

# inside newsletter



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spring/summer 2006–07

## president's message

Geoff Dennis, University of Queensland

Welcome to this latest issue of TEFMA's *insidenewsletter*.

Once again the editing team, led by Chris White and Chris Box from RMIT, have produced a top class publication.

In this issue I'm pleased to say that we have an article on energy savings from one of our Hong Kong members, Kenneth Chan from Hong Kong Institute of Education. I am looking forward to reading future articles from Hong Kong so we can all learn more about how those members are meeting the challenges and pressures of modern day FM in tertiary education. Among the many other interesting articles in this issue are 'Architecture becomes the sweet new science', 'Master Plan for Swinburne' and 'Plotting the plume' – about the bore water issues in Sydney's Eastern Suburbs. Once again we have many quality articles for your interest, enjoyment and personal development.

The Sydney conference saw some changes to the TEFMA Board. Departing Board members Robert Kelly (President), Pam Esdaile (Treasurer) and Barry Inglis (Chair of Membership Services Committee) have all done a great job for TEFMA over the past few years and their contribution to TEFMA's development has been significant. New faces that come onto the Board are Andrew Frowd from QUT as Vice President



(well, not really a new face), Jenny Schumann from UWA as Treasurer, Peter Lennon from Charles Sturt University and Anne Ussher from Lincoln University as Directors. This will be a strong team for the 2006–2007 year and will have a higher representation of female and NZ Board members.

As the new President, I would like to strongly acknowledge the institutions that support their staff to take up positions on the TEFMA Board. We should never take for granted this wonderful opportunity and it is sometimes a real juggling act to manage your 'real job' while doing your best to deliver a high quality service to TEFMA members. It is therefore important for TEFMA to consistently demonstrate to University Executives that we are adding value to the sector and not just off doing our own thing and having a nice time.

Getting back to the Sydney conference, what a spectacular success this was. The Organising Committee led by Alan Egan did an outstanding job. These events are so important and the networking with our ATEM colleagues provides us with a broader perspective to understand how we contribute to the strategies of our own institutions. Not only that, we make new friends and contacts across Australasia.

So what is the TEFMA Board working on at the moment? Lots of things – and I will only cover these briefly here as more detailed and up-to-date information can be obtained from the TEFMA website ([www.tefma.com](http://www.tefma.com)):

- 'Learnsourcing' (Grounds) Workshop – To be held at UQ in Brisbane on 30–31 May 2007. This two-day event is for those TEFMA

members who manage campus grounds and want to expand their knowledge and understanding of how the grounds are important to the strategies of their institutions.

- Scholarships – Each year TEFMA awards a number of scholarships to do study tours, attend conferences, courses and workshops, and to travel overseas. There will be a new scholarship awarded to attend the Learnsourcing Workshop in Brisbane. This is being sponsored by one of our Business Partners, Programmed Maintenance Services.
- Website – The current homepage is being redesigned so that there is more information available at the point that you enter the website. Also the menu system is being upgraded to improve navigation around the site, making it much easier to locate important areas such as the Membership Directory and the Forums. In relation to the Forums (our very own online chat room), the categories have been compressed for simplification and ease of use.
- List Server – Unfortunately this service can no longer be supported and will be decommissioned at the end of the year. The new Forums will be continually enhanced and promoted to ensure that members can easily share their ideas and FM issues online.
- Innovation Award – Make sure to consider putting in an application to win this prestigious TEFMA award to be launched in 2007. Information about this is currently provided on the website and details will be continually updated as things progress.

The opinions expressed in this publication by the contributing authors are theirs alone and do not necessarily reflect an agreed view by TEFMA members, its President, its Board or its Business Partners.

- NZ Workshop – This will be hosted by the University of Otago in Dunedin on 12 and 13 March 2007. The theme will be based around strategic asset management.

I recently represented TEFMA at the annual Australasian Campuses Towards Sustainability (ACTS) conference held in a cold and windy Ballarat. The conference focused on how universities should measure and benchmark sustainability. My presentation covered existing TEFMA benchmarks relevant to sustainability such as energy and water consumption/per square metre and EFTSU, the ESD matrix and proposed Greenstar Rating Tool for Education. There are some real synergies with our organisations and I have agreed to look at joint opportunities to address sustainability issues relating to FM.

Andrew Frowd has raised the proposal of TEFMA having a 'Patron', similar to how this works with ATEM. We are currently checking this out and hope to formalise in the near future. Andrew and I are also currently working on the format of the proposed strategic planning day that will be held in conjunction with the TEFMA Board meeting in Canberra in December 2006. This workshop for the Board will set the direction for TEFMA for the next few years.

TEFMA now offers its Business Partners the opportunity to place advertorials in our newsletter. This is a real bargain at \$500 for a full-page promo! 🍷

*Remember, if you want to know what is happening in TEFMA, visit the 'What's New' page of the TEFMA website at [www.tefma.com/whatsnew/](http://www.tefma.com/whatsnew/).*

## by any measure a success

*Alan Egan, Chair, TEM 06  
Conference Organising Committee*

The Sydney-based Tertiary Education Management Conference 06 was always going to be a hard sell. An expensive city and perhaps a too-well-known destination, which had the potential to lessen the appeal for delegates. At least that's what the organisers thought when more than 12 months ago they sat down to scratch out a plan for the annual TEM conference in Sydney.

The challenge for the committee was to come up with a conference that presented something a little different from the traditional offerings. That said, there are always a number of constants: you need a good spread of top-flight keynote speakers and a welter of solid session presenters. Trying to solve world peace is far easier than putting together a list of speakers that will satisfy all wants. The contradiction is always that delegates want solid, relevant and ideally entertaining speakers.

Yet if you ask any of the delegates would they be prepared to give a paper, most defer, citing other heavy commitments about having to weigh the cat or rethread that annoying pyjama cord.

But the show must go on and thankfully we ended up with a good spread of speakers that seemed to hit the right spot with most delegates.

On Day One, Sydney turned on spectacular mid drought weather by raining (it really is the curse of all organisers to sell the great conference weather only to be disappointed by uncooperative isobars). But the weather pattern inside the elegant Sydney Hilton more than compensated for the outside drear. Delegates enjoyed excellent conference facilities, good food and a convivial atmosphere. Old acquaintances were renewed and new friendships formed – conferences do that.

The daytime information fare was nicely balanced by a fun social program, which put a lot of smiles on most faces, particularly the conference dinner at the Sydney Town Hall. Rarely have guests arrived to a conference function with bigger grins

– you had to be there to appreciate the experience (ask someone who attended and they'll tell you the detail).

TEM 07  
Canberra  
has the big  
challenge  
now, but

professional conference managers Leishman Associates and a committed band of first rate sponsors are no doubt waiting in the wings to put the gloss on '07.

Finally, thank you to all the delegates who made the commitment to come to Sydney, bouquets to our many sponsors, and of course endless thanks to the TEM 06 Conference Organising Committee – without you we wouldn't have pulled it off. 🍷



L-R: ELMA DU PLESSIS, ALAN EGAN, KIM EGAN.

## making a difference – temc 06 sydney



*Mark Dorian has been employed by the University of South Australia since 1994 within the Services Unit. Mark has had various roles including*

*Handyperson/Carpenter, Security Officer, Senior Security Officer (acting) and most recently as Campus Facilities Administrator, Magill Campus, a role he has been in for 18 months. This was his second TEM Conference, having attended Perth 2005.*

If I didn't already know that 'what I did made a difference' before attending the 2006 TEM Conference, I was left with no doubt by the week's end. Included was a program that boasted motivating and thought provoking keynote speakers, an extensive selection of concurrent sessions that catered for institution comparison and personal development, the opportunity to network, and culminating in a visit to another institution. A full week by anyone's standards.

The theme of the conference was one that I found exciting. It required you to ask yourself: do I make a difference? Do we make a difference?

The answer is yes.

This foundation was laid with Alan Egan's welcoming address on the opening day. It was 'our' conference. The spotlight was not only on how we support and enhance our institutions in delivering their core business, but how we achieve this in a sector that is changing continuously. His opening comments underpinned the belief that the efforts of those within university administration and facilities management are crucial to the success of the institution: a view repeated within the subject and quality of papers presented during the course of the conference.

The keynote speakers were a highlight of the conference and provided a mixture of inspirational and entertaining storytelling and sobering truths. A colleague recently spoke about the conference keynote addresses being an excellent opportunity to compare the style and messages of our vice-chancellors and chancellors. On reflection this was an excellent position to review Professor Steven Schwartz, Professor Ian Chubb AC and Professor Ingrid Moses. Their professional and personal outlook on the direction the sector must take to ensure it can afford the flexibility needed



to survive in a global marketplace while maintaining the obligation of providing a culture of learning and development for graduates was indeed a thought-provoking overview. Although not everyone concurred with all the comments offered, the message was forthright.

John Anderson was a standout speaker and mesmerising storyteller. His life story as founder of Contiki Holidays is one that I shall treasure for a long time. Honest and passionate, his tale was littered with his

determination and self-belief and I look forward to his autobiography to be published later this year. Any expansion on his tale here would ruin a good read.

Robyn Moore's humorous and commanding take on communication perceptions and strategies provided real-life tools that were immediately

useful in both the workplace and private life. Again, the enthusiasm that underpinned her message was infectious and for me was as important as the address itself. Likewise Kate Brennan, 2006 NSW Young Australian of the Year and Assistant Director of the Oaktree Foundation, was another inspirational speaker. Kate's age combined with her own journey

in combating social injustices within indigenous communities and the example of work being done by the youth-run Oaktree Foundation worldwide was as remarkable as it was confronting.

I enjoyed all the keynote speakers immensely and admired greatly their ability to communicate their message effectively, notwithstanding their varying styles.

The concurrent sessions provided me with a chance to attend presentations that would benefit not only my institution, but were of an interest to me professionally and personally. The mixture of these sessions within the program is important as it allows delegates to 'mix and match' to their needs. Attending the conference with colleagues also allowed me the flexibility to deliberately target sessions that were not automatically based on my institution's requirements.

Sessions such as Chris Hunt and Davis Leifer's 'Professionalism in Facility Management' have reinforced my desire to formalise my qualifications in Facilities Management in the future. They also developed the overall importance that qualification of skills and experience will have on FM in the future. Likewise Hilary Langford and Margie Cole's 'The Personality Genome ... Leadership and the Enneagram in Australian Universities' provided me with a structure that not only reveals behaviour styles, but how others around me perceive and react to my 'style' of leadership.

The sessions I attended that were based on practical applications were of a huge benefit to me and my university. The opportunity to



"NEED A TRAY FOR THESE SIR?"



THE GOVERNOR OF NSW PROFESSOR MARIE BASHIR AC, CVO, OPENS THE CONFERENCE.



L-R: ANDREW FROWD, ELMA AND REENEN DU PLESSIS, ANNE USSHER, ALAN BIGGER, JOE HOLLANDER.



▷ compare programs and projects already implemented, new innovative solutions that were being trialled as well as the pitfalls and recurrent problems being experienced provided me with an extensive list of items for further exploration. Iain Andrews' (Australia Post) 'Cashless Campus',

University of New South Wales' presentation on 'Using Syllabus Plus to Automate Your Buildings and Rooms' and Angus Campbell and Paul Osmond's 'The UNSW Waste Management Hierarchy: Avoiding Inefficiencies, Reducing Bureaucracy, Recovering Priorities and Disposing of Myths' were all sessions that addressed the above criteria. It also gave me an indication on how UniSA compared to other institutions with similar projects and operations, which was an encouraging exercise.

Overall the diversity of the topics presented within the concurrent sessions has ensured that I have returned with many ideas I wish to

implement professionally and personally. Some of these will be able to be applied immediately such as improved communication strategies among colleagues and staff; others will be longer term projects reliant on the strategic and operational direction of my institution.

As always, the networking opportunities are a major, if not *the* major, benefit of the conference. It is a time to catch up with friends already made, friends not yet met, and those that are only a voice on the phone half a continent away. It is an opportunity to compare structures and methods of operation while discussing problems faced and solutions found. As I heard many times during the week: why reinvent the wheel if someone has already done it.

Personally it is a great forum to increase confidence and develop interpersonal skills. One element feeds the other: the more I interact with my peers, the more confidence I gain, the more I wish to interact with others. It is encouraging to discover that I have as much to offer others



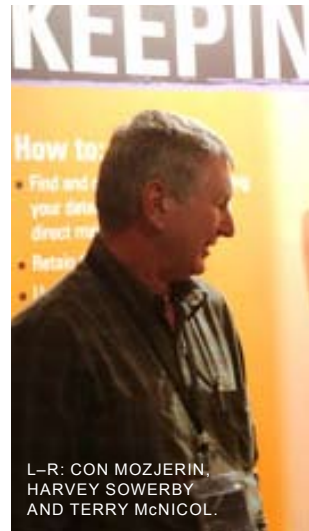
TEFMA PRESIDENT ROBERT KELLY.



CONFERENCE ENTERTAINER – MISS MARILYN MONROE ...



PRESIDENTIAL FIVE – L-R: ROBERT KELLY (TEFMA OUTGOING), GEOFF DENNIS (TEFMA INCOMING) REENEN DU PLESSIS – HEFMA, ALAN BIGGER – APPA, GRAHAM BELL – AUDE.



L-R: CON MOZJERIN, HARVEY SOWERBY AND TERRY McNICOL.

as I have information to seek. It was also good to get to know colleagues from my own university in a less formal atmosphere. It has certainly helped develop solid working bonds.

The week culminated in a visit to the University of Western Sydney, Penrith Campus. I chose the

and met with those persons in charge of the portfolios of logistics, space utilisation, facilities hire, audio visual, mail, fleet vehicles, parking and security. It was a major advantage that both institutions chose freely to exchange operational information, documentation and major issues faced. The innovative way the University of Western Sydney has married improved facilities with improved work practices to assist them in finding a solution in providing enhanced logistics delivery and security across multiple sites was something that I will definitely be taking back with me. Similarly the acknowledged high level of documentation to support the University of South Australia's facilities hire and audio visual standards was something I was proud to be able to share.

Although I had initiated the visit I was pleasantly surprised by the genuine interest in how UniSA approached a number of issues and I benefited greatly from the opportunity to share what we do well and where we are seeking improvement. It was also heartening to know that the problems of working on a multi-campus site and the replication of services, space utilisation issues,

voluntary student unionism and institution and structure constraints were shared by both universities. We are not alone.

I wish to once again thank Joe Bouchahine and his colleagues at University of Western Sydney for their time and Brian Castelli for his assistance in arranging the visit. It was a highlight of my week.

Last, I would like to thank TEFMA and Currie & Brown for providing me with this scholarship to attend the 2006 TEM Conference. The opportunity to hear some inspirational and thought provoking keynote speakers, attend concurrent sessions that have given me a number of areas to explore at professional, institution and personal level, the invaluable chance to network with colleagues, and a visit to another institution is one that I am most grateful for. I also encourage others to apply for this scholarship in the future as it is, as you have read here, thoroughly worthwhile.

I have used the words 'opportunity' and 'inspiration' repeatedly in this article but it is hard not to. The 2006 TEM Conference was indeed both of these.

And I no longer need reminding that I do, in fact, 'make a difference'. 🍷



PROFESSOR STEVEN SCHWARTZ CHALLENGES THE AUDIENCE.



### tefma scholarships – apply now

Are you interested in getting assistance to develop your skills or the skills of your staff? Apply for a TEFMA Scholarship!

TEFMA provides a number of scholarships that cater for a range of disciplines and levels working in the tertiary education facilities management sector. Scholarship winners have

invariably found their experiences rewarding in so many ways. You will have read reports from various scholarship winners in *insideneutral*.

For more details on each TEFMA Scholarship, please check out the TEFMA website: [www.tefma.com/education/scholarships/index.jsp](http://www.tefma.com/education/scholarships/index.jsp).

## new treatment centre for melbourne ivf



*TEFMA Business Partner Architectus has designed one of the largest integrated treatment, research and production laboratories for one of the world's leading IVF services, Melbourne IVF. Architectus was responsible for the 2700 sqm project in Carlton/East Melbourne, which brought the various functions of Melbourne IVF back together after the business's accommodation had become fragmented in recent years by rapid growth.*

The new Melbourne IVF facility in Carlton, on the edge of the Melbourne CBD, has been developed over three floors of 800 sqm each, and incorporates the redevelopment of Melbourne IVF's 300 sqm tenancy in the adjoining Freemasons Day Procedure Centre. A new walk-through now seamlessly connects both operations on one level. "The project was an opportunity to combine all parts of the business onto a single site and provide room for growth in the foreseeable future," Architectus director Peter Slifirski says.

The design has achieved an important outcome for Melbourne IVF by creating two separate patient streams.

The entry, featuring limestone, plush carpet and timber joinery, provides a familiar, comfortable and warm interior for new patients and is designed to alleviate the stress and anxiety of patients seeking treatment for the first time.

There is also a separate clinical entrance, for patients at the treatment stage. The new treatment rooms are light and airy, featuring contemporary joinery, high-level windows, soothing green tones and generous waiting areas. MIVF chairman Dr Lyndon Hale acknowledges the discrete new waiting area distinguishing new patients from "the busy pace" of the treatment side of the business.

"It is a lot more private and pleasant for new patients," Dr Hale says. "Infertility and the possible need to undertake IVF treatment is a sensitive issue for some patients. It is often an emotional time and many couples have to go through a number of cycles. In the old premises, new patients were mixed in with the old. Now we can see new patients in one area and existing patients in another."

A highlight of the refurbished building, which was previously commercial office space, is the main production laboratory – which is four times the size of the old laboratory. The new facility, designed to cope with 4000 treatment cycles a year, provides sufficient capacity for growth over the next 25 years. Melbourne IVF had the capacity to provide 700 treatment cycles when it opened in its old premises in 1989; by the end of 2005, it was carrying out 1500 treatment cycles a year there.

To cope with the growth in demand for treatment in recent years, by 2003 Melbourne IVF had leased two nearby terrace houses and three areas within its existing accommodation.





## sunshine tour for tefma

In August, Mark Bradley, the University of the Sunshine Coast's Director of Capital Programs and Operations, hosted a TEFMA tour of the university.

The tour attracted 86 directors, managers and staff from five other universities across

Queensland and northern New South Wales. The day started off with a welcome by USC Vice-Chancellor Professor Paul Thomas, followed by lunch and a presentation by Mark. The group then took a guided tour of our campus.

USC received much praise on the day and our guests were most impressed by our facilities – in particular our new science building with its striking nursing education centre. 🍷

Now, its new single site comprises two adjoining and conjoined buildings. One functions as clinical reception and waiting area. The other houses main reception, a new patient information centre, counselling and conference rooms and a world-class genetics laboratory; the first floor contains treatment rooms for embryo implantation and the main laboratory; and administration is located on the second floor.

"Melbourne IVF had totally outgrown its original premises. We were turning corridors into waiting areas and the functionality of the business was most inefficiently spread over five locations," MIVF business manager Peter Harcourt says. "We had staff who'd never worked with all their colleagues under one roof. We're already seeing outstanding returns in terms of team building and efficiency. The initial patient response has been very encouraging."

A walk-through connects the two conjoined buildings, where the egg retrieval is carried out in the adjoining Freemasons Hospital theatre. Once retrieved, the eggs are passed directly through a new wall opening into the main laboratory for testing and fertilisation.

"It was a very complex project designed to provide Melbourne IVF with room for growth for the next 25 years," Peter Slifirski says. "We stripped the existing building to shell and core totally reconstructed the interior and replaced many of the base building services. Designing the main laboratory was a special challenge, which involved consultation with staff, inspecting the existing facilities and understanding the processes that took place there. For architects, this challenge means translating science into working spaces.

"We made the layouts as flexible as possible by making the benches

movable while the gas, power, data and water are on fixed spines. This means that in the future, the lab can be easily reconfigured without the need for drastic refurbishment. That's important, because you don't want to be introducing dust and fumes and paint into the laboratory environment."

Indoor air quality and issues pertaining to environmentally sustainable design were fundamental drivers of the project and delivered the additional benefit of a clean laboratory environment. The administration areas provide socialisation and light-filled workspaces that recognise the human drivers of workplace efficiency.

The fitout was completed and occupied by Christmas 2005. For more information, see Architectus in the Business Partner list at the end of the magazine. 🍷



MARRIOTT STARR PASS RESORT, TUSCON.

## fast track to tuscon – appa leadership academy 2006

*Dr Robert Dyson is Deputy Director, Regional Development, in the Division of Buildings and Grounds at La Trobe University. Based at the Bendigo campus, his responsibilities include coordination of all buildings and grounds operations and development across La Trobe University regional campuses. Rob has extensive experience both as an academic and more recently in facilities management. He has degrees in science and electrical engineering and is a fellow of the Institution of Engineers, Australia.*

At a chance meeting with APPA President-elect Chris Ahoy during the welcoming ceremony of the 2005 Perth TEFMA conference, I mentioned my interest in attending the APPA Leadership Academy program sometime in the future. This rapidly escalated to an invitation from Chris to attend the 2006 program, following his return to the USA. The proposal to attend

the Academy was enthusiastically supported by my supervisor Barry Inglis, Director, Buildings and Grounds at La Trobe University.

It was at this point that I learned that the program was to be held in Tucson Arizona, in the middle of the northern hemisphere summer. Fortified by assurances from Barry that the experience would be character building and that the high summer temperatures in a desert location would be bearable, I enrolled in the *track-four* program and set about convincing the University to fund the initiative.

In early June, with all funding, travel and accommodation arrangements in place, I set out for Tucson. On the way I took advantage of the necessity to pass through Los Angeles to visit UCLA and renew some acquaintances. The weather in LA during my stay was terrific, apart from a couple of days of

LA afternoon smog. The UCLA campus was at its picturesque best and the hospitality of university staff was characteristically friendly and helpful.

After a 10-day break in LA, I continued the trip to Tucson. On arrival, the outside temperature was 42 degrees Celsius and it was at this point I sought solace from the assurance by Barry Inglis that temperatures would not be all that bad, apparently based on the fact that the humidity was only 5 per cent. The reader could well imagine a sentence was removed from this point of the newsletter by the editor.

The leadership academy program was held at the Marriott Starr Pass Resort on the edge of the Sonoran Desert (one of the largest and hottest deserts in North America), just outside Tucson. The resort is a five-star facility and lacks nothing in atmosphere, hospitality and service. On arrival

at the resort complex I settled in, comforted by a few cold drinks, and prepared for the welcoming ceremony on the following day.

The program commenced on the Sunday afternoon with registration and a welcoming ceremony followed by an introduction session for each track. The *track-four* program was titled 'Organizational Effectiveness' and was introduced by Jack Hug (ex University of California, San Diego). The program proper commenced on the Monday, presented by Jack Hug, Doug Christensen (Brigham Young University) and Bill Daigneau (University of Texas, Anderson Cancer Centre).

The *track-four* program took the form of multiple sessions, each session with a different topic and conducted over a four-day period. Fifteen participants took part (three groups of five persons) with each participant taking a turn as group leader. The topics included 'Setting Direction', the 'Balance Scorecard', 'Insights to Performance Excellence' and 'Measuring Effectiveness using the APPA Strategic Assessment Model (SAM)'. The program concluded on Thursday afternoon with an exercise using the 'APPA Facilities Management Evaluation Program (FMEP)' followed in the evening by an APPA awards dinner.

The Leadership Academy presented a well-organised professional program supported by warm hospitality in a terrific venue. Participation in the Academy program afforded me an extremely valuable opportunity to network with colleagues from universities throughout the US and to meet and converse with members of the APPA executive. ●



THE LEADERSHIP ACADEMY PRESENTED A WELL-ORGANISED PROFESSIONAL PROGRAM, A GREAT VENUE ON THE EDGE OF THE DESERT.

## architecture becomes the sweet new science



*Peter Slifirski is a director of TEFMA Business Partner Architectus in Melbourne. Architectus brings together the experience of more than*

*160 leading architects, designers and planners with offices in Auckland, Brisbane, Melbourne, Shanghai and Sydney. With a strong track record in the core areas of architecture, interiors, urban design and planning, Architectus has specialist expertise in education, public buildings,*

*commercial, industrial, residential, aviation and transport, sustainable design, retail and hotels.*

Long considered boffins and nerds, scientists have begun to take advantage of the power of architecture to raise their own profile and promote their work. Australian universities, in particular, have become active in engaging architecture to further the cause of science.

Architecture is also fostering increased self-esteem within the scientific community. Great buildings contribute to great research. Local and international

trends reveal that another consequence is more collaborative research as a result of better planned buildings. Scientists are being encouraged to build communication and connect with the wider community. A new generation of buildings is making this possible. These projects speak not only of technical rigour and sound investment, but provide kinder, more personable spaces than the sterile, anonymous box that largely left researchers to their own devices.

Architectus has emerged as one of the leading participants in this





UNIVERSITY OF MELBOURNES MICROBIOLOGY BUILDING.

Monash University's push to attract the world's leading researchers), and the new College of Pharmacy building in Royal Parade, Parkville.

These projects demonstrate that cutting edge scientific work and humane, egalitarian workplaces are not mutually exclusive. In successful workplaces for the sciences, the design process must be integrated at a primary level. To achieve this, thorough design research must be undertaken from the very first stages of the project. This view is also held by Australian Synchrotron communications manager Stefanie Pearce. "I was impressed that the entire staff of

brave new world of architecture that brings a more human dimension to the world of nano-technologies and super-sciences. The firm's extensive body of scientific laboratory work is hallmarked by a commitment to creating habitable spaces within iconic envelopes. Recent projects by the firm that demonstrate this trend include the Victorian Government's \$200 million Australian Synchrotron, the Electron Microscope facility at Clayton, Victoria (which is part of



MONASH UNIVERSITY'S ELECTRON MICROSCOPY CENTRE.



MONASH PARKVILLE LABORATORY.

Architectus Melbourne was keen to engage with our project," she observes. "They requested a presentation for their office after hours one evening. Everyone, from their IT people to the receptionist, wanted to understand the project and feel involved. That to me was a sign of a really cohesive team that demonstrated a pride and 'ownership' in each and every project."

Typically laboratory buildings tended to be functional and did not include ▶

▷ consideration of their occupants. For instance in the Synchrotron building, the brief called for no natural light and yet our observation after visiting European facilities was that natural light was possible and highly desirable for staff wellbeing. Good, functional laboratories are also humane spaces and this

universities and institutions in hard-working, good-looking research buildings is now much better understood. They are strong brands that cannot afford to be caught with second-rate goods.

The collection of science buildings by Architectus to date displays a design approach which, without

Synchrotron project director Ruth Wilson of Architectus says that science is now listening closely to architecture – and vice versa. “There’s a new level of information sharing and scientists, by nature, are interested in this. It is refreshing, and sometimes challenging, dealing with such



quality really emerges from a high level of client collaboration and understanding. I think one response from our clients would be that while they have engaged us, we have also engaged them in the design process. Once the client understands the rationale for your approach there is a much greater chance of acceptance. Conversely, as architects you need good antennae to be receptive to what the client can bring to the design.

Buildings for the sciences are very refined in terms of their performance specifications. They really are analogous to building a Formula One racer. Everything has to work. The interest of

incorporating any extraneous elements, has eschewed the rigid, austere minimalism so prevalent in science buildings in the past. In this way, Architectus has defined a new modernism with its recent work that is warm and humane, and encourages a new, highly socialised way of working. By creating buildings with a striking public face, Architectus has provided the scientific community with a powerful visible presence. Whereas sciences were once plugged into the back of a university and simply used by a single department, they are now a focus of national and international attention with a far less secretive modus operandi.

enquiring minds. Scientists are very respectful of our skill base and they have a tendency to want to understand every aspect of what we do. The Synchrotron and Electron Microscope projects put a dynamic face to science but are as much about the fully layered work and social experience,” she says. “Sustainable design is intrinsic to our work. It’s definitely not just applied. Everything from emissions to energy efficient, recyclable materials informs our approach.”

Before commencing design of a new science building, Architectus undertakes extensive research, often including interviews with the broader scientific community.

Wilson notes that it is not uncommon to talk with scientists anywhere on the planet before putting pen to paper. “We visited exemplary facilities in Europe and found scientists willing to share, and there is tremendous expertise and insight for the asking. The interesting thing is that they

that is exciting about science. It need not be dull or drab.

Architectus resisted taking the easy option. We could have been lazy, dropped the ceiling, and hidden the ductwork. What we have instead is something soaring. The ethereal feeling is quite palpable. The firm is strong on the notion of the collegiate/

long-term strategic aims. The University of Melbourne, for example, has gone down this path because it wants to be the place of choice on the basis of its superior facilities. Once you have this shared strategic aim, you have the possibility of great partnership with good architects.



have very little to gain from the exchange. We take a half a day of their time and question them and they follow up with e-mails and they will give you as much time as you need. We encountered great generosity of spirit in that process.”

In some senses these new facilities can offer spaces reminiscent of the Gothic era. High ceilings can be uplifting and it is often those almost subconscious spatial moments that work – it is a warm minimalism. In labs you do not often have plywood walls for example, yet we have shown it works. Work environments should be supportive. There can be a certain element of theatre when there is so much

communal space with a big, timber dining room table around which the scientific ‘family’ gathers to discuss work that is under way. These spaces are strategically located near the front entrance and are closely linked to the kitchen (which happens to open into a beautiful garden) and the library. This effectively connects social and work activity. This approach to planning is consistent with Architectus’ design philosophy regarding modern office and education design.

It is institutions that typically buy scientific buildings, and as they become more experienced in their purchasing, they are looking at architecture to underpin their

The bottom line is that good science needs good architecture. Melbourne IVF exemplifies this well, its business having grown beyond expectation since it started operations from its Architectus rejuvenated premises less than 12 months ago. Even the client has been pleasantly surprised by the results. They expected growth from the organisational synergies we introduced but the view is that good architecture has delivered a tangible bottom line benefit.

Science, it appears, is finally discovering the elusive DNA of good design to be an investment that brings unexpected rewards. ●

## energy saving measures that really work



*Kenneth Chan, Project and Facility Manager (Building Services), Hong Kong Institute of Education, has been working in the field of building services*

*for more than 26 years and is actively practising energy saving measures in building services systems. He joined the Hong Kong Institute of Education in 1995.*

The main campus of the Hong Kong Institute of Education is located in Tai Po district, New Territories, a suburban area in Hong Kong. It has a total gross floor area of 87,000 square metres. A considerable amount of the annual budget has been spent on electricity bills, and with the increasing cost of electricity in recent years, saving on electricity consumption is high on the agenda. Also, as a responsible tertiary educational institution, the Institute owes a social responsibility to reduce greenhouse gas emission and to protect the environment.

With the active support from the senior management, staff members and students, the Institute successfully reduced the annual spending on electricity consumption from HK\$19.56 million in 2002 to HK\$14.49 million in 2005. The purpose of this article is to share the Institute's experience in implementing energy saving measures both on the hardware side and the software side.

The airconditioning system consumes around 65 per cent of the electric power and the following hardware installations were adopted to reduce the consumption:

- Installation of energy meters to monitor electricity consumption of major equipment and plant, including chiller machines, chilled water pumps and main electricity risers serving air handling units and fan coil units. This allows the high consumption items to be identified and enables special measures to be adopted to reduce electricity consumption.
- Installation of variable-speed drives for chilled water pumps and air-handling units, which enables saving of electricity during part load conditions.
- Installation of solar films on window glazing to reduce solar heat load entering the building. This has reduced the solar radiation by about 40 per cent.
- Installation of high efficiency motors to replace worn out motors for equipment. This improved the efficiency of motor operation by 5 per cent.
- Installation of a smartcard access control system for classrooms and lecture





LUMINOSITY ENHANCEMENT JACKETS  
BOOST LIGHTING OUTPUTS.

theatres. The smartcard controls lighting, airconditioning systems and power supply to audio-visual equipment in classrooms and lecture theatres, and their operation is activated only when the room is booked and checked-in. This saves electricity that would otherwise be wasted when the room is unoccupied during the day.

Artificial lighting also consumes around 15 per cent of the electricity. The following measures were adopted to reduce the electricity consumption:

- Replacement of conventional ballasts with electronic ballasts

in fluorescent light fittings. This has reduced electricity consumption by 25 per cent.

- Installation of 'luminosity enhancement jackets' for fluorescent light fittings. This is a retrofit project for existing light fittings. The implementation of LEJ installation enabled de-lamping to be achieved by reducing two fluorescent tubes to only one, thus saving 50 per cent of the electricity consumption in lighting while maintaining an acceptable lighting level in classrooms and laboratories.

On the software side, the following measures were adopted:

- Review of the operational schedule of the airconditioning system, office and outdoor lighting system and power supply system from time to time.
- Recommendation to users to set room thermostats at 25.5 degrees Celsius.
- Starting up of major airconditioning equipment in non-peak hours to reduce electricity tariff.
- Adoption of chilled water temperature reset control to adjust chilled water supply temperature to suit outdoor conditions.
- Reminder to users to switch off lighting and airconditioning systems and the office equipment when leaving offices and classrooms.

Looking forward to the year 2007, more renewable energy projects will be implemented that include solar heating for the hot water system in the Amenities and Sports Complex. The use of water-cooled chillers instead of air-cooled chillers to increase energy efficiency and to reduce greenhouse gas emissions will continued to be explored with the aim to further protect the environment. 🌱

## rmit roundup



*Chris White, Executive Director, Property Services Group, RMIT University. Chris is an architect who has worked in both the private and public sectors of the property industry for over 30 years*

*and in 1999 became Executive Director, Property Services with RMIT University. In this role, he is responsible for the effective development and management of the University's \$1B property portfolio. Chris has been a member of TEFMA since joining RMIT, and is keen to see the continual development of the Association as the primary networking organisation for tertiary education facility managers.*

Much of RMIT's Property Services Group current operations are directly linked to the University's Strategic Plan Objective – Develop facilities and systems to support and sustain excellence in education and research, and in particular to the primary action of providing an environment that is safe, environmentally sustainable and conducive to intellectual and social engagement by improving our research, teaching and student facilities.



RMIT University is about to meet the challenge of increased investment in its facilities to 2010. This is reflected in the scope and nature of many of the works across the University this year and beyond, some of which are detailed for TEFMA readers below.

**Front door** With the completion this year of extensive refurbishment works, the University will have an obvious Front Door designed to attract potential students to an integrated Information Centre at the physical location on the Melbourne City Campus that is logically the first point of contact for the campus – the corner of Latrobe and Swanston streets. Diagonally opposite a heavily trafficked exit for the Melbourne Central shopping complex and underground railway station, this location readily lends itself to the improved marketing of our programs by maximising the advantage of this high exposure site.

**Library** Thanks in large part to the use of modern furniture, the look

and feel of RMIT's libraries have changed remarkably. The modular design and compatible tones of the chairs and tables can be configured to suit students' requirements. Students like to be able to choose from individual study stations, intimate small syndicate settings and/or more open arrangements for larger groups. The 'jelly bean' tables look equally good on their own or nestled together in organic clusters. This style of furniture is to become the standard across all the University's libraries.

**Capitol Theatre** RMIT's Capitol Theatre and its unique lighting scheme was designed in the 1920s by a team comprising Walter Burley Griffin, his wife Marion Mahoney Griffin and local architects Peck & Kempton, and was hailed as the work of "a genius in resource and an artist in effects". Nonetheless, the theatre presents ongoing maintenance challenges for RMIT's Property Services. Recent works include the repair and repainting of the ceiling and walls of the theatre's

auditorium and foyer. Additional refurbishment to this large lecture facility includes new seating for the lower half of the auditorium and extensive new carpeting to the auditorium and foyer.

**Automated escalators** RMIT has taken advantage of recent technological developments within the vertical transportation industry to introduce an energy efficient overlay control system for some of the University's escalators. This system allows an automated starting and stopping function activated by traffic flows. What this means is that when there is no demand for an escalator after two minutes where no traffic is detected, the escalator will automatically ramp down to one-third of its normal speed for 60 seconds, then shut itself down, reducing energy use and wear and tear on the escalator. Calculations show that energy consumption will be reduced by up to 42 per cent and wear and tear will also be reduced by a similar margin, extending the life of the escalators by eight to 10 years. 🟡



AUTOMATED ESCALATORS.

## master plan for swinburne



THE SWINBURNE  
MASTER PLAN HAS  
PROVIDED A FOCUS  
FOR DEVELOPMENT  
OUT TO 2010.



*Kathie Crellin is Executive/ Projects Officer with the Facilities and Services Group at Swinburne University*

*of Technology and a member of the Major Building Projects Team, a position she has held since 2000. She has more than 20 years' experience within the university system, including 11 years with the then Northern Territory University, moving to Swinburne in 1997 as Business Manager for a Research Institute.*

*Two years ago Swinburne approved a Master Plan to change its ageing building stock to modern new facilities equipped with the latest technology and to develop the space on all campuses, particularly Hawthorn and*

*Prahran, to create an attractive yet functional environment to support its core business. As a member of the Major Building Projects Team, Kathie is actively involved in all the major building projects and other works associated with the implementing the Master Plan.*

Swinburne University Council late last year approved a Master Plan for the future development across all campuses of the university. The Master Plan has provided a focus for development out to 2010. With the exception of a new \$12 million TAFE building at Wantirna Campus – Centre for Sustainability and Environmental Design, starting in October 2006 the majority of work planned is to upgrade and replace old building stock at Hawthorn and Prahran and to create green open spaces for the university community on these densely populated campuses.

A frenzy of activity that began last November and finished in June this year included the upgrade of five levels of the Engineering Building, three levels in the Business Arts Building, including three tiered lecture theatres, and general purpose classrooms, computer laboratories, engineering laboratories and academic offices.

The new spaces in the Engineering building have replaced old machine workshops, cell-like academic offices and dreary teaching rooms. The challenge was to undertake this work, including demolition and asbestos removal, commencing late November with a deadline to have teaching spaces ready for day one semester one. I am sure you are all familiar with this scenario: basically 'We want it done but attempt it at your peril'. Sounds familiar!





▶ Master Plan in hand, the university's capital works for 2006 include refurbishment of five levels of the Hawthorn Campus Library, fitout of 350 sqm for Swinburne Industry Solutions Group, building a single-level construction for a new Security Point in the centre of the Hawthorn Campus, and the fitout of 2100 sqm of a new building in the Swinburne Place development to create a new

home for the University Chancellery, Executive groups and the Information Technology Services department.

A TAFE building, previously a machine workshop, has also been transformed with the addition of a mezzanine, to create a two-level mix of flexible learning spaces, lecture theatre and offices, as a new facility for international students.

By the end of this year in excess of 700 staff and students will have been moved as part of the building refurbishment project works.

In addition to building and refurbishment work, the Master Plan calls for the retirement of leased properties. This year has seen the retirement of three leased properties, which have now been relocated to university buildings. ●



A FRENZY OF ACTIVITY INCLUDED THE UPGRADE OF FIVE LEVELS OF THE ENGINEERING BUILDING, THREE LEVELS IN THE BUSINESS ARTS BUILDING, INCLUDING TIERED LECTURE THEATRES, AND GENERAL PURPOSE CLASSROOMS, LABORATORIES AND ACADEMIC OFFICES.



## designing the future: a new era in laboratory buildings



*Mark Kelly's 20 years of international experience as an architect and designer has seen his work exhibited at the Royal Academy in London, the Royal Scottish Academy in Edinburgh, the International Exhibition of the work of young architects at the University of Sydney and the 'New Breed' exhibition that was travelled throughout the UK.*

*Mark also has extensive experience as a speaker over recent years: the Labs 21 Conference in 2004 where he spoke on Sustainable*

*Biotechnology and Research Facility Design, and the Lab Build Conference 2004 in Brisbane as a keynote speaker on Future Trends in Lab Design. Mark was also Design Director for the National Stem Cell Research Facility and the National Neuroscience Facility Centre in Melbourne. Mark has a keen interest in graphics, photography and illustration. As a member of the Royal Institute of Artists in Architecture, his artwork has been on show at the RIBA in London.*

Last night I had a vision: a research laboratory that looked like a stylish Qantas Club lounge, decorated with odd-shaped analytical ornaments and abuzz with the sound of researchers sharing ideas and inspiration. Boasting customised furniture and comfortable meeting areas, this

lab had sunlit work spaces and overnight accommodation, and was located in a lively central business district – not in the isolation of a sprawling university campus.

This futuristic laboratory might not be that far away. Governments, universities and companies are finding that attracting great minds requires great facilities. Internationally, centres are being developed to stimulate research and commercial developments. There is an emphasis on specialised laboratory buildings that bring people together and inspire them to do great research.

At the core of any new design is the effect on its occupants. Creating high technology centres where people love to work leads to innovation, enhanced productivity and commercial outcomes. It aims to attract and retain talent

FUTURE LAB 1 – PUBLIC DATABASE – CRITICAL RESEARCH AND DATA RETRIEVAL ZONE.



in an age where long-term employment is becoming a rarity. And with OH&S requirements getting tighter, design elements are already shifting towards this lab of the future.

Lab infrastructure is set to change. Today's labs are cluttered with equipment, leaving almost no room for scientists to work. The common sight of equipment hanging over benches and touching overhead cabinets is not only awkward but also dangerous.

While some researchers are applying make-do solutions such as wider benches, split benches, and racking and stacking, there is an increasing need for larger lab modules and specially designed furniture and storage. Meanwhile, to free up space, instrumentation is being consolidated so that only one set is required per lab.

A greater emphasis on safe work environments is driving the need for dry space in addition to the primary lab space. Given the high cost of building today, discovering a smarter use of space is more popular than designing a larger lab.

The highly valued 'interaction' areas – recognised for their importance in encouraging the exchange of ideas that is vital to research and development – must also be incorporated into this space. We have learnt some lessons from the formalised interaction areas of the 1980s and 1990s. Upgraded by architects and designers as important areas, they featured plants, plush furniture, artwork, even artificial ponds and streams. Unfortunately they were empty. Scientists just did not go there.

Not surprisingly, we are returning to the early interaction areas such as informal spaces near

kitchens, photocopy rooms and staircases, that do not make scientists feel like they have stepped away from their work.

This introduces the idea of the laboratory neighbourhood, which takes the need for human interaction to another level. Traditionally, we have been designing long bands of laboratories on one side of a corridor, offices on the other side, and support space elsewhere. Laboratory neighbourhoods bring together all the technical resources that researchers use so there is no need to duplicate expensive laboratory support space and equipment.

The lab of the future will be more modular and have more generic facilities. More equipment will service an IT savvy generation and collaborative work areas



FUTURE LAB 2 – DATA ANALYSIS AND INFORMATION REPOSITORY CELL.



▷ will reflect a younger, relaxed and egalitarian workforce. A sustainable design will address the increasing pressure on companies to lower their impact on resources.

The lab is not immune to issues and trends affecting the general workforce. Staff flexibility, work-life balance and holistic health are influencing design, and characteristics to improve an overall sense of wellbeing will be adopted. For example, we have found that not even lab rats like working long hours without natural light, which is now considered critical to the design brief. Aside from impacting on

productivity, labs without natural light are at a disadvantage when it comes to attracting sought after scientists who can be selective about their work environments.

Out goes the 50-year-old challenge of clutter and the risk of chronic exposure to chemicals as technicians' desks move away from the lab space and into offices or desk clusters. They are likely to have two types of work spaces: laboratory space for analytical work, and office space for report writing. Take a look at what is happening to workstation furniture design in tandem with the ability to store vast amounts of

information on an iPod or micro PC. To remain relevant, the lab of the future must develop in parallel to the office and workplace of the future. Mobile, networked and cable-free environments will become commonplace.

As the status of the research community improves with every scientific breakthrough, so will the laboratory's status. Increasingly high-tech, it is destined to become a high profile building, probably located in a busy central area among culture and community. ◀

IMAGES COURTESY OF WILL HOSKIAN - INTERIOR ARCHITECT. FUTURE NEUROSCIENCE RESEARCH FACILITY CONCEPT 2005

## don't get carried away – plotting the plume



*Paul Osmond manages the UNSW Environment Unit, part of the University's Facilities Management portfolio.*

*Paul's eclectic background includes forestry, technical writing, environmental management/environmental auditing and local government urban/landscape design.*

*Paul's current focus is on delivering the University's Environmental Management Plan, in particular those aspects relating to the University's built form (UNSW has committed to five stars or better for its new buildings and major refurbishments under the Green Building Council's 'Green Star' rating scheme). Somewhere in this mix Paul tries to make time to complete his PhD, on sustainable cities.*

The NSW State Government recently extended bans on the use of bore water to a number of suburbs to the north and west of Kensington (south-east of Sydney's CBD). What does this mean for UNSW?

Water for irrigating the Kensington Campus grounds (and also David Phillips sportsfield) comes from our own bores. FM Engineering is managing the staged conversion of other non-potable uses such as toilet flushing and laboratory process water from the town water supply to bore water.

UNSW draws its bore water from the Botany Sands Aquifer, an underground water supply that runs from Centennial Park to Botany Bay.

Over the years some of the northern, western and southern areas of this aquifer have been contaminated by chemicals from industrial processes, leaky petrol station storage tanks and similar activities. It is the north-western area of the aquifer that

the Government has prohibited businesses and householders from tapping into. Bans were implemented in the southern part some years ago, as a result of contamination from the Orica (ICI) chemical plant.

Water tends to run downhill – and underground water is no different. Water from the Botany Sands Aquifer is moving (at about 100 metres per year) down to Botany Bay, carrying with it whatever contaminants it picks up on the way, known as a 'plume'. A major decontamination plant is located at Port Botany to intercept the most contaminated water.

Contaminants can also diffuse 'uphill', but this is a much slower process. This 'uphill' movement may be increased as a result of bore water extraction from the aquifer, which creates localised 'downhill' hydraulic gradients.

At the moment Kensington Campus is unaffected by the contamination. ▶

## invitation to business partners

The TEFMA Board has decided to promote TEFMA Business Partners through the placement of 'advertorial' pages in the *insideneutral* TEFMA magazine.

The purpose of the advertorial is to promote TEFMA Business Partners, and to introduce the company to readers of the magazine and to other TEFMA Business Partners. The charge for a full page of advertorial is \$500 per issue.

To simplify the process and to give the advertorial pages an ongoing consistent and recognisable appearance, Business Partners are asked to supply short answers to a list of questions, which will be the basis of the advertorial. Graphics for the advertorial should also be supplied.

TEFMA looks forward to strengthening its relationships with Business Partners through



this medium in future issues of the *insideneutral* TEFMA magazine.

**Contact for your advertorial**  
In the first instance and for more information, please contact Chris Box on (03) 9925 2797 or [chris.box@rmit.edu.au](mailto:chris.box@rmit.edu.au)

▷ UNSW has a regular bore water sampling and testing program in place. Testing in July at David Phillips sportsfield indicated an increase in the presence of some contaminants, but the concentration is less than 10 per cent of the threshold where use of bore water for irrigation would be banned. The recommendation is to continue two-monthly monitoring.

Modelling of the behaviour of contaminated groundwater is fraught with complexity, and includes factors such as the rate of flow, soil properties, the type of chemicals involved, how they interact and how quickly they degrade. And of course the greater the rainfall and the more the plume spreads out, the more the contamination is diluted.

It is impossible to guarantee that UNSW will not be affected at some point. This said, past behaviour of the plume and modelling predictions suggests a low probability of contamination of the aquifer at Kensington Campus or David Phillips sportsfield above the threshold where use of bore water would be banned. Certainly this is extremely unlikely over the next couple of years.



INSTALLATION OF UNSW'S AQUIFER RECHARGE INFRASTRUCTURE.

However, it is not impossible. From a risk management perspective, the university needs to look at contingency planning sooner rather than later, given our substantial (and increasing) reliance on bore water. A working group will be convened in October to make this happen. 🚫



<http://www.facilities.unsw.edu.au/Environment/index.htm>



[www.tefma.com](http://www.tefma.com)

Now you have found your TEFMA insidenewsletter magazine online, don't forget to check out the other interesting, useful and valuable information on TEFMA's website.





NEW ZEALAND FLAXES AT UNSW CAMPUS.



MICHELLE GOVAS AT RECYCLING BINS, MONASH UNIVERSITY.

## environmental sustainability and the campus landscape – a trans-tasman perspective



*Robert Scott is Grounds Officer with Property Services at the University of Otago. He reports on environmental and*

*sustainability issues at a number of Australian universities.*

In July this year, I undertook a successful two-and-a-half-week tour of 11 Australian university campuses. The main purpose of the trip was to examine details of environmental policies and sustainability issues in Australian universities, with a view to updating our 1994 Code for Environmental Protection and Sustainability. I was accompanied by university colleague Senior Lecturer in Environmental Science Dr Barrie Peake.

We visited the University of Melbourne, La Trobe University,

Monash University, Swinburne University of Technology, Australian National University, University of Sydney, University of New South Wales, Macquarie University, Newcastle University, University of Queensland and Griffith University. We met with more than 30 staff members involved in all aspects of environmental sustainability – from academics teaching and researching the subject, to facilities staff involved with waste minimisation, recycling and water conservation.

Meeting such a broad cross-section of people provided an excellent insight as to where Australian universities are at present with this important issue. Looking ahead, it will also assist us when implementing best environmental practices on the University of Otago campus and how these might be integrated into academic courses.

It became obvious during our visit and throughout our discussions that Australian universities are taking environmental sustainability very seriously at the highest administrative and academic levels, and across all aspects of university activity. It is also pleasing that TEFMA – recognising the importance of environmental sustainability – has increased awareness of the issue, with several workshops and seminars in both Australia and New Zealand.

Three major issues dominated our discussions: the environmental impact of the transportation of staff and students to and from campuses; increasing the proportion of 'green' energy used by each university; and how to cope with the chronic water shortage affecting all of eastern Australia.

During our visit, I also took the opportunity to meet with grounds ►

▶ managers or their deputies and, when time permitted, to tour the grounds and landscape areas. The most obvious and immediate difference between the Australian and Otago campuses, apart from the tree and shrub species and severe water restrictions, was the size of the grounds. Most universities we visited had several campuses with a total area between 35 and 200 hectares, often with several sports fields and, in some cases, extensive bush land. At Otago, our main campus is about 20 hectares and we have no sports fields to maintain. It was also interesting to observe the change of plant species used in campus landscapes, from the more temperate types in the south to the more tropical as we travelled north towards Brisbane.

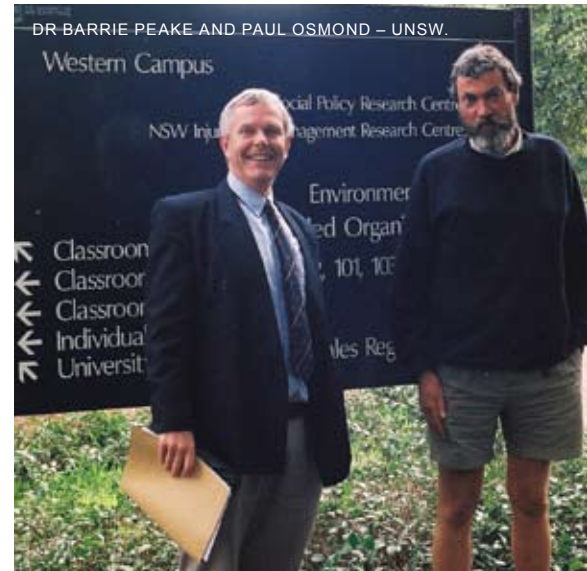
Meeting with grounds managers provided a good overview of their operational activities. It was interesting to hear that, while our campuses were different in many respects, some problems were common to both. Smoking and the associated problem of cigarette butts littering the ground seemed to be common to all campuses, including our own. Several universities are in the process of drafting No Smoking policies. How effective these will be and how they might be policed remains to be seen.

During my discussions and campus tours, a number of features attracted my attention, and although some of these were unique to Australia, others were more relevant to our campus:

- the use of recycled water to irrigate sports fields and grassed areas

- the emphasis on indigenous plant species in the campus landscape
- the importance of accurate recording of all campus tree species
- the operation of a landscape protection policy
- the extensive recycling of green waste for mulching and soil conditioning
- clear and informative campus maps
- provision of clearly marked recycling facilities in the grounds.

Visiting 11 Australian universities from Melbourne to Brisbane in as many working days requires considerable organisation and involves a lot of travel. However, we were fortunate in the positive response of many people during our visit. They could not have been more helpful in providing accommodation, arranging and coordinating meetings, and generally making our visit run smoothly.



We were impressed by the willingness of both academic and facilities staff in making time to meet with us, and for providing assistance in so many ways, all of which contributed to a successful trip. I appreciated the efforts of the grounds managers and their deputies for showing me something of their various campus grounds and for the opportunity to exchange ideas and share mutual interests. 🍷



ORGANIC WASTE RECYCLING.

## new zealand university insurance collective

*Daniel Lucas (Marsh Ltd), John Cameron (University of Waikato) and Ken Housley (University of Waikato) are the authors of this report. Insurance brokers and risk managers Marsh Ltd have developed a collective insurance program for New Zealand universities.*

In 2003 Marsh Ltd developed a collective insurance program in which all New Zealand universities were invited to participate in order to obtain the advantages of bulk insurance purchasing across a widespread risk portfolio.

Each university benefits from the collective by purchasing a base level of insurance cover and then tailoring additional cover to meet their individual requirements. The base insurance provision covers specified material damage and business interruption perils up to the collective's limit of cover.

A property/business interruption risk control/benchmarking program termed 'Riscore' is run in conjunction with the insurance program. Riscore establishes a range of auditable standards aimed to:

- mirror insurers' key criteria in the assessment and rating of individual property risks
- provide a weighted range of standards, which focus on a best practice approach to property/business interruption risk control
- enable audit by means of physical site reviews and discussions.

The annual Riscore process provides:

- a means of benchmarking individual universities against

their peers and good risk management practice in general

- a risk-based basis for premium allocation
- the ability to demonstrate to the panel of university insurers each university's commitment to continuous improvement of property and disruption risk control and the benefit that this provides to the collective as a whole.

Output reports from these site reviews and discussions provide advice and recommendations for improving the standard of risk control where it is deemed beneficial to managing each university's property and disruption risks. This is provided to each university in the form of a specific Riscore report, which provides a measure of the university's performance as compared against the review's assessment criteria. This provides consistency and transparency between Marsh as the assessor and the universities, and ensures objective presentation of the identified issues, improvements and future plans correctly.

The 'Risk Improvement Options' section of the Riscore report provides a brief commentary under each Riscore program element and puts forward options that each university may wish to consider for improvement where considered relevant. These comments are based on information obtained during discussions with university staff and physical observations made during the campus inspections and reviews. The physical inspection of each university's facilities looks for evidence of systems working well and symptoms of

systems that are weak. Resulting recommendations focus on improving systems rather than simply addressing the particular symptoms that were observed.

Where opportunities for improvement have been noted, photographs have been used to illustrate the nature of the symptoms that were observed. Many of the universities are now using the Riscore reports to support business cases for facility improvement and upgrades where there is a demonstrated benefit.

The Riscore program is divided into two main groupings: Management Systems and Physical Protection. The two groupings have sub-categories that are weighted depending on their importance, as follows:

- Management Systems
- Documentation of Rules and Procedures
- Self Inspections
- Welding and Hot Work Permits
- General Housekeeping
- Smoking
- Hazardous Goods Handling and Storage
- Business Continuity Planning
- Impairment Procedures
- Physical Protection
- Fire Sprinklers/Heat/Smoke Detection/ Special Hazards
- Water Supplies
- Fire Extinguishers/Hose Reels
- Electrical Systems
- Security
- External Exposures
- Construction and Fire Spread. ▶

▷ The raw score achieved by each university is adjusted to reflect its location (such as seismic hazard zone, for example) and a loss multiplier is applied to account for its past 12 months loss experience. Each university's insurance premium allocation is then calculated as a pro rata of material damage and business interruption sums insured (the university compared with the collective as whole) and then adjusted to reflect their relative Riscore value.

As the program has developed the universities have not only seen significant reductions in premiums, communication between universities has also improved

and the markets for potential insurers has increased. Further improvement in these areas is expected as the program matures.

An annual conference is arranged each year by Marsh for all participating universities to discuss the outcomes of the year's program. Each university's insurance purchasing and facilities management departments are represented at the conference.

At the conference, each university is provided with the entire collective's results from the Riscore review to see how each are performing relative to the audited standards and other participating

universities. The conference also provides an opportunity for each university to make suggestions and recommendations for development of the program including adjustments in the weighting and premium allocation models. As insurance markets' needs change it also provides an opportunity to tailor the Riscore program in advance to address these needs.

The collective has delivered on expectations by increasing insurance spending efficiency and improving the management of property and disruption risks for the participating universities. ●

## Attention TEFMA members – we need you ... ... or rather, your magazine needs you.

TEFMA is a strong and growing association, reflected in the pages of your magazine *insidenewsletter*.

Your magazine relies on the input from you – the members of TEFMA. It has been reassuring and indeed gratifying to note the increasing input from members in these pages in the past couple of years.



So please keep your informative and interesting articles – and great photographs – coming in. Whenever you feel the urge to put finger to keyboard, at any time and not necessarily just before editorial deadline, please do so and send us the fruits of your labour.

Thanks to all those TEFMA members that have contributed in the past. Now sit back and enjoy reading the current issue of your magazine.

Please send your submissions to Chris White: [chris.white@rmit.edu.au](mailto:chris.white@rmit.edu.au) or for further information contact Chris Box on: (03) 9925 2797 or [chris.box@rmit.edu.au](mailto:chris.box@rmit.edu.au)

## upcoming events

The following is a snapshot of upcoming workshops and conferences. Please visit the TEFMA website ([www.tefma.com](http://www.tefma.com)) for a full list of up-to-date TEFMA events, information services and 'What's new'.

**2007**  
**New Zealand Workshop**  
**Dunedin, NZ**  
**12 and 13 March 2007**

The 2007 New Zealand workshop will be held in Dunedin on 12 and 13 March 2007. The theme of the workshop is 'Strategic Asset Management'.

**TEFMA**  
**Grounds Workshop**  
**Brisbane**  
**30 and 31 May 2007**

To be held at the University of Queensland's St Lucia Campus in Brisbane, this event, aimed predominantly at institutions' Gardeners, Horticulturalists and Grounds Maintenance personnel, promises to provide significant learning and development opportunities as well as an ideal specialist networking occasion. Keep an eye on the workshop's webpage for further details: [www.tefma.com/education/workshops/brisbane07/index.jsp](http://www.tefma.com/education/workshops/brisbane07/index.jsp).

A scholarship will be offered to sponsor one intuitional member to the workshop: [www.tefma.com/education/scholarships/grounds.jsp](http://www.tefma.com/education/scholarships/grounds.jsp)



**Chicago, USA**

**SCUP**  
**Annual Conference**  
**Chicago, USA**  
**7–11 July 2007**

**'Shaping the Academic Landscape: Integrated Solutions'**

With a focus on strategic, global, learning-centred, integration, sustainable and technology-intensive planning, SCUP is looking forward to welcoming their members and friends from across the world to the beautiful city of Chicago in July 2007. And for those of you who attended 'Campus of the Future: A Meeting of the Minds' in Honolulu this year, if you think you had a good time in Hawaii, just wait until you see what we have in store for you

in Chicago! There will be plenty of workshops, tours, captivating keynote speakers, opportunities to gather with friends old and new, the Idea Marketplace and, of course, members' educational presentations sharing initiatives and integrated approaches.

Venue: Sheraton Chicago Hotel and Towers – Chicago, Illinois USA.

[www.scup.org/annualconf/42/index.html](http://www.scup.org/annualconf/42/index.html)

**Other Strategic Partners/ Conferences**

- AIDE Conference, Bath, UK, 2 to 4 April 2007
- APPA Conference, Baltimore, USA, 15 to 17 July 2007

## business partners

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Carlton VIC 3053  
Penny Stephens  
T (03) 9661 0200  
E pstephens@aconex.com

### Archibus Solution Centres – Australia

33 Bligh Street  
(PO Box R1981 Royal Exchange)  
Sydney NSW 1225  
Kymbly Reid  
T (02) 9222 1144  
F (02) 8915 1322  
E kymbly.reid@asc-a.com

### Architectus Melbourne

PO Box 163  
Abbotsford VIC 3067  
Andrew Bunting  
T (03) 9429 5733  
F (03) 9429 8480  
E andrew.bunting@  
architectus.com.au

### Arrow International Group Limited

PO Box 42  
Christchurch NZ  
Darren Burden  
T (+64) 3 363 6033  
F (+64) 3 366 4304  
E darren.burden@  
arrowinternational.co.nz

### Australia Post

219–241 Cleveland Street  
Strawberry Hills NSW 1420  
Linda Donaldson  
T (02) 9202 6602  
F (02) 9310 1075  
E linda.donaldson@  
auspost.com.au

### Bassett Consulting Engineers

Level 5, 616 St Kilda Road  
Melbourne VIC 3004  
Scott Farthing  
T (03) 9510 4888  
F (03) 9510 1430  
E s.farthing@bassett.com.au

### Bates Smart

Level 6, 1 Nicholson Street  
Melbourne VIC 3000  
Sheree Proposch  
T (03) 8664 6200  
F (03) 8664 6300  
E sproposch@batessmart.com.au

### Beca Valuations Ltd

PO Box 6665  
Auckland NZ  
Michael Mason  
T (+64) 9 300 9745  
F (+64) 9 300 9191  
E michael.mason@beca.com

### Bligh Voller Nield Pty Ltd

365 St Pauls Terrace  
(PO Box 801)  
Fortitude Valley QLD 4006  
David Kelly  
T (07) 3852 2525  
F (07) 3852 2544  
E David\_Kelly@bvn.com.au

### Camatic Pty Ltd

93 Lewis Road  
Wantirna South VIC 3152  
Amaury De Rosbo  
T (03) 9837 7777  
F (03) 9837 7700  
E amauryd@camatic.com.au

### Cardax Australia Pty Ltd

Suite 201, Level 2, 29  
Anderson Street  
Chatswood NSW 2067  
Peter Francis  
T (02) 9412 4477  
F (02) 9904 8546  
E peterf@cardax.com

### Carson Group

PO Box 11-472  
Wellington NZ  
Jonathan Scholes  
T (+64) 4 385 9885  
F (+64) 4 385 3066  
E jscholes@carsongrp.co.nz

### Changing Directions Pty Ltd

4/48 Winton Road  
Joondalup WA 6027  
John Clohessy  
T (08) 9300 0777  
M 0412 146 275  
F (08) 9300 0100  
E johnc@changingdirections.  
com.au

### Cox Rayner Architects & Planners

Level 2, 2 Edwards Street  
Brisbane QLD 4000  
Michael Rayner  
T (07) 3210 0844  
F (07) 3210 0541  
E michael.rayner@cox.com.au

### CRI Australia Pty Limited

Level 2, 76 Berry Street  
North Sydney NSW 2060  
Tracey Wadsworth  
T (02) 9954 8888  
F (02) 9929 3388  
E traceyw@cri.com.au

### Currie & Brown (Australia) Pty Ltd

Level 10, ING Building,  
100 Edward Street  
(PO Box 15034 City East)  
Brisbane QLD 4002  
Richard Kerr  
T (07) 3210 1366  
F (07) 3210 1788  
E richard.kerr@  
curriebrown.com.au

### Cyon Knowledge Computing Pty Ltd.

Suite 703, 83 Mount Street  
North Sydney NSW 2060  
Andrew Lau  
T (02) 9929 9292  
M 0418 265 170  
F (02) 9929 9294  
E andrewl@cyon.com.au

### DEM (Australia) Pty Ltd

PO Box 63  
Northbridge NSW 2156  
Rudi Valla  
T (02) 8966 6061  
F (02) 8966 6222  
E rudi.valla@dem.com.au

### Dimitriou Architects + Interior Designers

Level 11, 46 Edward Street  
Brisbane QLD 4000  
Alan Jordan  
T (07) 3012 9522  
F (07) 3012 9533  
E alan@dimitriouarchitects.com

### Donald Cant Watts Corke Pty Ltd

Level 5, 126 Wellington Parade  
East Melbourne VIC 3002  
Glenn B Corke  
T (03) 9417 4567  
F (03) 9417 7686  
E glenn.corke@dcwc.com.au

### Ecoglo Ltd

77 Kingsley Street  
Sydenham Christchurch NZ  
Paul Sapsford  
T (+64) 3 348 3781  
F (+64) 3 343 6821  
E paul.sapsford@ecoglo.com

### Energetics

PO Box 652 CSW  
Melbourne VIC 3007  
Warren Overton  
T (02) 6260 8723  
F (02) 6297 5948  
E overtonw@energetics.com.au

### Energy and Technical Services Ltd

PO Box 6004 Marion Square  
Wellington NZ  
Geoff Bennett  
T (+64) 4 384 6121  
F (+64) 4 801 6210  
E gbennett@energyts.com

### Energy Decisions

42 Gray Avenue  
Corinda QLD 4075  
Fred Nicolosi  
T (07) 3379 6417  
M 0417 707 286  
F (07) 3319 6403  
E fred.nicolosi@bigpond.com

### Ergon Energy Pty Ltd

Ground Floor, 61 Mary Street  
Brisbane QLD 4000  
John Catchlove  
T (07) 3228 2704  
F (07) 3228 7766  
E john.catchlove@ergon.com.au

### Hames Sharley International Ltd

Level 2, 50 Subiaco Square  
Subiaco WA 6904  
Dean van Niekerk  
T (08) 9381 9877  
F (08) 9382 4224  
E d.vanniekerk@  
wa.hames.com.au

### HBO + EMTB

Level 4, 90 William Street  
Melbourne VIC 3000  
Roger Teale  
T (03) 8636 1300  
F (03) 8636 1399  
E rteale@hboemtb.com

### Honeywell Ltd

264 Mt Eden Road  
Mt Eden NZ  
David Jobson  
T (+64) 9 362 5050  
F (+64) 9 362 5060  
E david.jobson@honeywell.com

### Invensys Building Systems

738 Blackburn Road  
Clayton North VIC 3168  
Suzanne Freeman  
T (03) 9589 9369  
F (03) 9545 5479  
E suzanne\_freeman@  
invensysibs.com.au

### John Wardle Pty Ltd Architects

Level 10, 180 Russell Street  
Melbourne VIC 3000  
John Wardle  
T (03) 9654 8700  
F (03) 9654 8755  
E johnwardle@  
johnwardlearchitects.com

*NB: Every effort has been made to ensure the accuracy of the information in the TEFMA Business Partners list. Please notify TEFMA if there is a discrepancy or if there is a change in contact details.*

**Lyons**

Level 1, 459 Little Collins Street  
Melbourne VIC 3000  
Carey Lyon  
T (03) 9600 2818  
F (03) 9600 2819  
E carey.lyon@lyonsarch.com.au

**Mercury Computer Systems (Aust) Pty Ltd**

Level 3, 271 William Street  
Melbourne VIC 3000  
Garry Busowsky  
T (03) 9602 2255  
F (03) 9602 2595  
E gb@mercsys.com.au

**Mosaic Software Development**

PO Box 3191  
Rundle Mall SA 5000  
John Pryzibilla  
M 0416 161 152  
F (03) 9923 6233  
E john@mosaicdsd.com

**Naylor Love Ltd**

PO Box 36143  
Northcote Auckland NZ  
Phil Brosnan  
T (+64) 9 442 0884  
F (+64) 9 442 5144  
E phil.brosnan@naylorlove.co.nz

**Ontera Modular Carpets Pty Ltd**

171 Briens Road  
Northmead NSW 2152  
David Rowlinson  
T (02) 8838 2540  
M 0400 474 412  
F (02) 9630 8531  
E drowlinson@ontera.com.au

**Opus International Consultants Limited**

PO Box 5848  
Auckland NZ  
Peter Mathewson  
T (+64) 9 355 9534  
F (+64) 9 355 9580  
E peter.mathewson@opus.co.nz

**Page Kirkland Group**

PO Box 1869  
Toowong QLD 4066  
Ian Brunning  
T (07) 3371 2855  
M 0412 227 805  
F (07) 3371 0644  
E ian.brunning@pagekirkland.com

**Programmed Maintenance Services**

1 Susan Street  
Hindmarsh SA 5007  
David Atkinson  
T (08) 8241 7505  
F (08) 8241 7791  
E datkinson@pmsltd.com.au

**Prosys Services Pty Ltd**

Unit 3, 109 Hunter Street  
Hornsby NSW 2077  
Neville Magi  
T (02) 9476 3248  
F (02) 9476 1903  
E nmagi@ige.com.au

**Resolve FM**

PO Box 651, Collins Street West  
Melbourne VIC 8007  
Steve Whitford  
T (03) 8627 5351  
E swhitford@resolvefm.com.au

**Rider Hunt (New Zealand)**

PO Box 1117  
Palmerston North NZ  
Wayne Kitching  
T (+64) 6 357 0326  
F (+64) 6 356 5624  
E Riderhunt@rhp.co.nz

**Rider Hunt Adelaide Pty Ltd**

Level 4, 63 Pirie Street  
Adelaide SA 5000  
Stephen Knight  
T (08) 8100 1200  
F (08) 8100 1288  
E sknight@riderhunt.com.au

**Rubida Research Pty Ltd**

PO Box 41  
Norton Summit SA 5136  
Dr Kenn Fisher  
T (08) 8390 1986  
M 0400 040 254  
E kenn@rubida.net

**Russell & Yelland Architects**

101 Frederick Street  
Unley SA 5061  
John F Held  
T (08) 8271 4555  
F (08) 8272 9670  
E jfheld@rusyel.com.au

**S2F Pty Ltd**

2 Domville Avenue  
Hawthorn VIC 3122  
Peter Jordon  
T (03) 8862 8918  
F (03) 8862 8998  
E petjor@s2f.com.au

**Schiavello (SA) Pty Ltd**

Ground Floor, 101 Currie Street  
Adelaide SA 5000  
Steve Lockwood  
T (08) 8112 2300  
F (08) 8231 1419  
E stevelockwood@schiavello.com.au

**Scientific Interiors**

308A Kingsgrove Road  
Kingsgrove NSW 2208  
Ryszard Z Knopf  
T (02) 9554 9957  
F (02) 9554 3139  
E scientificinteriors@bigpond.com

**Screencheck Australia Pty Ltd**

8/1069 South Road  
Melrose Park SA 5039  
Scott Elvish  
T (08) 8374 3677  
F (08) 8374 3688  
E scott@screencheck.com.au

**Sinclair Knight Merz**

PO Box 10-283  
Level 12 Mayfair House,  
54 The Terrace  
Wellington NZ  
Nick Waddington  
T (+64) 4 473 4265  
F (+64) 4 473 3369  
E Nwaddington@skm.co.nz

**Spotless Education Services**

350 Queen Street  
Melbourne VIC 3000  
George Michaelides  
T (03) 9269 7367  
F (03) 9269 2697  
E george.michaelides@spotless.com.au

**Strategic Facility Services Pty Ltd**

PO Box 224  
Deakin West ACT 2600  
Ami Sudjiman  
T (02) 6260 5558  
F (02) 6260 5559  
E sfs\_admin@stratfac.com.au

**Sustainable Built Environments (SBE)**

Level 28, 140 William Street  
Melbourne VIC 3000  
David Oppenheim  
T (03) 9670 9820  
F (03) 9670 9890  
E david.oppenheim@sbe.com.au

**TAC Pacific Pty Ltd**

43A Fullarton Road  
Kent Town, Adelaide SA 5067  
Glen Scott  
T (08) 8130 0002  
M 0411 101 676  
F (08) 8130 0099  
E glen.scott@tac.com

**Thinc Projects**

Level 3, 121 Flinders Lane  
Melbourne VIC 3000  
Joe Clarke  
T (03) 9654 6799  
F (03) 9654 7356  
E jclarke@thincprojects.com

**Trane Australia**

6-8 Lyon Road  
North Ryde NSW 2113  
Matthew Gale  
T (02) 9878 8055  
F (02) 9878 8292  
E mgale@trane.com

**UniLodge Group**

Corner Bay Street and Broadway  
Broadway NSW 2007  
Michael Brown  
T (02) 9338 5005  
F (02) 9338 5019  
E michael.brown@unilodge.com.au

**United Group Services**

Level 3, 111 Coventry  
Street (PO Box 92)  
South Melbourne VIC 3205  
John Cuffe  
T (03) 9697 7237  
F (03) 9682 7361  
E john.cuffe@unitedkfpw.com.au

**Urban Maintenance Systems**

352 Ferntree Gully Road  
Notting Hill VIC 3168  
Campbell Bryant  
T (03) 9265 5811  
M 0411 224 888  
F (03) 9265 5899  
E cbryant@ums.com.au

**Valiant Commercial Furniture Hire**

617-643 Spencer Street  
West Melbourne VIC 3003  
Connor Ashlakoff  
T (03) 9328 4455  
F (03) 9328 1611  
E info@valiant.com.au

**Widnell**

PO Box 1231  
North Sydney NSW 2059  
Barry Trowse  
T (02) 9460 4744  
F (02) 9460 0744  
E btrowse@widnell.com.au

**Wilde and Woollard**

Level 4, 37-41 Prospect Street  
Box Hill VIC 3128  
Paul Dowling  
T (03) 9899 0411  
F (03) 9890 3123  
E pauld@wildeandwoollard.com.au

**Woods Bagot Pty Ltd**

The Beacon, Podium Level 1,  
Southgate Complex 3  
Southbank VIC 3006  
Mark Kelly  
T (03) 8646 6600  
F (03) 9645 8787

## article submissions

We welcome submissions from TEFMA members for *insideneWSletter*.

Articles should be accompanied by a short biography (40–70 words, including institution and title) and a head and shoulders photograph of the author; please include any relevant pictures or graphs. Articles may be edited for layout purposes.

Please send your submissions to Chris Box: [chris.box@rmit.edu.au](mailto:chris.box@rmit.edu.au)  
or to Chris White: [chris.white@rmit.edu.au](mailto:chris.white@rmit.edu.au)

