Research findings may lead to new theories

As reported extensively in the Australian and international media recently, researchers from the University of Wollongong and the Australian Museum have reported exciting new archaeological results from the Keep River region of the Northern Territory.

At the Jinmium rockshelter, stone artefacts have been found in sediments dated by thermoluminescence (TL) to be older than 116,000 years.

This almost doubles previous estimates of the age of Aboriginal occupation on the continent.

The wall of the rockshelter is covered with thousands of circular engraved depressions – ‘cupules’.

A sandstone fragment with at least two of these cupules was found in sediments dating to between 58,000 and 75,000 years.

The cupules on the wall of the rockshelter extend below the ground surface to the same level.

This provides the oldest evidence of rock art in the world.

The research team is:

Dr Richard Fullagar, ARC research fellow, Division of Anthropology, Australian Museum, the leader of the archaeological team and a stone tool specialist.

Dr Lesley Head, senior lecturer, School of Geosciences, University of Wollongong, whose research specialities include environmental change and Aboriginal landscapes.

Continued page two

State Government puts telecommunications spotlight on Illawarra — P2
Thermoluminescence dating

Thermoluminescence (TL) dating of sediments depends upon the acquisition and long-term stable storage of TL energy by crystalline minerals contained within a sedimentary unit. This energy is stored in the form of trapped electrons. Quartz sand is the most commonly used mineral employed in the dating process.

Before final deposition it is necessary that any previously-acquired TL is removed by exposure to sunlight. After burial the TL begins to build up again at a rate dependent upon the radiation delivered by long-lived isotopes of uranium, thorium and potassium.

The period since deposition is therefore measured by determining the total amount of stored TL energy, and the rate at which this energy is acquired. Great care must be taken when samples are collected in the field and a rigid laboratory procedure is followed to minimise distortion of the results.

TL dating as practised in the Wollongong laboratory may be applied to aeolian, fluvial, coastal and, in some cases, marine sediments. The technique is also successfully applied to volcanic materials and heated firehearth samples and therefore is applicable in certain archaeological contexts.

The age determination of pottery is also undertaken and the method may also be applied to casting core material removed from bronze artefacts.

David Price has been involved in TL dating since 1972 having assisted in the establishment of the first such laboratory in Australia and, in fact, in the southern hemisphere.

He moved the laboratory from Canberra to Wollongong in 1986 where he has been operating on a semi-commercial basis since.

No HSC? You can still get a degree

Even if you do not have a current HSC Higher School Certificate, you may still qualify for admission to a course at the University of Wollongong.

Find out details on the following options at an Alternative Admissions Seminar

TUESDAY 15 OCTOBER 6.30-8.30pm
Building 57 Theatre 107

The HSC or an interstate or overseas equivalent qualification awarded in previous years may be acceptable.

TAFE Diploma, Advanced Diploma. Associate Diploma or two year full-time certificate commenced prior to 1988 depending on performance is acceptable and advanced standing may be granted.

NSW Nursing qualifications commenced and completed since 1972 are acceptable for certain courses.

Limited Tertiary Entrance Rank for mature age students.

Mature Age entry and the Special Admissions Test.

Gateway Program. 13 week part-time preparation course.

Aboriginal and Torres Strait Islander Alternative Admissions Program and special program for nursing.

Further information is on the Internet http://www.uow.edu.au or telephone (042) 213248

Aboriginal media be the first to announce the finds. The best laid plans often go astray, especially with a story of this magnitude.

An organisation (not the University of Wollongong), purely by error, made mention of the results in a newsletter on Thursday 19 September.

The SMH had invested considerable effort into compiling this story and was reluctant to hold it any longer.

After consultation by the research team with Antiquity, the University was informed on Thursday night that it was going to 'break' on Saturday and organised to have the full research team, the thermoluminescence laboratory, photos, maps and videos available at the University on Saturday for the convenience of journalists.

From 5.30am on the Saturday for more than a week, all four researchers responded consistently to media requests for interviews from journalists in Australia, Britain, America, Germany, France and New Zealand.

Consistently, and with great professional integrity, they have stressed that their work is only the beginning and it is now up to the scientific community to assess and further investigate the findings and their contribution to our understanding of the origins of human settlement.
State Government puts telecommunications spotlight on the Illawarra

The Minister for State and Regional Development, Mr Michael Egan, has announced $30,000 funding for a feasibility study and business plan for a Network Design and Evaluation Centre at the University's Institute of Telecommunications Research.

Mr Egan said the centre would be the only one of its kind in the Southern Hemisphere.

'It will operate on a commercial basis and compete for business with three other centres in Ireland, France and the United States,' he said.

'Put simply, the centre would reduce the chance of vastly expensive stuff-ups during the design and installation of sophisticated communications networks.

'It means mistakes can be made, and corrected, in a laboratory, not out in the field. The centre has the potential to capture a burgeoning new market in network design and testing.

'It's a market being driven by increasing domestic competition in telecommunications, the emergence of cable and other networks for pay-TV and other subscriber services, the growth of the Internet, and increasing business use of complex communications networks.'

Mr Egan made the announcement at an Illawarra business summit on Monday 30 September.

'The Illawarra already boasts an important cluster of IT&T organisations around the University's Institute of Telecommunications Research,' Mr Egan said.

'This new project could put the Illawarra right in the very centre of one of the fastest growing industries in the fastest growing region of the world.'

GEOSTAT 96 Congress

Associate Professor Ernest Baafi thanked the Premier, Mr Bob Carr, after he opened the International GEOSTAT Congress hosted by the University from 23-27 September. Two hundred and fifty international delegates attended the Congress at which many papers outlining new developments in Geostatistics were presented.

Bert Halpern Lecture honours respected scientist

The Bert Halpern Lecture, organised by the Department of Chemistry, will be held on Thursday, 17 October.

The speaker will be Professor Len Lindoy, from the School of Chemistry, University of Sydney.

His lecture is entitled 'Art, Architecture and Engineering at the Molecular Level'.

Since prehistoric times, our species has been driven to undertake artistic and engineering endeavours on a human (or macro) scale.

However, dating from the beginnings of modern chemistry around 200 years ago, it has become increasingly possible to undertake similar creative activities at the molecular level.

A major part of the current activity is occurring in the field of supramolecular chemistry - an area that tends to mimic nature's way of doing things.

The lecture will include a discussion of some individual molecular structures exhibiting unusual architectures that have been produced so far, and also of the possible future practical applications in new molecular devices.

Professor Lindoy is a highly distinguished chemist, who recently moved from James Cook University to take up the Chair of Inorganic Chemistry at Sydney.

He is a Fellow of the Australian Academy of Science and has many awards for his research including the HG Smith Medal of the Royal Australian Chemical Institute and the AINSE Gold Medal for Excellence in Research.

His research interests include the recognition of heavy metal ions by large-ring molecules, extraction of heavy metals, and bioinorganic and biomimetic chemistry.

The Bert Halpern Lecture was established in 1988 as a public lecture to be presented annually at the University of Wollongong by a distinguished visiting scientist on a subject in chemistry or biochemistry.

It honours the memory of Bert Halpern, the Professor of Chemistry at the University of Wollongong from 1970 to 1980. Professor Halpern's pioneering studies in amino acid, peptide and protein chemistry affected medicine, biochemistry, chemistry and geochemistry.

Among his notable achievements was the development of novel techniques for the diagnosis and study of metabolic disorders and genetic defects.

The lecture will be held in the Kemira Room, Union Building, at the University of Wollongong. Refreshments will be served at 5.30pm for the lecture at 6pm. Everyone is welcome.
New specialisation in Employment Relations

Representatives from business, trade unions and the public sector have enthusiastically welcomed the introduction of an Employment Relations undergraduate specialisation in the Bachelor of Commerce for 1997.

BHP has endorsed this specialisation for its cadets and has indicated that this will be a BHP-preferred degree.

This specialisation combines Human Resource Management and Industrial Relations so as to provide graduates with a well-rounded perspective on the issues, problems and opportunities arising from employment relationships.

Employment Relations graduates will obtain skills and knowledge in negotiation, management, research and the law of employment.

They will be able to aim for careers such as Human Resource Manager, Union Organiser, Industrial Relations Manager, Personnel Manager or Industrial Officer.

The first year core will be taught by all departments in the Faculty of Commerce.

The major will be shared between the Departments of Management and Economics, and the Faculty of Law will teach some subjects.

The study of employment relationships traditionally has been split between the two very different approaches of Personnel or Human Resource Management, and Industrial Relations.

These once separate and distinct subjects are being brought together by changes in practice and theory.

The development of enterprise-bargaining requires Industrial Relations specialists to relate to managerial policies and to bargain about once strictly managerial personnel policies.

Human Resource Management has also become a more strategic aspect of practical management, so Human Resource Managers are more concerned with macro-organisational aspects of management, once the reserve of the Industrial Relations specialist.

Employment Relations combines these separate approaches and makes explicit the recognition that everyone – employers, unions, individuals and the community – manages employment relationships.

Coordinators Terri Mylett and Maree Murray consider this university well positioned, in terms of the teaching and research strengths of the faculty, to establish a strong reputation in this field.

The Employment Relations specialisation increases students’ options and is offered in addition to the well-established specialisations in Industrial Relations and Management.
Postgraduate Research Student Day is seen by the Vice-Chancellor Professor Gerard Sutton as an important day both for postgraduate students and the University.

At the official opening he undertook to continue to encourage the growth and development of the day.

'The University of Wollongong has a high reputation for its research performance as seen by the recent judgements of the Commonwealth Government in the Quality Reviews and the response by employers to the quality of our graduates going into the workforce,' he said.

'A graduate must be able to operate in the real world and be able to communicate their research to people outside their discipline areas because the single most important function of a university is to produce graduates who are able to shape the fabric and the economy of the society in which they are living.'

At the Postgraduate Research Student Day students display posters that illustrate their research projects and are on hand to explain to visitors from other departments, industry and the local community the work they are undertaking and its relevance.

Some students give 15-minute presentations in front of an audience on their research.

The Pro Vice-Chancellor (Research), Professor Bill Lovegrove, said that the day also builds a community of scholars across the campus and cuts any sense of isolation a student may experience.

It also gives students and staff the opportunity to spot research going on in other departments that may be relevant to their own programs.

Industry and community leaders are invited to view the displays which gives them the opportunity to become familiar with the range of high quality research being undertaken at the University.

This year, for the first time, a committee judged the posters and awarded prizes for the best and second best display.

HSC students appreciate opportunity to visit the campus

On Saturday the 14 September the Department of English held a day of lectures for this year's HSC English students.

More than 250 students attended on a beautiful day when the campus could be seen at its finest.

Local students came in large numbers, as was expected, but there were several carloads who travelled from as far afield as Orange, Goulburn, Nowra and Sydney to be part of the day's activities.

Students had a choice of 17 lectures on HSC set texts written and delivered by members of the English Department.

The hard work done by the departmental administrative staff in organisation and by academic staff in preparing two or, in some cases, three lectures was amply rewarded by the grateful and enthusiastic responses of students and their teachers.

Coordinator of the day, Anne Lear, said it proved to be not only a useful preparation for this year's HSC exam but also a great introduction to tertiary studies in English at this university.

Amnesty International works all over the world to stop torture and execution and to free prisoners of conscience.

If you care about human rights then you can help on Candle Day.

Just take an hour or two to sell badges around the University or be the 'badge person' in your department. Candle Day is on 25 October.

You can make a difference. Contact Maureen Bell, on email or ext. 3946.
Buildings and Grounds has moved

On 30 September, the Buildings and Grounds Division began moving to a new facility in the north-western part of the campus, next to the Ring Road near Buildings 23 and 24.

The new facility has brought together most sections of the Division – Administration, Cleaning, Construction, Landscape and Maintenance – into the same location for the first time.

The Security operations base will remain in the Union Building and some activities that require larger workshop areas, like the Joinery, will remain at Campus East.

The new facility comprises a two-level administration/office area, and landscape and maintenance workshop block and storage areas for landscape materials.

This centralised facility will improve communication and coordination of the activities of the division as a whole and provide other economies.

The move will free much-needed space in Administration.

New report on Australia’s refugees

‘Ambivalent Welcome: The Settlement Experiences of Humanitarian Entrant Families in Australia’ has just been published by the Department of Immigration and Multicultural Affairs.

Written by Robyn Iredale, Colleen Mitchell and Rogelia Pe-Pua of the University’s Centre for Multicultural Studies and Eileen Pittaway of the Australian National Committee On Refugee Women, the study examines the settlement experiences of humanitarian entrants compared with those of non-humanitarian entrants.

This report calls for Australians to value and respect its refugees rather than viewing them as a liability.

In spite of considerable difficulties, many families who enter Australia as part of the humanitarian program adjust well to life in Australia, the report said.

‘On the whole they are a unique group of people who bring long-term benefits rather than costs to the Australian community,’ the report said.

‘They should be viewed as an asset rather than a liability.
‘They did not choose to migrate and they long for their homelands. Rather than being made to feel inadequate, they need to be treated with dignity and respect.’

The study, which was carried out in 1995 in Sydney and Wollongong, examines the settlement experiences of 172 families – 126 humanitarian entrant families and 46 non-humanitarian entrant families.

Comprehensive in-depth interviews were conducted with each family or household by bilingual interviewers.

Humanitarian and non-humanitarian respondents were selected from Africa, El Salvador, Bosnia, Croatia, Serbia, Iran, Iraq, Lebanon, the People’s Republic of China, Turkey and Vietnam.

The report includes the following recommendations;

• Australia’s generosity in the acceptance of refugees for settlement is motivated by issues of social justice and human rights. Such issues should not diminish in importance once the humanitarian entrants have arrived in our shores. Understanding of their needs must be better reflected in service delivery, by both the Department of Immigration and Multicultural Affairs and all other agencies concerned with their long-term settlement. The uniqueness of each family’s needs must be emphasised.

• Special consideration needs to be given to humanitarian entrants to assist them with the sponsorship of relatives.

• Many of the needs have been identified and recognised in policy development, but problems appear to arise in the implementation of policy at the practical level. Improved resourcing and administration of existing policies would go a long way to meet the special settlement needs of humanitarian families.

The report has 22 recommendations in the areas of health, housing, language, education and training, employment and income, and families and sponsorship.
Acting students start new company

Wollongong University Creative Arts students Hugh Sexton and Scott Bradburn have launched a new theatre company in Wollongong.

Early this month Hugh and Scott opened their show 'Derrick, Get Off the Florist'.

The show is the maiden production of Arro Theatre Company (named Arro to indicate focus and direction).

Hugh is the artistic director of Arro and Scott is the scriptwriter of their first show.

Hugh said he decided to set up the new company to provide more dynamic theatre for the youth of Wollongong.

'There's no theatre for teenagers between 14 and 20 in the Illawarra,' he said.

'This is also meant to provide a platform for young local artists to showcase their work.'

In Arro's maiden production, the talents of current Wollongong University Creative Arts students - Amanda Tolnay, Dan Hurley, Cecilia Richie as well as a recent graduate of the course Rebecca Lowe - will be on show.

Scott allowed the script to be worked over the last 12 months by the Faculty of the Creative Arts. It was performed at the University in January, but Hugh decided to remount the play so it could reach a wider, younger audience.

'Derrick, Get Off the Florist' is a black comedy about suicide and obsessional love.

Hugh said while it has many important, educational messages, it is also lighthearted and fun.

'Derrick, Get Off the Florist' will be performed at Wollongong University amphitheatre on October 10, 11 and 12 at 7pm. It runs for 50 minutes.

Resumé and interview skills workshops

The Careers Service, Student Services Division will run a sequential program of Resumé and Interview Skills workshops between 14 and 25 October.

While both components of the program will focus on the needs of final year students, all students are invited to participate. Students can attend one resumé and one interview skill workshop or choose to attend either a resumé or an interview skills workshop, depending on their needs.

The workshops will be held from 12.30-1.30pm on the dates and at the venues listed below.

Resumé workshops:
- 14 October: Function Room 2, Level 2, Union Building.
- 16 October: Bistro, Level 2A, Union Building.
- 17 October: Kemira Room 4, Union Building.
- 18 October: Kemira Rooms 1 and 2, Union Building.

Interview skills:
- 21 October: Bistro, Level 2A, Union Building.
- 22 October: Bistro, Level 2A, Union Building.
- 23 October: Function Room 2, Union Building.
- 24 October: Function Room 2, Union Building.

Registration for each workshop is required. This can be done while visiting the Careers Service on level 3, Union Building or phoning the Careers Service on 213325.

INVITATION

Lord Mayor, David Campbell, and Vice-Chancellor, Professor Gerard Sutton, invite you to attend the 1996 ‘Town Vs Gown’ Cricket Match

at
North Dalton Park

on Sunday 20 October from 10am to 5pm
(Celebrity players including Brett Rodwell and others participating)

All welcome
Come and be part of the picnic atmosphere

Hosted by Wollongong City Council and supported by The Friends Chapter of the University of Wollongong Association

(For further details contact: David Muscio Tel: 213073)
General

Two-day intensive Suicide Intervention Workshops will be held at the University to help health workers, professionals and lay people recognise and assess persons at risk, and to master a model for effective suicide intervention. These workshops are available on 27 and 28 September, 25 and 26 October and 29 and 30 November. Cost: $35. Bookings: (042) 971 426 or (042) 213 876.

Meeting dates for the Human Research Ethics Committee and the Animal Ethics Committee for this year are: Human Research Ethics Committee: 22 October, 19 November, 17 December. Animal Ethics Committee: 20 November. Agenda items are due two weeks before meetings. Enquiries Karen McRae, Office of Research, by email or on ext. 4457 on Tuesday, Wednesday or Thursday.

The Campus Alumni Bookshop is open on the second and fourth weekends of each month (Saturday and Sunday 1-5pm). Come and browse through a wide selection of preloved textbooks and fiction. Location: Campus East, Cowper Street, Fairy Meadow (opposite Science Centre). All proceeds directed towards Campus projects. Donations of material are invited. Enquiries: Alumni Office, phone 213 249 or 291 951.

What’s On

Cell and Molecular Seminar Series:
Held on Wednesdays in the Department of Biological Sciences (Building 35), University of Wollongong. Dates: 23 October, 30 October. Inquiries: Associate Professor Ted Steele, Associate Professor Ross Lilley, Associate Professor Mark Baker, Dr Mark Walker, Ms Wendy Russell, Dr Ren Zhang or Dr Mark Wilson, phone (042) 213 013, fax: (042) 214 135.

Creative Arts


Australian One-Act Plays or excerpts
- 4-8 November, Kate Newey, Sharon Bell, Peter Shepherd possibly to direct. Performance Space.

Art of Lunch

Every Thursday during session, from 12.35-1.25pm. Venues are the Hope Theatre, Union Hall Foyer and Faculty of Creative Arts Music Auditorium. Brochures and information are available from Marilyn Meier, ext. 3990, and Jenny Fullerton, ext. 3996.

Long Gallery

15 November-7 December: BCA Graduating Exhibition/Honours student works.

Sociology Department staff seminars

These seminars will be on research, policy and practice and will be held in Room 19.2085. Thursdays 1.30-3pm:
31 October: Jack Barbalet, Class Theory & Class Action: Contra Culture, Pro Emotion.

University Social Club

Become a member and enjoy a variety of social events. A chance to meet others across the campus. Contact Jim McKee by e-mail or ext. 3376.

Stop Press

The Alumni Association invites final-year students to a seminar on 'Survival Skills in the Workplace'

This seminar will give you some essential advice as you begin your career. Come along and learn how to prepare yourself for success from the best mentors: other Wollongong alumni.

Date: Monday 21 October
Time: 3.30-7pm
Venue: Union Function Centre
Cost: $5

For further information and registration forms: Alumni Office, Level 3, Union Building. Phone (042) 213 169 or 213 249. Book early as places are limited.

Campus News is published weekly on Wednesdays. Send material, preferably by Microsoft Mail or on disk, to E-Mail account 'Campus News' by noon on Monday of the week before that of publication. For any other enquiries contact the Editor, Gillian Curtis (042) 21 3926.
Campus News has a circulation of 3500. It is distributed on campus to staff and students. 1000 are mailed to the community and overseas including schools in Illawarra, southern Sydney and Canberra; local, Sydney and Canberra media; Friends of the University; business representatives; MPs and numerous individual requests.