

New gamma ray telescope to be built at Woomera

A large \$3 million gamma ray telescope is to be built at Woomera in outback South Australia as part of an effort by the University of Adelaide and Japanese universities to search for high-energy emissions from space.

The new telescope, with a multi-mirror dish up to 10 metres across, will be constructed in 1998 as part of the CANGAROO (Collaboration of Australia and Nippon (Japan) for a GAMMA Ray Observatory in the Outback) Project.

The telescope will form a link in a world network to study energy sources such as pulsars and the recently discovered blazars.

Very distant galaxies, blazars are like quasars — they emit huge amounts of gamma radiation towards the Earth. They are thought to be the most energetic objects in the universe, and are believed to be powered by super-massive black holes. Two blazars have been seen from the ground in the northern hemisphere, but none (so far) from the south.

“Woomera is an ideal location for the gamma ray telescope, because of the dark desert skies and the area’s position in the southern hemisphere,” said the Australian spokesman for CANGAROO, Dr John Patterson.

Continued Page 5

Computer donation for Adelaide frog research



Above: Big Bertha (*Litoria splendida*) takes an interest in a new computer to aid frog research. Photo by David Ellis.

Frogs don’t usually take too well to computers, but Big Bertha from the University of Adelaide’s live frog collection recently made an exception.

She showed great interest in an \$8000 top-of-the-range multimedia lap-top computer, which was this month donated to Zoology to aid frog research.

Three Information Technology firms — EDS, Protech and Compaq — made the joint donation to Associate Professor Mike Tyler in recognition of his internationally significant research into frogs.

The donation also celebrated the opening of the EDS Asia-Pacific Education Centre in Adelaide.

The State Manager of EDS, Mr Alan Scott, said the company wanted to celebrate the Centre’s opening by supporting a “special” South Australian.

“Associate Professor Tyler is an internationally recognised expert on frog research, so this sponsorship with Protech and Compaq was an opportunity to provide his world-leading research with world-leading computer equipment and advice,” Mr Scott said.

Associate Professor Tyler said the computer would be put to good use in the many different areas of frog research being conducted at the University.

“I’m very honoured to be presented with this new computer, which will no doubt have many applications for our environmental research,” he said.

“It’s pleasing to know that this research is recognised by companies such as EDS, Protech and Compaq, and that we have these important links with industry.”

—David Ellis

Creative Writing Chair to harness local talent

The University of Adelaide is to establish a postgraduate Chair in Creative Writing in partnership with the South Australian Government.

The position — believed to be the first of its kind in Australia — is aimed at fostering excellence in South Australian literature and encouraging new writers.

An appointment is expected by the end of this year, with new postgraduate courses starting in 1997.

The Head of the University’s Department of English, Professor Penny Boumelha,

said the Chair in Creative Writing was important for both the University and South Australia’s arts industry.

“It’s often felt that there’s not enough official recognition for creative writing in South Australia, and many of our writers who become successful tend to move interstate or overseas,” Professor Boumelha said.

“There’s also a lot of unharessed talent in our State — there are many people who have writing skills who may benefit a great deal from our courses.

Continued Page 4

Agriculture for the future an Open Day highlight



Find out how agricultural scientists are working to ensure a sustainable and productive future for South Australia’s crucially important primary industries, and how fulfilling careers result from the study of agricultural science, at the University of Adelaide’s 1996 Open Day on Sunday, 4 August.

As well, visitors to the Faculty of Agricultural and Natural Resource Sciences marquee on the Fisher lawns can taste triticales pancakes and alkaline noodles — new cereal products with local and international market potential — and discover the sensory skills of wine appreciation.

Faculty Open Day coordinator Bill

Wallace says the objective is to demonstrate the contribution of innovative research and teaching to South Australia’s future in agriculture.

“Visitors will be able to find out, for instance, how researchers are working to reduce soil erosion, minimise the use of agrichemicals in pest control, and to develop strategies to overcome increasing herbicide resistance in weeds,” Dr Wallace said.

“We will also be focusing on emerging agricultural industries, such as agroforestry, native flowers and new initiatives in plant and animal biotechnology,” he said.

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Acting UP

Lives of Great (Wo)Men All Remind Us...

The Chancellor and I share a common interest in reading biography — along with many others in the University community. Bill has suggested that we should hold a biography exhibition in the Ira Raymond Room and Ray Choate that the exhibition should then travel around other Australian libraries. More details anon in this excellent paper. (And, yes, Rex Hunter, we will include the Harry S. Truman one!)

I have often wondered why reading biography is so enjoyable. Sometimes it's personally inspiring, often entertaining and almost always educational (particularly in helping avoid mistakes of the past).

In the last edition of the *Adelaidean* we read Malcolm Oades' tribute to Harold Woolhouse. On 11 July, the eve of what would have been Harold's 64th birthday, we held a celebration of his life with speeches by the Premier and other prominent South Australians on the nature of Harold's greatness.

Harold was more than just a great man, he was something of a phenomenon in modern Australian Higher Education. He arrived in 1990 and his influence was felt early. In a report tabled in the Commonwealth Parliament in 1992, Dr Jim McWilliam, who had chaired the Review of the Waite Institute in 1989, assessed progress in implementing the recommendations of his Review (a Review which recommended major change and a drastic cut in funding!). He reported that the University had acted decisively in effecting the necessary changes, commenting favourably on the new mood of collaboration, improved teaching and research facilities, and structural and administrative changes. McWilliam's observations have been backed up comprehensively by the outstanding research and research training results of the Faculty of Agricultural and Natural Resource Sciences in recent years.

How was Harold able to institute such changes in a relatively short time? Certainly energy and drive contributed but the outstanding feature of Harold's approach was the grand vision he had for the Faculty and the Waite and Roseworthy campuses and the determined way he went about communicating and implementing the details of this vision.

Harold was a great man — a man of vision!

A clearly articulated and shared vision is important if we want to improve a system quickly and achieve rapid change. The Coalition policy statement on Higher Education issued at the time of the election enunciated a policy for the sector which, if not grand, was generally judged to be reasonable and coherent. With the appointment of the new Minister for Employment, Education, Training and Youth Affairs, we looked forward to the implementation of this policy; however I'm sure we would accept in its place a new vision which would see what is a very good system of higher education, judged by world standards, become even greater. To date the messages from Senator Vanstone emphasise her perceived need to cut higher education funding, but with no corresponding admission that fundamental damage to quality must follow. No wonder there have been protests.

Minister, you have a real opportunity to do something truly great. Draw on the excellent advice available in the sector and in your Department and spell out a vision that will make the Australian higher education system an international exemplar.

MARY O'KANE

Addressing history



I noted with interest in your 'Alumni in Brief' column in the July 1 edition, information regarding the Sir Joseph Verco Dental Chapter dinner to be held at The Adelaide Club.

Although the time of the meeting was here corrected from that

stated in the June 17 edition, the address of The Club was still stated as 156 North Terrace. That, by my estimations, Sir, would indicate that the Club has moved to Parliament House from its previous historic green-doored site — perhaps encouraged by the latest change in federal government?

Further, why has no one from the History Department objected to members of the University of

Adelaide community holding semi-public functions in what ought to be preserved as a piece of living history — a haven for the time honoured traditions of British gentlemen's club living?

(Dr) Mark Werner
Department of Education

[The Adelaide Club is at 165 North Terrace. Ed.]

GUEST COMMENTARY

Affirmative action in the University of Adelaide

The University's 1995 Affirmative Action Report is now being circulated within the University. The Report, which is presented annually to the Affirmative Action Agency as a requirement of the Affirmative Action (Equal Employment Opportunity for Women) Act, outlines what success the University has had with its affirmative action strategies over the past year, and what its plans are for 1996. This process, or something very like it, has been going on in the University since 1986. What has it achieved, and who has noticed?

Affirmative Action strategies have certainly had an impact in some aspects of the University's operations. An affirmative action review of staff recruitment and selection resulted in the introduction of written selection criteria, and the practice of requesting referees' reports to be based on them. Equal Opportunity representatives on appointment committees, now widely considered to add value to the appointment process, were an affirmative action strategy, as was the first staff selection guide, *Selecting the Best Person for the Job*. The University also uses focused search plans to seek out qualified women staff.

Affirmative action strategies have also been important in the professional development of staff. Analysis of women staff's professional development needs has resulted in initiatives including the production of the information booklets *Career Development for Academic Women*, and *Recognising Your Skills and Communication at Work* for general staff women. Strategies in place also include networking and mentoring for women general staff.

In the areas of University culture and climate change, there have been developments in sexual harassment policy and complaints resolution procedures, and in gender and curriculum strategies, including the *Gender and Curriculum Bibliography* and the video guide to non-sexist teaching *Not My Department: Sexism in University Teaching*. Women's rights to equality in the workplace are now more readily accepted. Feminist scholarship is now entrenched as fundamental to many disciplines, and the communication and interpersonal skills that many women bring to teaching and administration are now more widely valued. Where harassment occurs, it is more quickly named as such and often dealt with effectively.

But have affirmative action strategies created equal employment opportunity for women in the University's workforce? Despite some improvement, we are well below national averages. Academic staff statistics for 1987 and 1995 show that the percentage of women academic staff (excluding casuals) has increased from 17% to

by
Dr Kay Rollison
Director
Equal Opportunity

28%, but is still short of the national average of 35%. The largest numerical increases were in levels A and B, with the percentage of women rising in level B (25% to 39%) but remaining the same at level A (48%). In 1987, 12% of the

tenured academic staff were women; by 1995, this had risen to 20%, compared with a national average of 27%. Of all female academic staff in 1987, 58% had tenure compared with 85% of male staff. In 1995, 44% of all female staff had tenure, compared with 68% of male staff. As in 1987, general staff women constitute a majority in levels HEO 1 to HEO 4, but their proportion continues to reduce at every classification from HEO 5 to Chief Officer. Fewer than 20% of the Chief Officers are women, compared to the national average of 24%. Given current rates of change, it could take up to twenty years for there to be equal numbers of male and female academic staff, and even longer for women to be equally represented at senior academic and administrative levels.

Why has there not been greater change? Some answers lie outside the scope of affirmative action strategies. Others do not. For example, although affirmative action strategies have been developed and promoted largely by the Equal Opportunity Office and the Personnel Services Branch in the name of the University, they are not always owned by the University or its component parts. The Guest Commentary 'Two Cultures of Equal Opportunity' (*Adelaidean*, 20 May 1995) suggests that there are significant numbers of staff who do not consider women to be disadvantaged in the workplace. They are unlikely to support any strategies to improve the position. An emphasis on policy change, may, as the Commentary suggests, be irrelevant if staff do not even accept there is a problem. If, on the other hand, it is accepted that some women are disadvantaged, then reversing this situation will depend on identifying the mechanisms which advantage men. Those who are advantaged may be unwilling to recognise or renounce this advantage.

These are the problems. What are the solutions? One is acknowledging there is a challenge to be met, another is owning that challenge. The Equal Opportunity Office cannot and should not do it alone. The University must take seriously affirmative action strategies in its strategic planning, and this means that Divisions, Faculties, Departments and areas must develop and implement their own strategies. The Equal Opportunity Office and the Personnel Services Branch will present the issues, provide consultancy services and assist in reviewing procedures and practices. It is the responsibility of all, especially management, to take action necessary for equal employment opportunity for women to ensure the University realises its full potential.



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Theatre Espresso a potent brew

An original program of workshops and public performances being presented by the University of Adelaide Theatre Guild this week may be a pilot for future national programs to support the development of young playwrights in this country.

Coordinated by the Theatre Guild's director-in-residence Chris Drummond, and co-presented by the Guild and the Australian National Playwrights' Centre in Canberra, *Brewed* will bring leading Australian playwright Stephen Sewell to the University of Adelaide for a five-day intensive workshop from 15-19 July.

He will work with playwrights Fiona Sprott, Corrie Hosking and Matt Rubinstein, emerging directors Alyson Brown, Andrea Hopley and Michael Hill, and nine actors to explore issues associated with the art and craft of writing for the theatre.

On the final three nights (17-19 July) there will be a series of cabaret format public performances under the sub-title, *Theatre Espresso*. In

effect, the actors and directors will take scripts written during the workshop week, rehearse them in a very short time, and present them "freshly brewed" to the audience.

"Our approach with *Brewed* is unique," Chris Drummond said. "The participants will experience a microcosm of the entire process of conceiving, writing, developing, redrafting, analysing, rehearsing, polishing and performing a play within an environment that challenges them to take risks whilst providing them with support and insight."

The multi-disciplinary event includes performances by Adelaide University jazz students, while students from Adelaide's Central School of Art will attend the workshops, use the actors' bodies as life drawing models and exhibit them during *Theatre Espresso*.

Film and video students from the Underdale Campus of the University of South Australia will document the workshops and provide audiences with rough edits of each day's work

so that they can have a "fly on the wall" view of the entire process.

In addition, *Theatre Espresso* audiences will be treated to excerpts from *Identity* by Helen Demidenko, a new Stephen Sewell play to be premiered by ACE Theatre in late July.

Brewed is the culmination of an eighteen-month Quality Audit-funded process which has so far seen nine new works staged as well as the presentation of a developmental workshop for mid-career writers.

It has attracted positive support in the local theatre industry, with additional sponsorship from the State Theatre Company and the South Australian Youth Arts Advisory Board, as well as the Australia Council Literature Fund, and the University of Adelaide Foundation.

The public performances for *Brewed/Theatre Espresso* will take place on 17,18,19 July at 7.30 pm in the Wills Refectory. Tickets \$7/\$5. Three-night season pass \$12. Enquiries: 303 5999.

Agriculture to be Open Day highlight

From Page 1

Minstrels, mapping and museums

Level 1 of the Napier Building will be enlivened by music from wandering minstrels and students in medieval and renaissance costumes as visitors discover 3D mapping, computer-aided language learning and delve into literary sites on the World Wide Web.

As well, the Classics Museum (upper floor, Mitchell Building) will be open to visitors as part of the Faculty of Arts Open Day program.

Laboratory tours and talks on courses and careers in the Faculty of Arts are also planned, and visitors will have a chance to find out how computers can help them learn a language in the Language Laboratory.

Warm up at Wilto Yerlo

One of the warmest places on Open Day will be Pfitzner Court, where Wilto Yerlo events will be centred. As well as providing warmth, open fires in the court will be used to cook bush tucker, while Wilto Yerlo staff will be on hand to talk about tertiary access for indigenous Australians.

Architecture

Visitors to Architecture will step into a virtual classroom as students use the Internet to work on design tutorials, deliver them for assessment, and have their work displayed to the world.

The innovative program was developed by senior lecturer Dr Robert Woodbury, who believes its interactive nature provides a substantial learning boost for students, as well as encouraging excellence in computer skills.

As well, visitors will see some imaginative interpretations of possible developments for North Terrace, presented as highly crafted models.

Science Trail highlights

One day will barely be enough to do justice to the displays, special events and hands-on activities being developed by the Faculty of Science

for Open Day. The specially-marked Science Trail will guide visitors through departmental displays and the Science Field Camp on the Fisher lawns.

There will be a tropical aquarium tour to meet all types of frogs, including 'Big Bertha', the hidden treasures of the Tate Geological Museum, and talks by some of Australia's leading research scientists on topics ranging from the future of modern biochemistry, genetics research and the water quality debate to 'Frog Magic'.

The Science Trail will also incorporate the Investigator Science and Technology Centre's Stardome, which is sponsored by the Faculty of Science.

Economics and Commerce

Talks by international economics researchers Professor Kym Anderson and Dr Randy Stringer will be highlights for those interested in world affairs. Professor Anderson will deliver an address on development economics in the Pacific Rim, while Dr Stringer will discuss the role of economics in environment policy. Both Departments have scheduled talks on courses and careers throughout the day.

Lego and Mathematics

If you're not sure what Lego has to do with pure mathematics, come to the University of Adelaide's Open Day!

Faculty staff will be working hard to give prospective students and the public a better understanding of the applications of mathematics and statistics — and the link to Lego is just one example.

Mock trial

Open Day visitors could spend a whole day just visiting the Faculty of Law, where law students and faculty staff plan to start the day with a video, provide a barbecue lunch followed up with a tour of the Law Library and faculty talks, before treating visitors to a mock murder trial (Level 3, Ligertwood Bldg, 2.30pm.)

Unibooks

Medieval musicians, wine tastings and special deals on refreshments will be features of a busy day at Unibooks. Apart from browsing three floors of books, visitors will be able to taste Montrose Poet's Corner wines and receive vouchers entitling them to a free glass of wine when they purchase pizza at the Union's Equinox restaurant!

Radio 5UV

Visitors to the Bonython Hall courses and careers display may find themselves part of a radio program. 5UV staff and Student Radio volunteers will broadcast direct from Bonython Hall from 11am-1pm during Open Day, and from 1-2.30pm on Information Day (5 August).

Visitor information

An official Open Day program listing the highlights will be available for visitors, along with maps and information about the University of Adelaide, from any of the four Information Booths to be located at entrances in North Terrace, Frome Road, Victoria Drive and Kintore Avenue.

For more Open Day details, see Bulletin Board, page 1.

The News IN BRIEF

SPORTS ASSOCIATION BALL

The Adelaide University Sports Association is celebrating 100 years of service by holding a special Centenary Ball on Saturday, 3 August.

Billed as the "Ball of the Century", the event is open to all past and present students of the University, giving them the chance to share good food, wine, and some of their best stories.

The ball will be a black tie event (or Sports Association members can wear their club's sports blazer) and will feature the band Spank You Very Much, as well as guest speaker Mr Bill Scammell, the University's Chancellor.

Venue: Upper Refectory, Union House, from 7.30pm. Tickets (from the Sports Association) are \$10 students/\$20 others. Phone Pene Bartlett, (08) 303 5403.

AITEA CONFERENCE AND DINNER

The Australian Democrats spokesperson on higher education, Senator Natasha Stott Despoja, will talk about funding for the sector at the Annual Dinner of the Australian Institute of Tertiary Education Administrators (AITEA) at Fernilee Lodge on Friday 19 July.

The dinner follows AITEA's State Conference at the University of Adelaide's Thebarton Campus on the same day.

The conference, organised by AITEA in collaboration with the Equal Opportunity Offices of the three SA universities, and the University of Adelaide's Women's Professional Development Network, focuses on issues, opportunities and strategies for women working in the higher education sector.

Keynote speaker is UniSA's Deputy Vice-Chancellor (Equity & External Relations), Professor Eleanor Ramsay. Guest workshop presenter is Deborah McCulloch (Women's Electoral Lobby).

Further information is available from Esther Tobin on 303 5116.

DANCE MOVEMENTS

Members of the Dance Department have been active in the World Dance 96 festival in Melbourne this month.

Dean of Performing Arts, Dr Anita Donaldson was invited to present a paper at the 11th World Dance Alliance Congress, and will also join the ranks of 12 international dance critics for the Dance Critics Workshop.

Senior Lecturer, Ms Simi Roche has taken the Department's 17 third-year students across for OPTIONS 96, a tertiary dance festival of performances and classes. She will also attend the Tertiary Heads of Dance meeting.

At the end of July Dr Donaldson will be in Jakarta to present a paper for the conference attached to the Indonesian Dance Festival.

SEPANG UPDATE

A total of 198 students enrolled in 16 twinning program subjects at Sepang Institute of Technology (S-I-T) recently sat their first semester examinations. The papers, now being marked, were identical to those set for Adelaide students, with examinations held just 30 minutes behind Adelaide time.

Teaching of the mid-year intake to level 1 courses offered at S-I-T began on 9 July. 65 students have enrolled in this intake — 29 in Economics and Commerce, five in Computer Science, two in Science, and 29 across the various Bachelor of Engineering degrees.

INFORMATION DAY



International energy research wins major grant

The University of Adelaide — and the environment — are two of the big winners following the announcement of the 1996 Targeted Institutional Links (TIL) Program grants from the Federal Government.

A major international collaborative research project with significant environmental spin-offs has been awarded \$215,000 over three years.

The project — a joint venture between the University of Adelaide's Department of Chemical Engineering and the National Laboratory of Coal Combustion at Huazhong University of Science and Technology in China — aims to:

- develop a technique to convert

Advertisement

organic waste into an environmentally friendly fuel

- reduce the impact on the environment from organic waste disposal
- reduce the quantity of waste being disposed of.

The leader of the international research project is the University of Adelaide's Dr Dong-ke Zhang (Chemical Engineering), who was recently appointed to the prestigious position of Adjunct Professor with Huazhong University. He is also the winner of the Combustion Institute's David Warren Award for excellence in combustion research.

Dr Zhang said a process called "low-temperature pyrolysis" would be used

to thermochemically decompose organic waste, producing value-added fuel oil and other fuel products.

He said the fuel produced by this process could then be used as a substitute for (or a blending agent with) current transport fuels.

"Low temperature pyrolysis is one of the most important renewable energy technologies that will not only help the nation's energy industry, but also minimise the environmental impact of waste disposal," Dr Zhang said.

"This project to convert waste matter into renewable energy will therefore have major benefits for the treatment of agricultural, industrial and domestic waste, including sewage sludge.

"We believe the processes involved

in this will be simple, easy to operate and control, and cost relatively little," he said.

The TIL funding for this collaborative research project with Huazhong University was announced last month.

It was welcomed by Dr Zhang, who said the project would boost the University's already expanding commercial and academic links with China.

"I am very happy to be heading this research project, because of my close ties with Huazhong and my interest in this area. Hopefully it will have enormous benefits for the University of Adelaide, for Chemical Engineering, and for the environment as a whole," he said.

—David Ellis

Roseworthy centre a step forward

South Australian livestock management and husbandry is set to take a major step forward with the construction of a \$350,000 Livestock Research Centre at Roseworthy Campus.

The new facility, to be operated by the Department of Animal Science, has been jointly funded through the Faculty of Agricultural and Natural Resource Sciences and an ARC infrastructure grant.

The research centre will provide many new opportunities in nutrition, husbandry and dietary research, says Dr Jim Gallagher, deputy Head of the Department of Animal Science.

"The extension of livestock research facilities at the Roseworthy Campus will provide a unique service, particularly for postgraduate students, and

will allow previously unachievable, or very time consuming and expensive research to be carried out in a modern, well-designed building," he said.

"Postgraduate students are already utilising the new centre to carry out extensive tests into nutrition and various diets of sheep. The building can hold sheep, goats and pigs and could diversify into cattle, deer and horses."

Several experiments which have recently been set up include looking at the palatability, digestibility and nutritive value of different types of rice straw, and looking at increasing the nutritive value of low quality roughage rations such as poultry manure, citrus peel, molasses and wheat straw. A wide range of lupins is also being evaluated for livestock.

The airconditioned centre contains a

laboratory and surgery facilities as well as feed storage rooms and yards, capable of holding up to 100 animals in individual pens and metabolism crates.

"The combination of this research centre, the new SARDI nutrition laboratories, and the SARDI/PISA Pig and Poultry Production Institute provides a valuable tool for livestock research, and will ensure that the Roseworthy Campus is on a very competitive level with other institutions in Australia and overseas," Dr Gallagher said.

—Elizabeth Butler

The new facilities will be officially opened at the Roseworthy Industry Day on 25 October, and will be open for inspection by the general public at the Roseworthy Open Day on 27 October.

Advertisement

New Creative Writing Chair

From Page 1

"What we're trying to do, through the new Chair in Creative Writing, is to create a training and research structure for writers in South Australia and encourage them to remain here."

Professor Boumelha said there was strong demand for higher degrees, and graduate certificates and diplomas in Creative Writing.

"Adelaide itself has a very active writing scene, which is shown through the South Australian Writers' Centre and Writers'

Week during the Festival of Arts.

"We've already had a lot of interest in the courses, without any publicity, and I think the demand will be high. There's no shortage of people who write, or who would like to write," she said.

The University and the SA Government's Department for the Arts have each contributed half the funding for the new Chair.

Professor Boumelha said advertising for the position would begin soon.

—David Ellis

Advertisement



Environmental Studies Medal winners Megan McCarthy and Brett Bryan with environment awareness program award winner Anne Brow at the Mawson Graduate Centre's 21st anniversary celebrations on 2 July. Photo: David Ellis

**PUBLIC
LECTURE**

Variation in learning is the key to unlocking student potential

A failure by teachers to consider variation in students' learning behaviour means that many are failing to reach their potential, according to Professor Erik Meyer, a visiting senior research fellow in the Faculty of Medicine.

Professor Meyer, from the Student Learning Research Group at South Africa's University of Cape Town, is studying the way medical students in the Faculty conceptualise "diagnosis".

He argues that university teachers need to be sensitive to differences in their students' learning and take some responsibility for making appropriate responses to these differences.

He believes that responding to variation in learning — rather than focusing on improving teaching — will revitalise university teaching.

Professor Meyer said that even "virtuous" learners — students who seek to understand deeply what they are learning — can fail at university if the methods of assessment are not sensitive to their intentions.

"There are also some kinds of learning environments that discriminate against students who are trying to understand deeply what they are doing," he said.

"Good students often can't compete the way the competitive rules of the game are structured."

He discussed these issues at a public lecture in the Faculty of Medicine on 28 June. Professor Meyer is being hosted by the Department of Pathology, and is one of a series of Visiting Senior Research Fellows who will be in the Faculty in 1996-97.

He praised the Faculty of Medicine for examining the issue of learning. He added that, in general, university teachers had failed to recognise the importance of variation in student learning.

Professor Meyer is studying students' conception of "diagnosis", a fundamental issue for medical teachers. He has found that at one end of the scale, some students have a simple "unistructural" conception — that of finding a label for the ailment — and at the other end, some students have sophisticated conceptions based on likelihoods and tested hypotheses.

These conceptions, he argues, shape the way the students approach learning.

"Telling the student that their view is naive or

unsophisticated won't help," he said.

Students with under-developed conceptions can't simply be told to change those conceptions; learning opportunities must be created for them that will help them to develop more sophisticated conceptions at a faster rate.

"The problem-based learning approach being adopted in the medical curriculum shows every sign of being able to do this at the first year level," Professor Meyer said.

He said differences in student learning could not be resolved by sending a student for counselling or study skills assistance elsewhere because learning is always context specific. The teacher must therefore take some responsibility, as a part of that context.

"Furthermore, students tend to extract things from their learning environments that are congruent with their own conceptions of what 'learning' is."

Teaching students study skills was not as effective as adjusting to individual variation in learning.

"This is not to say that study skills are not useful, but unless you begin to change fundamental issues, like conceptions of learning, how do the students cope when they get stuck? If you don't attempt to change these fundamental issues, we are not being serious about their problems."

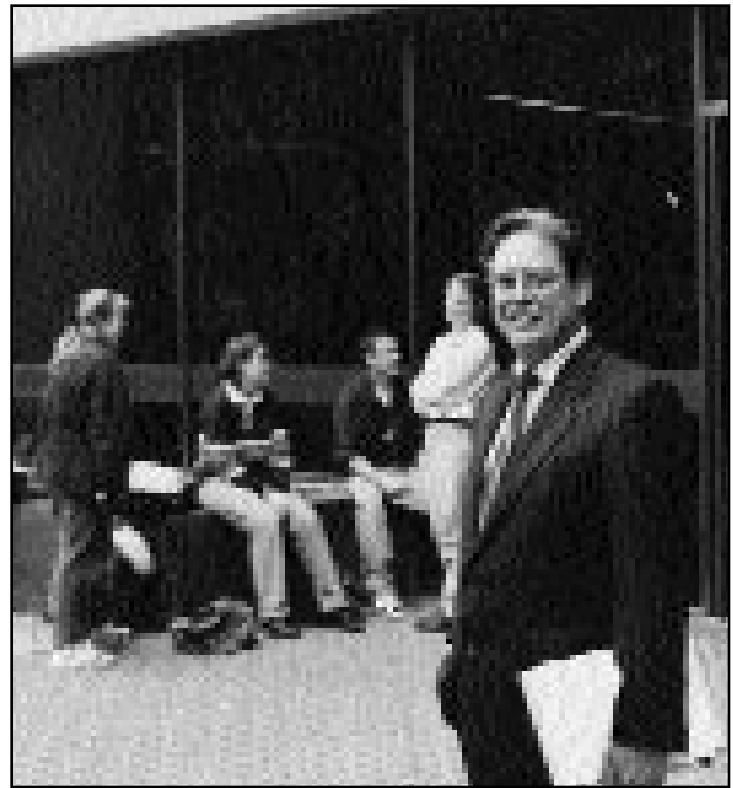
Professor Meyer said that research was increasingly being done into how to respond to variation in student learning, but he believed new approaches — such as grouping students on the basis of individual similarities in learning behaviour — could have powerful results.

Already, from a student learning perspective, researchers could anticipate the kinds of difficulties students experience when entering university and why.

"If students are honest in telling us about how they go about learning, we can anticipate with a reasonable degree of accuracy the kinds of difficulties they will experience in adjusting to university study," he said. "And we can take preemptive action if we are concerned."

"To do this requires a shift in thinking at a policy level; the basic issue concerns extending the locus of academic practice to include scholarship of student learning."

—David Washington



Professor Erik Meyer from the University of Cape Town — one of a series of Visiting Senior Research Fellows in the Faculty of Medicine in 1996-1997. Photo David Ellis

Advertisement

New gamma ray telescope to be built at Woomera

From Page 1

Dr Patterson, from the University of Adelaide's Department of Physics & Mathematical Physics, said the telescope would give Australian and Japanese astrophysicists access to a world-class facility for research and postgraduate training.

"This is a fine example of international cooperation in science which will benefit South Australia," he said.

"Our collaborative partners — Professor Tadashi Kifune from the University of Tokyo and Professor Toru Tanimori from the Tokyo Institute of Technology — have received 'priority funds' for this project from the Japanese Government.

"It's hoped that funds for some vital site works will also be available from Australian sources, such as the Australian Research Council."

Dr Patterson said the design study of the gamma ray telescope had been completed by the Mitsubishi Electric company of Osaka, based on the design of a 10-metre radio telescope at

Nobeyama, Japan.

The dish will be filled with mirrors to collect the faint "light flashes" produced in the Earth's atmosphere by gamma rays of very high energy.

"The information gathered by this telescope will be able to tell us more about large-scale conditions in the universe, because the gamma rays are absorbed on their way between galaxies," Dr Patterson said.

"We are very interested to find out more about some special gamma ray pulsars in our own galaxy, as well as the more energetic emissions coming from blazars," he said.

Dr Patterson said as well as the construction of the new telescope, plans had been made for the existing 3.8-metre CANGAROO telescope at Woomera to be refurbished.

He said it would be recoated with a fresh aluminium mirror at the Anglo-Australian Observatory in Coonabarabran, New South Wales, to improve its sensitivity until the new 10-metre telescope is constructed.

—David Ellis

Geology field trip an 'outstanding success'

A group of PhD students from the University of Adelaide has returned from a unique geological field trip in North America.

Nine students from the Department of Geology and Geophysics — Garry Adams, Darrell Beng, Peter Haines, Rob Menpes, Scott Mildren, Paul Polito, Bruce Schaefer, Charles Sevcik and Jon Teasdale — spent one month in the US and Canada visiting sites of major geological significance.

Their journey took them to some of the world's best known sites, including the Grand Canyon, Death Valley, Yellowstone, Yosemite and Zion National Parks, and twice across the Rocky Mountains.

They were also given guided tours of several large, world-class mining operations, including the Gold Quarry gold mine (Newmont Mining), the Robinson/Ruth copper mine (BHP) and the Homestake Gold mine (Homestake Mining).

Organised by the students themselves, the field trip was aimed at giving them first-hand experience of geological sites they had only read about in textbooks.

"We wanted to incorporate the best known examples with the widest range of geological phenomena in an area that was easily accessible, highly regarded and well documented," said PhD student Mr Paul Polito.

"It's one thing to read about different geological structures, but you don't entirely realise what they're like until you've seen them up close. This was a once-in-a-lifetime opportunity for us, and without a doubt the trip was an outstanding success," he said.

Although at times marred by poor weather, the field trip exposed the

group to unique scenes of landscape and wildlife. They also found the American and Canadian people to be very friendly and helpful.

To cut costs, the group decided to camp in tents and cook for themselves for most of the journey.

"This not only showed up a few good cooks among us, but also brought the group closer as a whole, which was very important," said Mr Polito.

"Sleeping in tents made for some interesting times — freezing cold nights in the snow, boiling hot nights in Death Valley — but it added to the whole experience. One night a herd of buffalo even came through our campsite," he said.

Mr Polito said the group was extremely grateful to the many sponsors who helped fund the field trip, and to bus driver and tour guide Dylan Hiroms of Suntrek Tours.

"Dylan's knowledge of the local areas enabled us to go to places we wouldn't have otherwise visited, or even known about. His enthusiasm in the places we visited for geological reasons also broadened our cultural knowledge of the American Indians and the days of the Wild West.

"We all agree that the trip was made such an outstanding success because of Dylan," he said.

Mr Polito said the group's unique experience in North America was something they would all remember, and would be invaluable to their careers in the fields of geology and geophysics.

He said he highly recommended such a trip to other students within the department.

—David Ellis



Three of the Geology group at Angel's Leap in Zion National Park: L to R, Peter Haines, Garry Adams and Paul Polito. Photo courtesy of Paul Polito.

The postgraduate Geology and Geophysics students would like to thank the following sponsors for making their trip a success:

Ansett Australia
BHP Minerals
City Pro Gym
Mines & Energy SA
CPM&S
Hindley Pasta Palace
The Barron Townhouse
Peter Lehmann Wines
Dymocks (Standard Book)
Kerry O'Brien Fitness Centre
Two Dogs Alcoholic Lemonade

Australian Meats
Mount Thebarton/Ice Arena
The Newmarket Hotel Restaurant
Barry Lewis Enterprises Picture Framers
Aces Bar and Pokies
Adelaide University Bar
Kentucky Fried Chicken
Pizza Hut
The Planet
The Snack Bar
Fasta Pasta
Haigh's Chocolates
Department of Geology and Geophysics
Suntrek Tours

Homestay shows Adelaide through visitors' eyes

Adelaide families are helping the University of Adelaide give Japanese students the warmest possible welcome during their stay here.

Each year many students from Japanese universities come to Adelaide for a four-week language and cultural course. One of the most important parts of their time here is the Homestay Program, which is run by Continuing Education.

Under Homestay each of the Japanese students spends a month living with an Adelaide family. This allows them to experience Australian culture and family life, as well as providing them with a friendly environment while they are away from their friends and family in Japan.

Host Families who take part in the program come from all areas of Adelaide and all backgrounds, and are paid \$130 a week to cover costs.

One such family is the Shepherds, who have been hosting students from Shoin Women's University in Kobe for the past four years.

Ken Shepherd is Associate Professor in Plant Science at the University of Adelaide's Waite Campus. He and his wife, Joy, decided to become a Host Family because they once lived in Japan for six months.

"We wanted to repay the enormous



The Shepherd family with visiting overseas student. From left: daughter Jennifer, Joy, student Hitomi Matsuda, son Andrew, and Ken. Photo by courtesy of the Shepherds.

hospitality that was shown to us," said Dr Shepherd. "It's an enjoyable experience. Each of the students is very different, and we make good friends with them during their stay."

Mrs Shepherd said the students and the Host Families learn much about each other and their unique cultures.

"The students look at what we do on a day-to-day basis in a much different way. That makes us look at the same things differently — we see these things through our visitor's eyes, and

what we take for granted we suddenly think about and appreciate more."

The Shepherds said some of the things that have made a big impression on the Japanese students they hosted include Australian food, slang, Adelaide's beaches, Aussie Rules Football, the countryside, and being able to see the stars at night.

"It's been very interesting just sharing simple pleasures that we tend to take for granted," said Dr Shepherd. "For the students to go out at night in

the countryside, look up at the sky and see the Milky Way and Southern Cross is absolutely fascinating to them. Our last student, Hitomi Matsuda, has written to us and said that among the things she will never forget is her first sight of the Southern Cross.

"The University also organised a tour for all the Host Families and students — a night walk through the Cleland Conservation Park.

"It was wonderful, something we'd never thought of doing before, and we met many other families who enjoyed the experience equally."

The Shepherds said they would be happy to keep hosting Japanese students each year, and would recommend that other families join the Homestay program

"I think it's a very rewarding experience for any family that has the time to do such a thing, because of the friendships that are made and the exchange of information about our different cultures," Dr Shepherd said.

Continuing Education is currently looking for more Adelaide families to host Japanese and also South Korean students.

Those interested should contact Homestay Coordinator Ms Sandy Pugsley on (08) 303 4777.

—David Ellis

Alumni IN BRIEF

Rockefeller Humanities Fellowship to Adelaide graduate

Adelaide graduate Dr Hazel Rowley has been named as one of five Fellows to participate in the International Forum for US Studies at the University of Iowa from February to April next year.

This Rockefeller Humanities Fellowship aims to promote work by non-American scholars on issues affecting the United States.

The selection panel received nearly one hundred applications from more than 40 countries, and was seeking scholars who could give fresh perspectives on American issues.

Dr Rowley will be working on a biography of the Black American writer Richard Wright.

"As a Black American, Wright was marginal to the mainstream of US culture," Dr Rowley commented.

"He spent the last fourteen years of his life living as an expatriate in Paris and had connections with a number of third world activists. He interested me as a public intellectual."

Dr Rowley published a biography of the Australian writer Christina Stead in 1995, and was the guest speaker at the Cornell Chapter's Annual Dinner last November.

Honey on Toast

When you tuck into your honey on toast at breakfast time, does it occur to you to wonder about the mathematical principles governing the behaviour of your favourite spread?

Professor Ernie Tuck, Dean of Mathematical and Computer Sciences, will deliver an illustrated talk on "The Mathematics of Honey on Toast (and other everyday fluid flows)" at 7:30pm, Wednesday 14 August, in the Benham Lecture Theatre.

This illustrated talk is FREE and is offered as part of the Alumni Activities Program for 1996. Both members and non-members of the Association are welcome; families are encouraged to bring high school aged children along.

Please call the Alumni Office to let us know you are coming: 303 4275.

Dental Chapter dinner meeting

Graduates, students and friends of the Dental Faculty are invited to a dinner meeting of the Sir Joseph Verco Dental Chapter, on Wednesday 24 July at the Adelaide Club, 165 North Terrace, 6.30pm for 7.00pm.

Mr Tim Goh will speak on the foundation of the Australian Dental Students' Association and the Asian-Pacific Dental Students' Association.

Please book through the Alumni Office: telephone 303 4275. Adelaide Club dress code applies: dark suit/semi-formal wear (no sports jackets or Bermuda jackets, please).

Informal Cello Afternoon

Cellist Janis Laurs joins with pianist Lucinda Collins for an informal afternoon of music in the Hartley Building Concert Room, at 2:30pm on Sunday 18 August. Hosted by the Cornell Chapter (Arts and Performing Arts). Enquiries: 303 4275.

Association action on threats to higher education funding

The Alumni Association has been acting to assist the University in its efforts to lobby against possible funding cuts in the August Federal Budget.

At their meeting on 17 May last the Trustees of the Association passed unanimously the following motion:

while recognising that

any reduction in Commonwealth funding to higher education not only directly and flagrantly contravenes the higher education policy of the Liberal National Federal Coalition Government (as authorised and published on 20 February 1996) but would seriously affect the ability of universities to carry out the teaching and research which is critical to Australia's national interest

and given that

any reduction in Commonwealth funding would be significantly reflected in the quality of teaching and research output and greatly damage the present high international reputation of Australia's universi-

ties and that access by students would necessarily be diminished

and further that

the value of the degrees and other awards earned by the 1.5 million alumni of Australian universities, being very much the measure in the community's view of a university's standing, would be significantly decreased

The University of Adelaide Alumni Association is firmly of the view that the interests of Australia as a whole would be damaged by a reduction in Commonwealth funding for higher education and urges the Federal Government not to implement a funding cut and, accordingly, directs the Chair to mobilise the appropriate Vice-Patrons as was done successfully in 1988.

The motion was subsequently communicated to the Vice-Chancellor, the Students' Association, the National Tertiary Education Union, the Australian University Alumni Council, all alumni directors of Australian Universities, the Prime

Minister and the Federal Minister Senator Vanstone.

At the Association's AGM on 20 June the membership endorsed the action of the Trustees and advised the Chair to write to the Prime Minister and thank him for his public commitment to higher education.

After the Trustees meeting the Chair had sought from the Patron and Vice-Patrons of the Association agreement to use their names by the Association in supporting the University in its stance on a possible reduction in higher education funding. The letter below was sent to the Prime Minister on 3 July 1996.

The Association encourages all alumni of the University (graduates, staff and students) to write to their members of Parliament to express their support for a continuation of at least the present level of funding of higher education in order to promote and preserve teaching, research, scholarship and economic activity.

—Geoff Sauer

A Letter to the Prime Minister

3 July 1996

The Hon John Howard
Prime Minister of Australia
Parliament House
CANBERRA ACT 2600

Dear Prime Minister,

This is further to our letter of 22 May 1996 regarding the unanimous resolution of our Trustees on 17 May 1996. Thank you for your reply of 19 June 1996.

We write now with the authority and support of the Officers of this Association listed below.

We are directed by the membership of this Association at its recent Annual General Meeting (20 June 1996) to thank you for your public commitment to higher education and its funding. We are particularly directed to thank you for your public assurances that the Coalition's electoral promises will be honoured and most particularly the Coalition's Higher Education Policy of Quality, Diversity and Choice as authorised and released on 20 February 1996.

We believe that the cuts that seem to be being contemplated by the Minister, Senator Amanda Vanstone, would be in breach of the Coalition's Higher Education Policy.

We support in general terms the submissions on this subject by the Australian Vice-Chancellors' Committee, by the Group of Eight (G08) Universities, by the Australian University Alumni Council, by our three South Australian Vice-Chancellors and others.

We support in particular our own Further Education Minister, the Hon. Dr Bob Such, when he says, *inter alia*, that "Drastic cuts would have a severe impact on teaching and research programs and affect our pursuit of academic excellence, economic growth and development".

These views have been put generally

to the Australian Senate in a speech by Senator Baden Teague on 30 May 1996. He is a graduate of this University and is an elected Member of our governing body, the Council of the University. Further, Senator Teague was, as we understand it, a significant contributor to your Higher Education Policy and during his eighteen years as a Senator for South Australia he has actively involved himself in education which is almost certainly the most important single factor regulating the future of Australia.

Finally, Mr Prime Minister, we submit that any reduction in Commonwealth funding for Higher Education would not be in the best interests of Australia for that would, *inter alia*, lead both to a diminution of the awards held by our 1.5 million Alumni and the prejudicing of our collective ability to continue to attract overseas students thereby compromising the contributions that these students make to Australia both culturally and financially (presently about \$2 billion annually).

Thank you for your kind consideration of these our earnestly held views.

Yours sincerely,

Mr WF Scammell
President & Chancellor

Dr EH Medlin
Chair

For, and on behalf of:-

Professor Sir Mark Oliphant
PATRON

VICE-PATRONS

Professor Sir Geoffrey Badger
Mr C Warren Bonython
Mr Brian Croser
Mr David David
Dr Barbara Hardy
Mrs Ruth Heddle
Dr Ivan Jarrett
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Mr Peter Balan, Pro-Chair
Mr Geoffrey Sauer, Executive Secretary
Mr John Diekman
Ms Colleen Grady
Mr Simon Hall
Mr Geoff Purdie

Respectfully submitted,
EH Medlin

DISTINGUISHED ALUMNI AWARDS

Nominations are invited for 1996 Distinguished Alumni Awards. Any member of the alumni body of the University may nominate alumni for Distinguished Alumni Awards.

Further information may be obtained from the Executive Secretary of the Alumni Association, Geoff Sauer, on telephone (08) or 61 8 303 4277, or by email gsauer@registry.adelaide.edu.au

Adelaide moves into 21st century with 3D model

A 3D computer model of the city of Adelaide, developed by University of Adelaide researchers, was a key feature at the recent launch of the 21st century vision for the city.

The Adelaide 21 Project officially launched its report at the Art Gallery on 5 July to a packed house of South Australian dignitaries.

The report outlined Adelaide 21's vision for the city, bringing together the ideas of learning, creative imagination, Adelaide as the gateway to South Australia, the gathering place, and the "city of light and style".

The 3D computer model of Adelaide — the first of its kind in Australia and one of the few in the world — was showcased at the launch.

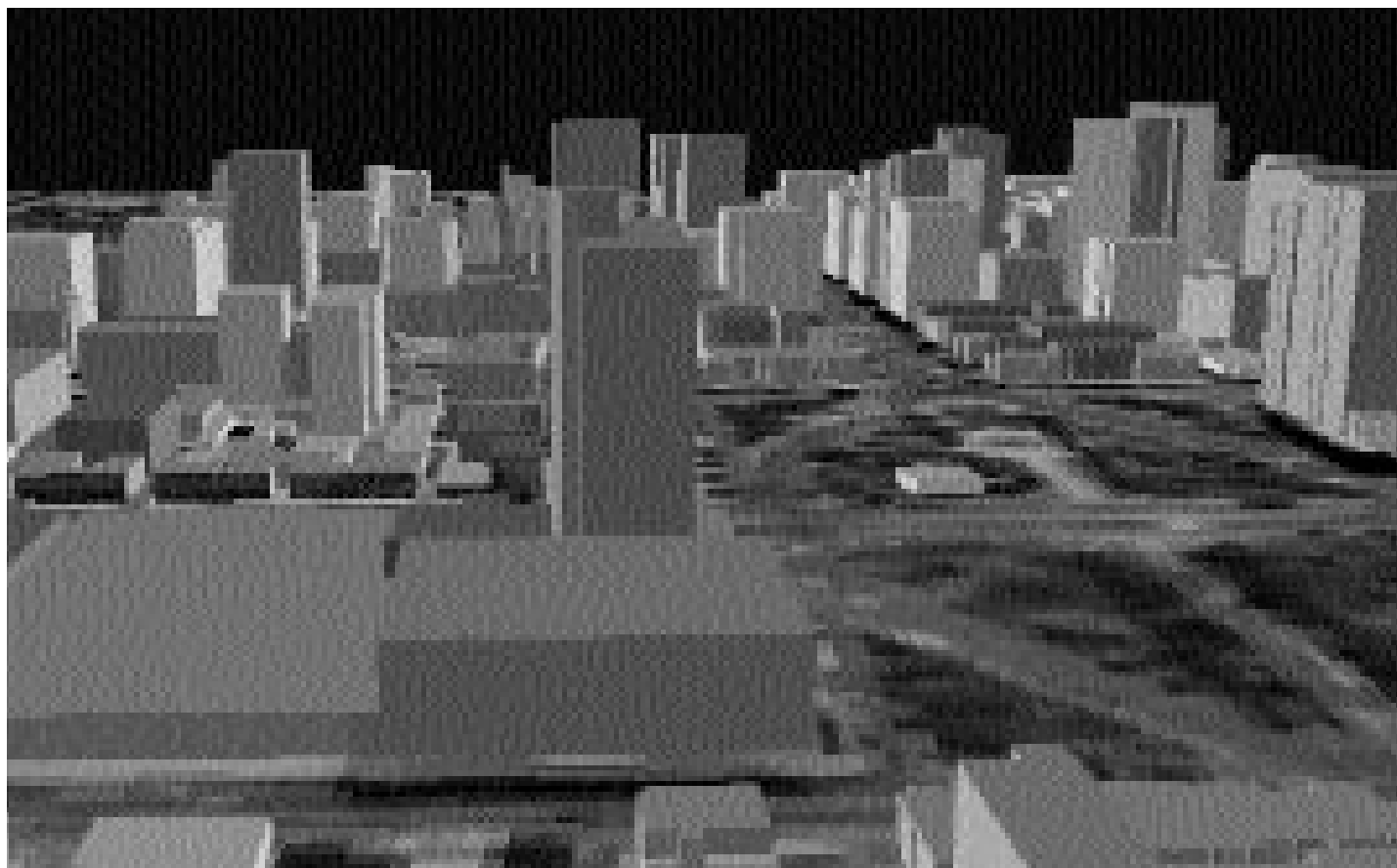
The highly detailed and accurate 3D model, which allows the user to "fly" through the city at any angle, has been used by the Adelaide 21 Project to develop scenarios for Adelaide in the year 2010.

By using the model, new designs for the city, such as tunnel walkways, piazzas, and major building developments, can be constructed and assessed within minutes. This has many implications for planning and designing the future city of Adelaide.

The model was created by researchers at the Department of Geography's National Key Centre for Social Applications of GIS (Geographical Information System) in conjunction with leading 3D software company Maptek Pty Ltd.

It is expected to become a widely used tool for Federal, State and local governments, as well as industry.

—David Ellis



Computer image of the 3D model of Adelaide, showing Victoria Square. Picture courtesy of GISCA.

In the 3 June *Adelaidean*, there was a front-page article about the Habitat II conference in Istanbul last month and the presentation of a 3D model of Adelaide developed by the University's National Key Centre for Social Applications of GIS and software company Maptek Pty Ltd.

The article stated that the Key Centre was "the only organisation from South Australia" to attend the conference. It has now been drawn to my attention that

Adelaide-based Urban Ecology Australia (UEA) was at Habitat II with 10 members, "the largest delegation from Australia", according to UEA Secretary Sharon Ede.

Ms Ede points out the UEA was invited to showcase the Halifax Ecocity Project at Habitat II's Best Practices Exhibition in Istanbul, and that it was "the first Australian NGO to be accredited to Habitat II".

—John Edge, Editor

ACCOMMODATION

BEAUMONT: Fully furn, spac 3 br house with all linen, crockery, etc. Heated pool. Quiet street close to bus, schools. 15 mins to city. Avail mid July 1996. Phone Mary 315202; email mfp@ilinet.slnsw.gov.au.

BROMPTON: Room for rent in 2 br share house. Prefer female, non-smoker, student or staff member. \$63 pw. Ph 346 5834.

MILE END: Room for rent in 3 br bluestone villa. Wlkg dist to shops, asian grocery, laundry, cafes. Close to city, and bus. Suit domestically aware and mature student/professional. Avail mid July. \$55 pw and % of bills. Ph Anna 223 6734 til 20/7/96 or 3517168.

MILLSWOOD: 3 br, semi-furn house with combustion heater, new carpet, off street parking. Long or short term rental. \$67 pw per room + exp. Ph Cecilia 303 8403.

NORTH ADELAIDE: Lg 2 br, fully furn flat with lge lounge, sep dining, pool, garden. \$280 pw (incl gas & elec). Ph 267 1081.

NORWOOD: Non-smoking female to share with prof female. Fantastic roomy, furn, flat with lge br. Quiet street. 1 min walk to Parade. Suit graduate or professional. \$50 pw + exp. \$200 bond. Ph Nicole 364 0254.

UNLEY PARK: 1 br, fully

furn, flat, lge lounge. Tree lined, quiet street. 3km from Waite, 5 km to Uni. Close transport. No carport. Ref & bond essential. \$88 pw (elec incl). Ph 271 3386.

WALKERVILLE: Fully furn unit, group of 10 with Caretaker. Avail Oct 96 to Oct 97. \$105 pw. Ph 342 0450.

WANTED: Flatmate, female, to help with expenses. 3br house, no furn needed (except for dresser drawers). Close to O-bahn. (1 bus to city). Please write to: 29 Jennifer Ave, Ridgehaven 5097.

WANTED: Polish academic, wife and 2 daughters (9 & 10) seek furn accom within easy reach of North Tce. Req early Sep for 6 mths. Contact Dr RJ Protheroe 303 4748/303 5996 or email: rprother@physics.adelaide.edu.au

WANTED: Visiting NZ academic requires accomm for 4 months from 6 Aug - 6 Dec. Would prefer 2 br furn flat, but would consider house sit (willing to care for garden and pets), or share. Email: K.Tuffin@massey.ac.nz

WEST BEACH: Fully furn townhouse on beachfront avail immediately (long term). 2 br, sep study, laundry, lock-up garage, rear garden. Balcony, sea views, everything provided, just walk in. \$300 pw. Ph Anne Venn 230 5170 or 0419 255 813.

Adelaidean

CLASSIFIED

FOR SALE

ALLOY WHEELS: "Performance" 5 spoke, 14" x 6", excellent condition, suit Commodore. \$200 ono. Ph Andrew ext 34648.

CARAVAN: 25ft travel-home with annexe, island bed. \$3500. Ph 388 7942 or 388 7177.

COMBUSTION HEATER: Slate plinth and complete flue assembly included, good cond. \$480 ono. Ph Derek 303 5748.

CORONET CARAVAN: 13'6" 4 berth, full annexe, elec brakes, light truck tyres, mirrors, torsion bars. In excellent cond. \$2650. Ph 284 7150.

DATSUN: 1977 sedan mustard colour, running. \$850 ono. SMD 379. Ph Sassan 303 7274 or email saggari@waite.adelaide.edu.au

ELECTRIC TYPEWRITER: IBM 6784, Auto correction, extra daisy wheel, cartridge, \$200. Rocking horse (small) cane, velveteen saddle. \$20. Ph Dr Oliver 303 4041 or 339 2491 (ah).

ELECTRIC HEATER: Vulcan Quasar Elite, 2 1/2 yrs old, good cond. \$200 ono. Ph Gilbert 303 5122 or 356 7260 (ah).

HOUSE: South Lakes - Goolwa. Excellent security,

23 sq, far reaching views, 3-4 br, 2 bathrooms, r/c air cond, dishwasher, huge entertainment areas, bar, parking for 5 cars, sunrooms. \$149,500. Ph (085) 553 904.

LAWNMOWER: Scott-Boneire, 3hp Stratton Briggs motor, good cond. \$490 ono. Ph Derek 303 5748.

MINI CLUBMAN: 1972, beige, bodywork in excellent cond, good motor, genuine sale. RDV 585. \$1,700. Ph John Robbins 303 5796 or Jessica 388 7647.

MISC: 26" Ladies bike, pink, used twice, \$150. Pine lounge, 1 x 2 seater & 2 singles, neutral colour, \$100. Ph 270 5389.

MOTOR BIKE: "Postie" Honda CT 110. Ideal commuter. Registered until April 1997. \$700. Ph Pat 303 5401 or 362 9559 (ah).

MOVING SALE: Beds - Queen, \$490, Double, \$140, Single with head, \$140, Single, \$95, Bed-head (queen), Bookshelves, \$95, Desk, \$95, Chair, \$95. Sofa, \$90, Dining table & chairs, \$300 plus much more. All in exc cond. Ph Shouwei 303 7392 or 298 7398(h).

PRINTER: HP Deskjet 500 inkjet with power pack, new cartridge and cable. Excellent cond, hardly used.

\$200 ono. Ph Barbara 222 6782 or 363 2453 (ah).

SIGMA: GL sedan, 1983, auto, air cond, stereo, exc cond, slight bumper damage, service records. UUA 978. \$2,600 ono. Ph 295 8678 or email: xvanosta@immuno.imvs.sa.gov.au

TOYOTA COROLLA: 1992 CSi hatch, auto, EFI, 1.6 ltr, blue, air, p/steer, exc cond, genuine sale. VOE 331. \$15,000. Ph Wendy 222 5635 or 336 2117 (ah).

WEAVING LOOM: "Arty Crafty" model 6 shaft floor loom, exc cond. \$385 ono. Ph Doug 337 5087.

WOOD WORKING MACHINES: 10" saw bench with spare blades, \$450. Webster planer, \$500. Both in exc condition. Ph 303 5312 or 381 2209 (ah).

DEPARTMENTAL

ELECTRONIC TEST EQUIPMENT/OFFICE EQUIPMENT: Including 2 photocopiers and a drafting table. Avail for inspection on 19 July in the Electrical & Electronic Engineering Dept. Tender details avail from Stephen Guest 303 5467.

VEHICLES: Toyota Hi-Ace Van: 1993, VLL 792, white, 5 spd man, 2 x near side windows, cargo barrier, 26,500km. Toyota Town Ace Van: 1993, VLH 957, white, 5 spd man, 2 x near side windows and 1 x 1/4 rear window, cargo barrier, 19,564 km. Toyota Hi Lux

Cab Chassis: 1993, VLF 384, drawbar (heavy duty) c/w 7 pin plug, 37,928km. Toyota Hi Lux Cab Chassis: 1993, VLF 385, steel drop side tray, drawbar (heavy duty) c/w 7 pin plug, 18,362km. For inspection contact Margaret Hague, Property Services, Roseworthy, 303 7892. Tenders in a sealed envelope to Property Services Manager, Roseworthy Campus by Monday 22 July 1996.

WANTED

SECOND HAND CAR: Reliable, auto, either hatchback or small sedan, capable of long distance driving. Road-worthiness certificate and no repairs required. Preferably priced around \$8,000 (will consider slightly higher price). Ph Susanne Holt 303 8882.

MISCELLANEOUS

GARAGE SALE: The Barr Smith Library will hold a garage sale of furn and equipment from 10am - 12.30pm on Wed 24 July. Bargain prices on older chairs, desk, and various office equipment. In the lane between the old Barr Smith Library building and the Student Counselling Service on the lower level of the campus (weather permitting) or on Level 2 of the Library, next to the Old Reading Room.