

Progress Report

Educational Trust – IDBE Course

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This short report provides an overview of my time on the IDBE Masters Programme and the benefits I have derived from it. I am part of IDBE cohort 14 attending the course from 2007-2009.

I am an Associate with Arup, practising as a structural engineer and more recently a design team leader. In June 2008, with the support of the IStructE, I finished my first year of the IDBE programme and I am now officially halfway through! I have finished four residential weeks at Cambridge and three pieces of written work, and I am about to embark on the second year during which time I will complete another three residential weeks and my Masters Thesis.

The IDBE programme is essentially broken up into three aspects - the residential weeks at Cambridge, the course work/essays done between residential weeks, and last (but not least!) socialising with our classmates. These three aspects are described below in more detail.

Residential Weeks

Once a term our IDBE cohort, shown in the picture below, attends a residential week at Cambridge. We live in Wolfson College, which we are all members of, and attend classes in the Departments of Engineering and Architecture. Each week is made up lectures, design studios and one-on-one meetings with tutors. The days are long - classes start at 9am and finish at 9pm – but the variation in the day makes the time fly by.



IDBE Cohort 14 (I am sitting second from the right).

The course started with a residential week in September 2007. This first week gave us an introduction to Cambridge, the IDBE course and our design work. Each residential week has a different theme, and our first week focussed on *facades*, in particular looking at the issues of daylight, materials, energy consumption and natural ventilation. The lectures and our design work for the week were tailored to this theme and we did a fantastic design studio creating a green facade for an old office building. At the end of the week each team presented their work to the class and a critique panel (of lecturers and industry representatives).

Each residential week we spend approximately 15 hours doing the design studio in small multidisciplinary teams. This studio exercise is as much about the design work and the intellectual exercise, as it is about working together. I find it particularly interesting to sit side by side with the architects from the outset, seeing how they create and how many of them sketch and design from the point they are given the brief. They are quite different from the engineers who tend to want to deconstruct the problem, brainstorm all options, before heading forward in a very logical/analytical way. The IDBE setting provides a very effective and non-confrontational environment for us to develop an appreciation and understanding of each other (engineers and architects) so that we can work together more productively.

The second and third weeks focused on *master planning* and *sustainability* respectively, and the design studios in those weeks focused on large urban regeneration schemes. The most recent week (June 2008) was on *the design team and leadership* during which time we had sessions on personality types, the ideal makeup of teams, leading the team and negotiation techniques. We did the Myers Briggs personality test which was very interesting and also learnt about other personality tests such as Belbin. Each night on residential weeks, we have an inspirational lecture (often followed by some very inspirational Q&A over drinks!). This most recent week we had some fabulous lectures including sailing boat design, wheel design and maths/art/geometry and nudity. Many of these inspiring talks are given by Cambridge academics, and it is wonderful to be exposed to the variety of work and the ideas they are involved in.

Written Work

Between the residential weeks we complete written work for assessment. Our first piece was a 5000 word case study of a recent project that we have worked on, which gave us the opportunity to reflect on what worked well and what didn't, our role and the lessons learnt. I focused on the Dublin Airport T2 project, for which I have been the deputy design team leader, and the value engineering strategy we used. I received an A grade for this piece.

My second essay is titled "the evolution of the architect into the design team". This 3000 word essay studies the changing role of the architect over the last 600 years, and examines the implications for the industry and the quality of design outcomes. My third essay is "prefabrication and the application to residential architecture". Both of these essays are still being reviewed and examined.

We are currently choosing our Masters Thesis topics, which will be the main focus of our work between residential weeks for the next year.

Socialising

Our cohort is made up of 23 members, as shown in the above photo, with equal numbers of architects, structural/civil engineers and other members of the construction/design team (eg MEP and fire engineers, planners, construction managers, design managers and QS's). We have representation from the UK, Ireland, the Middle East, Argentina, Turkey, Asia, South America and Australia. It is great getting to know people from such different backgrounds (culturally, professionally and personally).

Each night at Cambridge we catch up for drink and a chat - and in many ways this is one of the best parts of the day, as we share stories of our work, the construction industry, the issues we face and our aspirations. In the summer months we have been making the most of the weather to enjoy the Cambridge environment, see the photos below. And in June we had our mid-summer ball in the grounds of Wolfson

College, from 9pm-7am (nicely fitting between class times!). We had a great time with bumper car rides, ferris wheels, bands, champagne and comedians.

Through the IDBE programme I have met a wide range of people in the global construction sector – which has been invaluable. This diversity enriches not only our lives and personal careers, but also the opportunities that we can bring to our firms and our local industry in the UK.

In summary, the course is going really well. I feel so privileged to have the opportunity to take part in the IDBE programme and Cambridge is a fantastic environment. I am very grateful to the Institution of Structural Engineers' Educational Trust for the support you are giving me to complete this Masters.



Punting on the River Cam



Grounds of Trinity College