

Edge Debate 46 – What does it mean to be a construction professional in the 21st Century?

15th September 2011 – Royal Institute of Chartered Surveyors, Parliament Square, London

Welcome - Ursula Hartenberger

RICS Global Head of Sustainability,

Ursula said RICS was pleased to host this debate since it referenced its own reflections on the core requirements of a profession in a fast-changing world.

RICS distilled professionalism as:

- A life-long environment
- Governed by standards (with monitoring and enforcement)
- Serving public interest not the advantage of its members
- Rooted in ethical principles

RICS's recent focus on ethics and the development of an associated toolkit by David Pilling, had been an important work-stream, recognising that the World is reshaping with:

- changing investment patterns,
- globalisation and international money flows
- changing demographics
- climate change

which demanded internationalized professional standards to address wider societal responsibilities alongside clients' interests.

She referenced Prof. John Radcliffe's 'Just Imagine' Report as a 2030 roadmap showing what will be needed.

Rab Bennetts – Chair

Bennetts Associates

Rab explained he was much engaged with the agenda both as a member of the Green Building Council and Design Council boards and in practice as an architect - operating and orchestrating the conjunction of art and science.

Matthew Bacon

The Conclude Consultancy; Visiting Professor – University of Salford.

Matthew said that much of his focus had been on diversification in architecture; describing how practise needs to change and how this maps on 21st Century architectural education.

He saw that education was largely blind to the changing needs of the industry it served. It was a new world – with new technologies like BIM, new procurement methods and reformatted supply chain arrangements that all created a declining market for architects as currently trained.

These challenges demanded more diversity, new service offerings and new practice models that better recognised the needs of society, quality issues and sustainability and which redressed the increasing disconnects between the way buildings are designed and how people used them.

The solution involved a radical change of approach:

- Research-led, to create reliable and useable feedback and to develop innovation
- Evidence-based, to use what we know
- Constantly challenging assumptions and 'standards'
- Bridging design, delivery and operations
- Applying technology to inform complex decisions and to assimilate/process complex data sets.

Architects had a unique holistic role in the industry. But architecture had not invested enough in science to support where it needed to go - hence the urgency of involving research (which has been much lacking across the industry).

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For as long as architects did not invest in research, they'd be unable to challenge the status quo and the 'tyranny' of standards. There had to be more transparency between intention and outcome to:

- Understand why buildings fail to perform
- Identify why standards produce over-engineered solutions
- Put user feedback high in the briefing loop
- Collect and analyse in-use data

We have so little in-use data. No other industry has stuck its head in the sand to this extent and was so blind to the performance of its products.

One of Matthew's key aspirations was for 'occupancy analytics' to be used to map the flow of people in a building and to identify occupancy densities in different parts and circumstances. He continued that occupancy levels drove the design of engineering systems and that standard 'default values' created oversized plant. Connecting analytics into whole facility energy modelling would produce energy use profiles that relate to actual building use.

He summarised that the traditional architect's role needed to be adapted to the changing needs of society. Architects should embrace new technologies and leverage new knowledge to create new technologies.

Alan Crane

3Cs Construction Consultancy

Alan did not consider UK construction lacked the skills to get to a low carbon economy and achieve construction economies. It is served by the best-educated professionals in the world.

The problem was that its parts were incapable of pulling together to span pre-, during- and post-construction activities (as said across time by Egan, Latham, Wolstenholme et al).

This was holding us back, together with a shifting policy landscape and confusion in government, viz:

- Chris Huhne's Green Investment Bank - was neither green nor a bank by the time it had been modified by HMT and BIS!
- Paul Morrell's thesis in Low Carbon Construction - that we lacked the skills for the carbon reduction agenda - was the wrong diagnosis used for the wrong purposes.

We have the skills and we have the technology, but we have been unable to harness them to green things.

There was a serious disconnect between applied research and industry. We needed to extend the technologies we have deeper into certain areas, particularly buildings in use.

Were politicians right to say that we can't afford to go green? For example, HMT's abandonment of the next stage of DEC roll-out as 'impeding economic growth' killed the prospect of basic, valuable operational feed-back to the supply chain. And all the evidence from the first phase of DEC was that they reduced business costs.

Not being able to do everything was no reason for doing nothing!

The Chancellor's line that UK's pay-down of debts cannot be extended because it would impede business growth was nonsense. We needed activity for growth. So what was lacking?

- We didn't have enough outcome-related knowledge,

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- We didn't have a government with commitment and resolve.

But we did have lobby groups – some overly influential with government and a real problem to progress (as with DECs, which was supported by CBI but quashed by HMT under lobby pressure).

Government displayed how readily it was manipulated by lobbyists, for example:

- It was engaged with relaxing planning laws to enable more house-building, when builders' land-banks were at unprecedented high levels (and the last quarter saw more planning applications than the previous 3 years)
- Yet the house-builders hardly merited esteem, producing so far only 160 homes that met the zero carbon definition.

This was a good time to implement a low carbon agenda. There were 2.5M unemployed skilled construction workers in Europe; 530,000 in UK. Retrofit was one urgent market.

What we lacked most of all was unequivocal and co-joined policy and legislation that backed up UK's 2050 carbon undertakings.

Dealing with rock-solid commitments was challenging but not new. We did it with the changeover to gas: within a decade. We did it, because we knew it was going to happen.

Bill Bordass **Usable Buildings Trust**

Professionalism involved getting to places markets can't reach.

Invariably buildings did not work as well as they should – they were overly complicated with too little effort applied to 'tuning up' and to giving operators full knowledge of the design intent. Even then designers and operators were sometimes hopelessly inept in the application and operation of low carbon technology.

Government, in its aim to decarbonise the economy, has legitimised 'green bling' – the antithesis of what's required.

Modern procurement systems sliced things up when holistic, end-to-end approaches were needed that followed though beyond project 'delivery'.

We needed to review commonly held perceptions and recognise we must get reliable feedback into the briefing process:

- Often occupiers have a different view of what should form the design intent and good knowledge to support it, which was not considered.
- Research needed to be really embedded into practice.

Things have been drifting for too long and opportunities lost. In a more difficult economic landscape a new professionalism may provide the solution - but it needed to happen quickly and be able to cope with:

- a shortage of money resources and time,
- unnecessary complication.
- devaluation of professionalism as either anti-competitive or elitist
- Government's fixation on outsourcing everything – without any coherent explanation as to why
- An undue reliance on contracts designed to shift risks from their 'proper owners' to entities unable to control them
- An environment where spin ruled over substance and one that 'shoots the messenger'.

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The question was whether new, strengthened, professional ethics could be derived and focused to burn through the nonsense and get us where we urgently needed to be?

Stephen Hill

C₂0 Future Planners

A profession was neither a members' club nor there to defend its members' business models, like a trade association. Professions should be defined by distinctive attributes:

- Public Interest obligations
- Intellect and up-to-date know-how
- Regulation, control and enforcement
- Standards and ethics

Just 'bolting' things onto old models risked system collapse.

The big challenges to professionalism were:

- Not a single shared idea across the professions of sustainability
- its public interest obligations and the behaviours needed in practice.
- Poor action learning and skills/knowledge sharing cultures
- Erosion of professional values and their social contexts

The post-deregulation economy saw professionals:

- Redefining the Public Interest
- Presiding over the outsourcing of the welfare state where public knowledge was privatised or lost
- Teeing up an all powerful, seemingly benign, 'Parent State' with citizens kept in perpetual childhood, and freeing it to drive agendas without due thought or scrutiny of consequences.

Stephen referenced a review of *Disciplined Minds* describing how incipient professional idealism was made cynical and compensation-focused by education, and how professionals became less independently minded and more jargon-dependent than others.

Professionalism had come to mean skills and knowledge, service-quality and protecting shareholder value. The ethics and responsibilities that once differentiated professionalism had been forgotten. These higher duties and behaviours were not guaranteed by codified standards but required a new professional environment.

Stephen offered a new manifesto, created by students on the IDBE course when challenged to assemble their personal values on ethical and sustainable professional practice - showing that senior BE professionals these days hold views different from the post-deregulation generation:

- Challenge convention
- Design as if it's your own
- Have the courage to make a stand
- Learn from mistakes
- Be honest about what you don't know
- Be a steward of the community and its resources
- Take a wider role.

Discussion

Floor 1: If you had a magic wand, what would you do?

MB: Rethinking our workplaces and getting users more engaged in the decisions they take in occupation.

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BB: adopt soft landings

AC: Bring Stalin back to life, or someone who deals in fundamental, drastic, action. Use energy suppliers and their meters to show people the benefits of good action and require energy suppliers to fund them. Make Code Level 5 the minimum for new homes. And just get on with it!

SH: multi-agency concept meeting - where the people who manage buildings input to a forum that is open enough to allow people to admit to 'not knowing'.

Floor 2: We've heard several definitions of a profession but none mentioned sharing knowledge bases – an odd disconnect! Views?

MB: Agreed. Professions now protect knowledge. Procurement models isolate and 'IP-protect' knowledge. If challenges were owned collectively, it would help.

AC: Silos are built by education. While architectural engineering is still (just) alive, generally architectural & engineering graduates lack building science.

BB: UK institutes are not learned societies because they are disconnected from research. In USA the model is different. For example, ASHRAE forms 5 year programmes with Government that ensures related R&D can confidently muster around the agendas.

AC: There's no reason to stay in silos – if knowledge is a multi-way stream presented in an accessible and 'processable' form.

Floor 3: Professions need to get together and make sustainability a shared vision and push women professionals to the head of its mission.

AC: in 1996/7 the construction industry responded to one department, DETR, not several as now. The fragmentation was started by manufacturing calling for its own department. Nothing now represents the industry with Government as a whole; CIC's time has passed.

RB: What about forming an Institution for the Built Environment?

Floor 4: We are poor at understanding what we do and how we sound. We need to get better at asking questions, dealing with things we don't want to hear and learning from our mistakes.

Floor 5: The debate has really been all about sustainability. Is our problem a crisis of confidence?

SH: No. The problem lies in our resistance to change anything unless it 'increases value' – a deadweight proposition as time has repeatedly shown.

BB: Nature cannot be fooled. Sustainability puts professionalism on the spot. We need to interrogate our traditional standards and devise new output based ones.

Floor 6: Public service obligation is not a strong theme in the professions. Indeed much of what we do is instructed by developers, so often we don't even deal with end-users.

RB: How about starting the IoBE here and now?

SH: Sponge would be a good collegiate model for such an institution.

RB: In drawing proceedings to a close, he'd distilled the following action points from the debate:

1. **To connect users to design**
2. **To seek more funding of necessary change from the energy suppliers**
3. **To promote a knowledge-sharing culture and a knowledge-base accessible to the industry**
4. **To create an Institute of the Built Environment with high standards for, and recognition of, its members,**
5. **To find an appropriate means of linking IoBE with professional institutions.**
6. **To promote in practice the use of sustainability for far more explicit choices and decisions.**

In thanking the chair and delegates, Robin Nicholson, the Edge's Convenor suggested a good start would be to form a club of sustainability gurus from all the big contractors.