**Vol 7 No 16** 

NEWS FROM THE UNIVERSITY OF ADELAIDE

**SEPTEMBER 14, 1998** 

Michael Detmold on the humane sciences in the University

Richard Pomfret's work on the **Central Asian economies** 

Privatisation—it needn't be a dirty word

# CRC coal research offers cleaner power future

AFTER JUST five years of role their research has to the fine to use gas now but it is operation a Cooperative Research Centre involving the University of Adelaide, Optima Energy and several other partners in Victoria has developed new technology to convert low-rank coal into electricity with dramatically increased efficiency and far less pollution. It is also costcompetitive with gas.

"The improvement we are talking about with our new technology is a new concept of how to burn coal," says Professor John Agnew, Head of the University of Adelaide's Division of Engineering and Mathematical Sciences and Dean of Engineering.

"You don't build power stations every day, so when you do there must be a substantial improvement. The improvement we are making here is like going from a 1950s Holden to a modern BMW."

Under current methods, burning low rank coal is less than 30% efficient. The CRC's technology is about 44% efficient, which means far less carbon dioxide is released into the atmosphere.

The CRC looks secure in continuing its work after its recent fifth year international review. The preliminary report is glowing in its appraisal of the CRC's achievements and the vital country's present and future needs and economic vitality. The report also commends the high quality of work and impressive sense of purpose found in the students.

"We have a pilot plant for a related technology running at Osborne," Professor Agnew says. "We're now in the process of refining the technology and working towards raising the capital to build a bigger and more improved pilot plant."

Thirty per cent of Australia's power is generated from lowrank coal, mostly in Victoria. The CRC for New Technologies for Power Generation from Low Rank Coal is the only group researching technology to better use this low grade energy source—which is good news for South Australia.

The State does not have highrank or black coal but an abundance of low-rank or brown coal. This coal contains high levels of sulphur, sodium, chlorine and ash as well as having a very high moisture content, which makes it difficult to use with existing technology.

"We're interested in being able to use South Australian coal because we believe the State should not rely totally on gas as its one source of energy," Professor Agnew says. "It's

limited in its supply.

"But we have an enormous amount of low-rank coal lying around in South Australia. We want to develop the technology that can take that coal, which is right at our doorstep and is owned by the State Government, and provide clean, cheap power for the State for the next 100 years.

"While coal is more difficult to handle, and it is going to cost more to build a plant, the actual cost of the energy in the coal is much cheaper than gas. When you add the two together, electricity from coal ends up costing about the same as from gas.

The CRC has established links with a number of nations which have large deposits of low-rank coal, including in South-East Asia, Indonesia, Thailand and China.

The CRC's technology, which would be invaluable to these countries in providing cheap power with low environmental impact, is expected to be commercialised within 10

The CRC's new technology is called Advanced Pressurised Fluid Bed Combustion. Unlike conventional pulverised coal fired power stations, the new technology is very clean.

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The arts disciplines are humane disciplines, concerned with the place of humans in the world. They are also sciences, defined as the rigorous development of knowledge in their fields. I mean knowledge (scientia) as opposed to

ignorance, prejudice, illusion, theology, etc. For this pair of facts, and for the further fact that humans are nothing outside a social context, I think there is not much to be said for the distinction between the humanities and the social sciences, and in this paper call them all humane sciences.

Their focus being on humans in the world (knowledge is always of the world), these sciences now try to connect themselves to human practice in two ways. First, issues do not present now as purely theoretical; so, for example, moral philosophy thinks not so much about the good and the right abstractly conceived but of the moral solution of actual practical problems. And second, these disciplines now strive for vocational relevance.

The vocational disciplines in the University of Adelaide which I deal with below are all also humane sciences in both aspects of the concept. To take one of my examples, commerce; being concerned with a fundamental human activity, it is of no less humane conception than any of the others; and is also a science, concerned with the rigorous development of knowledge (as opposed to ignorance, prejudice, etc.).

The University of Adelaide squibbed the problem of the reorganisation of the humane sciences in 1995 when on the creation of the divisional structure it failed fundamentally to rethink the Arts division (apart from a name-change, and a couple of odd movements here and there). The first four divisions had entirely obvious places in the new scheme of things at Adelaide—it was always going to be the fifth that needed an imaginative solution. To squib that problem (as we did) was bad enough for the fifth division—we failed to deal with what is overwhelmingly the major problem of University education at this time, a problem I can express by asking, what will our world be like when there is literally no-one alive who can read Plato?—but for the sixth division it was worse, for there was nothing left for it to be but a collection of leftovers (and an acronym-not even a slightly honourable name-change, as Arts got).

There are many who think that the sixth division must be reconsidered. I would like to suggest that this makes no sense except in conjunction with a reconsideration of the fifth; and I offer, for consideration in the University, the following scheme of amalgamation of the divisions.

On the humane side at the University of Adelaide there should be six or seven double degrees which take five years (this might be varied a little; and of course single degree graduates would be fitted in a little differently, as they are now in Law):

- (1) Architecture (BA, B Arch)
- (2) Commerce (BA, BC)
- (3) Creative Arts (BA, BCA, or BM if music is the specialty)
- (4) Government (BA, BG)
- (5) International Practice (BA, BInt P)
- (6) Law (BA, LLB).

I add two comments to this list. There should be a seventh vocational degree, Education, regarded as first in importance; but I say nothing more about the state of Education as a discipline in this country. Second, the vocational discipline International Practice is one we shall have to invent sooner or later. It could perhaps be combined in some way with Government, which it should eventually replace.

There would be a common first year in which students took four subjects: (a) Economics; (b) History and Geography; (c) Language, Languages and Literature (including media); (d) Philosophy. There would be no choice about these but a certain amount of choice within them (eg, which language to pursue in (c). Students would after this first year have two choices to make; first, which vocational degree to move into, and, second, which of the first year subjects they wished to major in. Beyond the common first-year, they would spend about 3.2 years on their vocational degree and about .8 on their chosen major (these proportions could vary somewhat—my model is the law/arts degree; further, I say nothing about honours, which would be in the major or the vocational discipline, and perhaps both, and would add a year). For those students who want two vocational qualifications (eg law and commerce) it should be possible to do both in seven years.

My scheme is, as I say, modelled somewhat on the law double degree. A popular combination there is the five year law and commerce degree. My scheme precludes this as lacking a humane foundation.

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### **MINTZ WITH MATTO**

Award-winning anthropologist Sidney Mintz will visit the University as a Distinguished Visiting Scholar this month. His visit is jointly sponsored by the Departments of History, Anthropology, and Politics and the Research Centre for the History of Food and Drink.

The author of *Sweetness and Power* and *Tasting Food, Tasting Freedom*, Professor Mintz will give two seminars and one lecture while in Adelaide and be available to consult with staff and students. His lecture, on Wednesday, 23 September at 2:10pm in Napier LG29, is entitled "The animal that cooks".

Immediately following the lecture Rosa Matto will cater afternoon coffee. Rosa's catering is an encore performance that follows her highly acclaimed morning and afternoon coffees at the Research Centre's First International Conference earlier this year.

The cost for the lecture and the coffee will be \$10. For catering purposes please send your payment to Dr Lynn Martin in the Department of History by 21 September. For further information about Professor Mintz's visit, contact Dr Roger Knight in the Department of History.

### **SCATTERLINGS OF EMPIRE**

The University of Adelaide's Centre for British Studies and the Humanities Research Centre at the Australian National University will present a conference on the changing presence PAGE 4 SEPTEMBER 14, 1998

# GETTING IN STEPPE: Central Asian economies a roug

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# Privatisation — 'look beyond economic issues'

PRIVATISATION doesn't need to be a dirty word. At least, not if it's done correctly.

That's the view of University of Adelaide Law lecturer Mr Chris Finn, who has closely researched the privatisation and regulation of public utilities in the UK.

Mr Finn, who lectures in administrative law, looked at the issue of public accountability, including quality and universality of service following the privatisation of telecommunications, water, electricity and gas utilities.

"I went to the UK suspecting that the regulatory bodies set up to oversee privatised utilities were pretty much paper tigers. But what I found was that the separation of regulation from service delivery had been accompanied by some significant improvements.

"While no system is perfect, in most cases the specialist regulators were performing well.

"As a result, there had been improvements in customer service standards and in the universality of service. There had also been an inclusion of the public in the regulatory

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# Put yourself in the spotlight HOST A CONFERENCE

Hosting a conference in Adelaide can promote your research capabilities and expertise to industry, government and the community. At the same time, staging a seminar can build your professional profile in national and international circles. However if you have no experience the Adelaide Convention and Tourism Authority can help with free assistance to identify, bid for, secure and organise an academic conference in Adelaide. ACTA can assist with:

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### Medieval cyberspace

On Wednesday 30 September, join English lecturer Tom Burton and Research Librarian Alan Keig in cyberspace for a presentation about medieval manuscripts on the internet. Together, they will explore how modern computer technology is extending our access to the literature of the middle ages.

This activity is free, but to help us with our planning the Alumni Association asks participants to phone 8303 4275 to make a booking. There are plenty of places—bring your friends.

Starts 7:30pm. Meet at the Barr Smith Library in the Ira Raymond Room.

## 7 Deadly Steps

Renowned Adelaide graduate Dr Helen Caldicott (MBBS 1962) will be among the speakers at a public meeting organised by the Australian Conservation Foundation (Adelaide Branch) on Tuesday 15 September at 7.30pm in Maughan Church, Franklin Street.

The topic of the meeting is "The Seven Deadly Steps of the Nuclear Cycle", and focuses on US uranium industry plans to carry out mining and milling of uranium at the proposed Beverley uranium mine near the Flinders Ranges.

Dr Caldicott, a paediatrician and international campaigner on nuclear industry issues, is the founder of Physicians for Social responsibility, which shared the 1998 Nobel Peace Price with other national groups.

### **Interstate Alumni visits**

The University has plenty of supporters living interstate.

At alumni meetings recently held in Melbourne, Canberra, Sydney and Brisbane, alumni gathered to meet each other and hear news of the University's latest endeavours.

Such meetings had not been held previously in Canberra and Sydney. Enthusiastic alumni in Canberra indicated that they would like to start a local alumni group.

In Melbourne and Brisbane, where the Association had held previous gatherings, familiar faces were joined by a number of 'first timers', some of whom have moved to those centres in the last twelve months.

### **Doctoral Grants**

The Alumni Association is pleased to offer financial support to doctoral candidates through the AUGU/RC Heddle Award and the Mutual Community Postgraduate Travel Grant.

Up to two AUGU/RC Heddle Awards of \$1250 and up to four Mutual Community Travel Grants of \$2,500 are available. Applicants must be enrolled as doctoral candidates at The University of Adelaide. The grants are available to assist the recipient to travel to a conference or similar gathering to present his or her work, or to travel to another institution to learn a particular method essential to his or her work. Such travel may be undertaken within the state, within Australia, or overseas.

Application forms are available at the Alumni Office. Applications close Friday 18 September at 5:00pm. Further information: telephone 8303 3196.

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GOODWOOD: Share 2 br maisonette. Lock-up, undercover parking, great location, close to city and transport. Avail mid-late Octobero.5GS.96d

# Bulletin-Board

- 1.00pm Microbiology & Immunology Seminar: Herpes viruses by Dr Tony Simmons (Infectious Diseases Laboratories, IMVS). Departmental Library, 5th Floor, Medical School South.
- 1.00pm Clinical & Experimental Pharmacology Seminar: The prevalence and role of alcohol, cannabinoids, benzodiazepines and stimulants in non-fatal crashes: preliminary results by Ms Marie Longo (PhD student). Seminar Room, 6th Floor, Medical School, North Wing.
- 1.10pm Public Health Seminar: Manual Handling by Donna Grinham (Occupational Health & Safety Unit) and Fire Safety by RAH Fire Warden. Seminar Room, Level 6, Bice Building, RAH.
- 1.10pm History Seminar (in association with Anthropology, Politics and Centre for the History of Food and Drink): The idea of a 'meal': the growth of agrarian cuisines by Professor Sidney Mintz (Emeritus Professor of Anthropology, Johns Hopkins University). Edgeloe Room, 1st Floor, Mitchell Building.
- 1.10pm Student Workshop: Overcoming Sleep Difficulties by Susan Howard. Counselling Centre, Ground Floor, Horace Lamb Building.
- 4.15pm Geographical and Environmental Studies Seminar: Bio-monitoring with diatoms by Dr Peter Gell (Geography). Room 819, 8th Floor, Napier Building.
- 12noon Lyell McEwin Health Service - Tuesday Grand Round: The Science Fiction Future of Diabetes Management by Dr William Singleton Jeffries (Director, General Medicine, Lyell McEwin). Conference Room 1, Community Health Building, Lyell McEwin.
- 12.30pm General Practice Seminar: Improved preventive care from automated reminders to general practitioners by Dr Oliver Frank. Room 3, Level 2, Margaret Graham Building, RAH. Bring your lunch.
- 1.10pm Anatomical Scienes Seminar: Locomotion, load carrying and tendon elasticity by Professor Russell Baudinette (Zoology). Room S127, Medical School, South Wing.
- 10.10am Electrical & Electronic Engineering Seminar: Automated Removal of Isospheric Doppler Shift in OTHR Dwells by Dr David Crisp (Postdoctoral Fellow). Lecture Room S112, Engineering South.

- 12.30pm General Practice Teaching Unit Seminar: Confessions of a GP Researcher by Dr Bob Moorhead. South Wing Seminar Rooms, Modbury Public Hospital. Lunch provided.
- 12.30pm ARCHSS Seminar: The Rise and Fall of Bi-Sexuality by Dr Steven Angelides (Postdoctoral Associate). Room G08, Napier Undercroft, Napier Building.
- **1.00pm Zoology Seminar:** Parasitism rules among the wasps by Dr An. C57 0 TD()Tj1.04