University of South Australia

magazine

Autumn 2010

The death of Venus
why is thin in?

SA’s climate
action men

One giant step
starting uni

No place like home
why expats return
KNOWLEDGE WORKS is a free public lecture series presented by some of UniSA’s best thinkers on contemporary subjects that will bring research to life.

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Universities need to engage with employers to produce the best employees and citizens.

At UniSA we are committed to educating professionals and creating great solutions for society through our engaged research. We want UniSA graduates to become significant contributors to their chosen professions – people who are instrumental in reshaping contemporary societies and who can engage in the development of game-changing innovations.

As we strive for excellence in teaching and learning, we endeavour to equip UniSA graduates not only with our seven explicit graduate qualities but also with other qualities that employers look for.

UniSA is serious about this. For example, Jim McDowell, the Chief Executive of BAE Systems Australia, is Chair of the advisory board for the Division of Business. Senior business executives serve on other advisory boards and take part in seminars with students – for example, CEOs regularly share their experiences with our MBA students in a forum called “View from the Top”.

Business leaders tell us that they need graduates with international experience and the skills and confidence to communicate across different cultures. Our Global Experience Program aims to develop just these skills, even for students who cannot, for whatever reason, engage in international exchange. The program has high-level corporate engagement from companies such as Santos, Telstra Corporation, KPMG, SA Water and Cavpower.

Of course, our engagement with business and industry extends well beyond the business disciplines. We also have high success rates with industry-linked research projects across the institution – for example, we are regularly in the top 10 universities for national research grants involving industry partners.

On the broadest level, we have recently invested almost $6 million in reshaping our curriculum so that all of our teaching programs include a significant component of what we call “experiential learning”. The aim is that students are able to understand in a real way the impact and implications of their study.

To provide really strong learning experiences, we need partnerships with business that can prepare students to be highly competent professionals with a suitable mixture of technical and soft skills. We also aim to prepare great citizens, and we therefore desire that our students experience workplaces characterised by strong ethical practices and a sense of responsibility to the wider community.

Employers rightly ask questions about the quality of our graduates and of our teaching. At present, teaching quality is primarily measured through surveys of our current students and of recent graduates.

It would be useful to survey employers about the quality of the graduates they employ, say five years after graduation. This would show us how our students actually perform once they are in the workplace as simple exit grades do not tell the whole story.

A story from the University of Michigan serves to illustrate this point. About 10 per cent of the students of this elite university’s law school are members of minority groups, many of whom are assisted by the relaxation of entrance requirements.

A comprehensive survey of graduates over 25 years showed that while minority group students had slightly lower success at university, they performed equally well once they were in the workplace. In fact, they also tended to make a greater contribution to the community.

In other words, how well graduates do in the real world is the best test of success. At UniSA we not only prepare graduates to their chosen professions – people who are instrumental in reshaping contemporary societies and who can engage in the development of game-changing innovations.

At UniSA, expect practical learning from experts, and courses that are relevant in today’s business environment. Study Business, Management, Marketing, Law, Accounting, Finance or our award winning MBA.* Find out more at our: Further Studies in Business and Postgraduate EXPO 29 April 2010 5.30pm – 8.00pm Kerry Packer Civic Gallery, Level 3, Hawke Building, City West Registrations are essential.

Discover your key to success with postgraduate business studies at UniSA.

Postgraduate qualifications help you gain a competitive edge. Upgrade your skills and knowledge, improve your career prospects, increase your earning potential or kick-start a whole new career.

You could be eligible if you have suitable qualifications or equivalent work experience. With funding assistance and flexible course delivery, study can fit your lifestyle without breaking your budget.

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*MBA awarded 5-star rating two years running by Good Universities Guide. Also awarded number one MBA in South Australia by Boss Magazine – Financial Review September, 2009.
WHEN South Australian newspaper man Sir Lloyd Dumas envisaged the Adelaide Festival of Arts in the late 1950s, it was certain he had a notion of the transformative powers of art and culture in the community.

Post WWII and with invigorated levels of immigration, Adelaide embraced a new, optimistic identity as a cultural leader in Australia. Inevitably the Festival of Arts has become as much about bringing the world of art, music and culture to Adelaide as it is about bringing South Australia’s most creative and talented artists to the world. Over the years it has inspired hundreds and delighted thousands.

And at the 50th anniversary of the Adelaide Festival—amid the wonderful offerings of drama, theatre, music and dance—the University of South Australia sponsored the Visual Arts program, establishing a partnership it hopes will not only underpin its role as one of the nation’s leading arts educators, but also stimulate a creative nexus between art theory and practice.

Director of UniSA’s Anne and Gordon Samstag Museum of Art, Erica Green says the sponsorship brings a cultural dynamism to campus life.

“The opportunities it offers for students and staff to engage with the visual arts are fantastic,” she says. “The Festival events and visiting artists have opened up arts experiences that are broad, international and unique.

“In keeping with the emblem of the 2010 Festival we see the University’s partnership as very much about building a passion for the visual arts.”

Green says the importance of local artists and students gaining experience of the international arts community lies at the heart of the Samstag legacy. Museum namesake, Gordon Samstag, taught at the South Australia School of Art from 1960 to 1971. Years later he left one of the most significant and lasting legacies to Australian artists through the Samstag bequest – Australia’s richest art scholarship, administered by UniSA to support Australian artists to study overseas.

“In that same spirit, our sponsorship has delivered some amazing opportunities for students,” she says.

UniSA PhD candidate Matthew Huppatz attended a Lucy and Jorge Orta master class during the Festival and has now been invited to work with them at Orta’s The Dairy in Brie near Paris. The founding ethos of The Dairy is that the creative disciplines should debate and rethink the traditional principles of social structures and introduce new ideas that have a profound engagement with society, urban planning, cultural heritage and political and ecological policies.

“The workshop was a fantastic chance to learn more about the international art world from a prominent artist with many years experience working on large scale projects,” Huppatz said.

“Because of my interest in the material and conceptual background to the Orta’s work, it will be amazing to work in his studio and with artists whose practice and production is on a scale that is really non-existent in Australia.”

Director of the South Australian School of Art, Associate Professor John Barbour, says bringing key visual arts events to UniSA’s City West campus, including the full four-day Artists’ Week program of talks, workshops and lectures, has been especially important in building links between art theory and practice.

“UniSA academics have moderated and led sessions for Artists’ Week, students have been part of the set up of major exhibits, local artists have held exhibitions in UniSA galleries and postgraduates have attended master classes with artists of international stature,” Prof Barbour says.

“It is a rich, integrated, involvement which we believe will continue to have an impact by developing an artistic dialogue that is completely international.

“Because of my interest in the material and conceptual background to the Orta’s work, it will be amazing to work in his studio and with artists whose practice and production is on a scale that is really non-existent in Australia.”

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The Jorge Orta master class at City West campus

“The relationships forged have drawn the University, its students and staff, and the city itself into the international art conversation”

And Adelaide Festival artistic director Paul Grabowsky believes the renewed and invigorated Artists’ Week program has been one of the great successes of the 2010 Festival.

“It provided an important forum for artists, theoreticians, students and the public to discuss contemporary issues and ideas against the backdrop of the various exhibitions which made up the visual arts program of the Festival,” Grabowsky says.

“The University has been the perfect conduit for this kind of high-level engagement, and the interface between practising artists, thinkers and students is of immense benefit.”

By Michèle Nardelli
Around the world but back again

There is a certain Wizard of Oz factor at play when South Australians leave the State in those early career years between 20 and 30. Like Dorothy, they yearn for adventure, for something new and exciting, something that will move them beyond the tranquil confines of Adelaide.

For many graduates, moving away provides the kind of experiences that build a career.

Australasian Bureau of Statistics data shows that some 4500 South Australians move interstate each year and about another 3300 head overseas to work. And for many graduates, moving away provides the kind of experiences that build career capacity or give them that first breakthrough job in their professional field.

But according to UniSA research, it only takes a few family or life triggers to bring expats back home.

In her 2009 PhD thesis funded by the State Government, UniSA’s Dr Natasha Caulfield looked at just which “push” or “pull” factors bring people home to SA.

“While the benefits of family and the lifestyle in SA are kind of constant pluses for returning home, the real triggers are what I call shocks,” Dr Caulfield says.

“Not always crises or disasters, the shocks are generally some sort of personal change in circumstance. Ageing parents, children reaching school age or high school age, pregnancy, illness or a death in the family are all big influencers to return,” she says. “Dissatisfaction with work or a relationship can also motivate a move home, but sometimes even a quick visit back here for someone’s wedding or for Christmas, sets up a longing for family and then the urge to come home for good.”

Competition for jobs or even the changing demand in different career fields may find graduates forced to choose a move away from friends and family to pursue career goals. And it is often the experience gained overseas that is highly prized when they return.

Science graduate from UniSA Amy Snell-Wakefield says the six years she spent living in New Zealand were invaluable for her career as an entomologist. Offered a PhD Scholarship while she was completing her honours in Adelaide, she says the opportunity at the Wellington School of Medicine at the University of Otago was too good to pass up.

On completion of her PhD in Public Health she found a job as an entomologist working for New Zealand BioSecure.

“In New Zealand I had the opportunity to work with entomologists on some exciting projects and also learn a lot. But more than that, it was a beautiful place to live and I was enjoying all of it – the countryside, the wildlife and the access to Maori culture.”

While working on her PhD she discovered three new species of mites (Acari) on insects (Diptera) and undertook work on mosquitoes.

But true to Dr Caulfield’s research, Snell-Wakefield’s second pregnancy and a desire to be closer to family was a pull factor, bringing her back to Adelaide with her husband and children.

“I am enjoying being close to family and even though I would consider moving away again, depending on the circumstances – I think we would always come back.”

For another UniSA alumnus, James Young, family reasons also prompted his move back to SA after 10 years interstate and overseas. Young, who completed a Bachelor of Business (Property) and is now Chief
Executive of SA for Colliers International, spent time working in Darwin, Thailand and Sydney after joining Colliers’ Adelaide office in 1993. He says the move to Thailand particularly advanced his career, exposing him to a much broader set of business scenarios and contacts, which has enabled him to be more effective in his chosen field of expertise. “The exposure to multi-national organisations was a highlight and opened my eyes to the workings of global real estate in concert with how businesses operate around the regions and the world,” Young says.

Young, who grew up in the South East of SA, highly recommends living as an expat at least once. He met his wife, also South Australian, in London. But after 10 years away they decided it was time to come home. “We felt that it was important to establish ourselves personally and professionally in the early stages of what we recognised as a bright future for South Australia,” he says.

For Sarah Walters and Noel Whitcher the move to London has been part adventure and part career development. They’ve joined the thousands of younger Australians who take advantage of the UK Youth Mobility Scheme which allows people aged between 18 and 30, a two year stay with working rights so they can combine career and travel.

The UK Census in 2008 recorded some 117,000 Australian-born residents and a fair swag of those are living in London. Walters, a UniSA double degree graduate with a Bachelor of Business in international business and a Bachelor of Arts in international studies, and Whitcher who has a Bachelor of Commerce, have just reached the one year mark of their working holiday and have decided to stay on. Aged 29 when they left, it was a “now-or-never” proposition. “This is a real rite of passage for Aussie accountants,” Whitcher says.

Arriving during the Global Financial Crisis, the pair took about five weeks to find work. They have bucked a trend that has seen about 2700 Australians return home each month since start of the GFC in 2008 – job insecurity being a clear prompt for many to come back.

Walters now has a permanent contract as a team manager with the Royal College of Physicians and Whitcher secured an ongoing role with a public housing company. “This will have a positive impact on my career because I am gaining experience in other business environments and learning new skills in management, public sector accounting and also working with people from many cultures,” Whitcher says.

Just like Dorothy they both firmly believe there is no place like home, but with the rest of Europe to explore on weekends, they say they may consider extending their stay beyond the two years. And it is not only the young who decide to make the move away and back again. After a career in teaching, 10 years in human resources and management development and then study for an MBA, Elsa D’Ercoli took on a new role and a new country in 2001.

She jokes that she began her “gap year” in her 40s, but her move to the UK was a revelation. “What I found so striking in the UK was a real respect for quality staff,” she says. “I think any of the baby boomers who were working in Australia to make great strides in the 80s and 90s, understand what it is to do the hard yards,” she says. “There was definitely a culture of wringing the most out of workers, without considering the consequences for them or the business.”

Now a veteran advisor and consultant in leadership and talent management, Vice President of the South Australian Universities alumni chapter in the UK, an ambassador of the South Australian Business Ambassador Network, and formerly the global Head of Leadership Development and Talent at the international property advisory group DTZ, D’Ercoli believes Australians need to invest more in their quality staff.

“I don’t see that things are getting better,” she says. “What I found in the UK was a graciousness in business that I do not see here and it was certainly not what I expected. I imagined something Dickensian and I found the Renaissance.

“There was a willingness to trust the integrity of employees that flowed into great conditions of employment—flexibility, respect for work life balance, a commitment to the technology and practice that allowed people to work at home or in the office—all underpinned by an atmosphere of trust, passion for the business and respect for staff.”

Seven years on, it is a “pull” factor that has her at home. “My mother was getting older and I needed to be back here to provide support to her and the family business,” she says. “It was hard to leave the UK and I looked at options to try to commute, but in the end, there was no real choice but to come home for the time being.”

D’Ercoli says she believes Adelaide has great potential. “This is a lovely city, blessed with great weather and a number of qualities,” she says. “However, to attract and keep top quality staff they need to be valued, nurtured and respected in the workplace. Companies and businesses are only as good as their people and South Australia needs the best people to ensure its continued growth and development.”

By Katrina Kalleske and Michèle Nardelli
A 21ST CENTURY girl strolling through a major art gallery would have to stop and wonder at the women depicted there. Michelangelo’s buxom well-muscled girls; Ruben’s positively chubby Three Graces; Bourguereau’s well-hipped Venus; and even Picasso’s female forms, although dismantled by Cubism, are nonetheless generous in their proportions.

Not to put too fine a point on it, but compared to young Megan Fox or Nicole Kidman, those gallery gals are fat.

So why is it that thin is in?

Is it the cultural trend du jour or is the image of the ideal woman experiencing global thinning?

Anthropometry specialist and Professor in Human Movement at UniSA, Tim Olds, believes while notions of the ideal female form may appear to change with the times, driven by a variety of social, cultural and fashion factors, there are some underlying constants.

“The desirability of lower waist to hip ratios linked to concepts of fertility has been fairly constant across history and to some extent across cultures,” Prof Olds says. “Generally speaking, women can’t be too hourglass in shape for most men.”

And dig deep into history and you will find evidence of that, not only in art but in literature.

US researchers Davendra Singh, Peter Renn and Adrian Singh managed to unearth this description of Queen Nefertari, wife of Ramses II, in the second millennium BCE – “the buttocks are full, but her waist is narrow… the one for whom the sun shines”.

It was published in 2007 in the Royal Society journal, Proceedings of the Royal Society, Biological Sciences, and is just one of many references they found in a fuller analysis of aspects of female body image, that crosses both Indian and Chinese literature.

Prof Olds says his research has shown that whether a woman is thin or fat, men still prefer them to have an hourglass shape, whereas women are less tied to the hourglass factor, increasingly ready to trade off shape for weight.

“ Twiggy caused a bit of sensation in the 1960s with her supposedly boyish shape and very thin body, but if you do the anthropometric measurements, she was actually fairly hourglass underneath the fashion outfits,” he says.

Interestingly, periods where the hourglass is less prized in Western societies such as the 1920s, 1960s and late 1980s, mirror important changes for women in society – the global spread of female suffrage, the advent of the contraceptive pill and the increase of women in full-time paid work.

Professor of Anthropology in the Department of Sociology and Anthropology at Elon University, North Carolina, Ann Bolin says during periods of liberation, the ideal shape for women de-emphasises their reproductive characteristics – the nourishing breasts and child-bearing hips disappear from the fashion pages.

In 2004 Prof Olds led one of the world’s largest anthropometric studies to build a database of the body dimensions of Australians aged between 18 and 30. The three-year project has built a wealth of information now proving a rich resource for comparative research.

“Using these data as a base to compare the average Australian woman with catalogue models, porn stars, store mannequins and the hyper-ideal figure of Barbie, you get a very clear picture of the differences between reality and the western cultural ideal,” Prof Olds says.

“We know that people have become bigger all over, taller and bigger framed, yet at the same time young women and to a lesser extent, young men are increasingly putting a high value on slimness.

“The average store mannequin is taller than 83 per cent of real women in our reference group and only 3 to 11 per cent of young women from the general population would have a single height-adjusted limb, hip, chest or waist measurement that is as small as the mannequins we have sampled.”

Prof Olds says the chance of any real girl having the overall slimness of the store mannequins they look at when they shop for clothes, is very small indeed.

“I don’t think you will ever find a society where fat, block-shaped women or skeletally thin women will be considered desirable by either sex,” Prof Olds says “And neither of those extremes is healthy.

“But the fact is the perfect hourglass physique is actually quite unusual.”

According to a 2005 North Carolina State University study of data from 6000 women, only about 8 per cent have an hourglass body type with the majority, about 46 per cent, having a more rectangular shape.

What is counterintuitive in all of this and what drives the profits for thousands of diet and beauty products worldwide, is that despite men’s general preference for the curvaceous figure, western women increasingly long to be thinner.
Olds says one of the biggest differences for women today is that they are much more likely to be exposed to images of that small percentage of women who have the perfect catwalk figure – tall, lean and curvaceous.

“Because of technology, our ‘tribal group’ is now some six billion people,” he says. “We are blasted with images of the most beautiful people in the world and this does lead to social comparison anxiety and makes us feel inferior.”

The state of play for most western societies in the past 50 years is a documented increase in obesity but also an increase in eating disorders (both eating too much and too little), cosmetic surgery and a general anxiety around weight, health and self-image.

Professor Olds’ advice is to understand that there is a large element of genetic destiny to the shape you are in but that you can strive to stay healthy.

“Women come closest to the unusual mix of thinness and shapeliness in those ‘golden years’ between about 15 and 20-something, just as men come closest to the rare mix of thinness and muscularity in their early 20s,” he said.

“Genes powerfully influence your body shape and aging changes your shape, but you can do a great deal to stay healthy. That is not about starving yourself to stay at size six or eight – it is about building healthy, non-obsessive eating and behaviour patterns into your life and being realistic.”

By Michèle Nardelli

The weight debate

“ The perfect hourglass physique is actually quite unusual ”

This Roman sculpture of Aphrodite (Venus) from 2 AD (left) held in the British Museum illustrates the fuller, more compact female ideal when compared with Adelaide catwalk and photographic model Rachel Strickland (right) posing as a modern day Venus.
Something inherently wrong with our lifestyle is making us fat. Research suggests the western world is experiencing an obesity epidemic with grave health and economic consequences.

With more than 60 per cent of adult Australians classified as overweight or obese, it presents a huge challenge for governments and has population health researchers looking for answers to this modern condition.

Up until a few thousand years ago, having reserves of body fat was of great value during times when food was scarce. But in the developed western world, times of feast are no longer interspersed with times of famine. For most of us, food is plentiful and it’s a feast all year round.

The health significance of our expanding waistlines is enormous. For the individual, carrying a lot of extra body fat increases the risk of heart disease, diabetes and some cancers, while for government, obesity is already a major cause of rising health expenditure and will increase over the next 20 years.

What’s most concerning to many researchers is the fact that obesity is creeping into generations of Australian families.

While food quantity and lack of physical activity are well documented causes of obesity, UniSA Deputy Vice Chancellor: Research and Innovation, Professor Caroline McMillen, believes that developmental factors are also important in programming our body weight in adult life.

Prof McMillen is co-director, with Dr Janna Morrison, of UniSA’s Early Origins of Adult Health Research Group, which researches how the early nutritional environment of the embryo, fetus and infant is important in determining risk of disease in adult life.

She said research across the world had shown patterns of growth before birth had everything to do with body weight and the risk of developing obesity in later life.

“A large number of studies worldwide have shown that when women go into pregnancy heavy, they have large babies, and those babies then go on to become heavy later in life,” she said. “This has prompted a number of world agencies to consider that in the western world we’re currently experiencing an intergenerational cycle of obesity.

“Our group is working to understand why it is that the baby born to the overweight or obese mother has an increased likelihood of being obese in childhood and in adult life.

“We have proposed that when the embryo and fetus are exposed to relative over-nutrition, there are early changes in the fat cells and the appetite regulatory centre of that baby which are programmed for life, and make them develop very efficient fat storing mechanisms for life.”

Prof McMillen and Dr Morrison are currently leading a National Health and Medical Research Council (NHMRC) funded project into the role of maternal nutrition around the time of conception and the programming of later obesity in the mother’s offspring. They will compare the mechanisms which contribute to obesity in later life after exposure to a high level of maternal nutrition either during the development of the early embryo or during later pregnancy. They are building on work by PhD student Leewen Rattanatray on the specific effects of periconceptual over-nutrition.

“Knowing more about what it is that shapes our metabolism in early life will provide us with a deeper understanding that it’s not just willpower that’s required to overcome the obesity epidemic,” Prof McMillen said.

This is a significant point, especially as obesity has largely been treated by health professionals and governments as an individual problem. But with the ever-rising costs associated with obesity, governments are taking action to address the wider problem through social marketing campaigns and policy development.

In South Australia, the annual cost of obesity including the associated burden of disease, has been estimated at around $4 billion. The State Government allocated $11 million in 2009-2010 to tackle obesity and support healthy eating and physical activity. SA Health runs a number of programs targeting obesity including the Obesity Prevention and Lifestyle (OPAL) program for children and families, and the Go for 2&5 fruit and vegetables campaign.

UniSA Sansom Institute for Health, Research Director, Professor Kerin O’Dea said programs like OPAL, based on a successful French program, had a lot of merit.

“Obesity is an important focus for government simply because of all the adverse health consequences,” Prof O’Dea said.

“The OPAL program is based on early intervention and I absolutely agree with that. It’s also looking at the things I don’t think we have previously done enough of, which is working with local government on things like bicycle paths and walking tracks, and solutions outside of the health system.”

Prof O’Dea recently won an $8 million grant from the NHMRC to better understand diabetes and cardiovascular disease in Indigenous people, which is around 10 times higher than in non-indigenous people.

Prof O’Dea said Australia had adopted many American cultural values towards food.

“At social functions, theatres, movies, even relatively short corporate meetings, food is everywhere,” she said. “We have access to food all the time and it’s energy dense. We can drink calories, we can eat calories, and food labels shout messages at us like ‘low fat’ when actually they’re high in sugar.

“We go to the movies and you hear the rustle of chip packets, Maltesers and popcorn, but to sit and consume food like that in such a passive way outside of meal times is outrageous.”

Prof O’Dea was recently appointed a member of the NHMRC and inaugural Chair of the Council’s new Prevention and Community Health Committee. She has been researching health issues for more than 30 years and says central obesity, where fat accumulates on the stomach, is the biggest concern.
“A lot of people don’t like having big hips, but big hips and thighs are actually relatively healthy,” she said. “It is central fat that predisposes a person to diabetes, heart disease and other related conditions. What I’m interested in is whether it is possible to convert someone from being metabolically unhealthy obese to being metabolically healthy obese.

“We have done studies in women with diabetes showing that if we put them on a standard diabetic diet of high fibre, high carbohydrates and low fat, they lose weight, but they actually lose it from their lower body. However, if we put them on a Mediterranean style diet with olive oil and plenty of vegetables, they lose the weight from their stomach and they actually feel a lot better too.

“We know exercise can do the same, so if you exercise regularly and eat a Mediterranean style diet, you can have a healthier body fat distribution and lower your risk of disease.”

Like Prof McMillen, Prof O’Dea is also interested in what happens to a fetus in terms of determining risk of disease later in life. She says Type 2 diabetes is becoming an intergenerational problem.

“If a pregnant woman has diabetes, and it’s poorly managed, there’s over-nutrition in-utero and there’s too much glucose coming in,” she said. “The developing fetus produces too much insulin, which leads to very big babies.

“But when the baby is born it no longer has its mother’s high blood glucose coming in, so it has too much insulin and is at risk of getting very low blood glucose. Those babies are at much greater risk of becoming fat as children and adolescents and of having early on-set diabetes. Those adolescent females then go on to become pregnant during their childbearing years and their offspring face the same problems, so it becomes a vicious cycle.”

Prof O’Dea said intergenerational obesity could also be linked to intergenerational poverty and unemployment. ABS statistics show 21 per cent of adults in low income households are obese compared to 15 per cent of adults in high income households.

“The cheapest foods in the world are saturated fat from meat and high fructose corn syrup and sugars. These very cheap sources of calories have distorted what we buy in the supermarket. People on low incomes can’t afford to eat a healthy diet with fresh fruit and vegetables, lean meat and fish. Good food is expensive and when you’re on low incomes you’re limited in what you can do and that’s where those cheap, packaged, refined foods will come in.”

Whether it is poverty, overindulgence, lack of education about sensible eating, or a metabolic programming link, it seems that more than ever before, we are passing on a weighty inheritance.

By Kelly Stone

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**Home, sweet home**

To rent or to buy? It’s a question most of us have asked and as interest rates and rents continue to rise, we’re more confused than ever. The ‘great Australian dream’ has always included owning your own home. But in the current housing climate, just what is the right decision? Property expert Peter Koulizos, from the Division of Business’ School of Commerce, gives us the view from both sides of the fence.

If you type “rent or buy” into an internet search, you’ll be bombarded with an overwhelming amount of information offering advice one way or another. My belief is that the decision is relatively simple if you take time to look at the facts.

“**It’s well known that when you rent, you simply pay for your accommodation. Conversely, buying a house can be a way to increase your personal wealth.**”

As you pay the principal off a home loan, your equity (the proportion of the property you own) increases. Also, as the value of your property increases, so does your net wealth.

If you own your home, your mortgage repayments remain about the same over the life of the mortgage, but will be affected by interest rates which will move up and down slightly. Rents, however, will continually increase at approximately seven per cent a year – if you are paying $300 per week to rent today, you will be paying $600 per week in 10 years to rent the same property.

There’s security in being the owner of the home you live in – there’s no chance of being evicted or of losing your place to live because of changes in the owner’s circumstances. You have control over the property – making changes as you wish, while experiencing the joy and sense of achievement of owning your own home.

Of course, buying a home isn’t feasible for everyone. Mortgage repayments are usually higher than the rent would be for the same property.

This means that renters often live the lifestyle they couldn’t afford to buy, as well as having the flexibility of moving around when they wish, provided they give proper notice or negotiate with their landlord.

Comparatively, if you own your home, buying and selling costs restrict how often you can move. It costs approximately six per cent of the purchase price to pay fees such as government and bank charges and four per cent of the sale price in selling costs, like agent’s fees, advertising and bank fees.

When buying a home, you also have to factor in costs for repairs, maintenance, rates, taxes, insurance and other incidentals. This will add about 20 per cent to whatever the rent would be on the property. For renters, the landlord is responsible for all of these expenses.

While there are a number of arguments for and against renting or buying property, I believe that if you are interested in making money, increasing your net wealth and retiring securely, buying a home is the answer. On the other hand, if your priorities are lifestyle, fewer commitments and you don’t mind paying for your accommodation for your lifetime, renting is the better option.

Peter Koulizos, Property expert.
In 1992 a prestigious group of 1700 world scientists sent an official Warning to Humanity about the state of our environment. About 110 Nobel Prize Laureates were among the signatories and they opened with this statement – “Human beings and the natural world are on a collision course”.

Some 18 years on from their call to action—and with a somewhat disappointing outcome from December’s Copenhagen climate change summit still fresh—it seems a united global response to their warning is still out of reach.

It’s clear that the debate around climate change has become deeply political and motivated by economic factors. And, as the media churns around the politics, and the tide of public opinion ebbs and flows on the issue, many researchers believe it just makes good sense to find ways to use our resources more sustainably.

They’ve been making action on climate change the focus of their careers. UniSA Associate Professor in Environmental Mathematics, John Boland has been researching climate change adaptation, energy efficient buildings and renewable energy for more than 20 years.

He says there’s been a dramatic change in the way climate, water and resources are viewed across all levels of society.

“It’s a bit like what they say about rock stars, sometimes it takes 20 years to become an overnight success,” Prof Boland says.

“I used to bang my head against the wall, saying these things were important – not just climate change, but also the manifest waste of resources.

“People would look at me strangely and say it didn’t matter. But today we know people can change their views. Take water usage as an example – it has gone down as people have had to think about things a bit more and change little habits like not watering their gardens in the middle of the day.”

Prof Boland believes we need to embrace new opportunities to innovate and build our capacity for sustainability, particularly in the integration of renewable energy into the electricity grid.

Funded through the Australian Research Council, he’s leading a team of researchers looking at the future of the electricity transmission system.

“We’re trying to do is work out where the best places are to establish renewable energy generating plants such as wind farms and solar power plants, so that they fit most efficiently with the electricity grid as it is now,” he said.

“We’re looking at the whole picture – where there is likely to be growth in demand; where existing transmission lines have to be augmented, perhaps to a higher voltage; and where new ones should be put in.

“We want to learn how far you can go with integrating renewables into the grid and still provide a stable system.”

Prof Boland says finding and implementing alternative power supplies and sources is a significant focus for making sustainable changes to the way we live. While Australia’s overall carbon emissions may be small fry on a world scale—as one of the highest per capita emitters of greenhouse gases among developed nations—Australians need to rethink their habits and their technology.

Prof Boland believes the quest to make alternative power supplies both viable and integral to the overall power supply, must be high on the agenda.

“Where there is genuine concern for this as a global issue, technological discoveries will be made,” he said.

Associate Professor Jon Kellett, chief investigator for three ARC Linkage projects examining the development of carbon neutral communities, says it will be what we can achieve at the local level and how we get community buy-in that will make a difference.

“...awareness and the desire for change is stronger than it has ever been”

Working with colleagues at RMIT University and the Cities of Playford and Onkaparinga, and Manningham Council in Victoria, his research team is assessing the potential of establishing renewable energy generation within urban areas.

“We’ve done quite a lot of analysis looking at how much roof space is available for solar panels and how much energy that would give us if we exploited it as much as we could,” Prof Kellett says.

“We’ve also looked at wind farms and how we might install larger scale ones in rural locations but also smaller scale farms within the urban area—on roofs, on posts in gardens, in public spaces—because as new wind technologies emerge these collectors could be integrated into the suburban landscape.

“Even tree and garden clippings, straw from agricultural processes and poultry and pig litter from intensive farms can be used to generate energy.”

Prof Kellett says research shows that up to one-third of the current energy demand could be met from such sources. The big hurdle is developing the planning policies that would support this kind of local innovation.
“We need to understand what people would be prepared to live with and how that could be managed in the suburban and community context,” he says.

“Would we be prepared to have small scale wind turbines in the reserves around our homes? Are people willing to invest in photovoltaic panels or solar hot water panels on their roofs? The evidence so far suggests they’re not – otherwise solar panels would have had a much greater uptake.

“So as well as planning and environmental research, there is rightly a lot of psychological research emerging around the factors that influence behavioural change and alter what we accept as the norm.

“To move any of this ahead, we need to influence behaviour and change society’s practice and attitudes so that less carbon intensive lifestyles are ingrained.”

And while attitude change is vital – people also need to understand what is possible and tangible.

Recycling and saving energy will be one platform for reducing emissions, but in the 21st century, sustainability will be as much about having the technological capacity for change within grasp as it is about conservation.

Director of Research of UniSA’s Institute for Sustainable Systems and Technologies, Professor Wasim Saman, believes people want to help save the planet.

“I think the awareness and the desire for change is stronger than it has ever been – people just need the tools to make change,” he says.

“Our research is about developing practical methods to make everyday household energy use a whole lot more efficient.”

The Sustainable Energy Centre, a key component of the Institute for Sustainable Systems and Technologies, has rapidly developed a reputation internationally for its solutions-focused sustainable energy research.

It is a key player in the development and improvement of solar hot water systems technology and has been working on perfecting solar powered air-conditioning and heating systems which Prof Saman says are not far away from commercialisation.

“Our overall aim is to develop simple systems that can be used in the home to provide hot water, heating and cooling, all powered by the sun,” Prof Saman says.

Along the way the Centre has been able to help improve the efficiency of conventional heating and cooling systems with industry partners such as Seeley. Earlier this year, the company released what it touted as a “breakthrough of the century”, a new Climate Wizard evaporative cooler.

“This new system uses less than a quarter of the energy the old systems used – a very significant energy saving,” Prof Saman says.

By far the Centre’s biggest project is a solar thermal system for generating and storing electrical energy. Now under development in Whyalla in partnership with Wizard Power, the project involves four giant dishes, each one 500 square metres in area, which concentrate the sun’s energy to generate steam at a high temperature, which is then used to generate electricity.

Prof Saman says the aim of another research project is to perfect a solar-based system with the capacity for energy storage so that it can generate electricity 24 hours a day.

“We have plenty of natural resources in this country and we need to look at the sun as a serious competitor with coal and nuclear energy,” Prof Saman says.

“If we can develop the technologies to harness solar and wind energy practically and efficiently, we have a whole new industry in knowledge transfer and at the same time we will reduce our impact on the environment and may be able to export renewable energy instead of exporting coal.”

After 30 years in the field of energy research, Prof Saman says he is finally seeing the research around renewable energy validated and respected. He has strong faith in the fact that change in the attitudes of everyday Australians will drive political change.

“I think people are expecting, even demanding change, and that will guide politicians to take action on reducing emissions,” he says.

“That’s my expectation… but I’m an optimist.”

By Kelly Stone, Michèle Nardelli and Katrina Kalleske
There was more than a snow storm brewing as 40,000 delegates gathered in frosty weather to decide the fate of the earth at the United Nations Climate Change Conference in Copenhagen.

The irony of a cold snap was not lost on attendees. Amid talk of a heating planet, the gloomy weather seemed out of place. In the end it was the perfect backdrop to the sombre mood that prevailed over 12 days of negotiations. The aim of the summit was to find a global climate change solution that would operate beyond the 2012 end date of the Kyoto Protocol.

Environmental lawyer of 30 years and Councillor for the Australian Conservation Fund, UniSA Adjunct Professor in the School of Law Rob Fowler, has been an active witness to the controversial journey of the climate change debate since the mid 80s, so he could hardly keep away from Copenhagen.

“This has been arguably the most talked about climate change event yet,” Prof Fowler says.

“The high profile of the Copenhagen Summit seems to have aroused renewed scepticism around the subject.

“Over the past 20 years, there’s been a swinging pendulum between doubt and acceptance of the science of climate change.

“Climate change gets a lot of negative publicity in the popular media. And the difficulty in convincing the public is that, while we hear of climate change, many people can’t really see the effects in our immediate environment.

“Politically, things have also swayed back and forth. In the Hawke era, there was an acceptance by the government of the legitimacy of climate change. This gave way to a period of doubt, but now the Federal government has a clear position of accepting the science and this aligns with the global position."

Prof Fowler says it is significant that in Copenhagen no one challenged the basic science behind climate change.

“Most countries believe human-induced climate change is a reality,” he says.

“The issue now is how we come to an international agreement; develop the right legal architecture to halt climate change with each country playing their part.”

While countries were accepting of the problem, Prof Fowler says it was clear from the very early stages of the December Summit that a definitive agreement would not be reached.

“Leading up to Copenhagen, many developed countries had failed to cement their commitment to reducing carbon emissions by a nominated percentage by 2020, or to commit to helping developing countries financially,” he says.

“As US President Obama put it, there is a deadlock between developed and developing countries. Developed countries like the US, Australia and Europe are asking developing countries like China and India to commit to carbon reductions before making further commitments themselves.

“Developing countries have an attitude of ‘don’t tell us what to do until you have done more yourselves’. Plus, they see climate change as largely the problem of the developed, industrialised world. They sense a lack of accountability from those they see as having created the problem.”

As countries argued around this stand-off during the summit, Prof Fowler says it became very clear that an alternative to a binding agreement would be the only resolution.

The resulting document, the Copenhagen Accord, is a non-binding agreement drafted by Brazil, China, India, South Africa and the United States that agrees to the continuation of the international negotiation process and acknowledges the scientific case for keeping temperature rises below two degrees Celsius.

It does not set out emissions targets, but has made the provision for both developed and developing countries to submit emission targets for 2020, which will then be annexed to the Accord. It has also indicated a commitment by the industrialised countries of US$30 billion towards support for developing countries over the next three years.

“While non-binding, the Copenhagen Accord leaves the door open for countries to continue negotiations and to continue laying their cards on the table,” Prof Fowler says.

“"To say Copenhagen was a ‘fiasco’ is a gross misrepresentation"
“In fact, because it is non-binding, countries may feel more comfortable in identifying their position voluntarily and that actually brings us one step closer to the creation of a formal agreement at the next meeting in Mexico City at the end of this year.”

After an enormous build up to Copenhagen many labelled it a failure, but Prof Fowler says that this attitude goes hand in hand with a lack of understanding of the difficulty of the process.

“When you have so many countries, all with different political and economical agendas, getting together to decide on an issue, it is always going to be a lengthy process,” he says.

“What people forget is that, despite the lack of formal conclusions at Copenhagen, the legal frameworks that countries have already agreed on—like the Kyoto Protocol—remain in place.

“To say Copenhagen was a ‘fiasco’ is a gross misrepresentation. On the contrary, I think it was a very qualified success that has left open the opportunity for a comprehensive agreement to be achieved in Mexico City.”

As evidence, Prof Fowler cites the fact that two of the world’s most resistant countries, China and India, have announced carbon emissions’ targets since Copenhagen under the Accord. He says many believe this is a clear indication that those key nations are willing to continue to negotiate.

The lack of agreement in Copenhagen has raised a lot of questions about the efficacy of international bodies in achieving global goals. It could be juxtaposed with the failure of the United Nations to prevent further wars after the signing of the Treaty of Versailles post World War I. And many argue that the United Nations and its globally collaborative structure is a flawed model, but Prof Fowler disagrees.

“People say dealing with issues such as climate change through international agreements doesn’t work,” he says.

“But given the global nature of the problem, there’s really no choice but to have a global solution – if we can’t, as a civilisation, find a way of achieving global goals, what hope do we have?”

Prof Fowler says the effects of inaction on climate change can be seen very close to home.

He says the small low lying nation of Tuvalu, which lies in the Pacific Ocean midway between Hawaii and Australia, will be the first nation to disappear as a result of climate change.

“These people will soon become our first climate refugees,” he says.

And it is for these reasons that those who have tracked the course of the debate over the years, like Prof Fowler, see the way forward as very clear.

“Climate change won’t solve itself,” he says. “As a world, I say we should take a deep breath and go back into battle.”

By Heather Leggett

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**Low energy homes: Lochiel Park**

Lochiel Park is a South Australian Government initiative that is essentially a model of a green village, incorporating a range of best practice sustainable technologies.

UniSA’s Sustainable Energy Centre worked with the Land Management Corporation in developing Lochiel Park’s environmental guidelines which include improving the energy performance of house designs, selecting solar electrical and solar hot water systems, and energy efficient appliances.

“The homes in Lochiel Park are almost net-zero energy homes, because in many cases, the energy they generate is sufficient to provide for their own requirements,” said Wasim Saman, Professor of Sustainable Energy Engineering.

“We have a whole housing estate, which on a world scale is a good example of how future developments can be made with very little contribution to emissions.”

Associate Professor in Environmental Mathematics, John Boland, explains the capping of power for Lochiel Park residents is a good model to follow.

“Residents have an agreement that they will not use higher than a particular level of power,” Associate Prof Boland said. “So on a hot summer’s day, if they turn on their air conditioner, then turn on the washing machine and start vacuuming, they’ve got a mini smart grid system that will automatically turn off the washing machine for example, because they’ve gone over the peak they’re contracted for.

“I guess it’s commonsense not to vacuum and wash with the air conditioner going full throttle, but a lot of people do it.”

Prof Boland and colleagues were involved with estimating the ecological footprint of Lochiel Park. With all houses powered by solar energy, the ecological footprint is 6.25 global hectares per person, a reduction of about 10 per cent on South Australia’s average use. In the Netherlands it’s less than 5 per cent while Italy is about 4 per cent. Prof Boland explains that the higher density housing in those European cities gives them a much lower footprint than South Australia where people have more space and therefore use more energy for aspects like travelling.

Prof Saman said Lochiel Park was also proving that the current methodology used for rating energy efficiency in Australian homes should be improved.

“Our research has contributed to re-defining the national home energy rating system,” Prof Saman said.

“The current minimum rating for new homes is 5-star. Soon many states will be demanding 6-star, but the minimum rating of houses in Lochiel Park is 7.5-star and some are above 8-star.”

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www.facebook.com/UniSA
Dr Ferguson has been with UniSA for 10 years and spends her days investigating sleep and biological rhythms. She works with industry and the community, either helping them with sleep and human factors (such as occupational health and safety) or recruiting them for research projects. She also works with research and PhD students from various disciplines across the University.

What are you researching?
Sleep! My research focus is generally around what happens when you don’t get enough sleep, how to improve your chances of getting sleep and how work impacts on sleep.

What attracted you to this research field?
My early years in research were spent trying to understand the way in which the biological clock works – how it keeps animals ticking along, how it stays synchronised with the external environment and what happens when it gets out of whack. While that was fascinating work, I wanted to be able to apply my research findings in a more direct and obvious way. So I joined the Centre for Sleep Research which has a very strong focus on human sleep, work and play.

How do you hope to make a difference?
There are two main ways. The first is through a better understanding of the way sleep influences all aspects of our lives. And the second is a more specific focus on health, safety and well-being at work. About 20 per cent of the population works at times of the day and night when humans are programmed to be asleep. This has implications for all sorts of things including safety at work. Understanding the way that work impacts sleep, which in turn impacts fatigue-related risk, will ultimately result in systems of work that better protect people from that risk.

What’s most fascinating about the work?
That everyone is eager to talk about sleep. Whether they sleep well, or poorly, everyone does it. It is a great privilege to be involved in research that has such wide-reaching applications. And also, it fascinates me that we still don’t really know what sleep is actually for!

What is the most rewarding aspect of the work and the most frustrating?
The most rewarding aspect is being able to give people information about sleep and biological rhythms that they might not know. And more importantly, that they are then able to use that information. The most frustrating aspect is that there are so many questions still left to answer and not enough hours in the day. I’m not willing to give up my sleep to fit them all in!

What has been a career highlight?
I have highlights fairly often and they are mostly associated with me being able to translate the science into practical information that individuals and organisations can use. I spoke to a room of 400 coal-miners recently about sleep and the biological clock, and that is an enormous privilege. I think most of them stayed awake to listen too.

What are your goals for the next year?
To continue supporting students and see them grow into researchers; answering some more questions and solving sleep issues; and continuing to have fun.

Any advice for new researchers?
Read, read, read. Immerse yourself in your field of research but also read around the edges of it as well. Take time to think about the questions that you are interested in. Passion for answering questions is the key to getting through any of the tough moments. And make sure you get enough sleep!
The national school curriculum. Will it work?

It is proposed that a national curriculum will be introduced to schools across the nation from 2011. But is a national curriculum what is needed? And how does the current proposal shape up? Professor Emeritus Alan Reid, from UniSA’s School of Education, takes a look at the curriculum poised to shape the budding minds of our nation.

At the beginning of March 2010, Federal Minister for Education Hon Julia Gillard MP, released four draft curriculum documents in maths, science, history and English, which will form the core of Australia’s first national curriculum. They are available for comment during a ten-week consultation period.

In my view the idea of a national curriculum for Australian schools is long overdue. An official curriculum should reflect the kind of society we are and want to become; and seek to develop the sorts of capabilities that young people need to become active participants in our political, economic, social and cultural life. This is a national aspiration.

However, achieving these goals depends on the quality of the curriculum that is designed, and I have some significant reservations about the current drafts. These concerns relate to the shape of the curriculum overall rather than to the fine detail of each subject, which has tended to be the focus of commentary in the media.

First, we have been given no sense of the overall curriculum. Initially, only four subjects were announced. Now, after intense lobbying from a range of subject associations, it has been agreed that the second phase of the curriculum will comprise languages, geography and the arts. Drip-feeding subjects like this is no way to design our first national curriculum. We can’t comment on parts of a curriculum when we don’t know the answer to such basic questions as – what is core and elective; what are the weightings given to each subject; and what happens to areas of the curriculum which have not been named so far, such as health and physical education, and design and technology?

Second, the drafts are superficial in relation to some important aspects of learning for the 21st century. For example, there is no mention of cross-disciplinary learning—a very confused approach to assessment—and a simplistic view of equity as being simply the naming of under-represented people and groups.

Third, the process is being rushed without adequate consultation with the profession and the broader community. After this ten-week consultation period, the Australian Curriculum and Assessment Authority (ACARA) will produce the final documents and distribute them to every school in the country in August for implementation in 2011.

That is, teachers will only have about three months to acquaint themselves with a brand new curriculum before implementing it at the beginning of the 2011 school year. This unseemly haste is contrary to everything that we know about sound professional development practices and educational change.

More than this, there has been no systematic attempt to work with University Education Faculties to address the short term need for professional development programs in new aspects of the national curriculum; or the ongoing need for changes to undergraduate programs, including the expectation that all primary teachers will be trained to teach history.

In my view, given the magnitude of some of these problems, Minister Gillard should delay the implementation of the national curriculum by 12 months to allow for a proper and extended dialogue with the teaching profession who are, afterall, the people upon whose expertise the success of our first national curriculum rests.
Down but not out – understanding depression

This year’s announcement of psychiatrist Patrick McGorry as Australian of the Year has brought mental health into the spotlight. In a public sense, the award represents a significant acknowledgement of mental health as a growing national concern. Professor Nicholas Procter, Chair of Mental Health Nursing at UniSA, talks about the most common mental health problem in Australia—depression—and how to recognise and treat it.

Depression is a word we often use lightly. We say we are depressed when we are stressed or sad. They are feelings we can all expect to experience at some stage in our lives. But serious depression is a form of mental illness where the feelings of sadness don’t just blow over.

Called clinical depression, this form of mental illness affects a person’s mood over a long time. Telltale signs are feeling very sad for no clear reason, losing interest in things you used to enjoy, crying without cause, excessive worrying, having problems with concentration and decision-making, and sleeplessness or oppressive tiredness.

For some people, clinical depression is often accompanied by real difficulty in being able to function effectively at work or at home. People with depression say they experience this as a feeling of being suspended or floating (feeling out of it, dreamlike, or disconnected from others). They can also feel unexplained worry, anxiety and irritability.

Every year about six per cent of adult Australians—that’s more than 1.3 million people—are affected by a depressive illness.

Depression can have straightforward causes – a reaction to a distressing situation like the death of a loved one, divorce or job loss. This is known as reactive depression. But depression can also be unrelated to an outside cause. Sometimes it is associated with a chemical imbalance in the brain – known as endogenous depression. What is important to know is that in any instance, depression is a treatable condition. It is also important to realise clinical depression is not something people just snap out of or get over without support.

Effective treatments can include a combination of interpersonal counselling, medication and a plan of social and community support. Counselling involves talking to a doctor, psychologist, nurse, or counsellor who is trained to provide a supportive environment in which to help the person learn about their symptoms and discuss alternate ways of thinking about and coping with them.

In many cases medications can help the brain restore its usual chemical balance and help to control some of the symptoms of depression. Medication is often used in combination with counselling. Social and community support, mutual support groups, friendships and help with everyday things at home and work, concentrating and taking-in information, physical exercise, training and education, also play a part in beating depression.

Depression is something we all need to learn about. Given the current statistics, the chances are at some point in your life you will have to deal with clinical depression – through a friend, colleague, relative or even at a personal level.

SANE Australia (www.sane.org.au) produces a range of easy-to-read publications and multimedia resources on mental illness, getting help and how to help others in need.
One giant step: starting uni

In Milton Bradley’s board game, the Game of Life, the transition to university is a simple case of placing your marker on the right square, borrowing $40,000 from the bank and taking a roll of the dice.

But for more than 100,000 students nationwide who started university in 2010—those from Australia and abroad, school leavers and mature agers—the moniker “student” can be a challenging one.

The transition, for some, is fraught with anxiety, confusion and trepidation. For school leavers, university can seem a giant leap from their teacher and parent nurtured school days to a world that holds a new level of unbridled responsibility. And for mature age students, simply re-entering a world largely seen as the domain of bright young things can be overwhelming in itself. So just how do the “first years” make the leap?

For school leaver Rebecca Denyer it’s a case of leaving behind one identity and taking on a new one. The 17-year-old started a Bachelor of Arts (Australian Studies) at UniSA this year and admits that while she was apprehensive about going to university, she recognises the significance it will play in her life.

“In some ways I feel like I’m too young to be going to uni, but I’m also interested in the changes it will make in my life,” Denyer says. “I know that at university you have to be more independent and I’m looking forward to that freedom.”

Like many people her age, she is already anticipating the tangible changes in her lifestyle, marking a clear divide before and after university.

In the early 1900s French Ethnographer Arnold van Gennep published Les Rites de Passage (The Rites of Passage), a book that identified three phases individuals experience when making the transition from one phase of their life to another.

Written to apply to common rites of passage of the day, like going to war, getting married or coming of age, the three phases—separation, transition and reincorporation—have since been applied to other major life changes.

In the transition phase, those making the change hover between their former and new selves. For university students, this is the time when anxieties and concerns can rear their head. It is during this period where orientation programs can be vital for students. Networking activities, barbecues and sporting events are all common activities that aim to develop a bond between students and introduce them to the freedoms of university life.

Mary Ann Seow, from UniSA’s Learning and Teaching Unit, knows firsthand how vital the transition period can be. As the point of call for many international students starting university, she plays a key role in assuring their fears and says it’s important to provide support for students from the very beginning.

“We see orientation as being the start of a transition to a completely new environment, where they encounter not just new ways of learning, but new friends and in many ways a whole new life,” she says.

At UniSA, orientation activities run from mid to late February and are unique to each campus. The chance to meet other new students, liaise with ‘U-buddies’ (existing students) and indulge in sports, are mixed with information sessions, from inductions tailored to each program, to practical sessions on how to use public transport and on-campus computers.

For students, this experiential and psychological preparation can be essential to their ultimate success.

In 2009, the Whole of University Experience Project funded by the Australian Teaching and Learning Council examined the reasons behind first year attrition across six Australian Universities. They found that failure to enjoy the intellectual challenge of study, perceptions of insufficient ability to succeed and feelings of not belonging to the university community were all strongly identified as reasons for dropping out.

“We see orientation as being the start of a transition to a completely new environment”

With national rates of attrition in the first year hovering at 16.9 per cent, and students entering university from a diverse range of backgrounds, the importance of being adequately prepared for just what university life entails can’t be underestimated.

Professor Margaret Hicks, Director of the Learning and Teaching Unit at UniSA, says that this needs to include both a social and academic orientation.

“During orientation, students find out what their program is about, what they can expect from their lecturers and what is expected of them academically. Staff provide information on services and also run transition workshops to help students make the adjustment to university life,” Prof Hicks says.

“Our research has indicated that if students attend orientation, they know where to go to get help early and this helps them to settle in with both university life and their studies, particularly for international students.

“If they do not, the chances of them getting lost in the system are increased and can lead to problems and failures.”

By Heather Leggett
Mary Ann Seow moved to Adelaide 30 years ago to study. She now helps international students who are experiencing the same adventure in her role as Consultant: International, with UniSA’s Learning and Teaching Unit.

What is your role at UniSA?
I am the Consultant: International, a position I have held since mid-2008. I work very closely with staff across a broad section of the University, as well as students, on all manner of matters relating to international students at UniSA. In my role I also liaise with representatives from external agencies, community groups and government.

How long have you worked here and what keeps you in the job?
If you include the antecedent institutions, then I began employment in 1989 starting at the old South Australian College of Advanced Education. I had a few years off along the line but it’s now 15 plus years. During that time I’ve had seven different positions so there have been few dull moments. And if I hadn’t gone through all those experiences then I might not have ended up in the job I am in now. I love what I do now and think I have “found my calling”. I like the challenges, variety and scope of my role, and of course the people I get to meet and work with.

What do you like most about your job?
International education is a dynamic area – you meet really interesting people from all over the world and each day is different and so unpredictable. I also love being able to unpack issues and help staff and international students.

What’s the best piece of advice you have received?
Carpe Diem

What are some of the issues that keep you busy at work?
UniSA has over 3500 international students studying at our four metropolitan campuses so there are lots of issues to deal with everyday. This area is very dynamic, from helping students and staff to resolve issues, to dealing with government documents, policies and critical incidents. A typical day always starts with checking out media and email. I get queries from staff seeking assistance on how to deal with student issues. There will be ongoing planning and review of activities and resources, and sprinkled in there will be responding to requests for information from management. A critical incident involving an international student is probably one of the more complex issues as it involves multiple parties including family and the relevant Embassy and staff across the University.

What are you looking forward to in the next year?
2009 was a huge year for international education – it will be remembered as a “watershed” year for international education in Australia. This year will be just as interesting with the flow-on effects from last year’s events and the release of government reviews. I can only wish for less turbulence this year. I will also have my son in Year 12 which should be interesting.

What or who inspires you?
Nelson Mandela and Martin Luther King Jr inspire me because they believed that everyone should be treated equally and not by the colour of their skin. The international students also inspire me. They make that big step to leave home, family and everything familiar to come here to study. There are enormous sacrifices on the part of their family. They inspire me because I appreciate how hard it is to do this as well as study and do well in a foreign language, in a foreign country.

Beyond work, what are your interests?
Food! My cultural heritage is Singaporean and we live to eat. I love cooking and experimenting on family and friends. Some work better than others. I think I make a mean laksa but I have far too many cookbooks. I need a garage sale on them I think. I also like travelling and visiting new places.

Where did you grow up?
Singapore. Its very cosmopolitan and vibrant. I grew up with friends from different cultural and religious backgrounds including Aussie expatriates. It was all so normal to hear different accents and see different ethnicities everyday. Coming to Australia was very different 30 years ago. When I first arrived as a student in Australia, I was asked where Singapore was, whether I lived in a house and how come I could speak English. I used to explain Singapore in relation to Bali – “draw a line NW from Bali and extend it and you hit my country!” Times have certainly changed. Now not only are young Australians seasoned international travellers, we have a whole suite of services for international students. Then, we had to fend for ourselves with very little assistance from the university.

What are you reading right now?
In my job, I read a lot of reports, research and policy. For leisure I love a good story but veer towards mystery thrillers. I have just finished reading one by Jim Butcher about a private investigator who is the only professional wizard listed in the Chicago Yellow Pages – part of The Dresden Files book series. He has a talking skull advisor called Bob, a vampire for a half brother and works as a consultant for the Chicago Police when they have mysterious events to deal with.
$8m for Indigenous health project

The National Health and Medical Research Council has awarded UniSA researchers more than $8 million to work on an Indigenous health project. The researchers will investigate the causes, appropriate interventions and health system changes to help reduce the incidence of adverse health impacts of diabetes and cardiovascular disease in Indigenous populations.

Lead investigator of the research is the Director of UniSA’s Sansom Institute for Health Research, Prof Kerin O’Dea who will be joined by UniSA Professors Robyn McDermott, John Lynch and Leonie Segal, and Kevin Rowley from the University of Melbourne.

“The impact of diabetes and cardiovascular disease is devastating because it is affecting Indigenous people at such young ages, and at rates around 10 times higher than non-Indigenous Australians,” Prof O’Dea said.

Better implants

UniSA’s Professor of Surface Science, Hans Griesser, will lead a project that will help to reduce the risk of infection for patients with knee and hip implants, catheters and pacemaker leads.

The project has been awarded more than $500,000 in funding over two years from the National Health and Medical Research Council’s Development Grants.

The team will develop silver nanoparticle coatings for the prevention of infection in biomedical implants and devices.

“This project will deliver new flexible technology to overcome the limitations of current technologies,” Prof Griesser said.

Fulbright focus on pigs

A current UniSA MBA student will travel to the United States later this year after winning a prestigious Fulbright Scholarship. Associate Professor Steven Lapidge will spend three months at the US Department of Agriculture National Wildlife Research Centre in Colorado, to test a pesticide that has great potential to humanely control feral pigs.

“By the end of my three months, I hope to have a proof of concept tests on the pesticide complete for numerous potential target and non-target species and be moving towards developing species-specific baits and mechanical delivery devices,” he said.

How do we develop our cities to make them sustainable?

It is predicted that the global population will increase from nearly seven billion to nine billion by the middle of the century. Naturally, cities will need to grow to accommodate increasing numbers of residents but how can this be done sustainably?

Dr Stephen Pullen, a Building Scientist with the School of Natural and Built Environments, explores how we can develop our cities to make them more sustainable.

Public transport is an important planning factor for cities with reliance on cars making up a large proportion of energy and resource use, as well as greenhouse gas emissions. Therefore the provision of better public transport systems is a major contributor to more sustainable cities. Thankfully many cities around the world have recognised this and public transport is now firmly set on their planning agendas.

Improved building performance is another aspect to consider. Emissions can be reduced through using more energy efficient appliances and renewable energy devices as well as improving thermal behaviour that offers the possibility of moving towards zero carbon dwellings. An essential component of this is to upgrade existing buildings. The more efficient use of water, recycling of water and water sensitive urban design, are also very important for buildings and the built environment in many parts of the world.

There is also the issue of embodied energy of new developments, that is, the energy consumed in manufacturing new building materials and in the construction process. In the short term, the energy used to make new materials will counter the energy savings made with better performing new buildings. This raises the question of using recycled buildings and construction materials in new buildings to minimise this effect. The concept of buying a new house made from old materials may take some time to be accepted though.

One approach to sustainable development is by doing more with less as exemplified by the so-called “Factor Five” ideas of environmental scientist Ernst von Weizsäcker in seeking “80 per cent + improvements” in resource and energy productivity. Under this theory, what is important is receiving the service not owning the product, for example hiring a car rather than owning one. Similarly with cities, it is the ability to provide the service, whether it be medical, education, sport or entertainment that is important, not how extensive the facilities are. This leads to the concept of sharing and integration of multifunctional buildings, facilities and locations.

“A critical part of sustainable development is to comprehensively analyse and monitor changes to ensure that the desired outcomes are achieved”

For instance, recent research at the School of Natural and Built Environments has questioned the concept that inner city apartment living is more sustainable than suburban living. This work suggested that simply building high rise dwellings in a central location does not, by itself, guarantee more sustainable living.

Underlying all of these technical challenges of sustainable development, is the need for changes in attitudes and behaviour from “bigger is better” to “different is better”.

Autumn 2010 UniSA Magazine
ALLIED HEALTH PROFESSIONALS & THE LAW

Edited by Rosemary Kennedy

RRP: $59.95
Published by Federation Press, 2009

This book explains the legal side of a wide range of allied health positions to help such professionals in their day-to-day work.

UniSA’s Rosemary Kennedy, a Senior Lecturer with the School of Psychology, Social Work and Social Policy, has edited the contributions from 11 well known Australian legal experts and allied health authorities with legal expertise. The chapters they have each written focus on a range of significant practice-related topics, for example, confidentiality and privacy, occupational regulation, unprofessional conduct, and maintaining professional competence.

“The book intends to increase the legal literacy of allied health practitioners, and ultimately the quality of the services they provide,” Kennedy said.

“Psychologists, physiotherapists, radiographers, speech pathologists, podiatrists, occupational therapists and other allied health practitioners, operate in an increasingly complex and risk adverse world where they are buffeted by conflicting imperatives and aspirations.

“Much of the contextual static in this world is caused by myths, fears and confusion about legal obligations, rights and risks. The book aims to reduce uncertainty about the law and demonstrate how the law can be used in the interests of confident and sound practice.”

Kennedy says the book will expand the legal knowledge of readers, whether they are practitioners seeking to understand the legal aspects of their work, or researchers engaged in analysis of professional matters which have legal dimensions and implications.

ADELAIDE: WATER OF A CITY

Edited by Christopher B Daniels

RRP: $150.00
Published by Wakefield Press, 2010

One of the biggest issues facing South Australia—water—has been comprehensively tackled by local experts in Adelaide: Water of a City.

UniSA’s Professor of Urban Ecology Chris Daniels is Editor in Chief of the book, which includes contributions from 130 predominantly South Australian authors from academia, government, industry and private enterprise.

Daniels says the book looks at the environmental, climatic, engineering, historical and social issues, problems and pitfalls Adelaide faces in understanding water in the city.

“It is a book that informs both the public debate and the development of water policies at many levels,” he said.

“While this book is not meant to be a policy document in itself, there is substantial information and advice for individuals and communities at all organisational levels to assist them in their planning for a sustainable, water wise future.”

Daniels says water is a huge topic but the underlying message is one of sustainability.

“To be sustainable in our water use we need to understand and appreciate the water cycle in our region, the historical development of our water use systems, and the economic, social and political imperatives that shape both our individual requirements and usage and the needs of the local environment,” he said.

“However, the book goes further than this. It also illustrates the directions being taken by government at all levels, private businesses and organisations, and even individuals as we move towards an understanding and implementation of integrated water management.”

With photography by John Hodgson, the book is suited to a wide audience including students, researchers, policy makers and industry.
SAVING PANDAS

By Dr Carla Litchfield

RRP: $16.99

Published by black dog books, 2009

It is estimated that less than 2500 adult Giant Pandas remain in the wild, with zoos and breeding centres now vital for the preservation of this species. Saving Pandas is part of the black dog books series, Rare Earth, which takes a look at those creatures which are most under threat and explores what is being done to help them.

The book is written by Dr Carla Litchfield, a lecturer at the University of South Australia and a scientist at Adelaide Zoo, who has worked in zoos and sanctuaries around the world.

“I wanted to write this book to give young readers a personal connection to pandas and to explore conservation issues in a positive way,” Dr Litchfield said.

“I think it’s very important for young readers to be empowered to feel that there is actually something they can do to help save endangered animals.”

The book highlights the animal-to-human connection and the role of zoos and sanctuaries, to show that humans can cause problems but can also help to solve them.

Exploring topics such as the life cycle of the panda, mating habits, diet and conservation, and with glossy, full-page images and small pieces of text as well as a glossary and index, Saving Pandas is suited to both very young readers, as well as older readers looking for an introduction to these amazing creatures.

Dr Litchfield is currently working on another book for the Rare Earth series – Saving Tigers.

Len Colgan was a Senior Lecturer of Mathematics, working at UniSA for 37 years. His love of solving problems continues with Colgan’s Cryptic.

ACROSS

1. Large boundaries confine animal to a fold (5)
2. Jimmy, with our group around, gets to his feet (7)
3. Curator restricts activities of cricketer (13)
4. Severe setback for Spooner’s red bird (8,4)
5. Suggestive skirts possessed by young (11)
6. In the Bible, Saul postdates him (4)
7. Engineers give bare details using excess of words (8)
8. Arrangement is helping to succeed or bust (13)
9. Wind affected hearing, leaving one cut off (7)
10. Took in food – it’s passed around new centre (5)

DOWN

1. Made from delicate fabric drapes for example, it is handed down (6)
2. Central source of support is, by large measure, Flagstaff (8)
3. Still waiting to be posted, one intellectual becomes tough-minded (13)
4. 17’s caught in reverse spin (4)
5. Eat something before major crop producer gives replacement (13)
6. Bends over large lounge (6)
7. Protective cover for fink turned lacklustre (8)
8. Cause disfigurement – it will make him hide (6)
9. Restrained Toben typically is upset (6)
10. 5 raised eye suggestively (4)

Answers will be published online at www.unisa.edu.au/news/unisamagazine on May 14th 2010.

For your chance to win a $40 book voucher, send your completed crossword to Len Colgan by May 10th to len.colgan@unisa.edu.au or fax (08) 8302 5785.
TO GET AHEAD OF THE REST, DO AN MBA THAT’S AHEAD OF THE REST.

Ranked 6th in the recent 2009 survey, this is the 2nd successive survey in which the University of South Australia is a “Top 10” MBA in Australia as ranked by the Australian Financial Review’s BOSS Magazine.

For the 2nd successive year, we have been rated as a 5-Star MBA in Australia, as determined by the Graduate Management Association of Australia, and published in the Good Universities Guide.

We have been ranked in the world’s Top 100 for our focus on social, environmental and sustainability issues in our MBA. The “Beyond Grey Pinstripes” ranking is done every 2 years by the Aspen Institute.

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