Expo 88 treasure trove for Campus East

Academics at The University of Wollongong and members of the Illawarra Science and Planetarium Society, observing from afar the dying weeks of Brisbane’s highly successful Expo ‘88, could well be forgiven the urge to use a play on words and declare: Expo’s dead; long live Expo.

Working on the theory that few exhibitors will have a use for their array of marvels once the show ends, Wollongong academics offered to dismantle them and, with the assistance of a local transport company, take them to a new building acquired recently by the Faculty of Science at Campus East, just north of Wollongong. Formerly a Commonwealth migrant hostel, Campus East has been taken over by the University and will be developed mainly as a high-technology centre at which the University will share resources with industry.

Campus East lies several kilometres from the University proper, and it is there that the Science Faculty has obtained one of the original high-domed buildings and begun developing a science-education centre.

Lecturer Glen Moore is confident that the hands-on exhibits will eventually rival Canberra’s highly popular Questacon and even San Francisco’s Exploratorium, even though all the preliminary work is being done by volunteers and most of the exhibits will be donated.

Because the project meets the Federal government’s call to educators to develop new approaches to the

continues on page 2
Combined effort brings map conference to Wollongong

The Australian Map Circle was founded in 1973 with these aims:
- to promote communications between producers, publishers, users and curators of maps.
- to improve the skills and status of people working with maps.
- to promote the development and effective exploitation of map collections throughout Australia.
- to include in a map exhibition as far as possible displays from countries other than Australia.

The Circle's 17th Annual Conference will be held in Wollongong early in 1989. Staff from a number of university departments and Wollongong City Council are working together to bring the conference to fruition under the theme 'Maps in Use in the Local Community'.

Richard Miller, cartographer, with the support of Professor Murray Wilson in the Department of Geography, Keith Gaymer, non-book librarian, and John Shipp, University Librarian, represented the University at the 1988 conference held at the National Library, Canberra. Now, with help from Brian Rogers, Faculty of Education, and David Martin, Department of Geology, together with drafting and library staff from Wollongong City Council, a full and interesting program has been planned.

The conference will run from Sunday January 29 to Thursday February 2. State and interstate registrants will stay at Weerona College and attend three days of lectures, demonstrations and visits. That will be followed by a 'Maps in the Field' excursion. Some of the papers to be given are:
- Cartographical Clues in Historic Archaeology.
- Australian Geographic: Map Production and Policy.
- W(h)ither the Urban Social Atlas.
- Papers for Map Publishing.
- Maps and Mariners.

The keynote address will be given by Robert Clancy, Professor of Pathology at Newcastle University and Director of the Hunter Immunology Unit. Wearing his other cap as author and map collector, Professor Clancy, whose recent book, *So They Came South*, is already sold out, will be talking to the conference on 'Unfolding Australia Through the Early Printed World Map'.

Discussion and reports on developments in International, National and State mapping will be led by AMC president, Dorothy Prescott.

Conference delegates will be visiting the Associated Pulp and Paper Manufacturers, Shoalhaven Plant; Wollongong City Council's Computerised Geographic Information System; BHP aerial survey aircraft at Albion Park; Berkelows Bookshop at Berrima, dealers in rare and antique maps, and will see hydrographic work of the Maritime Services Board at Port Kembla Harbour.

Further information from Richard Miller, Convenor, AMC – Wollongong '89, Department of Geography, (042) 27 0714.

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Expo 88 treasure trove for Campus East
from page 1

learning of science, those planning the centre hope to have the involvement of the State Education Department and Technical and Further Education Department. Wollongong City Council has also been invited to support the centre, and the Leisure Coast Tourist Association has recognised the centre as having the potential of a man-made attraction able to draw as many as 60,000 students and adults a year to Campus East.

Mr Moore says: 'Basically we are planning a centre geared to meeting people's natural curiosity about how things work. Our catchment area will be southern New South Wales, including southern Sydney. There will be dozens of exhibits, many built locally, and it is hoped some by apprentices from this region'.

The largest item brought from Expo has been donated by British Aerospace. This is its futuristic space vehicle, the HOTOL, which it regards as the British answer to the space shuttle. It will stand in contrast to the tiny box gliders of Lawrence Hargraves, the pioneer who experimented with his kites at Stanwell Park, Illawarra's northern gateway.

The Indonesians, whose work with communications satellites is not always recognised, have indicated that the centre will receive a gift of one of their model satellites; and the Japanese have given their Leisure-time Labyrinth and a number of fixed exhibits, including liquid crystals and holograms. A major donation was also made by the USA, in the form of laser videotape players worth over $50,000; and Brunei has provided several exquisite display cases.

The prospect of developing a Science Education Centre, where people may see and touch the exhibits and make them work, is highly appealing to Mr Moore and his colleagues, whose hopes of seeing a planetarium established in Wollongong came close to fruition only to be dashed earlier this year.

Not unexpectedly, the Illawarra Science and Planetarium Society has become one of the early benefactors of the Science Centre, its members providing working bees every weekend; and, given its lead, community groups such as Apex are pitching in with practical aid so that it can move ahead to become a reality.

'Ve are looking to have hands-on exhibits which involve all the sciences, particularly physics, chemistry, biology, geology and geography,' says Mr Moore.

'We also see an array of fixed exhibits, some with particular relevance to Illawarra. These, and the others which, it is hoped, will be coming from the Japanese pavilion, will give the centre a dimension which not all inter-active science centres can offer'.

But the priority will be to satisfy the curiosity of students and adults about how things work, be the mechanics simple or complex, or the exhibits rare or everyday household items.

'Nowadays more and more people want to know what new technology is about,' Glen Moore says. 'They're interested in what goes inside the gear box of their cars, how a TV set works, what a microwave is, or what new chemicals are made from and what they do. There is an unsatisfied wonder about simple actions, such as what happens when you press the key of a piano.

'We want to create a centre which will answer questions like this while being simultaneously a mix of learning and entertainment.'

It is hoped that, like Expo, it also will draw more people than anticipated, and become self-supporting.
It has not been possible to discuss the budget for the University for 1989 and other years of the triennium with Deans and Heads of Units because the federal government has delayed in determining allocations. We understand that this process is approaching completion, and that we will have some figures within the next week or so. It will take some further time to work out the implications of the figures and to discuss them with the Planning and Development Committee. But I expect that by the end of the month we will have a fairly clear idea of where we are going. Accordingly, it seems appropriate to provide an opportunity for all staff to be briefed on the likely pattern for 1989 before the budget goes to Council on December 9. I have, therefore, scheduled a Forum in Pentagon 1 for 12.30 pm on November 30. The meeting will conclude at 2 pm sharp (or earlier if the business is concluded).

In addition to budgetary matters, an opportunity will be provided for those who wish to explore the implications of the NSW government’s position paper on the future of higher-education institutions in NSW. As some of you are aware, essentially the proposal envisaged seven universities, with the University of NSW becoming a large network university. The NSW government has already gone outside its own guidelines to announce a University of West Sydney as an independent university, but the implications of a Network University of NSW are for this University in the long run more substantial than at first sight. There has been some discussion of this with Heads of Departments and Schools already. The Forum will provide a further opportunity for others interested to be involved.

A third matter will be impending changes in the ways universities work, notably the recent federal award on disciplinary matters and the movement of universities towards non-standard salary scales. Some universities have already moved to implement individually negotiated salaries, making it difficult for others to recruit if they do not follow suit in some way. Preliminary discussions have been held with the Staff Association, and the Council has sought further report on the matter at its next meeting. It is appreciated that views on this subject within the University are likely to be divided, but the Forum will provide an opportunity for those interested to discuss possible approaches and options.

Any other matter of general policy or interest can also be raised.  
K.R. McKinnon  
Vice-Chancellor

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**High-tech network for Universities and Colleges**

Australia’s higher-education institutions will be linked by a sophisticated computer network under a proposal agreed to by university and college bodies.

The joint plan will see the development of a national academic computer network linking the nation’s 21 universities and 43 institutions of higher education. Academics and administrators will be able to communicate directly with each other and colleagues in New Zealand and other countries, exchanging letters, research data, reports and statistics.

The decision to proceed with development of the network follows months of work by a joint steering committee of the Australian Vice-Chancellors’ Committee and the Australian Committee of Directors and Principals.

The chairman of the committee, Professor Ken McKinnon, Vice-Chancellor of The University of Wollongong, says that the network is an essential development for higher education.

'...it will give academics the chance to co-operate more easily in their research,' he said. 'They will be able to “talk” to each other across the country, discussing their work without moving from their desks.'

Professor McKinnon said that the network would eventually give staff access to specialised facilities such as supercomputers, design software, databases and the preparation of graphics.

The network will have a dedicated overseas link so that staff may link to international computing facilities – particularly important for academics who are part of an international community with specialist interests.

The decision to proceed in principle means that the committee will now carry out a detailed engineering design study. This will look at the costs of installation and operation. Individual institutions will then make a final decision about linking with the network.

A workshop on Australian academic and research networking will be held on December 6 to December 9 at the University of Sydney Computing Services. Time will be set aside for discussion on major technical matters of design, operation and organisation of the proposed network. Participants will be able to meet with members of both the steering committee and the technical working party.

The AVCC/ACDP committee will produce a regular newsletter on the development of the network. Copies will be available on this campus soon.

Further information is available from Dr Brian Carss, Senior Executive Officer, National Academic Network, University of Queensland, (07) 377 3181 and (07) 377 4161.

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**Friends Final Fling for 1988**

**Sunday December 18**

**University Oval No. 1**

**10 am to 4 pm**

*Town v Gown Cricket Match with celebrity guest players Bob Holland and Murray Bennett*

*Friends of the University Christmas Party and farewell to Executive Officer, Giles Pickford*

If you want a seat in the marquee then RSVP to Muriel Murada on 27 0082
Release of Session 2 Examination Results

Session 2 1988 examination results and 1989 re-enrolment information will be posted to each student's registered home address on Monday 19 December 1988. Students should ensure that the University has their correct home address before 9 December 1988.

Students should note that examination result notices will not be available for collection and no information concerning examination results will be given by telephone.

Results will, however, be displayed in the Pentagon on Monday 19 December 1988 from noon to 6 pm.

Election of One Academic Staff (Institute) Member of the University Council

Three ballots were held on Tuesday November 8. The votes cast for the above ballot were:
- Hough, M.H. 11, Smith, A. 53, Total Formal Papers 64, Informal Papers 3, Late 2, Total 69.
- Elected as a member of the University Council from 21 November 1988 to 20 November 1991 was: Smith, A.

Election of One General Staff Member of the University Council

Also held on November 8 was the election of one general staff member of the University Council. Votes cast were:
- Elected as a member of the University Council from 21 November 1988 to 20 November 1991 was: Kent, A.E.

Election of Two Academic Staff Members (one of whom will be a professor) of the University Council

This was the third of the November 8 ballots. Votes cast were:
- Elected as members of the University Council from 21 November 1988 to 20 November 1991 were: Castles, S. (Professor), Lowrey, M.J.

Election of One Student Member of the University Council

Ballot was determined on Tuesday November 15. Votes cast were:
- Elected as a member of the University Council from 21 November 1988 to 20 November 1991 was: Licardy, M.D.

Election of Two Convocation Members of the University Council

The ballot for this election was determined on Wednesday November 16. Votes cast were:
- Accordingly, elected as members of the University Council from 21 November 1988 to 20 November 1991 are: Mitchell, W.J., and Arrighi, M.E.

K.E. Baumber
Returning Officer

ISBN and ISSN Numbers

Allocation of ISBN and ISSN numbers will in future be issued by the Library rather than Planning and Marketing. Contact Annabel Lloyd on ext 3335.

Metallurgy and Materials Engineering makes it $1 million

The announcement last week of a NERDC grant of $275,000 for coal bulk-density investigations has placed the Department of Metallurgy and Materials Engineering in the $1 million class of research funding received in 1988. The latest grant is for a one-year project, directed by Associate Professor Nick Standish, to investigate bulk density of coal as a function of coal-particle size. Bulk density, or mass per unit volume of a bulk material, is an important parameter in coal export operations, such as stacking, reclaim and loading of ships. Clearly, exporters neither wish to under-supply nor over-supply their customers, so the accurate measurement of large amounts of coal stock is very important.

Studies of the packing of granular mixtures have been going on in the Department of Metallurgy and Materials Engineering since 1978. They have recently culminated in the establishment of a theory of the random packing of particles. Noting that packing of particles is directly related to bulk density confirms the relevance to practice of what may at first sight appear to be a complex theoretical inquiry. The fact that in the course of the experimental work associated with this inquiry, innovative and practical experimental methods were developed for sampling and analysis of granular materials, was a strong factor in the final decision of awarding the grant to The University of Wollongong.

Success in Ceramic Technology

As part of the successful Ceramic Technology Grants (reported in Campus News for November 15) a

K.E. Baumber
University Secretary
University-Industry consortium organised by Professor W.J. Plumbridge, Head of the Department of Metallurgy and Materials Engineering, was awarded $468,000 over three years to study and commercially exploit low-cost ceramic coatings. Professor Plumbridge, the principal investigator, will be supported by several colleagues in the department, together with additional researchers employed specifically for the project.

Research Fellowship for Monica Bufill
The Australian Water Research Advisory Council (AWRAC) has announced the award of a three-year research fellowship to Ms Monica Bufill, currently a PhD candidate in the Department of Civil and Mining Engineering. AWRAC is the body that advises the Commonwealth Government on water research by identifying priority areas where water research capacity needs to be supported.

The research project that has been funded will study methods for predicting the effects of urbanisation on water quantity and quality. The Department of Civil and Mining Engineering will host Ms Bufill’s research; she will be working closely with Dr M. Boyd and Dr M. Sivakumar.

At present Ms Bufill holds a University of Wollongong scholarship and is completing the final stages of her PhD degree. She graduated with an ME in Civil Engineering at the University of Buenos Aires, and then worked for the National Institute of Water Science and Technology (Argentina). Ms Bufill later completed a MSc degree in Engineering Hydrology at Imperial College, London.

Professor Cowie to Townsville
Professor Edward Cowie, Foundation Professor of Creative Arts in The University of Wollongong, moves to Townsville, North Queensland, in January 1989. He has been appointed visiting Professor of Creative Arts in the James Cook University of North Queensland for a period of five years.

Poetic Aspects of Resonance in Time-based Sculpture
The works being developed as part of Joan Brassil’s doctorate in the School of Creative Arts, are decidedly unusual and draw for their inspiration on perceptions of landscape. Locations used for the art works are The Kimberleys, Central Desert, Perth and Wollongong.

So far, two video-sculpture installations have been exhibited — Kimberley Stranger Gazing (Roslyn Oxley) and Time Warp Reflections (Power House Museum, for the Australian Video Festival).

Both are concerned with winds, technological power and changing perceptions in landscape. Each work is structured by poetic texts, with sound tracks from wind in telegraph wires recorded via transducers.

The material to be sculptured is a two-dimensional visual light image.

The image is manipulated by reflecting it on to specially-modelled perspex screens, and then, from a video source, the work is augmented, diminished, and distorted, and then layered by the spatial placement of 12 screens to form a sculptural configuration.

The project is to make an installation within the landscape in the form of a windharp, proposed for Hereisson Island in the Swan River, Perth. The winds are mainly from the Antarctic. Two responding steel sculptures have been designed, each capable of supporting wires to the length of 150 metres. Wire-sketch models have been made. Cross-disciplinary collaboration is needed from the engineering and meteorology disciplines, and that is now being sought.

Joan Brassil’s doctorate is being supervised by Bert Flugelman.

Introduction to the Laboratory Methodology of Molecular Genetics
The Centre for Continuing Education is again offering the successful two-day course entitled ‘Introduction to the Laboratory Methodology of Molecular Genetics’.

Conducted by Professor John Thomson and Mr Michael Joseph, the course will be held on Saturday 18 and Sunday 19 February 1989 from 9 am to 5 pm at the University of Sydney.

Because of the lead-time involved in importing laboratory materials, enrolments must close on Friday January 27.

The course provides hands-on experience of basic techniques in recombinant DNA technology. Mini-lectures on gene recognition and cloning procedures will supplement practical exercises.

In two days of intensive laboratory work, participants will work in pairs at the laboratory bench learning the basic procedures of DNA isolation, restriction (endonuclease cleavage) of DNA, agarose gel electrophoresis and Southern blot transfer of DNA - treated nylon membranes, nick translation of a gene probe (biotin labelled) and its use in hybridisation to Southern blots.

The course is designed as preparatory training for laboratory staff entering molecular fields and for teachers.

To receive an extended course outline or to enrol, please phone the Centre for Continuing Education, 692 2907.
Research Funds

The sources of research funds given below are available to members of academic staff. Further information including application forms may be obtained from Kim Harriss (ext 3201). Intending applicants are reminded that all research applications must be forwarded through the Office of Research and Post-graduate Studies.

Astronomical Association of Queensland
The Astronomical Association of Queensland invites applications from amateur astronomers and postgraduate students at tertiary institutions for funding from the Edward Corbould Research Fund.

Applications close with the University 14 February 1989.

Tobacco Research Council
The Tobacco Research Council invites applications to conduct research relating to the tobacco industry in the 1989/90 financial year.

Applications close with the University 27 January 1989.

Grape and Wine Research Council
The Grape and Wine Research Council invites applications to conduct research relating to grape and wine industries in the 1989/90 financial year.

Applications close with the University 14 February 1989.

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Unleashed Dogs on Campus
At a recent Occupational Health and Safety Committee meeting, members noted that the incidence of unleashed dogs on campus grounds has increased. Dogs have also been seen in the Union and Greenery eating areas.

The University policy states that it is advisable for anyone bringing dogs on campus to make sure that they are properly restrained. If troublesome dogs are observed or reported to Security, the Council Pound will be called to remove them.

People who take dogs into eating areas may be fined under the Health Act.

Aivars Pepers
Occupational Health and Safety Committee

Concerts, Exhibitions and Entertainment

School of Creative Arts – Diary of Events

December

Friday 2

Preview – Postgraduate Exhibition, Long Gallery, 7.30 pm to 9.30 pm.

Wednesday 7

School Meeting, 9.30 am.

Saturday 10

Messiah by G.F. Handel, University Singers, Wollongong Town Hall, 8 pm.

Festival of Australian Writers, School of Creative Arts, Monday 16 to Friday 27 January 1989
1989 MAC Summer School

The third national Macintosh Summer School to be held at the University of New England, Armidale, NSW, from 15 to 20 January 1989, is designed to provide five solid days of 'hands-on' computing workshops for those working on Macs. This is an excellent opportunity for those intending to purchase a Mac, beginners and users seeking to explore new applications and software, to gain practical skills and an understanding of the Mac environment.

A wide variety of workshops will be offered and those attending will have an opportunity to see some of the latest Mac software, hardware, peripherals and reference material.

A comprehensive set of notes is also provided to those enrolled in the school.

Attendance may be on a residential or non-residential basis. For further details and a brochure contact UNE's Centre for Continuing Education, PO Box 591, Tamworth, 2340, NSW. Phone inquiries to Carl Petersen on (067) 663 860 or (067) 665 552 (ah).

Fees: full residential - $895; non-residential - $725 (a fee reduction of $125 applies for those able to bring their own Macs).

Pay Periods

Close-off dates for pay periods ending December 22 and 5 January 1989. It is important that all members of your Department are made aware of these dates to avoid any delays in payment.

Pay Ending December 22:
- All variations and overtime forms December 9, 4 pm.
- All part-time teaching and casual timesheets
December 16, 4 pm.

Pay Ending 5 January 1989
- All variations and overtime forms December 16, 4 pm.
- All part-time teaching and casual timesheets
December 22, 4 pm.

Pay day for period ending December 22 will not be brought forward. It will be paid on December 22.

'Student News' and the vacation

Next week's issue of Campus News will be the last for 1988.

The first issue for 1989 will close for press at noon on Monday February 27 and will appear on March 7.

Seminars

Department of Computing Science

Title: Software Environment for Frame-Based Systems.
Speaker: Dr Jerzy J. Korczak, Department of Computing Science, University of Wollongong.
Date: Friday December 2.
Time: 12.30 pm - 1.30 pm.
Venue: Room 15.201.

Visitors parking on University grounds will be charged a parking fee of $1, which will be reimbursed by the department.

Alex Zelinsky
Convener

Time Management and Conflict Resolution Seminars

The Time Management and Conflict Resolution seminars, which were scheduled for December 1988, have had to be postponed to early 1989 due to the unavailability of the speakers.

It is hoped at this stage that Time Management will be run in February and Conflict Resolution in March.

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To Let

Two-bedroom furnished house, good storage, Kiama. Three months from December 1. References required. Phone 37 8083 ah.

Three-bedroom furnished apartment, North Beach, available December 1 to January 28. Suitable visitor to University. Phone ext 3843.

For Rent

Spacious bedroom in furnished three-bedroom house opp. Thirroul Beach. Suit non-smoker, quiet person with sense of humour (please!). Ring Carole on 27 0780 or 67 5265.
The Bachelor of Creative Arts graduating exhibition is now 'on' at the Long Gallery in the School of Creative Arts. Designated Ausfahrt, which translated from the German means exit, the exhibition will remain open until Friday December 2. This is the BCA's third and final-year exhibition in which all those students who have studied a fine art subject to a major level take part.

The students have established their own exhibition committee under Ray Bradshaw, who is curating. With one or two exceptions the works are by artists in their early twenties. Two of the exceptions are mature-age students.

Says John Eveleigh, Senior Lecturer in Painting and Long Gallery Curator, 'The students' work reflects the volatile changes that are taking place in our century. It is only natural that fine art students should today combine their talents in end-of-course exhibitions that are characterised by energy.'

Energy certainly — and imaginative creativity — are in the Long Gallery in abundance.