Cover images:

Hanging Cloud, detail from prize winning work by Marinel Dator and Katie Yeung, undertaking within the Sustainable Architecture Research Studio.

Flaneurs Trace, from the Urban Realities and Augmented Play exhibition of works from students from the Master of Interaction Design and Electronic Arts, by Stephanie Fynn.

Page 1 image: Musical Chairs, produced as part of the Youtopia project in conjunction with the Festival of Sydney, by Renee Blyth and Ellen Rosengren-Fowler, from the Digital Architecture Research Studio.
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As we come to the beginning of the 2012 academic year, I would like to take this opportunity to reflect back to our highlights and achievements over the past 12 months. I would also like to talk about the developments I envisage for the Faculty during 2012, as we move into a period of advancement and growth.

In 2011, I had the pleasure of formally recognising a high level of achievement in the Faculty, both academic and within our alumni community. In May, we presented over 100 prizes and scholarships awarded to undergraduate and postgraduate students. These, and our students’ success in domestic and international competitions, are indicative of the fact our students are among an elite group of high achievers. In August, we recognised the outstanding achievements of the recipients of the Faculty Alumni Awards for 2010 and 2011 and I congratulate again the recipients of these awards. This was a highly successful evening and an honour for us to have the opportunity to formally recognise the achievements of our alumni.

The Faculty has an outstanding reputation for research across all four disciplines, with an enviable publishing record. It is the home of a number of respected academic journals including Architectural Science Review and Architectural Theory Review, while the Planning Research Centre continues to lead applied research on urban planning issues in New South Wales and Australia. A number of staff across the disciplines have received significant research grant funding that plays a key role in furthering the collective knowledge in our fields. It is a record we are committed to develop even further in the coming period.

I would also like to mention the strength of our students and alumni community. Those alumni who have already volunteered for student mentoring will know the increased confidence students gain from your industry knowledge and experience. Additionally, with the help of our alumni we are running programs for our international students, aimed at introducing students to one another and providing mentoring and support. I would like to thank alumni members who have hosted events and volunteered already. I know they were wonderful successes and I thank you for your time.

I have an immense sense of pride in the Faculty, a pride I hope you share with me whether you are a friend of the Faculty, a student or an alumni member. Over the course of 2012 I will be hosting several alumni events and I encourage you to attend. I look forward to sharing with you our challenges and achievements as we continue along this journey of educating the brightest architecture, design and planning minds in Australia.

John Redmond,
Dean, Faculty of Architecture, Design and Planning
## FACULTY AT A GLANCE

### Students

<table>
<thead>
<tr>
<th>Student enrolments (2011)</th>
<th>Part time/full time mix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research</td>
<td>Full time students</td>
</tr>
<tr>
<td>94</td>
<td>916 (75%)</td>
</tr>
<tr>
<td>Postgraduate coursework</td>
<td>Part time students</td>
</tr>
<tr>
<td>564</td>
<td>312 (25%)</td>
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<tr>
<td>Undergraduate</td>
<td>Graduations (2010)</td>
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<td>Research</td>
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<tr>
<td>Total</td>
<td>Postgraduate coursework</td>
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<tr>
<td></td>
<td>Undergraduate</td>
</tr>
<tr>
<td></td>
<td>136</td>
</tr>
<tr>
<td></td>
<td>Total</td>
</tr>
<tr>
<td></td>
<td>452</td>
</tr>
</tbody>
</table>

### Global mix of students

- International students: 302 (25%)
- Local students: 926 (75%)

### Part time/full time mix

- Full time students: 916 (75%)
- Part time students: 312 (25%)

### Graduations (2010)

- Research: 16
- Postgraduate coursework: 300
- Undergraduate: 136
- Total: 452

### Undergraduate (46.4%)  Postgraduate coursework (45.9%)  Research (7.7%)

### Staff and structure

#### Staff (Full-time equivalent 2010)

- Academic: 53.7
- General/Professional: 24.6
- Total: 78.3

### Disciplines

- Architecture and Allied Arts
- Architectural and Design Science
- Design Lab
- Urban and Regional Planning and Policy

### Academic programs

#### Undergraduate programs

- Bachelor of Design in Architecture
- Bachelor of Engineering (Civil)/Bachelor of Design in Architecture
- Bachelor of Design in Architecture/Bachelor of Laws (new for 2012)
- Bachelor of Design Computing

#### Postgraduate coursework programs

- Master of Architecture
- Design Science (Audio & Acoustics)
- Design Science (Building Services)
- Design Science (Illumination Design)
- Design Science (Sustainable Design)
- Facilities Management
- Heritage Conservation
- Interaction Design and Electronic Arts
- Urban Design
- Urban Design (Architectural & Urban Design)
- Urban Design ((Urban Design & Planning)
- Urban and Regional Planning

### Academic staff (68.6%)  General staff (31.4%)
ALUMNI AWARDS

The professional, community and academic achievements of some of our outstanding alumni, spanning a range of professions and ages, were recognised at the 2011 Faculty Alumni Awards evening held in the Holme Building at the University of Sydney.

Since the 1920s, the Faculty’s alumni have led the fields of architecture, design and urban development. For 90 years, our alumni have demonstrated not only the scope of their professional ambition and achievement but also the community spirit and egalitarianism that grounds their achievements.

The Faculty Alumni Awards recognize the outstanding achievement of alumni and represent an opportunity for the Faculty to gather its alumni and congratulate them on their endeavours in the preceding year.

The 2011 awards ceremony was twice the celebration, presenting awards to the winners from two years, 2010 and 2011.

2010 WINNERS

Professor Philip Cox AO – Professional Achievement
Philip is the founding partner of renowned firm Cox Architecture and is a professor of Architecture at the University of New South Wales. He is presently active in major projects in Australia, the Middle East, Singapore, India, China and Malaysia. The breadth and depth of Philip’s experience is admired and places him at the pinnacle of architectural practice.

Dr Clive Lucas OBE – Community Achievement
Clive’s contributions to conservation in Australia are recognised by this award. Clive is responsible for restoring and conserving over fifty landmark sites across the country. See Clive’s Alumni Profile on page 8 for more information on his inspiring career.

Dr Anna Rubbo – International Achievement
The University recognises Anna’s achievement as a founding partner of Global Studio with Columbia and Rome Universities. From 2002 until 2004, she was a member of the United Nations Millennium Project Taskforce to the Improve the Lives of Slum Dwellers, and is currently developing Global Studio India.

Ross Langdon – Young Graduate
Ross is awarded the 2010 Award for a Young Graduate for his impressive endeavours since graduating from Architecture in 2004. Most recently, he established regionally-based architecture firm LRA in the UK and is lecturing at the London Metropolitan University.
2011 WINNERS

**Peter Tonkin and Brian Zulaikha – Professional Achievement**
The Faculty congratulates Peter and Brian on their outstanding achievements in the professional field. Peter, who was acting chairman of the Historic Houses Trust of NSW last year, and Brian, who is the National President of the Australian Institute of Architects, represent the peak success of the University’s alumni.

**John Choi – International Achievement**
John Choi is recognised as the recipient of the 2011 Award for International Achievement. His redesign of the TKTS booth in New York’s Time Square has become a city icon, featured in contemporary music videos. John is profiled in this issue of Archetype, read more on page 15.

**Mary-Anne Kyriakou – Community Achievement**
Mary-Anne curated 24 of the light installations for the 2011 Vivid Festival. Her work as a light artist, curator and composer has spanned a number of countries and has been featured everywhere from Hong Kong to Pokolbin in the Hunter Valley, NSW.

**Mark Tyrrell – Young Alumni Achievement**
Mark founded his own practice, Tyrell Studio in 2009 after graduating with degrees in urban design and landscape architecture. He is also a prolific writer, featured regularly in national and international architecture journals.

**Somwrita Sarkar – PhD Achievement**
The 2011 award for PhD Achievement is presented to Somwrita Sarkar for solving the problem in the relationship between the syntax and semantics of symbols and their ‘meaning’ in the design of artificial intelligence. Somwrita’s elegant solution can be used to address physically and biologically complex systems and the physics of complex networks in general.

**William Chan – Undergraduate Achievement**
William’s participation on the University’s Studies Committee, Faculty and Academic Board and as a Student Ambassador underscores his commitment to the Faculty. Combined with exceptional academic results, the Faculty congratulates William on this most deserved reward.

**Andrew Daly – Postgraduate Achievement**
In addition to excellent academic results, Andrew has contributed to the vibrancy of life in the Faculty of Architecture, Design and Planning. He has made invaluable contributions to the Architecture Review, vivid Sydney and vivid Singapore.
2012 ALUMNI AWARD NOMINATIONS NOW OPEN:

There are many inspiring alumni in our community who are achieving great successes, however we might not always hear of it. The first essential step in identifying a successful recipient of one of these prestigious awards is for them to be nominated. If you know a worthy candidate, please submit a nomination so we can give them the recognition they deserve.

THE AWARDS RECOGNISE SUCCESS IN THE FOLLOWING FOUR CATEGORIES

Professional Achievement
Recognises outstanding achievements of alumni in their professional field.

Community Achievement
Recognises the personal contributions that alumni have made to the enrichment of Australian society through their community service.

International Achievement
Recognises the personal contributions that alumni who reside overseas have made to the enrichment of international society through their community or professional service

Young Alumni Award for Achievement
Recognises outstanding achievements made by alumni aged 30 and younger (as at 29 April 2012) to the University, local, Australian or international communities.

Recipients of the Faculty alumni awards are automatically nominated for the University Alumni award.

NOMINATING A RECIPIENT FOR AN AWARD

The Faculty is aware that many of our alumni have made significant contributions to their profession and their communities. We rely on feedback from the alumni community, and we encourage you to nominate your peers to assist the University to recognise those deserving of recognition.

For more information on nominations please contact your Alumni Relations Officer, (see back cover for details), or go to our website sydney.edu.au/architecture/alumni. Nominations close 30 March
FUN FARE AND FUTURE ALUMNI PROGRAM

Alumni supporting students

Fun, Fare & Future Alumni is a hospitality program aimed at connecting local and international students with our alumni. Gatherings hosted by alumni provide an opportunity for students to meet and engage with their fellow students and alumni families, enabling all to share academic, professional and social experiences and foster new friendships.

In May 2011, two of our alumni hosted gatherings which were great fun and huge successes!

David Turner
President of the Alumni Association – University of Sydney

On Thursday 5th May, David Turner hosted a BBQ dinner at his home residence for 15 Architecture, Design & Planning students. This was a great evening where students who didn’t yet know each other got the opportunity to meet, and also meet David – who is a wealth of knowledge and experience in the architecture industry – and a fantastic chef!

Robert Cahill
Principal - Woods Bagot

Six students (plus Robert’s son) enjoyed a day with Robert and his wife at their home in Lindfield. Heading north was a fun novelty for these international students and they really enjoyed seeing a garden suburb of Sydney. Robert and his wife cooked a BBQ lunch and then took them on a short bush walk down the end of the street just to add a different dimension. The students enjoyed meeting each other and really valued meeting Robert. Thank you Robert!

We are always on the lookout for alumni who are interested in hosting events with our students, so if this is something you might be interested in doing, please contact your Alumni Relations Officer. See the back cover for details.

ALUMNI MENTORING PROGRAM

Support Sydney students... Be an online mentor

Mentoring provides a unique opportunity to contribute to the career development of a student by sharing knowledge you have acquired through years of experience. Sydney alumni have the opportunity to become online mentors to University students, through the online mentoring program.

To find out more information or sign up, go to sydney.edu.au/alumni/mentor
In May 2011 Clive Lucas was awarded an honorary doctorate for his exceptional conservation work on heritage buildings.

Clive is a nationally acclaimed specialist in the heritage and conservation field, and has made a significant contribution to the community through his years of service with the National Trust of Australia.

Clive has conserved over 90 of the most important historic buildings in NSW as well as in Tasmania, other parts of the country, New Zealand and Hong Kong, sensitively repaired and restored their damaged fabric, and adapted them for new uses that respect and celebrate their historic origins. Of particular importance is his rescue of Elizabeth Bay House, and the conservation of St Paul’s College at the University of Sydney, and Old Government House, Parramatta. He has won 32 RAIA Merit/Architecture awards and 7 Greenway Awards.

He has won the Lachlan Macquarie National Medal 8 times, plus 6 local government awards for conservation. His expertise has been widely sought by national, state and local government on heritage listings and the renewal of historic urban precincts. He has also published extensively in the heritage field, and is the founding director of his firm Clive Lucas, Stapleton and Partners.

Clive has given nearly 50 years’ energetic and learned service to the community in the heritage field, most notably with the National Trust of Australia (NSW), the RAIA and the Council of the City of Sydney. He co-founded, and has served on the boards of the Historic Houses Trust of NSW, the Australia Committee of ICOMOS, and the Furniture History Society (Australasia). For this outstanding contribution he was awarded an OBE in 1977, was made an honorary Life Fellow of the RAIA in 2006, and in 2004 was given the National Trust Heritage Award for outstanding achievement.
Speaking with Clive Lucas.

When you speak with Clive Lucas about architecture, the first thing you notice is his passion. Clive says “Architects must have passion. Architecture is an art, and this is what I remember from the first lecture I attended in the Architecture School.” Clive reminisces about his first spark of this passion “When I was eight years old, at school in Homebush, we were given a task to draw the suburb, a sort of plan like a street directory. I produced the best plan and the teacher remarked to my mother that ‘Clive would make a good architect.’ I went home and my mother explained what an architect did. Thereafter, I told everybody I wanted to be an architect.”

Clive’s grandparents lived in Parramatta, and Parramatta in the 1950s was still a remarkable Colonial town, with streets like George and Marsden lined with Colonial buildings which Clive experienced with the many walks he took with his grandfather.

In 1954, Clive spied in Jordan’s Newsagency, Morton Herman’s book, The Early Australian Architects and Their Work and asked if he could have it. Morton Herman’s book was really not much to do with Australia in general but it was very much to do with the early architecture of the Sydney region and places like Parramatta and Windsor were the source of most of the information. This book, together with Clive’s Parramatta experiences in particular, developed his passion for Colonial architecture and the wonderful craftsmanship with which it was built.

Clive smiles as he remembers “That did not mean people didn’t try to dissuade me and I always remember just before I entered the University, a friend of my father’s said ‘Oh, architecture is really a thing of the past. You should consider studying engineering.’” So when Clive came to the University to enroll, he thought he should perhaps go and see the Professor of Engineering, who said “If you’ve always wanted to be an architect, don’t change now.” And Clive is to this day grateful for this advice.

“As a student, I guess you’d say I was a little unusual in that my interests focused very much on the country’s heritage rather than what was happening at the time. That did not mean I didn’t go and look at modern architecture, but my real interest lay in the heritage buildings which, by the time I had left the University, no matter where they were in this country, I was quite familiar with, having hitch hiked around Tasmania, driven to Adelaide, Queensland and so on.

“My interest in historic buildings became my passion and it has been hard to know where the hobby stops and the profession starts. I became a member of the National Trust in 1961 and this of course nourished my interest, and since 1965 I have continuously sat on various of its committees, councils and boards. Although when I finished my degree and went to London, except for my weekend travels looking at historic buildings, I did not work on old buildings. My passion was a hobby, not necessarily my profession.

“However, I had agreed to come back to Sydney to an office which through its senior partner John Fisher, had been given what were, arguably, Australia’s first conservation projects. It is true to say that before 1970 architects did not really restore buildings in this country, it was rather just alterations and additions. The restoration work we did for the State Planning Authority included notably Elizabeth Bay House and this project opened a whole range of professional activities both here and in Tasmania, not least the creation of the Historic Houses Trust of New South Wales in 1980. I have really done nothing else except work on heritage matters since 1970. It has been quite wonderful.”

A
STUDENT DESIGNS FEATURE IN FESTIVAL OF SYDNEY

Australia’s most promising young architectural minds were challenged to design new performance spaces for three Sydney Festival venues: Festival Garden in Hyde Park, the historic Quadrangle at the University of Sydney and the massive Turbine Hall on Cockatoo Island.

Youtopia was an exhibition of the models, prototypes and digital designs from the University of Sydney’s Master of Architecture students, capturing 30 outrageously theatrical visions. Imagine light clouds twinkling to your step in the Quadrangle, a ceiling of shifting musical chairs in the Turbine Hall or the Festival Garden’s totally immersive kaleidoscopic space of reflective multi-coned mirrors.

Youtopia invites dreaming. It challenges the everyday through an outrageous and fascinating experience of other spaces and times. The exhibition at Tin Sheds Gallery at the University of Sydney embodied the 2011 design conversation between Sydney Festival and the University’s Faculty of Architecture, Design and Planning. The result was a project that animates the shared qualities of the Festival and the University: it is bold, progressive, adventurous and intelligent.

Students from Digital Architecture Research Studio completing the Master of Architecture program worked in conjunction with Sydney Festival organisers and a research team. They developed concepts for three contemporary performance spaces: Festival Garden, The Quad and Cockatoo Island’s Turbine Hall.

The consultations and planning delved into the complexities and confluences of architectural theory and practice, audio and acoustics, digital fabrication, interaction, mediation, structural engineering and performative and cultural aspects.

This conversation and engagement with leading professionals ensured the work was as practically relevant as it was academically merited.

Youtopia represented the creative and technical endeavour of Australia’s most promising young architectural minds. The exhibition roamed the ephemeral and captivating play of ‘Fireflies’, the inviting and interactive landscape of ‘Musical Chairs’ and the eroded spatial flows of ‘Transitions’. Performance concepts explored prosthetic folds, swarm intelligence, tetrahedral autopoetics and structural trees. Features of the exhibit also include Puffscape’s quilted lounge, catenary networks and multiple angles of vision.

Youtopia exclusively presented ‘The Spritz’; a 200-seat intimate performance space which will accompany Sydney Festival’s famous ‘Spiegeltent’ at Festival Garden. ‘The Spritz’ generated a captivating performance space through the reflective surfaces of multiple coned mirrors in continuous form.
The result literally sparkled. It became a mechanism for immersing an audience in a heterotopian environment, challenging the norm of singular definition of space. Kaleidoscopic reflections of reality, unreality, performance, self and the immediate create an other-space, a void of given meaning rapidly filled by the audience's own engagement and expectations. Perceptions were challenged, expectations elevated and audience and performers transported, consumed by the moment - a dome, a theatre, a bar, a spectacle.

Youtopia ran from January 12 until January 26, 2012
Copies of the catalogue, including design details and related essays from students and academics are available on request.

10 YEAR SYDNEY REUNION - CLASS OF 2002

A reunion for the class of 2002
29 March 2012, The Great Hall

Get your classmates together to celebrate the 10 year anniversary of your graduation from the University of Sydney. Meet up with your classmates from the Faculty of Architecture, Design and Planning, along with 2002 graduates from all other faculties. Enjoy music from your Uni days and pose for our professional photographer capturing all the action. With the opportunity to win a private helicopter flight or a cabaret harbour dinner cruise for 2, this will be a night to remember, and a special event that you will not want to miss!

So, if you finished your degree (or graduated) from the University of Sydney in 2002, bring along your partner and friends and join us for a great opportunity to reconnect with old friends and classmates.

We look forward to welcoming you back to the beautiful Great Hall.

TICKETS
$30 for University of Sydney Alumni
$40 for guests
Price includes drinks and substantial canapes.

Event details
When: 6.30pm - 9.00pm
Where: The Great Hall, The Quadrangle, The University of Sydney
RSVP: RSVP by 22 March 2012
Registration and more information: sydney.edu.au/alumni/sydney10
Contact:
Eve Simons, Events Coordinator
Alumni and Events Office
alumni.rsvp@sydney.edu.au
+ 61 2 9036 9278
ADJUNCT PROFESSORS JOIN THE DISCIPLINE OF ARCHITECTURE AND ALLIED ARTS

Notable alumni John Choi, Rachel Neeson, Andrew Nimmo and Helen Lockhead commence as Adjunct Professors.

The Faculty’s Discipline of Architecture and Allied Arts welcomes the appointment of four notable alumni as Adjunct Associate Professors. John Choi, Rachel Neeson, Andrew Nimmo and Helen Lockhead accepted positions in 2011 and are providing faculty and students alike with many insights into architectural theory and practice.

Professor Sandra Kaji-O’Grady discusses the new adjuncts’ contributions.

These adjunct appointments are the first in a long time. What has the reaction been to these?
Everyone has been very enthusiastic about the appointments. The students particularly – the adjuncts bring a vast knowledge of industry with them from their senior positions in practices. The Faculty and teaching academics are benefitting from an external perspective on their curriculum decisions. It all combines to further enhance the quality of teaching and research in the Faculty.

It must be a challenge to make the appointments from a wide field of quality candidates. What did the Faculty search for when considering whom to appoint?
It’s crucial that an Adjunct Professor fulfills the dual role of advisor and advocate. We need them to advise on curriculum and to provide advisory boards with industry’s perspective. As advocates, the University needs adjuncts that are outspoken and take up a position. To get up, say what they are doing, why and outline its consequences is a key role that adjuncts are expected to perform. And it’s crucial that they are generous with their time, knowledge and expertise. That’s why the appointments this year have a strong focus on civic buildings and urban design. It’s about the academy exploring the ways architecture can give back to its communities.

You mention that the adjuncts have all had extensive experience with civic buildings. Can you provide a brief outline of their various areas of expertise?

Some of their work is immediately familiar – John Choi, for example, his TKTS design has become a New York landmark. [Archetype: see profile on Choi on page 15].

Helen Lockhead is the Assistant Government Architect and overseas Architectural and Specialist Design Services in the Government Architect’s Office.

Andrew Nimmo brings an analysis of the fundamentals of establishing and developing an architectural practice, based on his award winning experiences with firm LahzNimmo.

Rachel Neeson, a former UNSW lecturer, assists with crits and assessment, generously providing the Faculty with the insights gleaned from her significant contributions to architectural education.

It’s a broad mix, but one that provides a great deal of scope into the architectural practices employed in and outside academia.

How does the appointment of adjuncts bring concrete relevance to students?

Some architecture projects appoint adjuncts that are famous but elusive. They’re prestigious names on the roster but students don’t get to engage with them. That’s exactly what our discipline has avoided with these appointments. Our adjuncts are industry-leading professionals that are willing to ‘muck-in’ and get their hands dirty with the day-to-day roles expected within the Discipline.

To make the relationship real and of consequence to students, we have gotten the adjuncts to take some teaching. John Choi taught the graduation studio last semester and Andrew Nimmo is taking a student group this semester. As the graduation studios are research led, it’s a perfect match for the adjuncts to inform students of their areas of interest and for students to benefit from the wealth of knowledge the adjuncts bring to the program.

And do adjuncts integrate with academic staff?

Only four appointments were made in 2011. A small and dedicated crew, our adjuncts have adapted to Faculty life well, and the Faculty to them. Each adjunct has now presented their inaugural lecture to the Faculty, as well as to the broader architectural community. It’s a process that ensures that colleagues are aware of both the adjuncts’ role and their areas of interest. It’s this tight integration, of adjuncts and teaching academics, that enables great synergies between university and industry and can go a long way to establishing a new architectural praxis.
The adjunct appointments are a continuation of the Faculty’s pursuit of a collaborative dialogue with industry. What other measures has the Faculty taken?

We’ve done many things throughout the year, from exhibitions of student works to our public lecture series. But I have been particularly excited about Crit Week, which, as our alumni may remember, is the final week of semester, Crit Week. In 2011 we invited three interstate guests to provide feedback and assist academics with crits. Timothy Moore, (editor of Architecture Australia), esteemed architect John Wardle and Nicholas Bailey from firm Room11 all sat on the crit panel.

So what’s in store for 2012?

We hope to continue building the reputation of the Architecture program at the University. We’ve got intelligent, passionate and gifted designers. It’s a strong position for both the faculty and for students, and personally, I’m eager to see what happens and how we can continue to meaningfully engage with industry.
The 2011 Architecture Revue, Nineteen-Eighty-Floor, joins the long history of comedy and creativity expressed on stage by Faculty of Architecture, Design and Planning students. Since the 1960s, the Revue has provided an opportunity for students to down pencils and up wigs, pack away the rulers and pick up a sword and create a limited-time only staging of original and classic gags.

In Nineteen-Eighty-Floor, students combined in a performance that exemplified the qualities of the Revue: creativity, teamwork, group building, self-expression and a good-old-fashioned willingness to have a go and make something great.

The Architecture Revue Club (ARC) has, in its various names, political formulations and guises, provided students and the public with such events for over four decades. As a cross-degree program, the Revue is an opportunity for students from the Faculty’s different programs to interact and build the cohesion of the Faculty. In the Wilkinson Building, we’re an extended family, so the Revue provides a great opportunity to meet some of our ‘academic cousins’. Everyone pitches in – including students from the Masters of Architecture and from The University of Technology, Sydney as executive members of the Revue Board.

Many students of the Faculty’s programs find that the Architecture Revue is a gateway activity to other arts. Addicted to the camaraderie and creativity, former Revue performers have gone on to television script writing, political satire and standup-comedy. Some find the Revue opens their horizons to activities outside of design and planning, that they find suits them more than their original career ambitions. The Architecture Revue Club is honoured to continue this tradition of exposing students to the broader aspects of university life beyond their degree.

The Revue is an opportunity for students to express the irreverent humour, outrageous satire and insightful commentary that bubbles under the surface in student life. When set to a dedicate student orchestra’s well-tuned stylings, it culminates in a great night for students, staff, the public and industry. And, of course, the performers.

When it’s all said and done, and the after parties have finished up, it isn’t a sense of sadness but of joy. Joy, because it means that for those lucky enough to continue their studies in the following year, there will always be another Revue. The Wilkinson building returns to the steady thrum of student work and the anticipation of the next Revue bubbles away, stewing a new design to lampoon and architect to satirise. It is in this grand tradition that the ARC would like to thank everyone involved in the Revue, from the costume designer to lighting specialists, performers and writers, directors and runners. Hassel, CplusC Design Construct, Marchese Partners, DTB Architects Pty. Ltd. and Brentwood Recycling Systems generously sponsored the 2011 Revue. The Revue Club extends its thanks to our sponsors for making Nineteen Eighty Floor both a possibility and contributing to the success of the Revue this season.
ALUMNI PROFILE: JOHN CHOI
BArch (1996)

There is an Australian tendency to literally stomp, tramp and run all over beautiful architecture. It’s not a lack of respect for form, function or the beauty of the built environment – it’s by design. Parliament House in the nation’s capital, with its rolling green roof is a key example of this tendency to create inviting public space in a building’s structural features.

And now, thanks to University of Sydney adjunct Associate Professor John Choi, the thousands of Australian tourists that visit New York City’s Times Square each year can continue this irreverent approach to architecture in one of the US’ most visited, photographed and adored locations.

In 2009, Choi and his team at Choi, Ropiha, Fighera won the prize for an international competition to redevelop the TKTS booth at Father Duffy Square in New York City. The site is in the heart of the lights, screens and sounds on of the busiest urban spaces in a global city. The firm designed a tiered structure that invites visitors to ascend red stadium-like steps and soak in the thriving ambience of the cultural metropolis’ most famous site.

As a child, Choi was drawn to inventors and designers such as Thomas Edison. He originally considered industrial design as a career choice. He entered Architecture on his parent’s advice. John is happy he made this decision, as “architecture offers a broader context to think about and practice design.”

At university he was exposed to futurist Alvin Toffler, sustainability systems theorist Fritjof Capra; sociologist Pierre Bourdieu and philosopher Martin Heidegger. These influences infuse his designs with core aspects of the human condition: optimism for the future, our relationship with nature, our relationship with each other and reflection on our lives. Moreover, all of these thinkers challenged accepted practices and stressed the importance of individuality and identity.

He says that the risk aversion that developers exhibit when they contract established architectural firms reduces the variety and creativity of the built environment. Choi is optimistic that young architects can produce designs that are unfettered by traditional hallmarks of more established designers. The freshness of their work can rejuvenate cities and contribute significantly to urban renewal.
UTOPIA: BUILDING A CULTURAL VILLAGE

Students from the Master of Architecture program explore a variety of design challenges to meet the unique needs of the Northern Territory’s Utopia Community

The Urapuntja Council Aboriginal Corporation, in collaboration with the Jack Thompson Foundation and the University of Sydney, is designing a Cultural Village at Utopia Community in Australia’s Northern Territory. In 2010, Rosalie Kunoth-Monks, Chair of the Urapuntja Council Aboriginal Corporation, invited twenty students from the Faculty of Architecture, Design and Planning attended a nine-day fieldtrip in Utopia.

The Urapuntja Lands consist of 16 dispersed communities situated along the Sandover River, 250 kilometres northeast of Alice Springs. Utopia’s batik artworks from the Petyarre, Pwerle, Weir, Ngala, Kemarre and Kngwarreye families are internationally renowned. The art is in a constant state of creative development by both elderly and young artists. This cross-generational approach to art interprets traditional techniques and stories through remarkable artistic innovation.

The Utopia community sees the Village as a place that will enable ownership, maintenance and preservation and assist the community to perpetuate traditional ways into the future. The design brief is for a facility that enhances teaching and learning of cultural or artistic knowledge and practices.

The project aims to propose methods to support the self-sufficiency of the community, by providing a space for social and entrepreneurial initiatives that reflect the distinctive cultural identity of the Utopia community. The building must also speak to a broader audience, sharing the local culture with both visitors and artists in residence.

The brief involved a staggering variety of requirements. Spaces are required for training, artists workshops, a gallery, shop and cafeteria. Administration offices are necessary to keep the building running and curating art works and cultural objects, including an expanding archive of Utopian art. This must be designed with respect for sustainable servicing of buildings and site – including strategies for power, water and waste.
Architecture students camped at Arlparra and near Utopia. They surveyed possible sites, developed design proposals for the Village and measured a number of abandoned structures that will be dismantled. The community will reuse the resources from these buildings to build new facilities in conjunction with locally-sourced natural resources. John Mofflin, manager of the Jack Thompson Foundation, is coordinating the building project at Utopia. The program provides on-the-job training and construction of elderly accommodation. Mofflin will also develop an aquaponics facility with which the community can grow its own food.

The University recognises that the Cultural Village project is a small step in the long-term collaboration with the Urapuntja communities of the Sandover. The Faculty of Architecture, Design and Planning is developing research and engaged practices with Dr. Richard Seymour of the International Entrepreneurship Research Group in the Faculty of the Economics and Business. This research program will identify economic and social entrepreneurship opportunities that would benefit the Lands in numerous ways.
ARCHITECTURAL SCIENCE
ACADEMIC STAFF

ACADEMIC STAFF
Professor Richard de Dear, Head of Architectural Science
Professor Richard Hyde, Professor of Architectural Science, Associate Dean (Research)
Associate Professor Bill Martens, Associate Dean (Graduate Research Studies)
Associate Professor Wendy Davis, Director Illumination Design
Dr Densil Cabrera, Senior Lecturer
Dr Francesco Fiorito, Senior Lecturer

HONORARY AND VISITING ACADEMIC STAFF
Emeritus Professor Gary Moore
Emeritus Professor Warren Julian
Adjunct Associate Professor Nathan Groenhout
Honorary Associate Professor Jin Yong Jeon
Honorary Associate Professor Allan Terrence Purcell
Honorary Associate Professor Fergus Fricke
Alan Obrart, Honorary Senior Lecturer
Bruce Forwood, Honorary Senior Lecturer
Dr Zena O’Connor, Honorary Associate
The Faculty of Architecture, Design and Planning is delighted to announce the appointment of Associate Professor Wendy Davis to the Discipline of Architectural Science. Wendy joins the faculty from the U.S. National Institute of Standards and Technology (NIST), a division of the U.S. Department of Commerce. Wendy will assume the role of Program Coordinator for Illumination Design, a vacancy created by the retirement of Professor Warren Julian.

In 2004, Wendy attained her PhD in Vision Science from the University of California, Berkeley. She contributes to the NIST in the capacity of a vision scientist, as part of the Sensor Science Division: Lighting and Colour Group.

Under Wendy’s supervision, the NIST has undertaken several experiments with Solid-State lighting, such as LEDs. This work hopes to reduce the energy consumption of lighting, which the NIST found accounts for 12 per cent of domestic or 25 per cent of commercial energy use.

Part of this work involves establishing metrics for lighting colour and quality. In March, Wendy reiterated to the Washington Post the importance of establishing both an appropriate lighting science and a social acceptance of the use of new lighting products.

“Even the most new-fangled, high-tech, ultra-efficient light source is worthless if people won’t use it. Sometimes we get caught up in the numbers, measurements, and specifications, but we need to always remember that the primary purpose of lighting is to enable people to see the world around them,” she said.

Wendy has already treated the Faculty and key members of the lighting profession to a sample of her expertise. In September, she presented a lecture titled ‘Colour Quality and LEDs’ while visiting Australia from the U.S. She returned to Australia in January 2012 to commence her position with the University of Sydney. Her contribution will be invaluable to all students and staff in the Master, Graduate Diploma and Graduate Certificate in Design Science (Illumination).

Wendy’s predecessor, Emeritus Professor Warren Julian is confident that the Illumination and lighting science curriculum is in more than capable hands. Julian retired last year but has continued to dedicate himself to illumination design in his capacity as an Emeritus Professor.

Julian is a former Dean of the Faculty of Architecture (1986-97) and has published over 180 articles, book chapters and scientific papers on lighting-related subjects. In June 2011 he was awarded an Order of Australia for his service to illumination engineering, educational administration and professional associations including the Illuminating Engineering Society of Australia and NZ, of which he is a Life Fellow.

The Faculty takes this opportunity to thank Professor Julian for his distinguished service and to extend its best wishes for his future endeavours. The quality of the Illumination program at the University is a testament to his dedication. Similarly, the Faculty is excited to witness the future developments that will occur under the guidance of Dr. Davis as the program embarks on a new round of research and discovery.
INDOOR ENVIRONMENTAL QUALITY LAB TO FOCUS ON LINK BETWEEN COMFORT, HEALTH AND PRODUCTIVITY

The University of Sydney’s Indoor Environmental Quality (IEQ) Lab is a new tool with which researchers and industry can investigate what makes a room comfortable, practical and desirable.

The Faculty of Architecture, Design and Planning’s IEQ laboratory is located in the Wilkinson Building on City Road and is scheduled for completion in March this year. It will provide researchers with a unique facility to examine how key IEQ factors - temperature, humidity, air movement and quality, light and sound - interact to determine comfort and productivity. There is also significant scope for determining health outcomes for building occupants working or living in these environments.

It is important work, spearheaded by the world’s leading researcher on thermal comfort, Professor Richard de Dear. In Australia, a single-minded pursuit of energy efficiency ratings has led to direct compromises on IEQ. The response to the global challenge of greenhouse emissions means that research in IEQ has intensified.

The University anticipates that both researchers and industry will find many applications for the IEQ lab, given its adaptability to many research situations.

The laboratory provides two purpose-built rooms. Researchers can control the levels of IEQ factors in a multitude of combinations while occupants use the space. Occupants record their subjective impressions of the quality of the environment and the comfort they experience. The lab allows a link to be established between subjective impressions of comfort and the objective IEQ factors that researchers can control and manipulate.

The strength of the correlation in the lab to the real world is important; this is why the laboratory is designed to look and feel as much as possible like normal rooms. The lab chambers’ fit-out will initially resemble grade-A commercial office spaces but can be configured as residential, industrial, cinema/theatre, or leisure facilities. Car, bus, train and plane interiors can also be realistically simulated.

The flexibility of the IEQ Laboratory will allow researchers from throughout the University of Sydney to investigate a wide range of topics, including:

- What is comfort? Can it be quantified? How does it relate to productivity?
- Does lighting colour interact with thermal perception, and if so, how can that synergy be exploited for energy conservation?
- Do comfort expectations and requirements change with age and/or gender? What does this mean for building management and energy efficiency?
Can benchmarks for IEQ be created? Can we objectively declare a room 'comfortable' or 'desirable'?

The research centres on developing practical applications of IEQ research. Industry will have the opportunity to use the facility for specific questions relevant to their businesses. The research team are looking to industry partners to set priorities in the research agenda.

Professor Richard de Dear will oversee the laboratory and its research projects. He is a global expert in the field of indoor climate and air quality. Academic staff from the University’s Architecture and Design Science discipline will contribute their expertise in a variety of specialist areas, including contributions from:

- Dr Christhina Candido - thermal perception
- Dr Densil Cabrera - acoustics
- Associate Professor Bill Martens - environmental psychology
- Prof. Richard Hyde - sustainable design
- Dr Wendy Davis - lighting.

The University is excited to provide the tools for a new generation of students and researchers. The IEQ laboratory furthers the Faculty’s pursuit of practical, industry-relevant programs and seeks to exploit the unique synergies available from the co-location of staff expertise, industry partners and access to world-class facilities.
Dr Paul Jones returns to academia to tackle some of the biggest urban challenges facing the Asia-Pacific region.

“My research is what I call planning led research, not research led planning.”

Dr Paul Jones returned to academia in 2011 after an illustrious career in regional and pacific planning. He has worked alongside the Australian Department of Foreign Affairs and Trade’s AusAid program, UNESCO, United Nations Development Program and the national government of Papua New Guinea.

Dr Jones is looking at the real-world factors that drive planning and the built environment. Critical of the conceptual limitations of a ‘theorise then implement’ approach, he proposes a reconceptualisation of the way we see informal settlements and squatters.

“The initial view is one of substandard housing. But other planning features are things that we aspire to here in Australia: walkable neighbourhoods, bicycle friendly streets, high-density living – many of the features of new urbanism. The challenge is that this is shrouded in poverty.”

“In the Melanesian context, squatters and informal settlements account for 30 to 50 per cent of the population. That isn’t transitory; it’s here to stay … the institutional approach spends too much time and too many resources discussing ‘capacity building’. You’re better off getting out there and providing sanitation and changing the conditions in which the poor live.”

Dr Jones brings this practical conception of planning issues to the Faculty. With a long history as a planning practitioner, he has observed how there are common elements of planning that work across country contexts – basic services and layouts that act as principles for planning. He says it is important that the University exposes students to these international contexts.

“Working in international planning means you are working in many cultures. It teaches respect of others, egalitarianism, equality and to lead by example. Students need to know that you’re passionate about it, otherwise they won’t get stimulated or excited.”

“From my experience, Papua New Guinea can tell Australia the importance of cultural and social aspects of planning. They have an acute sense of the importance of family, extended family and kin. In a western, fast-stream of life, a lot of those things are left behind.”

Dr Jones teaches International Urban Development Planning. It is an elective unit that can be taken by any University of Sydney post-graduate, not just those enrolled in Urban and Regional Planning. The unit investigates what constitutes development and how projects are made. It draws on many case-studies from the pacific region and examines how policy gets turned into a planning system. Links with other schools at the University are also being explored, particularly with Development Studies from the Faculty of Arts.

He underscores the importance of this new approach to planning and theory: “There are a lot of people living in urban poverty and there is a divide in pacific housing cities. The challenge is to reduce that disparity. It’s on our doorstep. We want students to go on and do Masters and PhDs and make a difference.”
ACADEMIC STAFF
Associate Professor Nicole Gurran, Acting Head of Urban & Regional Planning & Policy Discipline
Associate Professor Rod Simpson, Director of Urban Design
Dr Paul Jones, Senior Lecturer in Planning
Dr Krishna Shrestha, Senior Lecturer

HONORARY AND VISITING ACADEMIC STAFF
Adjunct Associate Professor Harvey Sanders
Honorary Associate Professor Barrie Shelton
Honorary Associate Professor John Lea
Kimberly Everett, Honorary Senior Lecturer
The Faculty of Architecture, Design and Planning extends its welcome to Roderick Simpson, who has taken up the mantle of Associate Professor in Urban Design.

Associate Professor Rod Simpson joins the Faculty while maintaining active involvement in his architectural firm, Simpson+Wilson. He brings a wealth of experience and insight from the private sector to academia and the Faculty is excited by the synergies that can be leveraged from this experience for research and student teaching.

Rod has a nuanced approach to urban design. Whereas the traditional school of thought on urban design dictates the creation of great spaces that meet the objectives of various stakeholders, he is critically interested in the way that those interactions are structured. If urban design were a game, Rod would not just be a top-notch player; he also wants to understand how the rules are made and how to change them.

“When you think of ‘design’ you usually think of buildings, locations and places. It is the design processes – the legal, political, financial, cultural and administrative – aspects that support and sustain what a city will be. It is these aspects that I like to focus on in urban design,” Rod said.

His fresh approach comes at a critical time. In past decades, urban designers could focus on the design of spaces in isolation from these factors. However, as a greater proportion of the public budget is absorbed by health and education spending, the administration and procurement of public spaces is increasingly falling to private hands.

Rod believes that this transfer of risk from a government answerable to voters to a private firm answerable to shareholders – means that, in general, designs converge on low-risk, profit maximizing buildings. These do little to enhance the community feel and authenticity of a square, suburb or city.

“Authenticity relies on many authors. The legalized anarchy of Sydney’s Surry Hills, with IT start-ups next to private homes and small restaurants or bars, is the kind of vibrant atmosphere a centrally planned approach could never develop.

“Often, the idea of a masterplan is that you design it, detail it and then build it. And then it’s done – finished and beautiful. But it’s then fixed in both time and purpose – the people that inhabit or work in the building feel that they don’t have the authority to change things. And it’s in change and adaptability that people engage with buildings, and builds authenticity and community.”

Rod has approached his position with the Faculty from the perspective of an industry practitioner. He will bring this expertise into the classroom with students in the Urban Design program.

“I’m keen for the course to emulate practice. I want students to explore these connections with the community, with business, politics and finance. I want them to know what it is like to be in front of a hundred irate residents, to present to a mayor or to convince an investor that a lower-revenue, higher-profit option is better both for them and for the public interest.

“I hope to bring in people from practice to participate in the course because the format of urban design is always about conversation, engagement and collaboration. At its very essence, these are the skills that are important for students to experience first hand.”
Reintegration: Stitching the City of Sydney back together with a network of fine grain streets, lanes and subdivision, as redundant industrial areas and transport corridors are renewed and redeveloped over time. Rod led the development of urban design propositions for the Sustainable Sydney 2030 Strategy.

Rod also places a strong focus on communication. Managing the various and often competing interests of developers, councils, residents and businesses can be a stressful and potentially adversarial role. By its nature, some will be winners and some will be losers. Rod considers communication key to understanding the needs of each group and ensuring that the final design is one that meets a balance between those responsibilities.

“We haven’t got the language to talk about urbanism, so instead we talk about architecture and design. It’s like the public knows what it doesn’t like but it can’t articulate why. So we complain about cars, overshadowing or noise. Quite often that’s because we don’t have the language – or legislation – to talk about what’s good about a city.

“There isn’t one answer for every city. What’s needed is to engage with people so that there is an acceptance of the churning, changing vitality that comes with the existing city. With change, people think there will be a disaster. They are often distrustful.

As urban designers, we have to understand the negative impacts but also cut through the negativity and resistance and excite people.

“Great urban design makes people interested in parts of the city that will be changing quite a lot and makes them interested in living in and being a part of those changes. The ebb and flow of people to and within different parts of the city is what cities are about.”

This dynamic sentiment is mirrored in Rod’s understanding and approach to urban design. It’s less directly based on theory and more on a practical engagement with the people and built environment that interact in the city. His interest was piqued after working with Greenpeace and their strategy for a Sustainable Sydney. There he was exposed to aspects such as transport, pollution and the broader considerations of urban design.

“What I like most about the city is the way that there is an absolute jumble and juxtaposition in Sydney that is so amazing. The disjunctions between land and water, cliff, plain, sandstone, silt, old buildings next to new, disruptions in the density of the city centre where you have a 1840s building still holding its own against something built last year.”
DESIGN LAB ACADEMIC STAFF

ACADEMIC STAFF
Associate Professor Andy Dong, Head of Design Lab Discipline
Dr Rob Saunders, Senior Lecturer
Dr Lian Loke, Senior Lecturer
Dr Caitilin de Berigny Wall, Lecturer
Dr Martin Tomitsch, Lecturer
Dr Oliver Bown, Lecturer
Paul Murty, Associate Lecturer

HONORARY AND VISITING STAFF
Honorary Professor Mary Lou Maher
Dr Petra Gemeinboeck, Adjunct Senior Lecturer
Samuel Ferguson, Honorary Associate

Stills from a movie created in the Multi-touch Information Visualisation Studio “the Creators,” by Bachelor of Design Computing Students Constanza Casas, Mark Mitchell, and Pieter Steyaert.
DESIGN LAB’S ASSOCIATE PROFESSOR ANDY DONG SECURES FUTURE FELLOWSHIP

Associate Professor Andy Dong’s research on inventiveness and product innovation in energy conservation has received significant ARC funding over the next five years

Associate Professor Andy Dong, from the Faculty of Architecture, Design and Planning’s Design Lab, received one of the Federal Government’s Future Fellowships announced at the end of 2010.

Andy’s project, titled *Inventiveness and the progress of product innovation*, will receive a total of almost $670,000 over five years, and is exploring how quantitative models of inventiveness can be used to forecast the potential rate of improvement of a technology and to redesign products to improve more rapidly and steadily.

By focusing on innovation in products and technologies in energy conversion, his research aims to guide development funding for a low-carbon energy generation.

The project goes beyond traditional models of assessing innovation through progress functions or learning curves, which only look at output. His research is studying what differential, if any, in the innovation potential of a product is based on its intrinsic properties.

New knowledge about the potential for innovation in products and technologies and specifically key innovations in energy conversion technologies can be used to guide research and development funding of technologies for low-carbon energy generation.

These efforts are already underway, such as through the Australian government’s co-funding of a Renewable Energy Equity Fund (REEF) to help companies commercialise renewable energy technologies and services.

While there is no lack of ideas, the problem is identifying the right technologies that will actually reduce carbon output and produce sufficient energy efficiently.

The only surety is that these technologies will improve, but how quickly and at what cost?

The quantitative models of inventiveness created in this research project could be used to forecast the potential rate of improvement of a technology and possibly to re-design systems to improve more rapidly and steadily. This will help Australia make smarter investments in energy conversion technologies and help move the debates and decision-making toward the potential for progress merits of various competing technologies, such as solar (photovoltaic), wind (kinetic), and carbon sequestration.

Andy’s project was one of 21 at the University of Sydney to receive ARC Future Fellowship Funding in 2010, with the University receiving just over $15.8 million out of almost $143.8 million allocated.
FAKE FISH DISTRIBUTION

Design Lab’s sound design and sonification expert Dr Oliver Bown launches landmark new concept in electronic music to a worldwide audience.

Oliver Bown hates traffic. He hates being in it, but he hates the sound much more. Like many of us, it’s a frustration that he has to encounter every day. But for long-standing auditory sufferers, there is a brighter, more silent future ahead. Yet it’s not without its own particular ironies.

“The new generation of electric cars have created a weird situation,” he says. “They are so silent that they need sound added to them. We could soon be living in a world where the noise has been replaced by functional sounds.”

Dr Bown is a lecturer in sound design for the Faculty of Architecture, Design and Planning at the University of Sydney. His interest in sound is the culmination of many years exploration across a diverse field of subjects – an undergraduate from Cambridge in mathematics and social anthropology, a master’s in evolutionary and adaptive systems from the University of Sussex. After completing his PhD on theoretical and computational models of the evolution of human musical behavior, he joined the Faculty in June last year. Bown offers his expertise in music and sound to the Design Lab and teaches core subjects for the Bachelor of Design Computing.

Bown is excited about the new applications for sound made possible through digital technologies. He says that we are living in a world that can be increasingly sonified as computing is embedded into more aspects of our lives.

“The new programming languages and design tools are really exciting. A creative person can make a new instrument or compose sound by using programming to piece together a bunch of components that could in turn react to sound. This can be done in real time – as you’re writing the code. With that level of interaction, you can work very, very fast,” he says.

Students of Sound Design and Sonification benefit from Dr Bown’s experience. They learn the importance of sound to digital applications and human interaction with technology. They set sounds to film and digital games, devise notifications and explore the emotive qualities of sound.

Sonification is the process of using sound to represent data and information. A classic example is a Geiger counter – the device ‘clicks’ more frequently the greater the amount of radiation in its proximity. Other applications are in producing audible notifications and representations for medical and stock-market applications. Students learn to understand the needs of these industries and the technical skills needed to develop tailored solutions.

“We focus on the creativity in the design process. It’s important when you’ve got a new technology and new possibilities, that they’re still usable and relevant to the user. Just because it’s new doesn’t mean it’s going to work – you have to bear in mind who is going to use it and how.”

The focus on design and experimentation is an approach Dr Bown takes to heart. Outside of his academic portfolio he is a practicing musician. His project, Icarus, is a collaboration between Bown and his cousin, Sam Britton. Their latest album, Fake Fish Distribution uses many of the new techniques that Bown is seeing used in the university and in his research.
The album was developed with parametric techniques. This means that a set of constraints was established, within which a computer program generated 1000 unique versions of the album. The versions share common traits and are relatable to each other, but nonetheless, no two albums are the same. The album, distributed via digital download, gives each purchaser their own specific version.

“It’s one album, manifest in 1000 different versions. The versions are all unique but to a minor extent. There is variation designed into the album, every track still has an identity as a track,” he says.

The album is an example of the kinds of diffuse activity that Design Lab conducts. Dr Bown says that most academics in the Lab are pursuing their own projects, but there is a collegiate interplay of ideas that opens up new perspectives and approaches.

“The spirit of the design lab is about being creative, about using new technology and about a diverse body of people with a common interest in very different activities,” he says.

Dr Bown’s research is also crossing frontiers in music performance. He and his colleagues are exploring how to integrate digital performers into traditional music events.

“It’s unsurprisingly quite hard. The artificial intelligence is a hard technical requirement. Then there is a creative side to explore: how do we present a digital performance? How do we put it in a real-world context – with lights and a stage? When you don’t have a perfectly working cyborg, it’s a tough riddle,” Dr Bown says.

“We are in a strange middle ground. We are trying to set up events that people can appreciate the work given in this primitive form, its experimental form.

“This kind of open experimentation is typical of the Design Lab and we encourage our students to dive in and get involved as much as possible.”
NEW EQUIPMENT OPENS NEW CREATIVE DESIGN POSSIBILITIES FOR STUDENTS

The Architectural Technology Services Centre has seen a dramatic change of focus in the last two years as new digital fabrication equipment allows students to explore new techniques and creative solutions.

The University of Sydney’s Architectural Technology Services Centre is home to the Digital Fabrication Laboratory. It’s a busy place – woodworking machinery next to plastic-moulds and powder-printers. A wind tunnel hurtles polystyrene pellets at buildings and cityscapes. Models and prototypes are rapidly produced through extensive use of three-dimensional design and modelling software coupled with laser cutters.

Students design buildings for real-world sites. They have to construct both the streetscape and design a building that shares the location’s aesthetic and community context.

Felise Reakes is enrolled in the Architectural Studio as a core unit of her Bachelor of Design in Architecture. She says that the second year unit is possibly the most design intensive and has a great degree of relevance to real-world practice.

She says use of the Digital Fabrication Laboratory’s facilities is one of the key reasons she chose The University of Sydney for her degree.

“I thought it was great that the University’s students are taught both digital and hand-drawing skills. We have both skills and that gives us options in how to design. The design I’m making involves an intricate lattice. It took me three days to model on the computer, but would have taken at least a week by hand. And the computer-assisted cutting makes the pieces perfectly.”

The University is eagerly anticipating its acquisition of the next generation of laser cutting machines. The current models cut accurately, but their extensive use by students leads the machines to degrade. Because of this degradation, maintenance is expensive and cutting times are unpredictable. The new generation of cutting machines can compute the time until completion, leaving students to complete other work while the machine cuts out their design.

Reakes says that the combination of digital design and computer-aided cutting is powerful.

“When you have the physical model in front of you, you feel a great sense of relief. You have something to show – you’ve transformed your idea from a design on the computer and into a physical object. Having the digital model is also rewarding: you can keep making alterations to your design, whereas you’d normally throw out your physical model because of the space it takes up”.

One of the advantages of the digital tools is the speed at which students can move from design principles to a finished model.

“You need to understand the concepts and theory if you are going to make a quality design. It’s not enough to be able to draw. It’s important, but what’s critical is your design aesthetic; how you generate ideas from your head. The digital tools speed up the design process once you’ve gotten a hold of those ideas,” Reakes says.

Students find that using the fabrication laboratory helps their coursework assessments and gives them practical skills for industry. “Laser cutting speeds up model building, so if you’ve only got a few weeks for an assignment, you can spend more time on your design and less time building the model,” Reakes says. “You need to understand this process if you are going to work in a firm.

“With digital tools, the only limit to the design is your mind’s capabilities. The facilities in this Faculty give you a greater span of what you can achieve with your architecture.”
Third Year Architecture student Kate Fife working on the new CNC Router. Kate’s work featured in the 2011 Vivid Sydney Festival and has been selected for the 2012 Vivid Singapore Festival.
Marinel Dator and Katie Yeung won the first prize at the Barcelona 2011 international architecture competition in May last year. The two University of Sydney Masters of Architecture students competed against a top-notch international field of over 500 entries.

The competition consisted of designing a 100m tall, ‘zero-ecological impact’ tower-hostel that would create a new landmark for Barcelona. The site chosen was opposite the city’s Museum of Contemporary Art designed by renowned architect Richard Meier.

Dator and Yeung’s achievement is made more remarkable by the fact that this was a competition for professional architects - students could only enter if they were accompanied by academic staff. After only six weeks from their initial design brief in what is their first collaborative project, they have won $3,500 and a trip to Barcelona.

The Master of Architecture’s Sustainable Architecture Research Studio incorporated the competition’s design brief for its students. Daniel Ryan, the studio-coordinator, said that involvement in architectural competitions is important for both students and the University.

“We hope that the public and private sector in New South Wales will start to recognise the value of competitions for both the commissioning of avant-garde architecture and the support of a new generation of architectural practice,” Ryan said.

Dator and Yeung’s design (pictured) is titled ‘The Hanging Cloud: Lightweight Living for Barcelona’. It incorporates a reinterpretation of Gaudi’s inverted hanging model, with the tower broken into light suspended elements. The external facade is eliminated to create a physically and visually permeable form. Dator says that it was important that the clarity and strength of the concept was not lost during the design process.

“We developed a concept that created something aesthetically and spatially unique, and ran with it,” Dator said.

The design uses locally produced terracotta columns to collect and preserve water at a constant temperature to create thermal comfort. Vibro-wind panels on the columns and pods capture wind vibrations and use these vibrations to create energy.

The students competed while balancing work at architectural firms and full-time studies. Dator works at Bates Smart and Yeung works at Patrick O’Carrigan & Partners. They say that support from their employers was important. Dator estimates that they each spent about 20 hours per week working on the design.

“The idea of winning the prize at the end was a big incentive, but actually winning feels surreal. We have both received a lot of support from our employers and peers, not just for this project but throughout the whole Masters program,” Dator said.

Yeung agrees. She says it was not just the architectural design they had to get correct, but also how to present it in a clear, graphic format. Architecture students normally present their work in ‘crits’ where they discuss and justify their work to a judging panel. This was not a possibility for this competition so the single image design had to explain the whole concept and its execution.

“It was a lot of work, but we enjoyed it. It almost became addictive,” Yeung said.

The project was first assessed by a panel of the University’s academics and practitioners. The Faculty of Architecture and Design’s Adrian Carter, John de Manincor and Sarah Benton assessed four student projects that were selected for entry into the competition. They say that the strength of the entries reflects both the quality of Sydney’s students and the facilities and engagement of the Faculty with industry and competitions.

The tutors for the studio were Daniel Ryan, Allison Earl and Associate Professor Glen Hill and consultants Su-Fern Tan, Matt Markham-Lee and Prof Max Irvine.

Dator and Yeung visited Barcelona in early June 2011 for an awards ceremony. It was both winners’ first visit not only to Barcelona but also to Europe.
STUDENTS COMMENDED WITH RIBA PRIZE

RIBA President’s Medals (in the Silver Medal / Part 2 category) was shortlisted as one of the final 18 projects out of the very high-quality 126 nominated by 300 schools of architecture in over 60 countries is an achievement in itself.

Duncan and Daniel’s project Book III – Narcissus and Echo of Metamorphoses is the outcome of the Digital Research Studio (Part of the Master of architecture Degree), in Semester 2, 2010. Broadly focussed on Ovid’s Metamorphoses and intimately focussed on Narcissus and Echo, the well known story of the desirous wood nymph Echo and the beautiful and scornful Narcissus.
Nestled into the ground floor of the Wilkinson Building, the Tin Sheds Gallery is host to a variety of emergent and experimental artist’s works. In 2011 the Gallery hosted eight exhibits that spanned performance, installations, photography, visualization, sculpture, painting and many others. The varied uses of the Gallery reflect its tradition of providing an accessible space for controversial, avant-garde and counter-cultural arts.

The 2011 exhibits were positively received in a broad spread of media, including the Sydney Morning Herald, Architecture Australia, Runway Magazine and Broadsheet. Gallery Manager, Anita Levine, is confident that the 2012 lineup will attract just as much acclaim and engagement from the public and industry.

“The Tin Sheds Gallery is uniquely positioned because it has the freedom to allow for experimentation. There is no ‘house style’. The exhibitions have the scope to be varied back-to-back. This variety can bring in a lot of new audiences and audience engagement that more traditional galleries are unable to attain,” Levine said.

The 2012 program opened with Youtopia, which is detailed on page 10 of this edition of Archetype. In February, Yarns Between Bubbles presented an experimental drawing exhibition exploring cultural dialogue and understanding. Fast-forward to the end of the year when Crisis Complex will present the work of 14 artists in the one space, coordinated internationally to produce a cohesive exhibition that ranges across a range of media, including digital projection, lighting and sound installations. See the full 2012 program opposite for more details.

Levine anticipates that the 2012 program will successfully reflect the Tin Sheds Gallery’s mission to provide a space that is as dynamic as its artists.

“The artists’ careers can be so varied, for some it can mean using this kind of space to potentially engage with a commercial gallery. Or it could be about getting engagement with another educational institution. It can also work the reverse; artists with well established relationships with dealer galleries are seeking a space for a greater degree of experimentation or non-commercial artistic expression.”
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<th>Exhibition Date</th>
<th>Launch Night</th>
<th>Exhibition name</th>
<th>Artists</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 Jan – 26 Jan</td>
<td>Thursday 12 Jan</td>
<td>Youtopia</td>
<td>Dagmar Reinhardt and Master of Architecture students</td>
</tr>
<tr>
<td>10 Feb – 10 March</td>
<td>Thursday 9 Feb</td>
<td>Yarns Between Bubbles</td>
<td>Anie Nheu, Yiwon Park, Li Wenmin</td>
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<tr>
<td>10 Feb – 10 March</td>
<td>Thursday 9 Feb</td>
<td>COMPLICIT</td>
<td>Robococo (Petra Gemeinboeck &amp; Rob Saunders) in collaboration with Liz Williamson</td>
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<tr>
<td>16 March – 15 April</td>
<td>Thursday 15 March</td>
<td>Against the Grain</td>
<td>Tim Burns</td>
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<tr>
<td>20 April – 19 May</td>
<td>Thursday 19 April</td>
<td>We need you, you need us: An experiential economy</td>
<td>Georgie Meagher, Paul Gazzola, Dara Gill, Agatha Gothe-Snape</td>
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<tr>
<td>20 April – 19 May</td>
<td>Thursday 19 April</td>
<td>'Cervena Voda (Red Water)'</td>
<td>Nathan Babet</td>
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<tr>
<td>25 May – 23 June</td>
<td>Thursday 24 May</td>
<td>Transit of Venus</td>
<td>Zanny Begg (Curator)</td>
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<tr>
<td>13 July – 4 August</td>
<td>Thursday 12 July</td>
<td>N/A</td>
<td>William Seeto, Sibylle Hofter, Heidi Kartveit, Magnhild Nordahl</td>
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<tr>
<td>10 August – 8 September</td>
<td>Thursday 9 August</td>
<td>'digital interdisciplination' – prototypes, prosthetics, parasites</td>
<td>Dagmar Reinhardt, Martin Tomitsch, Marjo Niemela</td>
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<tr>
<td>10 August – 8 September</td>
<td>Thursday 9 August</td>
<td>Still Life/Moving Fragments</td>
<td>Louise Curham, Jo Law</td>
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<tr>
<td>14 Sept – 13 October</td>
<td>Thursday 13 Sept</td>
<td>Crisis Complex</td>
<td>Sumugan Sivanesan (curator), Laura McLean (curator), Heidi Axelson &amp; Hugo Moline, Ella Barclay, Edgar Cobian, Carla Cescon, Tony Garifalakis, Francesca Heinz, Laura McLean, Joaquin Segura, Sumugan Sivanesan, Takayuki Yamamoto, Reza Afisina (TBC), Adam Hill (TBC), Simon Pericich (TBC)</td>
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<tr>
<td>19 October – 17 November</td>
<td>Thursday 18 October</td>
<td>N/A</td>
<td>Jodi Taylor, Helen Armstrong, Richard Goodwin, Peter Nelson, Izabela Pluta, Raumlabor</td>
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</tbody>
</table>
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