

Gyratory problems

The December course brought cohorts 18 and 19 together for the first time. They bonded over the studio project which was based on the week's Stakeholder Engagement theme. Mitcham's Corner is a neighbourhood on the north side of the River Cam. This visually diverse area has many positive features, but its sense of identity and cohesion has been eroded by the dominance of the gyratory traffic system, recent poor quality development and general neglect. The gyratory system is awkward to negotiate for cars, cyclists and pedestrians. It has resulted in the fragmentation of the area and the segregation of small parcels of land from each other and from the adjoining urban areas. This was a challenging brief in which the students, in their interdisciplinary groups, were tasked to come up with visions for the area. Their ideas were very well received by the stakeholders at the presentations at the end of the week. They even made it to the local news.

<http://www.cambridge-news.co.uk/Cambridge/Radical-vision-unveiled-to-transform-Mitchams-Corner-28122012.htm>

The great debate



The highlight of the week for many was the debate at the Cambridge Union. The motion 'This house believes that regulation stifles innovation' was hotly debated. Proposing the motion were Sarah Bonnici and Judith Schulz (IDBE cohort 18) and John Hannah from the Construction Engineering MSt. Opposing the motion were Tessa Brunette and Martin Watson (IDBE cohort 18) and Martin Straehr from the CEM. At the end of debate everyone had to choose which door to go through.



The Noes won on this occasion.

Dr Moncaster

Congratulations to Alice who was recently awarded her PhD from the University of East Anglia. Alice says "The thesis developed a novel interdisciplinary approach in order to understand how sustainability is interpreted and translated into practice in the construction industry. Detailed case studies were made of the political context for 'sustainable schools' in the first decade of the century, and of four school building projects designed and constructed between 2005 and 2010. The results were analysed using both social power theory and a technical assessment of carbon savings. The thesis demonstrates that the socio-political factors underlying the interpretation of sustainability as 'low to zero (operational) carbon' led to the increase, rather than decrease, in emissions in three out of four projects. It concludes that this approach can explain important aspects of the complexities of achieving sustainability within the socio-technical sphere of construction."

Accreditation from CIBSE – it's official

We knew we'd been recommended for accreditation, but now it's official. Hot off the press is the letter from the Chartered Institution of Building Services Engineers confirming that IDBE has been accredited as suitable further learning to meet UK-SPEC requirements for those with an accredited UK BEng Hons degree to meet the academic requirement for CEng registration, from intake year 2011 to 2015 inclusive.



New on-line application system

The new system went live in October. Applications for MSt courses must now be made through the Institute of Continuing Education: <http://www.ice.cam.ac.uk/mst>



The deadline is the end of June, but earlier applications are encouraged. Do email a copy of your CV to the IDBE office (info@idbe.org) first if you would like advice on your suitability for the course.

Where are they now?

Tracie Reed, IDBE 12 (2005-2007), was inspired to go back to school and receive her professional degree in architecture after completing the IDBE programme. She is finishing up her licensing exams this spring and thanks IDBE colleagues, Phil Latham and Paul Grimes (both from cohort 11), for their help in preparing for her structures exam which she has succeeded in passing. This summer she began working at PDT Architects Education Studio in Portland, Maine where she has focused on the programming and design of K-12 educational facilities. Her first school project at Thornton Academy is scheduled to begin construction this spring. Tracie also serves as the Chair of the US Green Building Council of Maine's Advocacy Committee and Co-Chairs the group's Green Schools Committee.



Dr Kerry Mashford (IDBE 6) 1999-2001, has been appointed as the CEO of the National Energy Foundation (NEF). NEF is an independent charity that has been at the forefront of improving the use of energy in buildings, domestic and non-domestic, since 1988. Kerry, most recently Lead Technologist at the Technology Strategy Board, brings considerable expertise in the built environment, technology development and integration, along with an international reputation in sustainable urban development and regeneration.

Kerry is a Chartered Engineer, Fellow of the Institution of Mechanical Engineers, and Fellow of the Royal Society of Arts. As well as the IDBE MSt, Kerry has a PhD in integrated design of complex, multi-domain systems. Kerry's previous experience includes Technical Director of the Ecological Sequestration Trust, Head of Sustainable Manufacturing and Construction for Arup and senior roles at Interfacing Ltd, the Centre for Remanufacturing and Reuse, and Benoy Architects and Masterplanners.

Kerry says "Improving the use of energy in buildings is critical to decreasing the UK's overall CO2 emissions, reducing fuel poverty and relieving pressure on our energy infrastructure. There is a growing body of evidence

about the factors that contribute to the energy performance of buildings ; there is a vital role for organisations like NEF that can interpret this evidence to advise on cost effective improvements - both to existing buildings and to the specification, delivery and economical operation of fit-for-purpose new buildings. I'm excited to be leading this pioneering charity as we further our understanding of the differences between possible, expected and actual energy performance in buildings, and work in real-life settings to close this gap".

News from the Department of Engineering

Department graduate Eva MacNamara of *Expedition Engineering* has won the Young Structural Engineer of the Year Award 2012 for 'The Dune Grass', her project which was a part of the recent regeneration of the Blackpool Promenade. Eva graduated from Cambridge University in 2007 with a Master's Distinction in Civil, Structural and Environmental Engineering. She has since been working as a structural engineer; first with *Atelier One* for four years and then with *Expedition Engineering* since October 2011. Eva's submission details the concept and application of the Dune Grass structures, whilst at Atelier One, which are 35m-high swaying 'dune grass' blades, part of the overall 'People's Playground' concept, inspired by the notion of escapism.

One of the main challenges Eva faced was designing the structures so that they moved about at low wind speeds while remaining stable at high wind speeds, something that a majority of similarly moving installations were not able to achieve. Photographs and a video of the Dune Grass structures can be found on the Freestate website. Freestate were the architects on the project: <http://freestate.co.uk/#project-4-65>

The judges expressed particular commendation for Eva's submission in the following areas: how she had tackled a very unusual engineering task from first principles, her understanding of wind engineering, her use of models, tests and a prototype to develop the engineering of the sculptures, her very well illustrated submission and finally, how she promotes engineering as a career to schools and as a profession to a wide audience.

The Dune Grass masts were successfully installed on Blackpool promenade in October 2011 creating an electrifying spectacle for promenade visitors and baffled engineers.

@idbe_cambridge

And finally... IDBE are now on twitter. Do come and say hello.



Interdisciplinary Design for the Built Environment

1-5 Scroope Terrace, Trumpington Street, Cambridge CB2 1PX email info@idbe.org www.idbe.org

Course Director Sebastian Macmillan PhD RIBA **Course Administrator** Becky Stanley BA (Hons) **Course Deputy Director** Alice Moncaster PhD CEng MICE

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