The Future of Construction Education - Article for Institute of Building Australia

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The Future of Construction Education



The first ever NOVUS outside the UK for young professionals

BuildAbility

The "making of ideas" vs the "ideas of making"

WALL

555 Reflections

Spend five minutes with five distinguished academics who answer five questions each on construction education

ARC Future Fellowship

One of our country's brightest and most outstanding academic tells us about his experiences as a Future Fellow

Cities & Regions Taskforce

ASBEC's six-point strategy for sustainable Australian cities

Life of an academic

The changes and challenges impacting on tertiary construction management education

contact australasia

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ISSUF 24 JULY 2013

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Welcome to our first issue of Contact for 2013! Having spent a considerable amount of time in the academic environment the theme of our current issue — the future of construction education - is one that is near and dear to my heart. Like many of our contributors to the current issue I feel very strongly about the important role of universities in training our future leaders in academia, government and industry. In this issue of Contact we explore some of the challenges and opportunities surrounding the construction education environment.

In 2008, the Australian Government announced the creation of the Future Fellowships scheme, to promote research in areas of critical national importance by giving outstanding researchers incentives to conduct their research in Australia. We hear from one Future Fellow undertaking built environment research. In his article, Professor Michael Ostwald raises the question: Is 1% a reasonable proportion for the government to invest in built environment research? (see page 12). We also hear from Professor Melonie Bayl-Smith who was awarded the 2009 Byera Hadley Travelling Scholarship and 2010 NAWIC International Women's Day Scholarship to undertake a research project entitled BuildAbility. In her research Melonie explored international benchmark pedagogies in construction, structures and fabrication with a focus on architecture schools across Australia, New Zealand, the Netherlands, Germany, Switzerland, North America and the UK. The study resulted in a series of recommendations which you can read more about on page 17.

The construction industry and the academic world continue to experience a range of challenges set within a context of constant change. Associate Professor Willy Sher shares with us some of his findings from a research project where he set out to identify the changes and challenges impacting on tertiary construction management education. In his article Willy postulates on how these changes and challenges affect the current and future lived-experiences of construction management academics (see page 21).

The CIOB now has the opportunity to promote issues relating to sustainability through the Australian Sustainable Built Environment Council (ASBEC) as our platform. Steven Bregovic, our NSW Vice Chair, who was elected by the CIOB to represent the Cities and Region Task Force provides us with an update of the ASBEC's six-point plan for sustainable Australian cities (see page 26). Profiled in this issue is our new New Zealand Centre Chair, Richard Castell who tells us about his involvement with the construction industry and the CIOB (see page 40).

As my two-year term as CIOB Australasia's Publications Officer draws to a close I am most grateful for all that we have achieved and the changes we have introduced to Contact. When I first took over the role of Publications Officer in 2011 the Regional Council were considering ways in which we could improve our communications to members in terms of regional, portfolio and centre activities. Towards this end we have introduced additional content to Contact including Portfolio and Centre news and updates. We also introduced a number of new sections including professional and industry news and academic news. We also made "Features" a regular section where we have covered a selected number of highly topical articles in relation to a selected theme. The idea of having themed newsletters was aimed at exploring current debates and providing members information relating to pressing issues surrounding the built environment. In the last two years the following themed issues have been produced: Sustainability, Internationalisation, Innovation and Education. We have sought out diverse authorship in each issue in order to achieve a balance of industry/ academia articles. We have had articles from academics, researchers and students reporting on high quality research findings and from our members and associations whom we have agreements with [for eg. ASBEC]. We have also received contributions from leading industry players. In 2011 we featured our first student member profile and have continued to do this in 2012/2013. We also introduced the 555 Reflections section where we feature interviews with five leading industry/government/academic experts/professionals and get them to answer five questions related to the theme.

I'd like to take this opportunity to thank the Regional Council and administrative staff for all their help and support provided to me in the last 2 years. Particular thanks to our President for her enthusiasm and ever willingness to discuss ideas for content and also for getting me connected with various key people in both industry and academia – her support has been key to the success of Contact. A final thanks to everyone who has contributed to Contact whether through feature articles, member profiles, 555 interviews or updates – the thought provoking, rich and intelligent articles/updates/interviews we have received from all of you – your contributions and insights are what makes Contact great. I wish the new Publications Officer every success in continuing to raise the quality of Contact.



Jessica Siva BAppSc(Arch), BArch(Hons), MPhil Editor - Contact Australasia

president's column



Welcome to my final edition of Contact as CIOB Australasia President. I was humbled and honoured to be the 6th Regional President for CIOB for the last two years. I followed excellent examples of leadership. Much has been achieved collectively by all the past Presidents, their Executive Regional Councils and the Centre Chairs and Committees. I have worked hard and been committed to advancing CIOB Australasia in a range of forums in the tertiary sector environment as well as industry. I was invited by the Federal Minister 18 months ago to sit on the Built Environment Industry Innovation Council as an academic and by virtue of my role as Professor of Construction Management but I often flew the flag of CIOB in that forum because I believe in this organisation and what is stands for. I have enjoyed the company and the support of a wonderful collection of people in our Regional Council and the Regional Manager and his team and our previous Regional Manager. I've also enjoyed working with head office and the Education and International teams. I have met the other Presidents and that has been great exposure and I look forward to future opportunities with some of them as I visit Malaysia, Hong Kong and China and Vietnam in my day job travels. I remain committed and highly supportive of this organisation and wish the new President every success. I remain, as always, confident that this organisation will be successful.

This President's note is a combination of reflection of our achievements for the few years and also an introduction to our wonderful edition of Contact (so forgive me for the unusual length). We always reflect upon what we have achieved and also not achieved when we complete a term in a position. When I came to the role I wanted to focus the first year as President internally and this involved; ensuring Regional Council met regularly and was fully functional including having all Centre Chairs in place and a strategic plan for the Council and the legacy of an Annual Planning Day; contributing to enlivening the Continuing Professional Development (CPD) series by visiting and presenting in each of the Centres; working with identified Universities towards accreditation as well as to ensure a refresh of our magazine into a high quality publication. This was achieved with the help of many along the way. Then in 2012 I envisioned that the Regional Manager would continue to energise and support the CPD events and make visits to the Universities as part of operational matters leaving me to focus in my second year on our external relationships including; strengthening the CIOB relationship to the Australian Sustainability Built Environment Council (ASBEC); University liaison and the Education Panel and continued support through Contact. A complete copy of my report for the last year can be requested from the Regional Manager.

EXTERNAL REPRESENTATION

There are two key outcomes in our networking and lobbying activities in the past year and they include significant attention to our relationship with the Australian Sustainability Built Environment Council (ASBEC) and our recognition by the Western Australian government for our members. CIOB Australasia has membership on ASBEC and on behalf of Regional Council members represent CIOB — this is a significant opportunity for us to connect to government and lobby in

partnership with other key stakeholders. The decision by a past President to be on this highly effective lobbying group was very far sighted. I wanted us to take this to a much more active level last year as I believed this group was the most successful and key built environment lobbying group. We are much more active and diverse in this group with the appointment of five additional CIOB members to ASBEC Task Groups which complements and supports the ASBEC representatives leadership role. ASBEC works primarily through its Task Groups to develop positions to lobby government and to contribute to policy debates. Task Groups meet, discuss, commission research, consult and prepare position and discussion papers and promulgate this material to departments and state and federal politician. We are named contributors of these documents that are produced by Task Groups that we have membership of . A call to all CIOB members last year resulted in the following members being appointed to task groups:

- · Clifford To, Jobs and Skills Task Group
- Jafar Abdi, Sustainable Built Environment Framework Task Group
- Steven Bregovic, Cities and Regions Policy Task Group
- Pascal Bobillier, Sustainable Housing Task Group
- Kerry London, Industry Centre of Excellence Task Group

I drafted the Terms of Reference (TOR) last year to give structure and direction to these members who represent us in various ways. This TOR was approved by Regional Council and the Executive provided input into the document and this was at the direction of the members at the AGM. Our governance around these memberships should be much better in the future – and then also the way these members inform Council and the membership will be much more coherent.

The second key deliverable was the submission to the Western Australian government on behalf of our WA members for their recognition as licensed practitioners; specifically accreditation as an adjudicator under Construction Contracts Act 2004 (WA) ("CC Act") and its Construction Contracts Regulations 2004 ("CC Reg"); and a licenced builder under the Building Services (Registration) Act 2011 (WA) ("BSR Act") and its Building Services (Registration) Regulations 2011 ("BSR Reg"). Barry Cooper-Cooke, the WA Centre Chair and I met with the Commissioner and his team in November 2012 and we explained who we were, our charter, membership, background, membership routes and continuing professional development activities. This was a very extensive and positive meeting. I then drafted a submission that documented this and consulted with the Executive and then Regional Council approved our submission. We are currently waiting for the decision. It is anticipated that this submission could be a blueprint for the next President and Centre Chair of each state to do likewise.

EDUCATION

The Education Panel is now reinvigorated with representation from our accredited Universities, student body and industry. Our Education Panel is reconstituted with again a refreshed Terms of Reference and a clear direction. The Education Panel is also currently

reviewing the operational matters in relation to this TOR and shall be presenting to Regional Council a supporting operational guideline. They have on their agenda such matters as a review of the Awards to students, developing a schedule of visits to Universities and support of NOVUS.

Another important aspect to the Education portfolio is Accreditation of the tertiary courses. We now have Deakin, Newcastle, Bond and also RMIT Universities accredited. There are also three other Universities preparing submissions. In 2011 with the previous Regional Manager I prepared a targeted strategy to develop key partnerships and to get on board Universities. I suggested then that by end 2012 we would have five on board. We are close to achieving this target and I anticipate by end of 2014 we will have eight high quality partnerships with the leading performers in the tertiary sector. We must continue to work closely with the Universities on supporting their needs to provide an excellent student experience and assist with transitioning into their professional careers. The most important part is to develop quality relationships with key people within the Universities and this is based upon a two way dialogue with key personnel who are responsible for programs. It is a long process and it just takes time. The Education Panel is well set up to continue with this and are currently preparing a schedule of visits that will include Centre Chairs, various Regional Council members and key market leaders to speak on the benefits they have experienced in being a CIOB student member. I wish the Panel well for the future.

NOVUS

Last year we decided based upon an analysis of the membership profile that we were well placed to take the NOVUS initiative forward. I have been very keen to get this off the ground but it has proven to be a challenge. NOVUS is a young professional networking group that replicates the Regional Council structure and reports to Regional Council. We had aimed to launch at the end of last year but for various reasons this was not achieved. In recent months we have reinvigorated this initiative and Nick Marston, NSW Centre Chair and Lindsay Prehn, NOVUS President elect are spearheading a launch supported by the Regional Manager and the Branch Administration Officer. There is much marketing and preparation to do towards achieving this and we need all the support of everyone to make this happen successfully. NOVUS originated in the London Branch office and we are appreciative in that they provided us with their original strategy. I have taken much on board in relation to their lessons learned and developed an Australasian strategy which involved consultation with various members and ratification by Regional Council.

CENTRES

The Centres are the lifeblood of CIOB Australasia. We have had mixed results last year in different Centres but it is not for lack of trying. I thank all Centre Chairs and their Committees for their efforts in the last year. There can always be more work to do but of course it needs to be balanced with our other commitments to work and family and we need to be mindful of this. Perhaps an observation on my part — we look differently at how we do CPD in the future and we consult with our

members to refresh our CPD program. I am not convinced that we have this solved yet. All the Events in 2011 were well attended (between 40-110 attendees) but last year they were not except for NSW and WA. Perhaps the members are looking for something else? In 2010 Regional Council commissioned a survey and we were advised that CPD and Contact were important benefits and so we focussed on these but maybe times have changed and we need to review and explore different ways of achieving CPD.

Last year was a challenging year as our Regional Manager did not come on board till mid year and then had a lot of what I would call operational infrastructure to sort out including closing the office, creating the new virtual office, restructuring to have three branch administrators and employment and training of these people. These have all been achieved and he is now well placed to build upon this and focus on strengthening relationships with companies and the Universities as well as growing membership.

PUBLICATIONS

Finally as I reported last year the Contact publication with its new look just keeps on getting better and better – it is a huge commitment and it is a first class high quality publication with quite rich, intelligent and thought provoking articles from a diverse authorship - that we can all be proud of. Many of the articles are from academics and students and are based upon their research - this is a good approach and should be encouraged in the future as it connects industry to academia. There have been articles from many of our members and also other associations whom we have agreements with. There are also high quality insightful articles from our leading industry players and I think an excellent balance has been achieved by our Publications Officer. There have been numerous positive comments about the new look Contact from places far afield. Thank you to everyone who contributes and provides support to Jessica Siva our Publications Officer and a special thank you to Jessica for all her hard work and fine achievements with Contact. We have had the following Editions with Jess as Editor one themed Sustainability, Innovation, Internationalisation and now our current issue Education. I promulgate this publication quite far and wide to many CIOB members in other regions and after a period of 2 months far and wide to many people in Australia. I would encourage others to do the same. Unfortunately we now say good bye to Jess as her 2 year term is coming to a close but I thank her for her fine efforts and note that she has set the bar quite high for the next Publication Officer.

MEMBERSHIP

Membership growth is always of key concern in the early stages of an organisation. We started in 2003 with a membership of 159 and by 2010 this had grown to 829. Since 2006 we have had a consistent growth rate annually of approximately 7%. One of our greatest strengths is the number of student members we have however one of our greatest challenges at the moment is that we lose these student members as they move away from the University environment and into full time employment in various organisations. I shall leave the detail of reporting of membership

growth strategies to our Regional Manager. But we do need to work hard to engage our young professionals and that is why our relationship to Universities and connecting our corporate members through NOVUS to students is so important! The focus last year by our Regional Manager was on creating the infrastructure and getting this right – this has taken much effort and so now he is well placed after this initial set up phase to grow membership and to lead our business development. This is an exciting time for CIOB Australasia.

Finally I thank everyone on Regional council for their support and commitment and friendship over the last two years — I have valued it very much. I thank head office and the regional office for their enthusiasm and support. I wish all the new office bearers every

Professor Kerry London, FCIOB, FRICS BSc(Arch) Deans Merit List, BArch, MBldg, PhD Regional President

Centre coordination

CIOB Australasia has a number of very interesting continued professional development (CPD) events planned in 2013. The events will take place in number regions in Australia and New Zealand.

One of the key CPD events to be staged by the CIOB is the PTMC – Project Time Management Certificate Training course. The PTMC highlights that without effective time management, there can be no effective resource management, cost management or delay management. The primary purpose of this training is to set down the standards necessary to facilitate the effective and competent management of time in construction projects. It defines the standards by which project schedules can be prepared, quality controlled, updated, reviewed and revised in practice and describes the standards of performance which should be reasonably required of key project management staff.

The course has been developed as a scheduling reference document capable of wide application. It is a practical treatise on the processes to be followed and standards to be achieved in effective management of time. It can be used in any jurisdiction, under any form of contract, with any type of project and should be identified as the required standard for the preparation and updating of contract programmes, progress reporting and time management.

The main mode for delivery for the training course involves a self-study option: The PTMC is an examination based credential with no prerequisites. The examination is based on the CIOB Guide to Good Practice in the Management of Time in Complex Projects. There are six modules of training leading to the CIOB PTMC examination. Each module includes reading from our notes and the course references, practice questions in a 'paper based' multiple choice format, scoring and detailed answers.

- Mod. 1 Overview & Strategy
- Mod. 2 Schedule Development & Analysis
- Mod. 3 Resource & Cost Loading

- Mod. 4 Schedule Management & Reporting
- Mod. 5 Definitions & Scheduling Software (+ Exam Conversion if needed)
- Mod. 6 Revision and Test

The other key CPD event that CIOB is hosting in the coming year is (PPIR) protocol Professional Performance, Innovation and Risk. PPIR is a change plan aimed at raising the status of professional construction managers and engineers. PPIR at its core is a new performance standard for all professional construction managers and engineers.

It is recommendation that CIOB members and interested colleagues to view CIOB CPD events calendar on our website www.ciob.org.au for up and coming events. Alternatively, get in contact with your local committee chairs or branch offices.

Daniel O'Riordan Regional Vice President



Daniel O'Riordan, BSc(Hons), MBA, MCIOB, TMIEAust (Civil), MAIPM Regional Vice President



Image by Geraldine Liew

Industry & Partnerships

This year the Members Forum took place between the 16 -20th June inclusive in the beautiful Oulton Hall Hotel & Spa, Leeds, Yorkshire and being hosted by the Yorkshire branch. Yorkshire is where I originate from in the UK so I was fortunate to be going to the UK at this time, to attend a family wedding and see our first grandchild. Once I found out the Members Forum coincided with my time in the UK I decided to take the opportunity to attend.

So why tell you about the above? The reasons I told you about the above are twofold:

1. One of the main talking points late last year was the membership grade review survey circulated to members to let them have their say. The survey highlighted that the grade of ICIOB was meant as a stepping stone for members on their way to full charted status and as it stands 45% of members in the grade are eligible to upgrade to MCIOB subject to completing the professional review.

The Members Forum discussed the results of the survey and arrived at a recommendation to achieve the policy objective "Examine whether CIOB's current membership grades adequately reflect the needs of the industry in that they provide a cohesive progression route for prospective construction professionals, as well as set out to demonstrate that the construction management profession is worthy of standing amongst the elite of professions, not just in the construction industry".

2. I recently posted a question on the Australian CIOB LinkedIn group page posing the question What is Stopping YOU Transitioning from ICIOB to MCIOB? With the strong possibility of ICIOB being phased out I would be interested to read what is stopping ICIOB members transitioning to MCIOB.

In reflection of the above and considering one of the reasons for my trip to the UK, the marriage of my brother to his long-term partner, you could say that ICIOB grade is the

partner, you could say that ICIOB grade is the engagement stage in the relationship between the professional individual and the CIOB. For me I also see other similarities in the relationship. For instance my brother currently gets a partner who supports him in all his endeavours and in turn he supports her, he gains from all the benefits that being in a loving relationship brings but knowing all the time that formally there is no binding commitment between the parties. As the wedding ceremony creates a place for both parties to openly vow their commitment to each other and it gives others an opportunity to say why they should not get married. So the formal application for member status triggers a formal procedure. The application like the wedding vow states why the professional believe they should be admitted as a member. The professional review provides a time and place for the application to be heard and an opportunity for others to state why they should not be accepted. Both ceremonies provide a certificate, one being a marriage certificate the other a charted member certificate, and in turn the parties can make reference to themselves, one being married the other being a charted builder. So my question is what is stopping YOU from transitioning from ICIOB to MCIOB?

Barry Cooper-Cooke Regional Vice President





Barry Cooper-Cooke, BSc (Hons) Construction, MBA, MCIOB Regional Vice President & WA Centre Chair

Education

This is my first report as the Chair of the Education Panel, having taken over from Associate Professor Willy Sher of the University of Newcastle. I would like to thank my predecessor Willy for an excellent job done and the smooth handover!

I'm delighted to be involved as the new Chair. Having been involved with the CIOB since 1997, and served as the Vice Chair of the Experienced Practitioner Assessed Route (EPAR) Examination Panel, CIOB (2006 - 2009), including the development of the Experienced Practitioner (EPR) Route for CIOB Membership in 2006, and currently serving as a member of the CIOB International Accreditation Panel, I see the CIOB Australasia Education Panel, which is composed of members drawn from both academia and industry, as playing a number of important roles ranging from being the interface between CIOB Australasia and CIOB accredited university degree programs to supporting strategic partnerships. Among other key areas covered in its terms of reference (TOR) which are broad include: providing assistance and advice about education matters on request from Council including policy development at national and international level.

On the accreditation front, this year (2013) CIOB have visited RMIT as part of the accreditation of their Bachelor of Construction Management. This brings to a total of 4 as the number of universities in Australia which have had accreditation. These being: Deakin University, Bond University and The University of Newcastle. This year, as part of its strategic plans, the Panel will be embarking upon a number of visits to universities in Australia, to raise awareness and benefits of CIOB membership, as well as seek mechanisms for increasing the number of CIOB accredited programs. For those Universities not yet accredited by the CIOB, the Education Panel in collaboration with Centre Chairs is quite happy to come and explain the numerous benefits of the process, not only to the teaching institution, but students and academic staff as well. This will also contribute towards raising the awareness and

and understanding of the accreditation process, and its impact with a view to lobbying for streamlining of this process. May I also take this opportunity to restate that, the Education Panel offers the opportunity for providing a structured link between academia to corporate members for joint CPD events for Centre Chairs to include in Centre CPD programs.

Of late the CIOB has been receiving requests from members to support their research by dissemination of the survey documentation. While, the Panel's TOR does include provision of recommendations to Council on support for student, academic and other research education and training projects, it's important that such requests are accompanied by confirmation that, the survey has been approved by the relevant ethics committee, and that the survey aligns with our CIOB Corporate Plans Goals / Strategic Objectives which can be found on the CIOB home page.

Dr Nicholas Chileshe Education Panel Chair

CIOBA academic excellence award

Each year CIOB Australasia recognizes academic excellence through a number of awards. On Thursday 18th April 2013, CIOB Australasia sponsored and presented a special award "The Chartered Institute of Building Award (Undergraduate)" to a student who has excelled in achieving the top single result from all available subjects in the Bachelor of Environments Construction Major.

The winner was Timothy David Hellyer from the University of Melbourne. CIOBA Victorian Centre Chair, Horace Fu presented Timothy the award at the University of Melbourne's Carillo Gantner Theatre, Basement, Sidney Myer Asia



Dr Nicholas Chileshe MSc (Eng), MSc (Mgt), Pg Cert-LT, PhD, FCIOB, FBEng, MCIM, FHEA, FAIB, MAIPM Chair Education Panel



o1 CIOBA academic excellence award presentation. L-R: Horace Fu, Timothy Hellyer and Associate Dean for Undergraduate studies, Alan March

CIOBA Excellent Building Award (Undergraduate)

On Friday 31 May 2013, our Regional President, Professor Kerry London attended the University of South Australia School of Natural and Built Environment's annual Prizes and Awards night. Kerry was there to present Craig Bentley the CIOB Australasia Excellent Building Undergraduate Award. The award is granted to the best final year undergraduate dissertation in the Bachelor of Construction Management and Economics. Craig's dissertation explored the "QSE Software and Tablet Technologies as Vehicles of Integrated Standard Management Systems". Professor London said, '...it was an excellent night, very warm and friendly and I always feel honoured to represent CIOB on such occasions when we celebrate our brightest and best students'. We are particularly pleased to note that Craig was supervised by one of our own CIOB members, our Education Panel Chair, Dr Nicholas Chileshe.



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O1: Professor London
presenting Craig
Bentley with the award
O2: Attendees and
prize winners at the
event

centre news and events

PPIR Seminar

On Wednesday 13th March 2013, CIOB Australasia held a seminar, "The Professional Performance, Innovation and Risk (PPIR) in Australian Engineering practice'. The seminar was held in Melbourne. The presenter, John Nurse, has 40 years' experience as an engineer and is a former senior manager and director of engineering contractor Uhde Shedden. Over the past two years, he has been actively involved in the PPIR Implementation project for which he has been involved in development of the communications and seminar program as well as running PPIR training sessions for engineers and senior staff.

The PPIR change plan is significant because it is a change plan for the engineering industry and profession. It is applicable to all aspects of engineering from design to project management, construction, ongoing operation and maintenance. Central to the change plan is the PPIR Protocol – a guide to professional performance in engineering. The seminar provided important information on the development and application of PPIR, including the adoption of the PPIR Protocol.

PPIR's core aim is to promote excellence in engineering through the application of the Protocol as the third leg of engineering professionalism (ethics, competency and performance). The Protocol clarifies widely accepted engineering practice in Australia, against which the 'duty and standard of care' of engineers can be objectively assessed. It provides a strategy for the engineering industry and profession to address the dramatic changes in the operating environment of engineers and raise the status of the professional engineer.



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01: The presenter, John Nurse and CIOBA Vic Centre Chair, Horace Fu at the PPIR Seminar



New Zealand

Having volunteered as Centre Chair in April with the aim of continuing the good work Peter did, I have the goal to help the CIOB be more actively relevant to the New Zealand members in their professional lives and fostering closer ties with other New Zealand based construction bodies, ideally moving towards reciprocal recognition.

An NZ AGM was held on the 22nd August in Auckland where the reinvigoration of the CIOB offering in New Zealand was tabled from both a CPD and social perspective with a fairly decent turnout of around 15% of the Auckland based contingent was in attendance. The outcome of which will be relayed to the Australasian Executive in Sydney at the end of May. Mark Stone was elected as Vice Chair, Heather Venis as Secretary and Robert Davis as Centre NOVUS/Education Rep.

The New Zealand construction market following having been relatively subdued in 2012 followed by the unfortunate circumstances of a key player such as Mainzeal going into receivership has already noticeably stepped up a gear in Initially it was with consultant workloads increasing towards the end of 2012 and in the first quarter of 2013. In the second quarter, market activity in tendering has noticeably picked-up. All this coming together with the large amount of workload slowly coming on stream from the Christchurch re-build, but by many accounts is going to continue to gradually grow through 2014.

It is the aim that two to three CPD events (one with a seismic bias, one on the topic of the governments new procurement model and a site visit February 2014) will be tabled in the coming year, that target the needs of the New Zealand members and the issues of the day. The Geotechnical & seismic implications of developing new and maintaining existing buildings and infrastructure are seen as a key component of the New Zealand market moving forward, as well as liaising with the local education establishment to help deliver the future professionals that will inevitably be needed. NZ commercially available construction materials and systems is also potentially another topic for the future that may be considered of interest to current and future CIOB members based in New Zealand.

We also welcome Ms Heather Venis as the new NZ Branch Administrator based in Christchurch.

Richard Castell New Zealand Centre Chair



Richard Castell BSc (Hons) Construction Management, MCIOB NZ Centre Chair

cembre mews

NSW

How quickly the year is passing by and what an interesting year it will be for everybody including the construction industry. The Federal Election 2013 in September is certainly going to change the landscape for our industry.

In NSW, we are due to see a shake up of the industry following the Collins inquiry into building company collapses in the state. The inquiry has made dozens of recommendations for change, including a new construction authority and the establishment of trusts to ensure subcontractors are paid for work and makes 44 recommendations to minimise the effect of construction company insolvencies on jobs and major projects in the state.

In local news, I was pleased to present the CIOB Prize Award at the UTS Annual Prize Giving Ceremony. I would like to congratulate Daniel O'Neill who was the winner of the Chartered Institute of Building Australasia Prize. This award is made to the student who has obtained the Highest Mark in the subject, Construction Cost Planning. Well done. I look forward to the ongoing enthusiasm and contribution to the industry from Daniel and the winners of other prizes on the night. If you are interested in finding out more about the recipients of this year's awards or to find out more about the awards for next year, log on to the CIOB website or get in contact with your Centre committee member.

Our social evenings in NSW provide opportunity to meet with other members and to discuss the latest news and trends in the industry in a casual and relaxed environment and we welcome you to attend these for the rest of the year. We are excited about the year ahead and look forward to bringing you some interesting and relevant events with a push to represent across the state.

I would like to take this opportunity to welcome the new branch administrators to the CIOB. I would also like to thank the outgoing NSW Centre Committee members, Steven, David and Nick for their dedication and support and I welcome the new NSW Centre Committee members and look forward to working with them in NSW for the year ahead.

Nick Marston NSW Centre Chair



Shanghai WFC and Jin Mao Tower by Curt Smith, http://www.flickr.com/photos/curtsm/3954865445/in/set-72157622438104352, available under a Creative Commons License

Langston and Professor Rick Best of the Bond University but unfortunately Professor Langston has advised that he will be overseas at that time. Further CPD events will be arranged later in the year and formal notices sent to the CIOB members as soon as the details have been confirmed.

The Queensland Centre AGM was held at the Glen Hotel, Eight Mile Plains, Brisbane on Wednesday 22nd May 2013 commencing at 6.00pm. The new Qld Centre Committee for the year 2013 to 2014 is currently as follows:

Qld Centre Chair: Peter White

Qld Centre Committee Rep: Jon Liddington Qld Centre Committee Rep (Central Qld): Jonathan Wood

Hopefully the attendance at the CPD event in June will be well supported and we can look forward to a more positive response from the Qld based membership in the future.

Peter White Queensland Centre Chair

Queensland

Unfortunately little has changed since the previous update here in Queensland and the general apathy on the part of a large proportion of the Queensland members is still a cause of concern. Nonetheless we held a Queensland Centre Committee Meeting on 17th April 2013, attended by myself and John Liddington, who is the only other active member of the committee here in Brisbane and the minutes of this meeting are attached to this update for your information and records.

My thanks do go out to Mr Jonathan Wood, who is our only other member of the Qld Centre Committee, for his ongoing efforts in organising CPD events in and around the Rockhampton area (usually in conjunction with another professional body) and he does appear to have some degree of success by way of CIOB member attendees. Unfortunately due to his location Jonathan is obviously unable to attend the Brisbane Committee meetings or CPD events in person but his ongoing efforts in central Queensland are very much appreciated. Over the last year or so work commitments have prevented me from carrying out my duties as the Qld Centre Chair effectively but hopefully, I will be able to spend a little more time over the next few weeks in actively promoting the CIOB as much as possible.

Thanks to the much appreciated assistance of Elie and Maricel (and Kerry of course), we are in the process of arranging our first CPD event for the year on 5th June 2013 in a venue yet to be confirmed in the Brisbane CBD area and full details of the event and final location will be sent out to all Qld members within the next week or so. Once the venue has been set we will attempt to contact as many of the major Builders and Trade Contractors in the areas to get them to actively encourage their employees, whether CIOB members or not, to attend this event. A verbal invitation has also been sent to Professor Craig



Nick Marston, BBuild, MCIOB, MAIPM, PRINCE2 NSW Centre Chair



Peter White, MCIOB, Queensland Centre Chair

centre news

Victoria

The Victoria Centre has gone through a quiet period from Dec 12 to Mar 2013. We held a Christmas drinks gathering on 19th Dec 2012, so that our members can share and enjoy the season's joys. During this festival and holiday season, Victoria Centre has planned only one CPD event on 19th Mar 2013 for the presentation of The Professional Performance Innovation and Risk Protocol (PPIR™ Protocol).

Besides CPD events, the Centre will continue to organise the regular networking events. The Centre Chair and Committee members will meet our members every third week of the month. Please feel free to contact the Branch Manager for details.

The AGM for Victoria Centre was held in May 2013. All CIOBA members in Victoria were cordially invited to attend. Nomination and election of new Centre Chair and Committee Members were held at the AGM. Details are available through the National Branch Office.

Horace Fu VIC Centre Chair

Western Australia

CPD

Over the last six months we have held two CPD events as follows:

- 15th November 2012 Phil Serio of Waterproofing Technologies presented an innovative water proofing technique being used on rooftops.
- 13th March 2013 Ian Cartwright Associate Director & Regional Manager Western Australia for McLachlan Lister Hill International presented Extension of time: How to present a good claim submission.
- 8th May 2013 Market Trends in Sustainable Design presented by Mark Pitman, principal at Cundall. Mark is an experienced industry consultant as well as academic researcher. He completed his PhD in numerical modelling. This presentation gives an overview of current trends in the ESD, sustainability and "green buildings".

I want to take this opportunity to thank those members who came along for supporting the CPD events. What was also good to see was the attendance by none-members as this provides opportunities for members to network after the CPD with other industry members. Both events were well received and provided some positive feedback. We have scheduled CPD events for the following dates:

• 10th July 2013 - Why do projects? By Associate Professor David Baccarini. David is Associate Professor in Project Management at Curtin University. In 1999, he reformulated the project management program to create the Graduate Certificate, Graduate Diploma and Master of Science in Project Management. David is the Course Coordinator for these programs and lectures in project management, ct and risk management.

Many project people who deliver projects tend to focus on delivering to the classic time, cost, quality objectives. However, a more importantly factor is why is the project being done in the first place? David will discus the rationale for projects with reference to Tony Blair, Madonna, getting married and robbing banks

- \bullet 11th September 2013 TBA and is open to offers from would be presenters.
- \bullet 13th November 2013 TBA and is open to offers from would be presenters.

I appreciate the time and effort that people put in to making these events possible so a want to thank:

- Darwin Barus, Daniel Griffin and Gary Faulkner for their support in either arranging CPD's or assisting at the CPD events, without such people the events would not happen.
- CDI AndersElite Russell Gale and his staff for provide sponsorship of the CPD events.
- Finally but not least all those presenters named above who have gone out of their way to put together a CPD event.

Social.

Due to the poor attendance to the social evenings we have only held one Social evening in the last six months, which coincided with the WA AGM. It was great to see some new faces at the AGM and the following social event.

Please make contact with Elie Frangie the Regional Manager if you would like the Social Evenings to recommence. If we get enough members voicing their support and commitment to attend the next notified event we will restart them.

Barry Cooper-Cooke WA Centre Chair



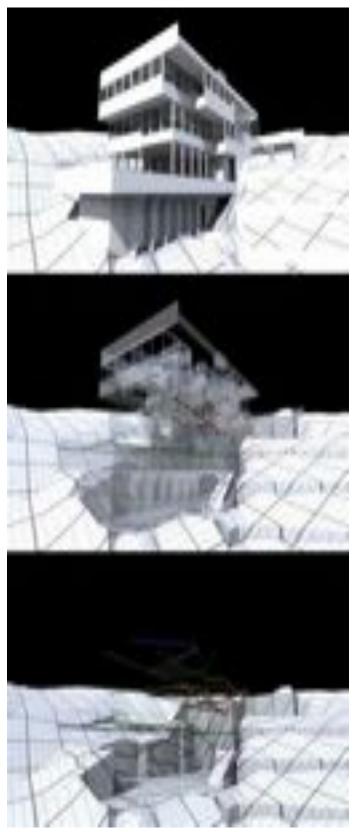




Horace Fu, BSc(Hons), MEngSc MAIB, MAIPM, MCIOB,MHKICM, ACIArb, AIAMA VIC Centre Chair



Barry Cooper-Cooke, BSc (Hons) Construction, MBA, MCIOB Regional Vice President & WA Centre Chair

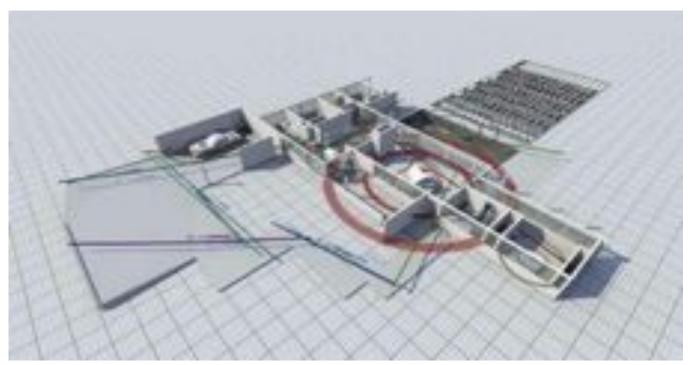


Way-finding analysis of the Lovell House. Source: Michael J. Ostwald and Michael Dawes.

Expanding the 1% Margin: The ARC Future Fellowship

Article by Michael J. Ostwald

In 2008 the Australian Government announced a visionary new funding scheme to support some of Australia's 'brightest mid-career researchers' to commit their energy to solving substantial national and international challenges. This initiative, which is known as the 'Future Fellowship' scheme, was set up to support 1000 of Australia's most 'outstanding academics' to engage in four years of intensive research activity. I was fortunate to be awarded one of these fellowships in the first round and for the last few years I have been focussed on developing new computational approaches to spatial analysis and optimisation. Since that time, a further eight Future Fellows have been named from the built environment disciplines, with the majority working on urban scale issues. To date, only three of these have a tighter focus on buildings, either their construction or design. Yet, with each fellowship typically being worth in the order of \$1,000,000 this represents a substantial investment in built environment research – or does it? With less than 1% of the complete group of Fellowships being awarded to academics in architecture, building, design or planning it raises a serious question. Is 1% a reasonable proportion for the government to invest in built environment research?



Balanced sound and vision optimisation model. Source: Michael J. Ostwald and Michael Dawes

The Australian Research Council (ARC) administers the Future Fellowship scheme and, along with systems for early career (DECRA) and eminent later career researchers (Laureate and Federation Fellows), it remains the most prestigious support an Australian academic can aspire to. Each of these fellowships provides a substantial career boost and a heightened international reputation, which is why they are so sought after. The growing importance of these schemes also potentially signals a shift in the government's commitment to research, away from supporting specific projects and towards investing in individuals. Building and architecture academics' apparent lack of success in recent national project funding rounds seems to reinforce this message. Indeed, over the last decade the total amount of money awarded to support fellowships in building and architecture is up to five times higher than the amount of project funding bestowed in the same areas. At ARC briefings, and as part of national roundtable discussions, it has even been inferred that the return on investment represented by a fellowship is higher than for a similar scale project. In parallel with this, it has been argued that the national benefit from limited partnerships between industry and academic groups (in the form of another type of ARC project known as a 'Linkage Grant') has not been as successful as hoped. This combination of factors may partially explain why a new range of large-scale schemes, ostensibly focussed on transforming Australian industries, has been announced.

What all of this means is that after more than a decade of relative stability in the Australian research system, the last few years have been dominated by rapid change; new rules, new schemes, changing funding formulas and shifting success rates. Record numbers of built environment researchers are applying for national funding and this inevitably means, because there has been less of an increase in the money available, a growing failure rate. Because other disciplines are increasing both the quality and quantity of their applications, and are seeking a share of the same funds, built environment academics have to be especially

careful that they remain competitive. Scientists, engineers and medical researchers are all typically more experienced at competing in these systems and are generally better qualified and supported with undergraduate funding. But this situation is changing; the proportion of building and architecture academics with PhD level publications has never been higher and the number who have been awarded project grants and fellowships is also rising.

Perhaps then, for the built environment disciplines to be awarded only 1% of the Future Fellowships may not be so unexpected. Certainly in an ideal world we should be doing better; the social, economic and cultural impact of the built environment is significant. The ecological challenges implicit in building construction and management practices are similarly substantial. But this is also one of our weaknesses; such is the scale of the building industry that many believe it should be providing more direct support for research. But there are other factors to consider as well. Our own academic and professional values may be holding us back. Historically, our industry and professional groups have tended to be dismissive of the benefits of research in a way which simply wouldn't occur in engineering, medicine, agriculture or economics. Also, as academics we must address our own competitive natures. At a 2005 ARC briefing it was suggested that the built environment areas were amongst the most negative when it came to assessing each other's applications for grants or fellowships. If we cannot support ourselves, how can we convince scientists, engineers and biomedical specialists to respect and support us?

In late 2009 it was my good fortune to have a series of anonymous peers assess my application for a Future Fellowship and support it. It is through their generosity that I have been given the opportunity to pursue new ideas and test seemingly established theories, producing new methods for the analysis of buildings and spaces. As part of this work I have lead the development of a unique mathematical approach to modelling pedestrian dynamics, my team have revisited some of the world's most famous designs to test their spatio-visual properties and

I have worked on the production of systems for mapping spatial cognition. Other Future Fellows are investigating occupational health and safety on building sites, the cultural and economic impact of urban development and paths to achieving sustainable and affordable housing.

But, returning the opening question, is the 1% a problem? Given that the proportion of academics in Australia who are based in built environment schools and faculties is probably of a similar magnitude to the amount awarded it may be reasonable. Thus, as a sample of the larger population, we might be considered to be doing precisely as well as could be expected. For all of the reasons outlined in this article there is no simple answer to the question. The 1% may be caused by our relative lack of maturity in research, our critical assessment practices or our lack of direct industry support. Regardless of this, it would be a healthy and productive sign if our representation in new schemes of this kind could be raised to a higher level. Thus, while we should celebrate our successes in this highly competitive environment, we should also not rest on our laurels; a 1% margin is simply too fragile. To improve this situation will require us to be active at the highest levels, both in terms of producing quality research and through initiatives that connect the building and design industries with ministers, policy makers and their advisors. The Future Fellowships have offered our disciplines a great opportunity, which could only be better if more people could be supported in this way.

"To improve this situation will require us to be active at the highest levels...producing quality research and through initiatives that connect the building and design industries with ministers, policy makers and their advisors..."



Professor Michael J. Ostwald is Dean of Architecture and an ARC Future Fellow at the University of Newcastle (Australia). He is a Visiting Professor at RMIT and has previously been a Professorial Research Fellow at Victoria University Wellington and President of the Association of Architecture Schools of

Australasia (AASA). Michael has a PhD in architectural theory and a higher doctorate (DSc) in design mathematics. He is on the editorial boards of ARQ, Architectural Theory Review and Architecture and Mathematics.

THE BuildAbility RESEARCH PROJECT: Investigating the future of

Investigating the future of construction education



Masters of Architecture design/build studio at UTS. Source: Michael Ford

Article by Melonie Bayl-Smith

"...design is absolutely core to *teaching* architects of the future. However, this is where we often hear *practitioners* say that construction - a *making* process that entails synthesis, articulation, materialisation and specification - is essentially a *design* activity, which throws up numerous philosopical and practical questions about the act of *building*"

The future of architectural education has been heavily debated in recent times, and central to these discussions are the possibilities for new modes, agendas and opportunities in architectural practice and research. Regardless of these discussions, it remains that the main concern of architecture itself is in the design and realisation of built environments.

Funded by the 2009 Byera Hadley Travelling Scholarship and the 2010 NAWIC International Women's Day Scholarship, my research project, BuildAbility: the future of construction education, recognised that within the frameworks of aesthetics, functionality and sustainability, the future of architecture remains heavily dependent on the profession's collective and individual engagement with both the 'ideas of making', which may be generalised as the conception and actualisation of built environments, as much as the 'making of ideas' that relate to the production of architectural theories and concepts. In this context, making activities or processes that characterise the actualisation of built environments often involve a complex synthesis of construction, structures, materials and technologies in the realisation of a design.

In the case of Australasia and elsewhere, the intentions surrounding the teaching of construction, structures and fabrication have changed significantly in the past twenty years, in many cases to the detriment of achieving quality learning outcomes for students of architecture. This is especially evident in relation to how construction, structures and other building technology knowledge areas are taught as core subjects and the manner in which technical knowledge is valued as an integral element of architectural design and practise. These observations, supported by recent research into architectural education in Australasia, formed the basis of my investigations.

The intent of the BuildAbility research project was to investigate international benchmark pedagogies in construction, structures and fabrication and to then speculate on the future of construction education. The project focused on architecture schools across Australia, New Zealand, the Netherlands, Germany, Switzerland, North America and the UK and those selected were identified as placing a high value on design/build studios, integrative design philosophies and innovative pedagogical approaches. Observations of each school's culture, agendas, facilities and student work were made, accompanied by interviews with academics and researchers, sessional teaching staff, workshop managers, practitioners, writers and students.

By investigating the place of construction, structures and fabrication within the field of architectural education in this way, one quickly creates immediate connections to most, if not all other parts of architectural education. This then leads all the way to asking the question "What constitutes an architectural education?" On the one hand, it is without question that design is absolutely core to teaching the architects of the future. However, this is where we often hear practitioners say that construction

 a making process that entails synthesis, articulation, materialisation and specification – is essentially a design activity, which throws up numerous philosophical and practical questions about the act of building.

Beyond these questions about curricula there lies the reality of teaching construction. Whilst developing an investigative intelligence is key, providing students with a foundational level of integrated construction knowledge proves to be time consuming and increasingly complex. From the interviews undertaken, the sheer range of topics and intersections that construction, structures and fabrication have with other elements of practise and design creates extensive uncertainty in the academy. These topics range from construction typologies to structural systems; materials and assemblies; energy use and management, environmental impacts and sustainability; documentation; digital interfaces, prototyping and fabrication methods; services and systems; and safety, programming and sequencing. Considering this list, it would impossible to cover these in a degree program purely focused on construction, let alone one that has as many competing demands as architectural education.

It can hence be argued that the success of teaching building technologies and construction depends heavily on **purpose** – a design project, hands-on construction studios, directive observation of making processes, understanding material contexts – so as to integrate the technical and design languages of architecture.

In conducting this international review for the project, it became clear that these design/build studios invoke innovative teaching in construction, structures and fabrication. They also allow students to familiarise themselves with materials and their interactions in assemblies, creating a window into the design, execution and life of architecture. Overwhelming support for hands-on activities was continuously demonstrated in undertaking this research and can be summarised as follows:

- By working at 1:1 scale, students were confronted with the realities of their design decisions
- Students gained an appreciation for the act of building and those skills required to build well
- Students were exposed to technologies, processes and practises they might not otherwise ever experience.
- These studios are a potent way to demonstrate practicalities within the architecture curriculum
- Multidisciplinary models can be readily demonstrated in design/build projects
- These studios proved to be an excellent vehicle for connecting the school of architecture with external entities, such as other faculties within the university, manufacturers, consultants, local government, local practitioners, and not-for-profit and community groups

To illustrate these observations, two case studies which contributed significantly to the research outcomes are now outlined.

^{1.} Ostwald, M.J. and Williams, A., 2008, Understanding Architectural Education in Australasia: An Analysis of Architecture Schools, Programs, Academics and Students, Australian Learning and Teaching Council, Australia, Vol. 1











Kings Meadows Bus Stops. Source: http:// fcms.its.utas.edu.au/ scieng/arch/ 02:

The Castle. Source: http://fcms.its.utas.edu.au/scieng/arch/











02

University of Tasmania (UTas), Australia

At the School of Architecture at UTas there is a strong culture of "making" encouraged through design projects and its established design/build program. This is supported by the strategic appointment of staff who are deeply interested in "making" and maintain their own practice external to their teaching and research. Within the school's building, the studio space effectively merges with the building/making spaces, including the workshop and model making facilities.

There is also a strong belief within the staff that design/build projects swiftly move students out of their comfort zone, described by one academic as "the development of investigative intelligence". As the potency and immediacy of the design/build studio is revealed to students, this also grows a respect for the process of building and the skillfulness required. This is especially if more complex geometries, junctions and forms are pursued, where integrative learning and experimentation become key to the student's interplay with material, form and technique.

ETH Zurich

Gramazio and Kohler, both professors at ETH as well as being practicing architects, undertake digital materiality research and teach undergraduate and graduate students in design studio and elective design/build projects. They are particularly noted for their interest in the intersection of traditional materials with cutting-edge digital technologies. Below is a photo of one of their brick and robot design/build research projects, which has exhibited in 2010. In the photo, the robot was making its first foray into building a wall with an opening and no lintel, purely from stacked bricks. As a positive side effect of their projects, Gramazio and Kohler have established close links with parts of the local and broader industry via the robot building research — in particular, the relationship with the brick manufacturer has become notably strong.

Whilst the idea of utilising robots in building investigations may at first seem problematic, it is important to note that their use does not remove the human. Rather, it places them in a different role and that the lessons that apply to all manner of construction and making, including tolerances, planning, sequencing, and the resolution of form and materiality, arise in the robot and digital fabrication realm. As the use of robots in this realm of architectural research and teaching is still relatively new, their use also raises new questions about construction, fabrication, modularity, sustainability and mass production.



Digital brick fabrication, Gramazio & Kohler, ETH Zurich. Source: Melonie Bayl-Smith

Recommendations

The outcomes of the BuildAbility research project resulted in a series of recommendations, including guidelines for shaping the potential future resources, curricula, professional standards and degree structures in schools of architecture. These recommendations noted that schools of architecture have the opportunity to reconsider and improve the future of construction education by:

- 1. Investing in the value of university studio and workshop facilities; establishing cooperative programs with the professions and building industry at large; and diversifying staff profiles by engaging with practitioners, builders, engineers and researchers.
- 2. Creating broad-based support for the development or establishment of building technology curricula that allow students to develop the "ideas of making" alongside the "making of ideas".
- 3. Revisiting, rethinking and realigning desirable graduate attributes and professional competency standards by improved engagement between the key stakeholders to the architectural profession the academy, registration bodies, professional bodies, students and employers.

In conclusion, the findings of the BuildAbility research project confirmed that the effective and successful teaching of building technologies depends on purpose, relevance, efficacy, and integrative thinking. Further, the research outcomes determined that hands-on construction engenders high level peer to peer learning and the development of investigative intelligence in students.

Given that the future of architecture remains heavily dependent on the profession's relationship with both "ideas of making" and the "making of ideas", pedagogies that embrace construction education in the holistic manner identified by my research are well placed to best support a robust and meaningful future for the architectural profession.

"...the effective and successful teaching of building technologies depends on purpose, relevance, efficacy & integrative thinking...

hands-on construction engenders high level peer to peer *learning* and the development of investigative *intelligence* in students"



Melonie Bayl-Smith is the Director of Bijl Architecture and Adjunct Professor at the UTS School of Architecture. A University of Newcastle alumnus, Melonie has run her award-winning practice for over ten years, driving design innovation, academic research and best practice management. A highly collaborative person, Melonie believes in the potential of architecture to influence and change how people live. This

belief underscores not only her practice approach but her extensive involvement in architectural education, spanning design-build masterclasses, professional practice and the design studio. In 2009/10 Melonie won two prestigious scholarships for the Buildability research project which gathered significant international acclaim for its critique and vision of the future of construction education in architecture schools. On the strength of this research, Melonie has presented at several international conferences and been guest critic and lecturer at TU Berlin, ETH Zurich and at the Universities of Michigan (USA), Cambridge (UK) and Bath (UK).



Image by Geraldine Liew.



Life of an academic: What a doddle!

Article by Willy Sher

Many people think that teachers and university lecturers have a relaxing time at work. "It must be lovely to have all that free time when your students are on holiday" is something academics often hear. The truth is a little more complicated, especially for those of us in the construction management discipline. We share the same context as other university academics but are subject to several additional challenges that have a profound impact on our working lives. Construction management is a relatively young discipline and this gives rise to a range of expectations and demands. Respect and recognition in academic circles is predicated on research credibility. However, the construction management discipline is yet to receive the research acclaim of other disciplines such as engineering and architecture, to which it is frequently compared. The appointment of academics with relevant and current industry experience is highly valued by the accrediting professional institutes (such as the Chartered Institute of Building and the Australian Institute of Building) but it is rare to find applicants with real-world experience and a research track record. The reality is that few construction managers have the time or the opportunity to earn research higher degrees.

"Construction management is a relatively young discipline...Respect and recognition in academic circles is predicated on research credibility... However the discipline is yet to receive the research acclaim of other disciplines such as engineering and architecture"

> Another challenge facing the construction management how these changes and challenges affect the current and future discipline is the demographic profile of students. Construction lived-experiences of construction management academics. management students are markedly older than the mainstream student population in Australia and this brings with it a range of issues for students as well as their lecturers. In addition, changes in their behavioural patterns and expectations are markedly different to those of their teachers. These and other challenges are set in the context of the numerous changes that the construction industry and the academic world have recently experienced. Many of the technologies that industry and academics currently employ did not exist a decade ago.

Collectively these challenges present an interesting mix. To understand the ways they intersect with each other, I undertook a study (Sher, 2012) of the challenges and changes that modern day construction management academics face. I reviewed the current state of the Australian economy and asked in the online survey. construction industry. Despite a recent slowdown in economic beset by a marked shortage of construction professionals. This shortage has fuelled the marked and continued growth of the number of students enrolling in construction management undergraduate degrees. This has resulted in an increased number of construction management degrees being offered in universities in Australia. Accommodating this growing student population is one of the additional challenges currently facing our discipline. One of the unique characteristics of our construction management degrees is the range of industry sectors they seek accreditation from. Most are accredited by at least three professional institutes and some by over ten. and discussed in terms of Accommodating the resulting range of requirements creates a considerable impost on staff.

I also investigated the demographics of construction management academics and of the students they teach. Having reviewed this and related background, I set out to identify the changes and challenges impacting on tertiary construction management education. I sought to identify • the student body that construction management cohorts are interrelationships between these changes and challenges and comprised of explore the implications they might have. Finally I postulated

My study drew on data collected for an Australian Teaching and Learning Council grant (Williams, Sher, Simmons, Dosen, & Pitt, 2009) which investigated learning and teaching challenges and opportunities for construction management disciplines in Australia. For the study, interviews and focus groups with academics, heads of school/departments and students were conducted with at all but one of the universities that offered construction management degrees at the time. Quantitative data were obtained from universities' websites as well as from an online survey that all construction management academics in Australia were invited to complete. Qualitative data were collected from the interviews and focus groups and were supplemented with responses to the open-ended questions

The mixed methods approach used in my study revealed growth and construction activity, the sector continues to be the multiple ways in which construction management academics' lives were impacted upon. These centred around the increasingly large cohorts of students they were teaching, the modest nature of funding that supported their efforts, the changed demographics of their students, and the generation gap between the students and themselves. In addition, the institutes that accredit these disciplines require academics to have relevant and current industry experience, whilst the universities that employ them require their academics to have research higher degrees. It became clear that these changes and challenges generated tensions and pressures which I described

- the expectations the construction industry has of undergraduate construction management education
- the curricula construction management academics teach
- · the approaches construction management academics use to teach and assess their students
- \bullet the management and support of construction academics.

^{1.} Sher, W. (2012). Tertiary construction management education: the lived experience of academic staff in Australia. The University of Newcastle, Newcastle 2. Williams, A., Sher, W., Simmons, C., Dosen, A., & Pitt, B. (2009). Construction education in Australia: a review of learning and teaching challenges and opportunities: Australian Learning and Teaching Council.

Further details are available in my thesis.

It is not possible to adequately communicate the outcomes of a study of this nature in a concise manner. Nevertheless a succinct account of what it currently means to be a construction management academic is useful as a summary of the rich data that was collected, analysed and discussed. This section provides such a vignette.

"The construction industry that many construction management academics used to work in has changed. New legislative requirements, new construction techniques and technologies, as well as new forms of procuring and managing construction projects mean that the industry experienced 10 to 15 years ago is markedly different to the one students currently graduate into. The pace of change in the university sector has also accelerated, with new teaching and learning technologies coming on stream, the demographics of students changing, and more onerous teaching and learning quality and accreditation requirements being implemented. Whilst trying to cope with these changes and challenges, construction management academics have been expected to complete research higher degrees (if they do not already possess such qualifications), bid for competitive research grants, and teach increasingly large cohorts of students. In addition, students' expectations have changed, with the distance between those who teach and those who learn being likened

to not so much a gap but a chasm. The key difference between these generations is their willingness to use ICT to assist and inform their everyday activities. Furthermore, the professional institutes that accredit construction management programs strongly recommend that the academics that teach into the discipline have current and relevant experience of the construction industry. The nexus between such industry-based experience and universities' requirements for doctorates is problematic and seen by many construction management academics to be mutually exclusive. Those with such industry experience are unlikely to have been able to progress postgraduate research studies, and find themselves disadvantaged by their real-world experience when trying to gain promotion. The construction management discipline is finding it difficult to recruit new academics to replace the academics that either leave academia or retire and the foregoing situations provide an understanding of why this is the case.

Construction management academics thus need to respond to a range of pressures. New ways of aligning the academic attributes and industry experience of construction management academics need to be found if the discipline is to compete with other academic disciplines and maintain its relevance to industry".

"New ways of aligning the academic attributes and industry experience of construction management academics need to be found if the discipline is to compete with other academic disciplines and maintain its relevance to industry"



Image by Geraldine Liew.



Willy is currently
Associate Professor
of construction
management at the
University of Newcastle.
His involvement with
CIOB is long-standing;

he served as chair of the education panel for several years, and was a member of CIOB's estimating practice committee and exams board in the UK. He has held several academic positions in Australia, UK and South Africa including head of discipline of construction management, deputy head of school and assistant dean (teaching and learning). Willy has also been a project leader on two Australian Learning and Teaching Council grants and two Cooperative Research Centre for Construction Innovation funded projects. Whilst in the UK he led two CIOB/Loughborough University government-funded education which developed a construction e-portfolio. Before becoming an academic he worked as a construction-computing consultant, an estimator, a planner and a site agent.

SUSTAINABLE CITIES for Australia



Downtown Auckland by Jason Pratt, http:// www.flickr.com/photos/ jasonpratt/5355889516/ in/set-72157625805440892, available under a Creative Commons

The CIOB now has the opportunity to promote issues relating to sustainability in our Cities and Regions utilising the Australian Sustainable Built Environment Council (ASBEC) as our platform. The Cities and Regions Policy Task Group is comprised of representatives from various organisations and in 2012 Steven Bregovic, CIOBA NSW Vice Chair, was elected by the CIOB to represent the Cities and Region Task Force.

Article by Steven Bregovic

ASBEC is the peak body of key organisations (Including CIOB) committed to a sustainable built environment in Australia. Collectively, ASBEC's membership has direct reach to more 200,000 professionals in the built environment sector and represents an industry worth more than \$600 billion in value.

ASBEC is committed to improving the long-term productivity, liveability and sustainability of urban and regional communities through performance benchmarks and goals, identification of infrastructure priorities, use of incentives, modernised governance and public finance vehicles. ASBEC's Cities and Regions Policy Task Group is focussed on developing recommendations that lead to

joined-up urban and regional policy that delivers sustainable dividends. ASBEC has developed a six-point plan for Australia's cities to ensure they are globally competitive, productive, sustainable, liveable, socially inclusive and able to meet future challenges, growth and wellbeing.

As the 2013 Federal election draws near, ASBEC is currently calling on all political parties to embrace our six-point strategy to:

1. Elevate the Major Cities Unit and establish a Minister for Cities and Urban Development. Transform the Major Cities Unit, currently situated as part of the Department of Infrastructure and Transport, into a Department for Cities and Urban Development to provide a centre of excellence within the Australian Government, resourced to work across

within the Australian Government, resourced to work across governments and portfolios to develop and implement policies supporting better cities. The Minister for Cities and Urban Development will be responsible for cities policy across portfolios.

2. Adopt a National Approach to our cities with a strong Governance Framework. Implement a framework to inform public policy and decision-making; develop a set of national, evidence-based urban indicators to measure the performance of cities; adopt an integrated and accountable approach to governance, based on national competition policy, that encompasses all three spheres of government; and identify effective funding models to ensure urban infrastructure is adequately financed.



- 3. Establish an Urban Infrastructure Fund. Increase the capital available to fund local community infrastructure focused on improving productivity, liveability and sustainability and linked to the Cities Governance Framework.
- 4. Align Infrastructure Australia with National Urban Policy. Ensure Infrastructure Australia can effectively interface with the Major Cities Unit and the National Urban Policy Forum, and better integrate infrastructure prioritisation and delivery with urban development policy and research.
- 5. Deliver a quantum leap in Sustainable, Affordable Housing. Modernise the current system into a national framework and plan for the delivery of sustainable, affordable housing. The framework should establish targets; develop sustainable housing policies and supporting initiatives; harmonise rating tools; incentivise sustainability for developers, landlords and tenants to convert industry leadership into standard practice; align voluntary standards with mandatory requirements; identify barriers and provide strategies to overcome them; and set forward an implementation plan for more liveable, productive and affordable residential development in Australia.
- 6. Focus on adaptation and resilience. Apply ASBEC's Built Environment Adaptation Framework to the development of a coordinated, well-resourced and nationally consistent suite of policies to better protect our cities from predicted climate change risks and maximise resource security.

Australia is confronted by significant long-term challenges, from population growth, housing affordability and infrastructure development, to climate change, resource constraints, food and water security and the influences of the global economy. These challenges will be most severely felt in our major cities, which will accommodate around 85 per cent of our 35 million-plus population by 2050. How our cities adapt to these future challenges is dependent on the policies



Steven Bregovic BConstMgt & Prop (Hons) (QS), MCIOB, is the current Vice Chair of CIOB NSW and has been the CIOB representative for The Cities and Regions Policy Task Group of the Australian Sustainable Built Environment Council (ASBEC) since 2012. Steven is an Associate Director of Newton Fisher & Associates, a Specialist Quantity Surveying and Property Development Consultancy Firm.

"How our cities adapt to future challenges is dependent on the policies and programs we implement today, including at a national level. It is these policies which will determine whether our cities - and the people who live in them - survive or thrive"

and programs we implement today, including at a national level. It is these policies which will determine whether our cities - and the people who live in them - survive or thrive.

Given the CIOB are Full Members of ASBEC we call on all members to get involved as we are well equipped to promote issues raised by our members and will push for them to be heard by the respective authorities and government bodies.

ECIOB



networking - mentoring - CPD events - industry discussion groups



NOVUS

Novus exists to prepare young people to be the next construction leaders, developing young professionals and providing peer support from their student and graduate days through to corporate membership and beyond.

Novus Australasia shall be launched soon. We invite you to be part of the first ever international Novus.



Networking through technology to connect us across the regions

Are you a *young* professional currently working in the construction industry OR a construction *student* who is currently studying?

Novus is a group created by CIOB Australasia to specifically cater for the needs of young professionals and construction students who are new to the industry. Entry into the workforce as construction professionals presents many challenges. Novus Australasia's initiatives will assist with that transition from student to young professional and from young professional to full corporate member of CIOB.

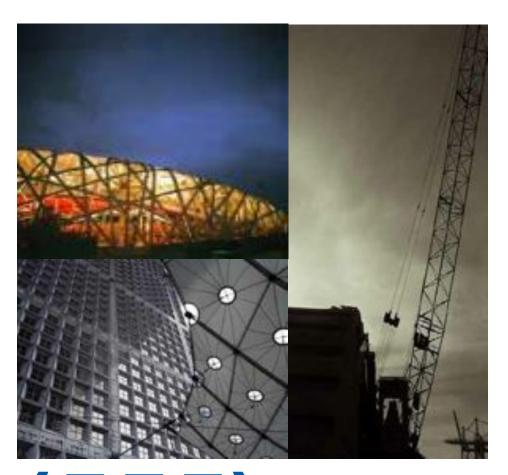
By offering opportunities for young CIOB members to interact with experienced CIOB members through CPD and social networking events and virtual discussion groups, Novus Australasia provides unique opportunities for young professionals to participate in CIOB, advance their careers and build their network within the construction industry.

NOVUS' objectives are to:

- (1) Provide a forum for young professionals as the future industry leaders in construction management to voice their concerns directly to the Council of CIOB Australasia.
- (2) Provide a mentoring framework to encourage young professionals and student members of CIOB to obtain full corporate membership of CIOB.
- (3) Liaise with educational institutions, training bodies and companies to raise awareness of CIOB in Australasia.
- (4) Identify and target key stakeholders in the construction industry to shape an environment that supports safe, supportive and balanced professional working lives.
- (5) Unite young construction professionals across Australasia through Australasian Virtual Novus.



In the current corporate climate the industry is facing some challenging times ahead so what better time to progress your career by getting involved as a young professional. If you are interested in finding out more about Novus then please get in touch with Lindsay Prehn (ljp@cbp.com.au).



(555) reflections

SPEND 5 MINUTES WITH 5
DISTINGUISHED ACADEMICS
AS THEY EACH ANSWER 5
QUESTIONS ABOUT
THE FUTURE OF
CONSTRUCTION EDUCATION...

spend5minutes with...

PROFESSOR HISHAM ELKADI, HEAD OF SCHOOL OF ARCHITECTURE & BUILT ENVIRONMENT, CIOB ACCREDITATED DEAKIN UNIVERSITY, MEMBER OF CIOB EDUCATION PANEL



Beijing National Aquatics Centre by Andrey Belenko, http://www.flickr.com/photos/belenko/4278922881/in/set-72157623028151969 available under a Creative Commons License.

Tell us a little about your background...what path led you to your current role and what have been some of the highlights so far?

I graduated from the Faculty of Enginnering, School of Architecture with a BSc. Architecture Engineering in 1983. I did Master courses in Environmental Science and Ph.D. in Civic Design at the University of Liverppol in 1989.

I worked in practice since graduation in the Middle East and UK. I did not practice since I came to Australia in 2009. I also worked in academia since my graduation, became a Senior Lecturer at the University of Plymouth, UK in 1996, Programme Director of Architecture in 2000, Chair of Architecture in Belfast in 2003 and a Head of School since 2005. I came to Australia in 2009 to head Deakin's School of Architecture and Building.

What do you think are some of the challenges facing construction educators today?

The main challenges relate to the challenging higher education environment, students profile, and the changing nature of the construction industry. Higher education is on the threshold of major changes. There is a need to assess both the contents of the curriculum as well as the delivery modes. A more blended learning environment is required. For built environment disciplines, more integration with practice and the industry is a must in this time of change.

The profiles of students have changed. Students are more likely to seek work during their studies. A more flexible approach is required. The nature of new students' learning is also changing and the educators need to respond to this.

The fast and vast changes in construction technology as well as the ecological challenges have revolutionised the structure and organisation of the construction industry. This pace of change is not matched by changes in units' contents. Educators have to move from providing knowledge to facilitating learning in construction fields.

Can you highlight some recent construction industry trends and any implications this has had on the educational requirements for future built environment professionals?

The major trends are the responses to climate change, mitigations, materials technology, as well as clear improvement in health and safety policies and procedures. The green economy is posing a major challenge but also provides us with major opportunities. New materials, new energy sources, integrated design solutions are key to the future success of the industry. Integrated digital technologies, including BIM, is transforming the boundaries of the built environment professions and more integration is inevitable.

"The fast and vast *changes* in construction technology as well as the ecological challenges have *revolutionalised* the structure and organisation of the construction industry...Educators have to *move* from providing knowledge to *facilitating* learning in construction fields"



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Australia is always aspiring to be a 'smart country' and yet our discipline fairs quite badly in terms of research and doctoral students. This problem is however not limited to Australia whereby research is not often supported or valued in our industry. Why do you think our industry finds it a challenge to support research in our Universities? There is simply not enough incentives for the industry to invest in University based research. I also believe that the construction industry in Australia does not believe that it can develop cutting edge research outcomes that would lead the sector globally.

Looking 5 years ahead, how do you think the construction education environment will change?

The education environment will have to adapt to the challenges I highlighted earlier. A more blended learning environment, more practice-based learning, changing profile of an academic/practitioner mix. There will also be more use of 'wisdom of crowds' in terms of collective knowledge outlets using social media. I do not believe that MOOCS (massive open online course) will be the way forward for the built environment educators as we do rely on on-site practices and case studies.

"The education environment will have to adapt... A more blended learning environment, more practicebased learning, changing profile of an academic/practitioner mix"

spend5minutes with...

PROFESSOR CHRIS PREECE, PROFESSOR INTERNATIONAL CONSTRUCTION BUSINESS & DIRECTOR OFFICE OF UTM INTERNATIONAL, KUALA LUMPUR, UNIVERSITI TEKNOLOGI MALAYSIA, CIOB CONSTRUCTION AMBASSADOR - SOUTH EAST ASIA



Beijing National Aquatics Centre by Andrey Belenko, http://www.flickr.com/photos/ belenko/4278922881/in/set-72157623028151969 available under a Creative Commons

Tell us a little about your background... what path led you to your current role and what have been some of the highlights so far?

I am currently a Professor of International Construction Business in the Razak School of Engineering and Advanced Technology at Universiti Teknologi Malaysia (UTM) in Kuala Lumpur, Malaysia. I recently took up the post of Director of the Office of UTM International at the KL Campus. I was for 15 years in the School of Civil Engineering, University of Leeds in the UK. I am a Fellow of the Chartered Institute of Building (ex-Regional Chairman of the Yorkshire Branch in 2001), and a Construction Ambassador for the CIOB in South East Asia. Following a year as an Assistant Contracts Planner with a national building contractor in London in 1987, I completed a final year dissertation in the area of marketing in UK construction contractors. The topic was relatively new to the industry and I found a lot of interest from the practitioners, many of whom, at that time, were in the process of developing more planned and systematic approaches to the marketing and business development functions of their businesses. On completion of my BSc (Hons) in Building I went on to carry out doctoral research at Heriot Watt University in Edinburgh. The PhD thesis concerned development of a model of marketing communication in construction firms. Since graduation I have pursued a research/ academic career which has engaged me in related topics in the broad field of construction business and project management. Since 2008, I have been working in the higher education sector in Malaysia. This experience has given me a firsthand insight into the international construction market and broadened my outlook on some of the global challenges and opportunities facing the

the industry and academia.

What do you think are some of the challenges facing construction educators today?

Possibly the biggest challenge facing construction educators today is one which has continued to preoccupy us for decades; the lack of focus on ensuring that our students are given an interdisciplinary educational experience. This is even more crucial today, given the move to more collaborative working where the various construction professionals and stakeholders are expected to "partner" on projects. To what extent can we provide the fundamental education required for our future designers, planners, cost consultants, facilities managers and construction project manager etc., and ensure that we provide maximum expose to inter/cross-disciplinary working?

Can you highlight some recent construction industry trends and any implications this has had on the educational requirements for future built environment professionals?

The increased use of Building Information Modeling (BIM), as part of a general move towards 'the virtual built environment" (VBE), creates fantastic opportunities for the sector, but also presents many challenges, both to practitioners and educators. The built environment is increasingly monitored, managed and constructed using integrated data systems. The benefits of virtual modeling are being realised across the global construction sector, and has the potential to significantly change the way businesses operate. The traditional, conflict driven environment, is giving way to more collaborative working. It is also creating more opportunities for integrated project delivery. The technology is advancing faster than most sectors can keep up with. Universities are having to consider how they integrate the new VBE approaches and technology into their curriculum. Do universities have the

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necessary IT infrastructure and working spaces? Do academic staff have the necessary knowledge and skills themselves to teach these new subjects? Universities are in a unique position to influence levels of awareness and develop the new skills and competencies that are needed of young people entering the industry. BIM and VBE require a "cultural shift" in the collective mindset of the industry across all the various construction professionals.

Australia is always aspiring to be a 'smart country' and yet our discipline fairs quite badly in terms of research and doctoral students. This problem is however not limited to Australia whereby research is not often supported or valued in our industry. Why do you think our industry finds it a challenge to support research in our Universities?

The construction sector has always been pretty short term in its thinking and outlook. This to some extent is understandable given the project based nature of much of the sector and tight margins have meant that little has been invested in research and development. In the face of globalisation and increased competition, increasingly demanding and more knowledgeable clients/owners, construction firms both large and small, have had to become more strategic at the corporate and project level. There are examples around the world of where construction businesses have engaged with universities and in research, but overall, construction has not been an industry that has seen research as "an investment'. The big drivers for change in construction are the clients and regulators. Government for example would seem to have a significant role to play in encouraging and incentivizing businesses to invest in research and development. Given the increasingly high tech nature of the industry, the rise in industrialised and green building, a focus on increased research and development is likely to continue.

operate increasingly at an international level. The academic environment will need to reflect the demands for new technical and managerial skills with ever more focus on the virtual built environment, integrated project delivery, collaborative working and the sustainable management of physical assets. The big global sustainability issues such as water, food, energy and climate change will be the focus of attention as built environment practitioners and academics seek ways to help in tackling these challenges. Given the changing nature of the learning environment, there will be greater use of distance and online learning which will provide more flexibility for an increasingly international student body. The aim will be to develop critical thinkers, decision makers and leaders in construction who are environmentally and socially aware and responsible.

"Universities are in a unique position to influence levels of awareness and develop the new skills and competencies that are needed of young people entering the industry. BIM and VBE require a cultural shift in the collective mindset of the industry across all the various construction professionals"

Looking 5 years ahead, how do you think the construction education environment will change? The global environment will be politically and economically turbulent. The construction sector will evolve towards a more collaborative working culture and continue to



spend5minutes with...

PROFESSOR ROGER FLANAGAN,
PROFESSOR CONSTRUCTION
MANAGEMENT, UNIVERSITY OF
READING, VISITING PROFESSOR IN
AUSTRALIA, CHINA, HONG KONG &
MALAYSIA, PAST PRESIDENT OF CIOB

Tell us a little about your background...what path led you to your current role and what have been some of the highlights so far?

Why construction and why education is easy to answer. Construction is exciting and challenging; if you want a nice easy, cosy life you don't choose the construction industry! There is nothing more exciting than delivering a project which will make a difference to people's lives, whether it's a home, hospital or road. Linking education and construction together was the dream ticket for me. I spent time in the industry and then chose to go into education. It is so satisfying to be a teacher, researcher, and to help someone achieve their potential, whilst at the same time being involved in the construction industry. I always believed in balancing education and being involved in practice, luckily it worked for me.

The highlights have been being President of the CIOB in 2006-7, and sitting on the boards of various international companies as a non-executive director. You really can use that experience to teach about reality to the next generation of construction professionals.

What do you think are some of the challenges facing construction educators today?

Connectivity is the biggest challenge - connectivity with the industry, the professions the companies, and most importantly with the students. Too often the academic world has become detached from the industry, caused by pressures of academia and the need for

academic excellence, research, and publishing pressures. Nothing wrong with that, but we must ensure that we are clear who the publications are aimed at. Advancing knowledge is laudable, but we also need to improve the industry, whether it is materials, processes, or performance. To do that, we must be connected.

Can you highlight some recent construction industry trends and any implications this has had on the educational requirements for future built environment professionals?

Trends are digitisation, globalisation, and sustainability. Digitisation is fast moving, specialised, and game changing. We must ensure that we take students to the leading edge, to excite them about the opportunities to use digital techniques, and keep up to date with changes. Nobody would have envisaged design engineering consultants with 51,000 payroll, or construction firms with 150,000 payroll, but it has happened. Globalisation impacts economics, management, technology and people. The academic community can help the industry by acting as the lens on the world of change in construction. Sustainability is non-negotiable; no country can afford to be complacent. The next generation must have sustainability embedded as part of their core competencies.

Australia is always aspiring to be a 'smart country' and yet our discipline fairs quite badly in terms of research and doctoral students. This problem is however not limited to Australia whereby research is not often supported or valued in our industry. Why do you think our industry finds it a challenge to support research in our Universities?

Research is not understood in the construction industry, yet it is very innovative and research led without sometimes realising it! Every job is a prototype, and every job involves innovation, but it does not carry the label 'Research and Development.' Glass is a case in point, new types of glass are produced every year and it is research and development that improves the product. Glass is stronger, lighter, smarter, and more flexible; combined with electronics it can become opaque and change colour. It is the same with the construction plant and equipment which has embedded intelligence and on-board computers that help the operator be safer and more efficient. None of this happened by chance; research and development was the enabler. Doctoral students can get disconnected from the industry; hence

"We must make sure that we take *students* to the *leading edge*, to excite them about the *opportunities* to use *digital technologies* and keep up to date with the *changes*."

companies do not fully understand what they do. The engineering doctorate and the professional/industrial doctorate now being pursued in many countries is a great help by bringing research and development into the workplace. The challenge is for the academic community to show the industry what is possible, and not to take it for granted that they fully appreciate the value of research and development. The future is very exciting, it is not bleak, it is different.

Looking 5 years ahead, how do you think the construction education environment will change?

It has to change; we are probably going to see more change in the next 5 years than in the last 15 years. Projects will be built safer, faster, be greener and to a higher quality; a way will have to be found to deliver them cheaper as the public are asking why prices never seem to come down. Our job is to deliver the dreams and to sometimes deliver the impossible. To do that, highly motivated and bright students will be needed, not hidebound by traditional uninspiring views. The construction education environment has to change and take a quantum leap forward. Delivering dreary and boring lectures should not be acceptable. New technology needs to be used more effectively, and learning by memory will not be the order of the day.

"The challenge is for the academic community to show the industry what is possible, and not to take it for granted that they fully appreciate the value of research and development. The future is very exciting, it is not bleak, it is different...The construction education environment has to change and take a quantum leap forward."

spend5minutes with...

PROFESSOR GHASSAN AOUAD, VICE PRESIDENT FOR ACADEMIC AFFAIRS, GULF UNIVERSITY FOR SCIENCE AND TECHNOLOGY, VICE PRESIDENT CIOB



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Tell us a little about your background...what path led you to your current role and what have been some of the highlights so far?

I am originally from Lebanon where I was raised and studied for my first degree in Civil Engineering and worked for three years building schools sponsored by the UNICEF in war torn Lebanon before I left my beloved country in the mid eighties. In 1985, I moved to the UK where I lived, studied and worked for over two decades before I left to work in the Middle East for an Australian university first (President of the University of Wollongong Dubai) and more recently I moved to Kuwait to become Vice President for Academic Affairs at the Gulf University for Science and Technology. I now have a dual Lebanon/UK citizenship. I was recently named as one of the top ten academic leaders shaping executive education in the Middle East by the Middle East Economic Digest.

Before I left the UK to the Middle East, I was at the University of Salford where I joined in 1992 as a Research Fellow and progressed through to the role of Pro Vice Chancellor Research and Innovation and Dean of the College of Science & Technology. Prior to joining Salford, I spent five years in the Department of Civil and Building Engineering of Loughborough University, where I obtained my MSc in Construction (1987) and my PhD entitled Integrated Planning Systems for the Construction Industry (1991). During my time at Salford and before becoming Pro-Vice-Chancellor in July 2008 (left this position at the end of December 2011), I was Dean of the Faculty of Business, Law and the Built Environment at the University (August 2006–July 2008), and prior to this I held the position of Director of the Research Institute of the Built and Human Environment which achieved the Research Assessment Exercise 6* status in 2001. Between 2003 and 2006 I was Head of School of Construction and Property Management (since renamed to the School of the Built Environment) at Salford. During my time in Salford, I successfully supervised 23 PhD students, externally examined 52 PhD students, authored 3 major research books and co-authored one book, generated more than £10M in research funding as Principal Investigator and £8M as Co-Investigator, published 92 papers in top rated refereed journals, delivered more than 50 keynote speeches and invited lectures, and presented my work in more than 42 countries. I was appointed as Vice President of the Chartered Institute of Building (CIOB) in March 2010 and will become President in 2014. I am very proud of my association with the CIOB which has a membership of more than 45,000 worldwide. The CIOB is a professional institution which is very progressive and passionate about the development of the construction sector in the UK and globally. Teaching my construction students research methodologies at undergraduate, postgraduate and PhD levels to help them develop research skills has always been

"The CIOB is a *professional* institution which is very *progressive* and passionate about the development of the *construction* sector in the UK and globally."



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What do you think are some of the challenges facing construction educators today?

There are many challenges facing construction educators today. The economic downturn has meant doing more with less. We have no choice, but to adopt a more innovative and professional approach to delivering state of the art courses and programs. We have to rely more on using technological advances, update our curriculum to respond to market demands and most importantly we have to engage with businesses and industry leaders to deliver invited lectures on the needs of the industry. Construction educators should also adopt more interdisciplinary approaches to teaching, research and innovation. Construction educators should be proud of seeing their students flourishing as individuals and as professionals and to know that this development is happening through innovative and collaborative teaching methods. The biggest challenge to construction educators is to be able to prove that our discipline is scientifically based and needs research to improve it. Universities, professional bodies, government and businesses should sit down together and provide the business case for our discipline to be considered seriously considering our contribution to the GDP of any country.

Can you highlight some recent construction industry trends and any implications this has had on the educational requirements for future built environment professionals?

There are many trends which have been stated in many construction strategies including the UK construction strategy. I will make reference to the use of Building Information Modelling (BIM) as a tool to simulate various scenarios before construction starts and to study the impact, especially on the environment. Developing sustainable

"Developing sustainable and holistic solutions is becoming a priority and we can only do this by developing interdisciplinary approaches"

and holistic solutions is becoming a priority and we can only do this by developing interdisciplinary approaches. This will have implications on procurement methods. The University of Salford in the UK, as an example, developed a Masters program in Building Information Modelling and Integrated Design to respond to these needs and trends.

"We need to adopt a different approach to the way we engage with businesses. We have to work together to do research that helps them resolve their problems... this is a communication issue as we need to find common grounds and purpose."

Australia is always aspiring to be a 'smart country' and yet our discipline fairs quite badly in terms of research and doctoral students. This problem is however not limited to Australia whereby research is not often supported or valued in our industry. Why do you think our industry finds it a challenge to support research in our Universities? This is not unique to Australia, but it is a universal problem. Our inability to prove that construction research is scientific and based on empirical evidence has contributed to this. In addition, the perceptions about our industry are still affecting our ability to deliver research of international quality. We need to adopt a different approach to the way we engage with businesses. We have to work together to do research that help them resolve their problems. In part, this is a communication issue as we need to find common grounds and purpose. However, in the last few years we have seen more joint research and this a step in the right direction. Of course, we have to do research which adds value to our industry and without any doubts doctoral students can play a major role in undertaking some of this research. It will be research that it is based on practice and it is worth noting that good theories in the past were generated from good practices.

Looking 5 years ahead, how do you think the construction education environment will change?

The landscape will look different. There will be more focus on sustainability, energy requirements, green and healthy buildings, building information modelling and smart technologies. There will be more interdisciplinary programs which are project based and infused with innovation and real life practices. Construction research will be valued more and there will be many private providers providing construction education. Technological advances over the next 5 years will transform the way we will deliver our construction education through mobile learning and new types of social media, this will undoubtedly make distance learning more attractive and tempting. Professional bodied including the CIOB will play a more active role in shaping the future of construction education, especially in the areas of professionalism and engagement with businesses. Our vision over the next 5 years should be on providing construction education that is topical and attractive to the market. It is our duty to keeping working on changing the bad perceptions about our industry. We are fortunate to be working in a sector that it is innovative and valued by society. The construction industry is a major contributor to any economy and the recovery from economic downturns will to a large extent depend on the performance of our industry. This is a key message and should be reflected in our interactions with governments, our public relation activities, and the content of our construction programs. To conclude, it is important for our industry to have true and inspirational leaders which can shape the future of our construction education and makes it more attractive to our younger generation, especially female students.



Image by Geraldine Liew

spend5minutes with...

PROFESSOR STUART GREEN, HEAD OF SCHOOL OF CONSTRUCTION MANAGEMENT & ENGINEERING, UNIVERSITY OF READING, CHAIR, CIOB INNOVATION & RESEARCH (I&R) PANEL



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Tell us a little about your background... what path led you to your current role and what have been some of the highlights so far?

I originally studied civil engineering at the University of Birmingham and following graduation I worked for a national contractor in Scotland. I soon discovered my real interest lay in construction management and to progress my career I signed up for a 1 year full-time MSc at Heriot-Watt University in Edinburgh. I had every intention of going back into industry again, but somehow found myself landing a job at the University of Reading - I've been there ever since. Highlights included completing my PhD and working with leading researchers from around the world. But without doubt it was great honour to take over as Head of the School of Construction Management and Engineering at the University of Reading.

"I've always been committed to the model of research-led education... without a ready supply of trained researchers I worry for the long-term health of the discipline"

What do you think are some of the challenges facing construction educators today?

I have always been strongly committed to the model of research-led education. This I think is the best way to ensure that graduates are orientated towards the industry of the future, rather than being locked into mythical notions of 'best practice' which perpetuate the ways of past. Research funding for construction management is getting evermore difficult to get, and without ensuring a ready supply of trained researchers I worry for the long-term health of the discipline.

Can you highlight some recent construction industry trends and any implications this has had on the educational requirements for future built environment professionals?

Sustainability is now recognised to be of central importance to the future of the built environment and we must ensure that graduates are geared-up to engage with the agenda in all of its glorious ambiguity. The other big issue to hit the streets recently has been Building Information Modelling (BIM). At present it doesn't really seem to matter what the problem is - the answer is always BIM. We have invested



heavily in this area at the University of Reading, with a view to ensuring that our graduates are well-placed to drive innovation in the application of digital technologies.

Australia is always aspiring to be a 'smart country' and yet our discipline fairs quite badly in terms of research and doctoral students. This problem is however not limited to Australia whereby research is not often supported or valued in our industry. Why do you think our industry finds it a challenge to support research in our Universities? In this respect, Australia is no different from the UK. The main problem of course is that construction firms are not driven by research and development (R&D) - they are driven by cash flow and the ability to expand and contract painlessly in response to fluctuations in demand. It therefore makes no sense for individual firms to invest in R&D, although it is vitally important for the sector as a whole. However, it is frequently possible to engage industry as active participants in research provided that researchers can make the experience worthwhile for those involved. It is in this latter area where universities need to lift their game.

Looking 5 years ahead, how do you think the construction education environment will change? Tough question. I think it will change towards a much more polarised education environment spilt between research-intensive universities on the one hand, and teaching-intensive universities on the other. These two different types of university will offer very different educational experiences - with very different levels of resource. Certainly within the UK, we are seeing a major restructuring within the higher education sector. Some universities have given up on research to focus on serving the educational needs of the region within which they are based. Others combine a high degree of research-intensity with global outreach, attracting students from around the world. My intention is to ensure that the University of Reading falls within the latter category.

"...construction firms are driven by cash flow... it makes no sense for individual firms to invest in R&D although it is vitally important for the sector as a whole... However, it is possible to engage industry as active participants in research... It is in this area where universities need to lift their game"

MEMBER PROFILE

This issue we have one CIOB Member tell us a little about himself and his involvement in the construction industry



RICHARD CASTELL
Hawkins Construction

My first involvement in the construction industry was over 20 years ago during school work experience. I was lucky enough to get a placement with John Laing, on the North Wales Expressway tunnelling and retaining works (Penmaenbach Tunnel). I shadowed quantity surveyors and civil and tunnelling engineers for a week which was a 'blast' in many ways.

When choosing construction as a career my logic was to use my head rather than my heart, as I didn't think I had enough of an edge to compete in product design or stock trading. I chose construction management because I found it very interesting and could see that it offered a good career. In addition the level of transferable skills was extremely appealing; with the added benefit that nobody I knew wanted to go into construction, so the odds of having a successful career seemed good to me (I still haven't lost that contrarian instinct). I have never looked back.

I went on to attend Nottingham Trent University reading construction management on the thick sandwich course which was picked based on the syllabus and the proportion of students being sponsored, even in the recession. Of the 62 students who started the course, only 10 remained in the final year on the construction management path, of which only eight went into construction on graduating (at this point I definitely thought I was on to a winner).

I joined the CIOB as an incorporated member during my first year at university in 1994, which I still struggle to comprehend is nearly 20 years ago. For my year out, I had a brief stint on the British Gypsum Technical team in Loughborough and then an extremely valuable sandwich placement (work experience), working for McCarthy & Stone, as a sub site agent in Romford and Canterbury, working on two high-density luxury retirement homes. The 'nuts and bolts' experience I gained here managing subcontract labour-only contracts, from start to finish, with just the post and a phone/fax machine, has proved invaluable.

On graduating in 1998 I joined Taylor Woodrow as a graduate building engineer on the Montevetro building in London. This was a high-end, high-rise residential development designed by high-profile architect Richard Rogers, on the banks of the River Thames. I spent three years on the project, working mainly as an assistant design manger. I was involved in all aspects of the project and saw most of the new owners move in.

With the encouragement and support of Taylor Woodrow in 1999 I signed up to the CIOB's pilot Professional Development Programme (PDP) route to full membership, which I successfully completed in 2004. During one of the many restructurings in Taylor Woodrow I found that I had inadvertently ended up in the new infrastructure division. I therefore went on to tender for, negotiate and implement the state of the art Ardwick Siemens train care facility as the design manager for the project. This brought me head on into the alien world of rail engineering, which as it turned out is a whole new world of permanent way, OHLE,

points, telephony and signalling, all of which have their own separate designers which had to be integrated into the traditional building design disciplines that were all still present along with some obscure specialist designers. Working as an integrated team on this project proved to be extremely successful on the key fronts of client satisfaction, cost, programme and quality. Although the project did have some weird and wonderful issues along the way that Mensa might want to use one day.

I took the opportunity in 2010 to leave the UK and move to New Zealand as a senior design manager for Hawkins Construction where I have worked in Auckland taking projects from pre-construction through to implementation with a few other interesting roles on the side.

Over the years I have seen construction develop - from being run using the postal system and fax machines; then e-mail (what would we do without e-mail); quickly followed by electronic document management systems both on and offline; to the present generation being referred to holistically as BIM, which seems to evoke a lot of emotion of late, but has been around for nearly a decade in it's previous fractured forms. Throughout and for the prior millennia for that matter which I cannot really attest to, what is readily apparent to me is the people who build and manage the projects are the key, the technology was and is an added benefit trying to improve quality, cost and time outcomes. However, without the people who can use and embrace the technology, it can start to become a hindrance/cost opposed to an aid. Without experienced competent construction professionals, the quality, cost and time improvements sought by the industry, are unlikely to be realised.

"...the people who build and manage the projects are the key, the technology was and is an added benefit trying to improve quality, cost and time outcomes...without the people who can use and embrace the technology it can start to become a hindrance..."

professional & industry news

Building plans, development consents and copyright - for architects, developers, purchasers, sellers, banks and builder

In brief - There can be doubt about who owns the copyright in development consent plans

A purchaser of land subject to an unperformed development consent cannot assume that the development consent plans can be used to carry out the development. Use of the plans may infringe copyright, in which case use of the plans could be stopped by injunction.

Who could be affected?

This is relevant to purchasers of land especially developers; sellers of land; architects and other designers who prepare plans to be used for a development application; banks and other lenders in connection with land to be developed; land owners or developers entering into a joint venture (JV) or similar; and builders.

What you need to know about the development consent plans

A purchaser buying land with an unperformed development consent needs to establish by due diligence enquiries:

- Who is the author(s) of the plans?
- Who owned/now owns the copyright (taking account of all of the legal rules that are relevant)?
- Are you dealing with the current copyright owner (or a person with an adequate copyright licence that permits sublicensing or assignment) and purchasing the copyright or at least getting an adequate licence to use the plans, or can you otherwise be confident that there will be a sufficient implied copyright licence?
- · Has that person or company

given any personal property security (PPS) over the copyright (or the licence that they hold), that may take priority anyway; and is any PPS "taking free" rule going to allow you to ignore any PPS?

• At a minimum, will you have a licence to use and adapt the plans to carry out the development, or something similar, on the site?

All of that is very hard to achieve with complete (or even much), certainty.

Using other risk reduction strategies

Other risk reduction and risk management steps may help - warranties, guarantees, indemnities, securities, and even insurance may be available.

Everything had been looking reasonably safe

For a purchaser in this situation buying a site subject to a development consent, everything had been looking reasonably safe after a 2006 High Court decision where in similar circumstances, a purchaser succeeded with a claim that they had an implied licence to use the copyright plans that formed the basis of the application for development consent.

The licence was implied in that case because the architect hadn't put anything in place to say otherwise; and having got a commercial benefit, was viewed as having intended that implied licence result, so it was too late to change things.

But the High Court in that case did make it clear that there is a "gap" and that a purchaser isn't always assured of success in these situations. Now we have a clear example of the "gap".

Implications for architects and designers

Architects and designers who prepare plans that are to be used for a development application need to be very clear in formal signed initial engagement conditions, about exactly what are the copyright assignment and licensing arrangements.

Implications for banks and other lenders

Banks and other lenders need to ensure that there is appropriate due diligence and that security documents over a development property capture the relevant copyright rights.

Implications for developers Developers entering into a JV or similar need to ensure up front that there are:

- appropriate due diligence steps taken
- JV documents that adequately deal with the relevant copyright rights
- appropriate assignment or licensing provisions in the engagement conditions with any architect or other designer and in favour of the appropriate parties.

Implications for builders

Builders need to be wary if there is anything that might indicate that plans they are being asked to follow might be the subject of a copyright claim by someone who the builders are not dealing with.

For the full article go to: http://www.cbp.com.au/ Publications/Building-plans,development-consents-andcopyright

David Kennedy, Partner, CBP Lawyers

Building and Construction Recovery on the Horizon

Master Builders Australia released forecasts for the building and construction industry showing a mixed recovery across the three major sectors based on a positive growth path over the three year forecast period to 2015-16. The forecasts are derived from a sophisticated model purposely built for the building and construction industry developed by Master Builders in collaboration with Independent Economics. While the forecasts predict a positive growth path for the industry, the current economic climate presents many significant headwinds that may become impediments to the timing and strength of recovery in the forecast period. Peter Jones, Chief Economist for Master Builders Australia said the return to more positive conditions for the industry implicit in the forecasts signals light at end of a very long tunnel for the residential and commercial building sectors, but does not herald a return to boom era levels. For more information visit: www.masterbuilders.com.au

Parliament Keeps Retrograde Building Code

Master Builders is disappointed a disallowance motion on the Building Code 2013 failed to pass in the House of Representatives on 28th May 2013. The national Building Code adopted on 1 February 2013 outlines workplace relations arrangements builders and contractors must comply with when tendering for Government work. Wilhelm Harnisch, Chief Executive Officer of Master Builders Australia said the national Code should have been wiped off the legislative books, "It's ambiguous and essentially forces builders and contractors to choose between tendering for State and federal Government work...The Code also creates additional unnecessary occupational health and safety paperwork requirements without practically improving safety. ..Had the Government consulted with the industry and stakeholders when preparing the Code, these practical issues could have easily been avoided," Mr Harnisch said. For more information visit: www. masterbuilders.com.au

New interactive NatHERS Climate zones map now available

The new interactive Nationwide House Energy Rating Scheme (NatHERS) Climate zones map now makes it easier to see in which particular climate zone your street or building site is located in. Topographic details and a brief summary of key climate information are also included for the first time. For more information visit www. nathers.gov.au.



Under the arches by missturner, http://www.flickr.com/photos/missturner/3654401106/in/set-72157618789616953/ available under a Creative Commons License

academic news

Reducing Building Costs by Reducing Waste: RMIT research project

n 2012 the Victorian Government announced an important milestone to reinvest landfill levy into projects which will help local government and business find better ways to cut their waste output. In the latest round of funding, the Government announced grants for nine new projects through the Beyond Waste Fund, which is administered by Sustainability Victoria. According to the Minister for Environment and Climate Change, Ryan Smith, "businesses are becoming increasingly aware of the need to adopt more sustainable business practices when dealing with waste. However many small to medium enterprises (SMEs) do not have the skills of expertise to successfully implement strategies in this area or to integrate such approaches into their core business function. The Beyond Waste Fund helps businesses tackle waste before it is created, greatly reducing the amount of waste generated from daily operations. This will encourage businesses to adopt more efficient practices that ultimately will increase their competitiveness in their respective market environments".

The Victorian housing construction industry costs approximately \$3000 in direct landfill costs per house, let alone all the other cost impacts of site waste. One of the successful recipients of the Beyond Waste Fund is seeking to reduce housing construction waste through supply chain management. The RMIT-led project is a partnership with Metricon Homes, Australand Holdings, Boral, Master Builders Association Victoria and FMG Engineering to develop a more waste-efficient supply chain management process for construction companies. RMIT is leading the project on behalf of the Australian Supply Chain Housing Alliance. The project seeks to develop and test ways for builders to better track their own waste created during construction processes, and improve organisations' internal knowledge and behaviour in regard to how waste is generated.

The Project Leader is CIOBA President, Professor Kerry London, Professor of Construction Management in the School of Property, Construction and Project Management with chief investigators Dr Malik Kalfhan and Dr Tayyab Maqsood and researchers, CIOBA Publications Officer, Jessica Siva and CIOB member, Peng Zhang. The Chair of the Alliance, Rob Anderson, is an Industry Fellow on the project and will help to achieve industry involvement. Project outcomes are expected to include a set of guidelines to help Metricon and Australand staff lift their skills, knowledge and application of good supply chain management practices for waste management According to Professor London, research into landfill waste reduction back to the supply chain level has not been undertaken elsewhere in the world. "These results are expected to be able to break new ground, so we are looking forward to the outcomes," she said. Forums and events will be staged along the way to involve industry partners and stakeholders internationally.

The Australian Housing Supply Chain Alliance is a group of like minded organisations interested in enabling supply chain transformation in the Australian residential construction industry. Using rigorous research we shall suggest industry changes that will translate into improved home delivery efficiencies, enhanced built form quality, increased industry capacity, along with a sustainable housing industry. Critical areas of focus are cultural change, supply chain management and innovative products and processes. Members include FMG Engineering, RMIT University, Metricon, Boral, Australand, CSR, MBA V, HIA and the Victorian Building Commission.

A breakfast event will be hosted by RMIT on 27th June 2013 to showcase findings of the year long action-research project. The event will be opened by Jenny Pickles, Director of Integrated Waste Management from Sustainability Victoria. There will be a joint industry, academia and government panel discussion on the topic which includes eminent industry leaders: Adam Siegel, General Manager, National Building and Business Improvement, Metricon; Kristin Brookfield, Senior Executive Director, Building Development and Environment, Housing Industry Association; Anthony Wright, Manager, Built Environment and Energy, Sustainability Victoria and Rob Anderson, Chair, Australian Housing Supply Chain Alliance. For further details on the event please contact PengZhang365@gmail.com.



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(CME) is the leading international refereed journal that
publishes original research concerning the management
and economics of building and civil engineering, while
also including the management of built facilities. The
publishers of CME offer one paper per issue available for
free download for three months in each case. To download
these free articles as well as to keep up to date with current
developments visit: http://cmeforum.wordpress.com/

International Journal of Architecture, Engineering and Construction (IJAEC) is a scholarly peer-refereed journal that promotes scientific and technical advances as well as innovative implementations and applications in the architecture, engineering and construction of the built environment. The current issue of the International Journal of Architecture, Engineering and Construction (IJAEC) is now available 'free' at: http://www.iasdm.org/journals/index.php/ijaec/issue/current

Solving current industrial problems requires cross-disciplinary knowledge and approaches. The Journal of Engineering, Project, and Production Management (EPPM-Journal) is an international research journal publishing original research papers. EPPM-Journal is multidisciplinary in nature, considering all topics related to engineering management, project management, and production management. The journal aims to advance the cross-disciplinary sciences in these three fields. This unique platform is intended to inspire new thinking by merging and/or combining different approaches from diverse fields. It is free to download papers published in EPPM-Journal at: http://www.ppml.url.tw/EPPM_Journal/

Events

2013 Dates for Your Diary: Events and activities presented by CIOB Australasia and our network of associated organisations.

For further information please contact your Centre Chair. Contact details are found in the About Us section on our website or visit http://www.ciob.org.au/about

For other queries regarding our events please email events@ciob.org.au or telephone 612 9816 4700

NEW SOUTH WALES

8 June

Project Time Management Certificate - exam

SYDNEY

Contact your Centre Chair for further details

22 Aug

CPD Event

SYDNEY

Contact your Centre Chair for further details

24 Oct

CPD Event

SYDNEY

Contact your Centre Chair for further details

11 Dec

Christmas function

SYDNEY

Contact your Centre Chair for further details

QUEENSLAND

4-5 June

Project Time Management Certificate - introduction

BRISBANE

Contact your Centre Chair for further details

29 June

Project Time Management Certificate - exam

BRISBANE

Contact your Centre Chair for further details

22 Aug

CPD Event

BRISBANE

Contact your Centre Chair for further details

24 Oct

CPD Event

BRISBANE

Contact your Centre Chair for further details

11 Dec

Christmas function

BRISBANE

Contact your Centre Chair for further details

VICTORIA

16-17 July

Project Time Management Certificate - introduction

MELBOURNE

Contact your Centre Chair for further details

27 June 7.30-9.30

Reducing Building Costs by Reducing Waste: An RMIT Breakfast event

RMIT Building 8, Level 8, Room 47, 360, Swanston Street, Melbourne

Registration essential: pengzhang365@gmail.com

10 Aug

Project Time Management Certificate - exam

MELBOURNE

Contact your Centre Chair for further details

24 Oct

CPD Event

MELBOURNE

Contact your Centre Chair for further details

11 Dec

Christmas function

MELBOURNE

Contact your Centre Chair for further details

WESTERN AUSTRALIA

20 June

CPD Event

PERTH

Contact your Centre Chair for further details

22 Aug

CPD Event

PERTH

Contact your Centre Chair for further details

8-9 Oct

Project Time Management Certificate - introduction

PERTH

Contact your Centre Chair for further details

11 Dec

Christmas function

PERTH

Contact your Centre Chair for further details

NEW ZEALAND

6-7 July

Project Time Management

AUCKLAND

Contact your Centre Chair for further details

8 July

Project Time Management

WELLINGTON

Contact your Centre Chair for further details

o July

Project Time Management

CHRISTCHURCH

Contact your Centre Chair for further details

REGIONAL COUNCIL

1 June 10.30-11.30am

CIOBA Resgional AGM Radisson Blu Hotel, 27 O'Connell Street Sydney

1 June 12.00-5.00pm

CIOBA Resgional Council Strategic Planning Day Radisson Blu Hotel, 27 O'Connell Street Sydney

9 July 6.00-7.30pm

CIOBA Resgional Council Meeting

Teleconference

15 Aug 6.00-7.00pm CIOBA Resgional Executive Meeting

Teleconference

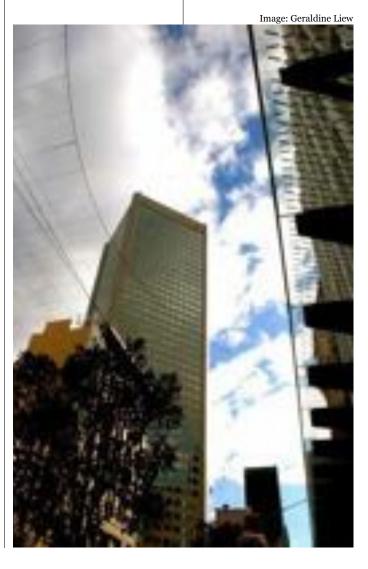
12 Sept

Centre Committee Meeting - various centres

Sydney, Brisbane, Melbourne, Perth, Auckland

15 Oct 6.00-7.30pm

CIOBA Resgional Council Meeting **Teleconference**



2013-14 ciob australasia

REGIONAL COUNCIL & CENTRE REPRESENTATIVES

Regional Council

Daniel O'Riordan (Acting) President

Vice President Niall McSweeney Vice President Zubin Marolia

Barry Cooper-Cooke (to take over as President) Vice President

Nick Marston Treasurer Education Panel Chair Nicholas Chileshe

Centre Committees

NSW CENTRE

Centre Chair Nick Marston Vice Chair Steven Fischer Arjuna Thiru Moorthy Committee Member Committee Member Richard Pollock **Novus Mentor** Brendan Sweeney

QUEENSLAND CENTRE

Centre Chair Peter White Committee Member John Liddington

Committee Member Jonathan Wood (Central Old)

Committee Member Daniel O'Riordan

VICTORIAN CENTR

Centre Chair Horace Fu Committee Member Tim Samson Committee Member Jonathan Fuelling Committee Member Eric Chan Committee Member Matthew Hall

WESTERN AUSTRALIAN CENTRE

Centre Chair Barry Cooper-Cooke Vice Chair Gary Faulkner Daniel Griffin Secretary Education John Forde Committee Member Neil Kirkpatrick Committee Member Tony Cao

NEW ZEALAND CENTRE

Centre Chair Richard Castell Vice Chair Mark Colborn Education/Novus Robert Davis

ASBEC Ambassador Professor Kerry London

Novus President Lindsey Prehn

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Heather Venis, Branch Administrator - New Zealand), hvenis@ciob.org.au

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CIOB Publications

Contact Australasia: http://www.ciob.org.au/newsletter iCON Review: http://www.iconreview.org/en/home

Construction Manager: http://www.constructionmanager.co.uk

Construction Research & Innovation Journal: http://www.ciob.org.uk/resources/cri

Construction Books Direct: http://www.constructionbooksdirect.com

CIOB Australasia CBC Members



Altus Page Kirkland

Chartered Building Surveying Services. Director: Stephen Allen. 61 2 9299 2988

Multi disciplined property consultancy. Senior Director: Niall McSweeney. 61 2 9283 7311



Specialist construction consultancy. Principal: Philip Sanders.

61 (0) 401 010 202



61 (0) 451 550 108

CIOBA VALUE PROPOSITIONS

The Regional Council, Centre Representatives and Management Team met in 2011 for a weekend to discuss the key challenges faced by the CIOBA and future directions. As a result seven CIOBA Value Propositions were developed.

CONNECTED

to leading edge

professional and industry information, expertise and best practice

CONNECTED

to an organisation

that influences policy formulation, regulations and legislation

CONNECTED

to an organisation that provides for industry and professional recognition

CONNECTED

to an international organisation that has members who have a consistent philosophy, aims and principles in relation to ethical, socially responsible behaviours to bring about sustainability to the built environment

CONNECTED

to an organisation that has positive collaborative working relationships with other organisations

CONNECTED

to an organisation that is diverse

CONNECTED

to an organisation that actively supports our young professionals