape, easily visible by pedestrians, and dramatic yet simple architectural statements.
In 1984 the Conservatorium of Music's Director, the late Professor Michael Dudman AM, submitted a proposal to build a concert hall on vacant land adjacent to the Conservatorium building.

The State Government ultimately accepted the proposal and the Conservatorium in Newcastle was notified in 1985. A period of vigorous planning followed, and the architect, Mr John Carr of Newcastle's Public Works Department, was assigned to the project.

A plan was drawn up for a 500 seat auditorium with a classical organ as the centrepiece. Important specifications given to Mr Carr were that the hall should be purpose-built for music performances, not for music theatre or opera. Stage infrastructure which is necessary for music theatre might have adversely affected the acoustics of the auditorium. A consultant acoustic engineer was engaged to work on the acoustic details, and work commenced in 1986 as a Bicentennial project. The hall was opened by the then Premier, Mr Nick Greiner in July 1988.

The hall has won numerous architectural awards, including the Blacket Award (for design on non-residential development). It is very beautiful to the eye: the colour scheme is vibrant and complex and the architectural style is art deco. Practically speaking, the hall has been immensely successful. It is comfortable for patrons and, from the performers point of view, its vibrant acoustics make it an excellent venue for live performances and for recording.

Many important recordings, particularly those made for the Tall Poppies Record Company, have been made in the auditorium and it is frequently used for live broadcasts on ABC FM. Musica Viva, a regular user of the hall, is one of the world's largest classical music organisations, and its visiting artists have international reputations for excellence in performance. Such visiting groups as the Shostakovich String Quartet, the Borodin String Quartet and the Quartetto Beethoven Di Roma, regard this hall as the finest of its type in the world.

Students enjoy use of the hall for classes and concert performances. As a teaching venue the hall fulfills a very important function, providing an ideal performance space in which students can test their achievements.

The Bicentennial project also allowed for purpose-built percussion and brass studios, a lecture theatre and practice facilities for students. The brass and percussion rooms are medium sized rehearsal venues, soundproofed and suitable for 15 musicians. The lecture theatre comfortably accommodates 30 students for all manner of classes.

Practice rooms are a great asset to any music institution. Full time music students must allocate a large portion of each day to practice and all music institutions do their best to offer ample practice facilities. The need is all the more compelling in Newcastle because so many students come here from other parts of the State and reside in accommodation without practice facilities.

With these additional facilities, the Faculty of Music is among the best equipped in the country. Each room is totally soundproofed and has an upright piano, desk and mirror. They are air conditioned and the ducting for each room is isolated from the concert hall and other practice rooms, eliminating noise transfer. Students can practice while a concert is taking place in the auditorium.

The auditorium and studio complex also provide an excellent venue for entertaining as well as art exhibitions and other displays. A number of significant paintings are permanently on display, including works by David Middlebrook, Sophia Montefiore, Charles Blackman and Robert Lupp.
GRAB YOUR TOGS AND GYM GEAR:
UNIVERSITY GETS NEW SPORTS FACILITIES

Sportspeople rejoice! The University of Newcastle is about to get the sporting facilities it so desperately needs.

A $7million Multi Purpose Health and Recreation Centre has been designed and approved and tenders will be called this year. In addition, negotiations are underway to include the council-approved $1.8million heated swimming pool in the complex.

Improved sporting facilities for the University have been in the pipeline for almost 10 years and during that time users have increased five fold. Construction of the Auchmuty Sports Centre was started in 1974 when the student population was about 3,000. Today the University has 15,000 students, not to mention the many staff who now also use the centre to work out.

A preliminary feasibility study revealed that the most successful recreation centres in Australia incorporate wet and dry facilities in the one complex. "This provides a total health and fitness facility which satisfies everyone's wants and needs," explained Sports Union President, Professor John Fryer.

Preparing proposals, listing priorities and seeking funds have all taken time and energy but the design plans and funding have been approved by the University Council, and tenders will soon be called. Occupancy is planned for 1996.

The design concept for the $9million Multi Purpose Health and Recreation Centre was developed by Sydney architects, Gazzard Sheldon.

Funding, according to Professor Fryer, will come from a variety of sources. "The total cost of the project, including the academic Physical and Health Education building is $13.6million, including the pool and infrastructure. "The Sports Union has saved $2.6million over the last decade, the University will loan the Sports Union $4.8million to be repaid over 10 years and will also pay $1.9million because the centre will be used for academic purposes, such as the physical education program and for holding exams. The University has already approved the $1.8million for the pool."

Construction work, which will include building new roads and establishing infrastructure, will cause some disturbance on campus but most regular users of the Auchmuty Sports Centre will not have their exercise routines disrupted.
DATING ABORIGINAL PAINTINGS

Using techniques he developed himself, geologist Mr Alan Watchman was last year able to date the oldest known Aboriginal paintings in Australia.

These paintings, at South Laura on Cape York Peninsula, are 24,600 years old and the discovery sent waves of excitement through scientific and archeological establishments. Alan's work also had significant ramifications for Australia's indigenous people.

The paintings at South Laura are only 2,000 years younger than those found in Cosquer Cave near Marseille, France and strongly suggest that human cognitive powers (in the use of pigment to leave marks on rocks) were developing at the same rate in both northern and southern hemispheres.

Alan's work has focused on dating paintings in which no carbon bearing materials can be found, therefore restricting the use of radiocarbon dating. If the material used to paint the image contains blood, beeswax, plant fibres and wood splinters or if the drawings are charcoal, a small sample is enough for radiocarbon dating.

However, Aboriginal artists used a variety of substances for painting and many did not contain organic, carbon bearing material. "Aboriginal people were extremely familiar with the best materials for making an image and making it last," Alan explained during a lecture delivered to scientists and artists at the University recently.

To date the South Laura paintings, Alan used radiocarbon dating to determine the age of carbon bearing materials beneath the painting and those that had grown over it in the form of dust and salt deposits. The complex dating process involves using a laser beam focused on a sample (a cross section no larger than four millimetres thick) in which the carbon in carbon bearing materials is converted to carbon dioxide. This is then frozen, converted to graphite and sent for radiocarbon dating.

A series of chronological dates are established through the layers of rock sample and reveal the date of the painting in relation to material behind and over it. The whole analytical process involves the use of binocular light microscopy, X-ray diffraction and Fourier transform infrared spectroscopy before the carbon dating is done. These procedures and the dating process were developed by Alan in Canada because no one in Australia was interested.

However Australians, particularly Aboriginal Australians, are interested in dating and preserving their rock art heritage. Alan rates Australia as one of the countries most committed to the conservation of rock art, although the United States is rapidly improving its performance since realising the tourist potential of such sites.

"The more work we do with improved techniques, the more we discover about the painters themselves and their environment. The crust deposits which form over the paintings can tell us about past environments and past temperatures," he said.

There are many difficulties associated with Alan's work. Where he can, he works with local Aboriginal people who have a real concern for preserving their heritage. But much of the degradation is caused by naturally occurring phenomena such as the growth of silicon deposits over paintings and accumulation of dust. In fact, according to Alan, there could be thousands of undiscovered paintings in Australia, obscured by such deposits.

These factors cannot easily be controlled or eliminated. "For instance, to stop water flowing over or near a rock face may just leave the salts in the rock to cause exfoliation," Alan explained. "We could just leave them be. Many Aboriginal people do not feel the need to preserve paintings in their pristine state and actually renew and repaint them as a cultural activity."

So why the urge to discover and put a precise date to these ancient works of art? "By finding the earliest paintings we can determine when man actually came to live in Australia and, if we can determine the rate of deterioration of paintings, we may be able to do something about preserving them," said Alan.

"And there is just the general interest." We seem to have a need to know and understand where we came from, our history.
MASONRY REGAINS ITS MARKET SHARE

With the advent of pre-cast concrete and tilt-up walls, bricks went out of fashion and favour in the building industry. However, research carried out at the University of Manchester’s Institute of Science and Technology by Professor Malcolm Phipps and continued here in Australia by the Faculty of Engineering’s Professor Adrian Page, means masonry structures are back in vogue.

An international expert in this field, Professor Phipps has changed the sectional shapes of masonry walls to improve performance and has added pre-stressing to increase strength. This allows the use of bricks in high walls, such as retaining walls, where concrete and tilt-up have been dominating the market.

"In the construction of high walls the market has been dominated by pre-cast concrete or tilt-up which is cast as a horizontal slab and then stood upright," said Professor Phipps during a two month sabbatical in the Faculty of Engineering. "My work in diaphragm and fin walls, which use brickwork, is an alternative to these methods and may allow bricks to regain their lost share of the market."

The advantages, according to Professor Phipps, are aesthetic as well as structural. "Bricks can be sculptured and shaped, making the wall more interesting and attractive than a flat grey, concrete surface," he said.

Masonry walls can be made to the same strength as concrete and with the addition of pre-stressing (a concept also developed by Professor Phipps) can be made stronger.

"Pre-stressing is applied by stretching high tensile steel wires between the top and bottom anchoring slabs of a cavity brick wall. A compressive force is used to clamp the bricks together and make the wall much stronger," he said.

"For very little cost the wall can be made 50 times stronger and therefore suitable for a retaining wall, for instance."

COLLABORATION FOR ESTUARINE ECOLOGY

An agreement was signed recently that will forge a unique association between the University and the Kooragang Wetland Rehabilitation Project.

The agreement involves co-funding of a Research Fellow in Estuarine Ecology in the University’s Department of Biological Sciences and will provide opportunities for both parties.

Chairman of the Steering Committee of the Kooragang Wetland Rehabilitation Project, Mr Craig Copeland, said that by co-operating in this way both the project and University stand to benefit. He said for the project, the research will provide an understanding of the food chain that leads to fish and bird populations and will improve wetland creation and rehabilitation initiatives. For the University, the research will provide an opportunity to become a leader in estuarine research with a project that is gaining international acclaim.

"Not only is the Hunter Estuary one of the major wintering areas for migratory waders, but is one of the most important sites for commercial and recreational fisheries in New South Wales," Mr Copeland said.

"A high proportion of the commercial fish catch starts life in estuaries. This is a linchpin project for NSW Fisheries and, by pooling our resources, both the Wetland Project and the University stand to gain," he said.

The Pro Vice-Chancellor for Research and Information Technology, Professor Ron MacDonald, said "This is a project of great merit and will prove to be of lasting benefit to the Region. It will also provide opportunities for students and academic staff from areas such as geography, history, chemistry, education, tourism and recreation, fine art, design and plant and wildlife illustration."

"The University’s Department of Biological Sciences conducts research of an international standard and this area of ecological research is very exciting."

Professor MacDonald pictured with Co-ordinator of the Kooragang Wetland Rehabilitation Project, Ms Peggy Svoboda and Chairman of the Steering Committee, Mr Craig Copeland.
ENTERPRISE BARGAINING AND WORKPLACE CHANGE

by Dr Roy Green, Economics

What exactly is enterprise bargaining, how does it take place and what are its effects?

These are some of the questions tackled in research projects undertaken by members of the Employment Studies Centre (ESC) in the Faculty of Economics and Commerce. The rationale for the decentralisation of Australia’s industrial relations system in recent years has been that it will promote improvements in workplace efficiency and productivity - without sacrificing the traditional values of fairness and equity in wage setting. But has it?

Supported by an ARC grant, ESC researchers last year conducted a major interview-based survey of Hunter region workplaces. They found that experience was very mixed, and that while some workplaces had used enterprise bargaining to transform the organisational culture, others were simply taking the opportunity to ‘downsize’ their workforces. This investigation was taken further in a series of case studies funded by the Federal Department of Industrial Relations (DIR) as part of the national Workplace Bargaining Research Project. The case studies examined the reasons for the different strategies pursued by enterprises, and drew policy implications for the design of a new legislative framework for bargaining.

The ESC has now been asked by DIR to conduct follow-up case studies to provide ‘longitudinal’ evidence on the process and outcomes of enterprise bargaining, with a view mainly to understanding the factors that contribute to successful enterprise agreements. In addition, as part of a separate project, the ESC is also evaluating the progress of a number of companies participating in the Best Practice Demonstration Program, established jointly by DIR and the Australian Manufacturing Council. This will result in a major report on the program and on the future steps manufacturing companies need to take in Australia to achieve ‘world class’ performance.

The ESC has also undertaken academic and contract research on the nature and measurement of productivity at the workplace. This research rejects the conventional textbook method of measuring productivity in favour of a ‘scorecard’ of performance indicators that are suited to the specific operations of the enterprise. The approach has been developed in considerable practical detail in reports on industry sectors, including the health industry and local government, and on specific issues, such as occupational health and safety. A further analysis of the relationship between workplace productivity and joint consultation, using survey results, reinforced the conclusion in the international literature that firms and organisations with a higher ‘intensity of collaboration’ were able to generate better than average performance in the medium to longer term.

CONNECTING WITH MALAYSIA

Three academic staff of the AMSET private college in Kuala Lumpur recently completed an intensive, seven day training course at the University organised by the Discipline of Environmental and Occupational Health within the Faculty of Medicine and Health Sciences. The course was to familiarise the lecturers with Australian methods and strategies for teaching Occupational Health and Safety at university level.

The University of Newcastle was approached by AMSET College because of its outstanding reputation in the delivery of Occupational Health and Safety courses. The University was to develop courses and train staff in readiness for the new Occupational Safety and Health Act in Malaysia, which takes effect this year.

The OH&S Courses Co-ordinator, Mr Ross Coulton, said the original contact through Assistant Vice-Chancellor, Associate Professor Jenny Graham, was followed by detailed discussion in Malaysia. He said an agreement has been concluded whereby the University trains lecturers in specific aspects of OH&S, assists with the curriculum development for courses at Certificate and Diploma level in Malaysia and provides ongoing monitoring of course materials, delivery and results.

The Principal of the AMSET College, Mr Nelson Nathan and the Deputy Minister of Human Resources in Malaysia, Dato Mahalingam, travelled to Newcastle to sign a Memorandum of Understanding with the University. At the same ceremony, certificates were presented to Mr Winson Nathan, Mr Sivarajah and Mr Sambanthan following completion of their training.

The Head of the University’s Discipline of Environmental and Occupational Health, Professor David Christie, spoke highly of the Malaysian lecturers’ professionalism and dedication.

“It is likely there will be another two groups of lecturers to come here and we are very much looking forward to meeting them and continuing our relationship with them in Malaysia,” he said.

Associate Professor Jenny Graham, Professor Ron MacDonald, Mr Nelson Nathan and Mr Dato Mahalingam sign the Memorandum of Understanding between AMSET College in Kuala Lumpur and The University of Newcastle.
FOR SUCCESSFUL ENVIRONMENTAL MANAGEMENT, just add money to a mix of stakeholders with common goals.

On August 26 the Hon. John Jobling, Hunter-based MLC and member of University Council, presented cheques totalling $62,280 to support environmental management initiatives in the Lake Macquarie catchment area.

The grants are part of the NSW Government's program of financial assistance for Total Catchment Management, a policy being implemented in Lake Macquarie by a Catchment Management Committee chaired by Dr Rod Kidd from the University's Department of Geography.

One grant ($20,000) provides continuation funding for the Lake Macquarie Biodiversity Database Project. This is managed jointly by the Committee's Ecosystems and Biodiversity Task Group and Lake Macquarie Council, but draws strongly on expertise within the University's Department of Biological Sciences and the CSIRO's Division of Water Resources.

A core project component is the use of Landsat imagery to investigate and map Lake Macquarie vegetation at various scales. The information is being compiled on a Geographic Information System database and is essential for effective future management of vegetation units remaining in the Lake catchment, particularly those containing habitat for endangered species.

This exercise was initiated by Dr Ken Myers, a former research scientist with CSIRO's Division of Water & Land Resources. Ken has fostered continuing CSIRO involvement in the project and, as an honorary research associate, is working closely with Dr Brian Conroy and Mr Peter Nelson of the Ecology Group, Department of Biological Sciences to manipulate the digitised satellite images and assist community members in ground truthing unit boundaries. Another colleague, Dr Mike Mahony, is contributing expertise to fauna investigations.

Community awareness and education is another vital component of the Committee's work. Another grant ($12,700) will be used to develop and install comprehensive signage to raise community awareness of catchments as natural environmental systems. Two other grants will help fund community based works in restoring degraded wetlands and coastal dunes at Redhead and Catherine Hill Bay.

These projects are part of the overall catchment management strategy gradually being developed by the Lake Macquarie Committee. Other University involvement at present focuses on the problem of accelerated catchment erosion and lake sedimentation. Rod Kidd recently received a small grant from the NSW Department of Conservation and Land Management to assist the Soil Conservation Service in developing an integrated urban planning model to facilitate natural resource management during development. A demonstration site is to be prepared to extend present research on efficiency of various erosion control methods and to show builders and developers the range of erosion control methods available to them.

On October 29 Rod Kidd, in conjunction with the Department of Community Programmes, will host a study cruise of Lake Macquarie to encourage community awareness and understanding of the environmental problems confronting the lake and its catchment. For information contact the Department on 21 6017.
OUTSTANDING LEADERSHIP

During the last 15 years a new perspective on the study of leadership has emerged in international academic circles.

This "neo-charismatic leadership paradigm", as it is known, consists of inspirational, visionary, charismatic and transformational leadership theories together with instruments designed to test them.

A leading proponent of this paradigm, indeed a world expert on leadership theories, the University of Pennsylvania’s Professor Robert House, visited the University last month to explain his theories. Entertaining his audience with examples of the world’s most famous leaders, he outlined empirical studies into leadership behaviour of US Presidents and Chief Executive Officers of firms in Silicon Valley, California.

Outstanding leaders, he said, must affect certain responses on their followers in order to be successful. They bring out an awareness of shared end-values, such as a desire for peace, order, equal rights or independence. They arouse in their followers the motives appropriate to the mission, for example the aggression necessary to fight a war. And they engage self-concepts in their followers by enhancing feelings of self-worth, self-esteem and identification with both the leader and the vision or mission.

"Outstanding leadership is leadership which motivates followers to forego self-interests, to make personal self-sacrifices and to go willingly above and beyond the call of duty in the interests of the collective and the vision," he said.

In order to do this, outstanding leaders articulate an ideological vision, such as the followers’ right to independence as in the case of India’s Mahatma Gandhi. They are people of passion and confidence. "Nelson Mandela spent 20 years in gaol for refusing to renounce the use of violence in aid of his cause - that is passion!" he exclaimed.

Outstanding leaders also exhibit self-sacrifice and stress identification with the values of the vision. They have high expectations of their followers and studies have shown that people who expect high standards and demonstrate confidence in others usually get the performance they want. Leaders also engage selective motive arousal, he said. "Depending on the task to be achieved, leaders arouse the appropriate motives."

According to Professor House, outstanding leaders have a short shelf life, the internalised commitment remains in the followers but the motivation wanes and great leaders are generally only required when there is a threat or a cause.

This leadership paradigm also applies to corporations and even small businesses. "For example, the plumber who shows his or her apprentice how to do the job and make a buck will not receive the same kind of work commitment as the plumber who tells the apprentice that he or she is engaging in a craft which involves the community’s health and hygiene needs." The plumber who uses this motivation method is employing high moral responsibility motivation, he explained.

Professor House is following up his studies on charismatic leadership with an on-going cross-cultural study of leadership in 64 countries. Rachid Zefanne and other members of the University’s Department of Management are Australian collaborators in this study.
Achievement

EMERGING LINKS WITH THE LATIN DRAGON.

By Mr Robert Austin, Faculty of Education

Where was John Watson, Australia's second Prime Minister, born?
In which country did Brazilian philosopher Paulo Freire write his seminal works?
Which country figured prominently in Darwin's voyage on the Beagle?
Which country becomes a full member of APEC in November 1994, its president having toured Australia in 1993?
From which country does Inti Illimani, the ensemble which accompanies Australian classical guitarist John Williams, originate?
(Hint: this country speaks the second most popular language in the world, Spanish; and contains BHP's biggest foreign investment portfolio.)

The country of course is Chile, long recognised for its mineral wealth (it remains the world's leading copper supplier). Yet the recent bipartisan Senate Australia and Latin America report advocates stronger links with Latin America "across a wide range of economic, cultural and academic activities." Other recommendations echo this initial one. The Department of Foreign Affairs has recently announced two postgraduate research scholarships tenable in Latin America for 1995, to be administered by the Association for Iberian and Latin American Studies (AILASA).

In April, 1994 a delegation from the University of Newcastle endorsed a letter of intent with the Metropolitan University of Education Sciences (UMCE) in the capital, Santiago. An agreement to be finalised presently will facilitate exchange of academics, undergraduate and postgraduate students from 1995. It will provide for research and academic estadias of between one month and one year, with home stays wherever possible and a mutually high quality intellectual environment. UMCE has existing agreements with European and other American universities.

UMCE has produced both postwar Chilean Nobel Prize winners for Literature, Gabriela Mistral (1945) and Pablo Neruda (1972), the latter a confidante of Picasso. UMCE was created in 1889, originally as the prestigious Instituto Pedagógico of the University of Chile. Confounding populist notions of underdevelopment, its teacher education has been a five year degree since 1934. UMCE has a Research Directorate and four faculties - Philosophy and Education, Basic Sciences, History and Letters, and Arts and Physical Education - offering undergraduate and postgraduate degrees. Three experimental schools operate under UMCE auspices.

Recent academic elections for Vice Chancellor resulted in the ascension of Professor Jesús López Gonzalez, a respected philosopher and supporter of the exchange program. Chilean intellectuals have been prepared to defend democracy in the academy despite extreme encroachments from the economic rationalist agenda, now besetting Australian universities.

The delegation reported favourably on the mutual prospects for exchange across a wide range of disciplines, offering TUN an initiation into one of the richer and more durable public intellectual traditions.
Convocation, the University’s graduate body, has a pivotal role to play in the development of the University’s profile, according to the Assistant Vice-Chancellor for External Relations. Speaking at Convocation’s Annual General Meeting in July, Associate Professor Jenny Graham said the importance of Convocation (or like bodies) was just beginning to dawn in the Australian higher education context.

"Many universities in the United States adopt a 'cradle to grave' approach to secure graduate support, many commencing with prospective students and their parents," she said. "It makes a lot of sense to instil pride in the institution, by Convocation or alumni involvement in high school visits and other activities designed to attract top (high school) students. Early awareness and commitment by incoming students is one means of fostering an attitude of continuing interest and support," she said.

"I know that there is already considerable interest in developing closer links between convocation and current students, but perhaps there is merit in fostering pre-enrolment activities as well.

"Whilst we have, at the University of Newcastle, the infrastructure to support such activities, perhaps we could do more to promote joint Convocation/student endeavours. And perhaps this would pay dividends when it comes to such processes as Quality Review, and enhancing the international profile of the University. An environment supportive of students is an integral part of quality education and our aim is to establish Newcastle as an excellent provider in this respect."

Jenny outlined some aspects of a position paper she has prepared for consideration by the University Council. "The current reality for universities in Australia is that they have to generate revenue from external sources to survive. There is also a need for an umbrella organisation which can serve as a unifying framework for all groups (including Convocation) which promote the profile of the University in some way. These groups may well include interested persons and organisations which technically are not members of Convocation."

With this in mind, Jenny’s paper recommends that the Council consider the establishment of a University Society which can provide the previously mentioned “unifying framework’ or ‘umbrella organisation’ for the presently disparate social, cultural and support groups operating around and on behalf of the University of Newcastle. Under this scheme, there would be a strong link between Convocation administration and other development activities, she told the meeting. "I am not suggesting for one minute that Convocation should have a primary fundraising role, but simply that there should be a partnership between Convocation and University personnel involved in development activities,” she said.

Jenny went on to inform Convocation members about the Singapore graduation ceremony and dinner, held on August 13. "We hope...to make a significant impact on not only our graduates but also, more generally, the Singapore community. The proposed University graduate association is important in this context because we want to be able to offer benefits from an association with the University, with a view to procuring their long term interest and support," she said.

"This is particularly important in a world where Quality Review ratings are driving perceptions about the excellence of universities. Higher education today is an extremely competitive arena. All of us need to pull together, energetically and creatively, to foster maximum pride in, and support for, our institution."
'ALL THINGS ARE AN EXCHANGE FOR FIRE'

By Mr Allan Chawner, Co-ordinator of Photography, Department of Fine Art.

In the last edition of UNINEWS the centrefold colour photography was not credited, as a matter of fact only the cover photograph was. So I feel that there needs to be a review of 'intellectual property' by the publishers.

There is much that could be said about the rights of contributors, but it would suffice to say that my expectation was at least a by-line. So I do hope that future contributions are appropriately acknowledged.

What should have happened with the publication of this work is some information about the origins of the image and text.

The individual artworks incorporate text as an integral part of the work and therefore the printing of the image includes the text 'as artwork'.

Paul Kavanagh and myself have collaborated to produce an exhibition of photographs and text on the Bloom Caster at BHP Rod and Bar. The exhibition entitled all things are an exchange for fire comprises four still coloured images with text, and a video with electronic music written by Associate Professor Robert Constable, using sounds recorded at BHP.

The project team grew from the initial team to involve several artists and technical specialists: 'As we went along we realised that our project of photography and text had to include sound to suggest the vastness of the place, and this grew into the idea that the sounds could become music. At this point we invited a composer to join us, and a sound engineer, and then we thought, well, why not put the images and the text and the music together as video? So we have these four massive images (2x1.4 metre) colour photographs on the wall, a video that combines vision, speech and raw sound, mediated by the sense that we were there and made something new and abstract out of them. What we set out to do was to freshly sense the environment that steel-workers experience and are alert to in subtle ways.'

This exhibition provides an original way of seeing the steel making process, which is now controlled by computers yet still requires human skill, supervision and intervention. The photographs, text and music reflect the scale and risks of the work, its origins in ritual and alchemy, and in the natural forces of earth, fire, air and water.
RETIREMENT OF
JOHN GILES
by Mr William Galvin

Late last year John Giles considered the opportunity of taking early voluntary retirement. Ian Rachum said, "John, think of it as an extended period of uninterrupted study leave." That sold the idea and John took retirement on December 31 (his birthday). He continues his study and research as an Honorary Associate of The University of Newcastle.

The Department of Mathematics at Newcastle honoured John Giles on his retirement by holding a miniconference in Analysis. This venture was generously supported by a Special Conference Grant from the Australian Mathematical Society.

John was born in Sydney and received his early education at Canterbury Boys' High School and The University of Sydney. After three years as a Mathematics teacher at Wollongong High School, he was appointed lecturer in Mathematics at Newcastle University College in 1959. He remained a member of the Department of Mathematics for the next 35 years, being promoted first to Senior Lecturer, and then to Associate Professor in 1974.

These 35 years were packed with professional activity and the various enthusiasms he holds dear. This activity and these enthusiasms include building rock walls in his garden, bee-keeping, politics, teaching scripture at primary school, and a style of sadomasochistic card game played in the mathematics staffroom.

The central activity of John Giles' professional life is his research and teaching in the field of functional analysis. The main part of his research activity has been in developing and applying continuity characterisations for differentiability. Most recently, he has focused on the differentiability of locally Lipschitz functions. His work does have application in the area of non-smooth optimisation, but John lovingly pursues his pure mathematical researches anyway, irrespective of possible application. His gentle attitude to applicable mathematics may be summarised by slightly misquoting Oscar Wilde - "We can forgive a man for proving something useful, so long as he doesn't admire it."

John Giles' publication list includes 37 refereed papers, four books and 18 other papers. Three of the books are University texts and another is in preparation. John enjoys working collaboratively: indeed more than two-thirds of his refereed papers are joint publications.

This aspect of human interaction is also reflected in his work with postgraduate students. He supervised 13 doctoral and research masters degree students, who hold him in high regard and with great affection. At the miniconference, they recalled John's enthusiasm for his subject, his dogged persistence in research and his joy when progress was made - especially by his students. More especially they recalled his generous interest in them and the fact that they felt they became better people for having known him. In an after-Dinner speech at the Conference, Gerry Joseph (PhD, 1976) spoke of the pleasure of being a member of this select group.

Gerry also referred to John's handwriting, which is neat, consistent, and for the uninitiated, nearly indecipherable. "Is this word 'could', or is it 'drain', or is it 'fifty'? It doesn't really matter. In fact the word in question is all of these: for John Giles' writing (consistent with his latest research interest) is a set-valued map!"

John Giles has been an active member of The Australian Mathematical Society for all of his professional life. He held a number of offices and convened a variety of conferences. He was also active in The University of Newcastle Staff Association: Secretary for three years, Treasurer for three years and President for three years. During his presidency, the Association negotiated the democratisation of University Bodies.

The friends and colleagues of John Giles wish him well as he starts on his extended period of study leave.

TO THE EDITOR,

Once upon a time there was a University set in a very pleasant bushland environment just west of the city of Newcastle in NSW. Through the efforts of a dedicated group of individuals on campus, the campus was kept clean and neat, providing a very pleasant place for employees and visitors alike. However, in the beginning of 1993, there was a change in attitude by the senior administration towards the campus. Under the threat of financial cutbacks from Canberra, several programs on campus were abolished. As well, a "business" approach to running the campus began.

One program abolished was campus appearance. As a result there is litter everywhere, for example: along the pathway and under the bridge between the Union and The Chancellery; in the bushes between carpark 2 and Geography; in the bushes under the Drama workshop building; on the ground and in the bushes around the Great Hall. The bush campus extension seems to have attracted litter, creating a messy, unsightly environment for everyone.

There is a simple and inexpensive way to minimise litter problems on campus. For a cost of around $10 per hour per person, a group of students could be hired as a litter patrol for a few hours a month. Aside from picking up rubbish, they could remove posters and signs from trees and other inappropriate places. The benefit to the campus and its appearance would be major.

Businesses have to keep up appearances too. First impressions are very important. Trash, rubbish, bottles and other litter scattered around campus provide a very poor impression, suggests an administration that does not care, and can seriously interfere with "business" prospects.

Howard Bridgman,
Department of Geography.
The preparations had begun long before but the actual event started with the rhythmic beating of a drum and then burst into a spectacular display of colour, dancing and creativity.

The official opening of the Cultural Awakenings Festival, held recently on campus was the prelude to a week-long event presented by students representing many different cultural and ethnic groups. It was a visual and cultural feast that challenged, excited and entertained its audiences and featured dancing, music, exhibitions of traditional ceremonies and clothing, food demonstrations, poetry and drama.

Organiser, Ms Anoosiya Sandall, a second year Bachelor of Arts (Communication Studies) student, said the festival achieved its aim of bringing together the many cultural groups within the University community and provided an insight into the different aspects of their cultures.

"More than 20 ethnic groups were involved, representing Asian, European and South Pacific countries, as well as the United Kingdom and Australia. The number of different cultures that worked together to produce the festival was a truly unique feature," said Anoosiya.

"That the festival brought many groups together to work on the project is one of the most pleasing spin-offs. The integration and interaction that occurred was a real breakthrough," she said.

Speaking at the official opening, Deputy Vice-Chancellor, Professor Michael Carter, said that even though the University is blessed with a beautiful natural environment, it is also blessed with students from a variety of cultural backgrounds.

"They come here to learn, but they also teach," he said.