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REINVENTION OR ANOTHER 'TWIST'?

TOP CONTRACTORS AND THE PRESSURE TO CHANGE

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PROVIDING MORE FOR LESS

As the education sector comes a step closer to embracing BIM, **Stephen Beechey** looks at how this development may affect the school building sector over the next few years

THREE DECADES AGO WE WONDERED HOW WE LIVED WITHOUT THE SCIENTIFIC CALCULATOR AND LOG TABLES WERE CONSIGNED TO THE WASTE BIN

When Paul Morrell - the government's chief construction adviser at the time - took the plunge in 2011 and pledged to champion Building Information Modelling (BIM) as the silver bullet that would secure the industry's future, you could almost hear the sharp intake of breath from some corners of the education sector. In the intervening years, Morrell has been largely vindicated and BIM is emerging as a driving force in increasing the competitiveness of the construction industry.

Bearing in mind the need for the schools sector to provide more for less, BIM is the natural solution to bolster the partnership between school builders and designers, and is becoming an invaluable part of the toolkit for

designers and contractors. Three decades ago, we wondered how we lived without the scientific calculator and log tables were consigned to the waste bin; in another 30 years we'll ponder how we managed without BIM.

Some will say this is all well and good, but what about the small print? How will BIM shape the school building agenda as we move further into 2013? And will the education sector be able to deliver on Morrell's ambition that BIM should provide a way of working that's liberated from traditional constraints on strategic planning?

As an early adopter of BIM, the Education Funding Agency (EFA) was one of the first

government departments to recognise the potential that the process offered. Graham Watts, chief executive officer of the Construction Industry Council (CIC), remarked in last November's Industrial Strategy paper that BIM "will enable intelligent decisions about construction methodology, safer working arrangements, greater energy efficiency [...] and a critical focus".

Watts is correct in his view that BIM should be able to act as a catalyst for a new form of construction project, but I'd go further. One thing is for certain - as 3D models continue to become more advanced in scope, and technology reduces waste throughout the process, BIM will go from strength to strength.

Partnership between contractors and designers will be key this year, and BIM is the backbone that can strengthen this alliance. Given that collaboration can only be achieved through close consultation during the design process, BIM provides the perfect opportunity to plan thoroughly, and closely, with all parts of the supply chain in a way that could make 3D modelling a major stepping stone on the route to a new era of efficiency in construction.

But BIM isn't the only thing we need to consider. It has an essential role in boosting growth, but it's part of the answer, not the whole solution. A clearer definition is needed from the government on how it wants the sector to approach the take-up of BIM. Can you define it solely by its advanced 3D modelling

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enabled by topline design software, or is it something bigger that will encompass far more of the construction process than anyone yet realises? Also, revolutionising the toolkit used by contractors and designers to achieve these aims is an ambitious objective, but the timescale for achieving BIM-compliance across both the education sector, and the industry more generally, will loom faster than anyone realises. Even in spite of the Department for Business, Innovation and Skills' (BIS) detailed 12-point plan to promote BIM as the weapon of choice, many will begin to feel the pressure to cope and compete with one of the most significant developments witnessed in recent years.

Most importantly, the skills gap within the supply chain shown by an overall lack of BIM

capability across the sector is the Achilles' heel of the entire process. As this gap is highlighted over the next few years, the risks around using BIM on projects could increase, as contractors who do have the ability to make the most of BIM may question whether it's worth using it at all. The government can overcome this by offering tax breaks to parts of the supply chain that adopt BIM, so that they're able to maintain the momentum and ensure that BIM is used to provide the next generation of school buildings. How the Treasury responds to this challenge will be crucial and the success of BIM is likely to be dependent on it over the course of the next few years.

As the first Priority Schools Building Programme contracts are awarded and we enter a new phase of privately and capital-funded school buildings, the tools that the sector needs in order to make plans a reality appear to be within our grasp. On a practical level, I believe that BIM has the potential to act as a tremendous engine for growth, and the ease with which major contractors can do business with their supply chain partners could be dramatically increased for this very reason.

At a time when the industry as a whole is looking to secure savings throughout its supply chains and reduce on-site costs, BIM is clearly a major opportunity to place innovation right at the heart of the school building process.

Stephen Beechey is group investment director and head of education for Wates

WONDERS & BLUNDERS



Simon Gill considers running for the Scottish Parliament, just so he can work in Enric Miralles' building, but feels that Renzo Piano Workshop's Central Saint Giles is off key

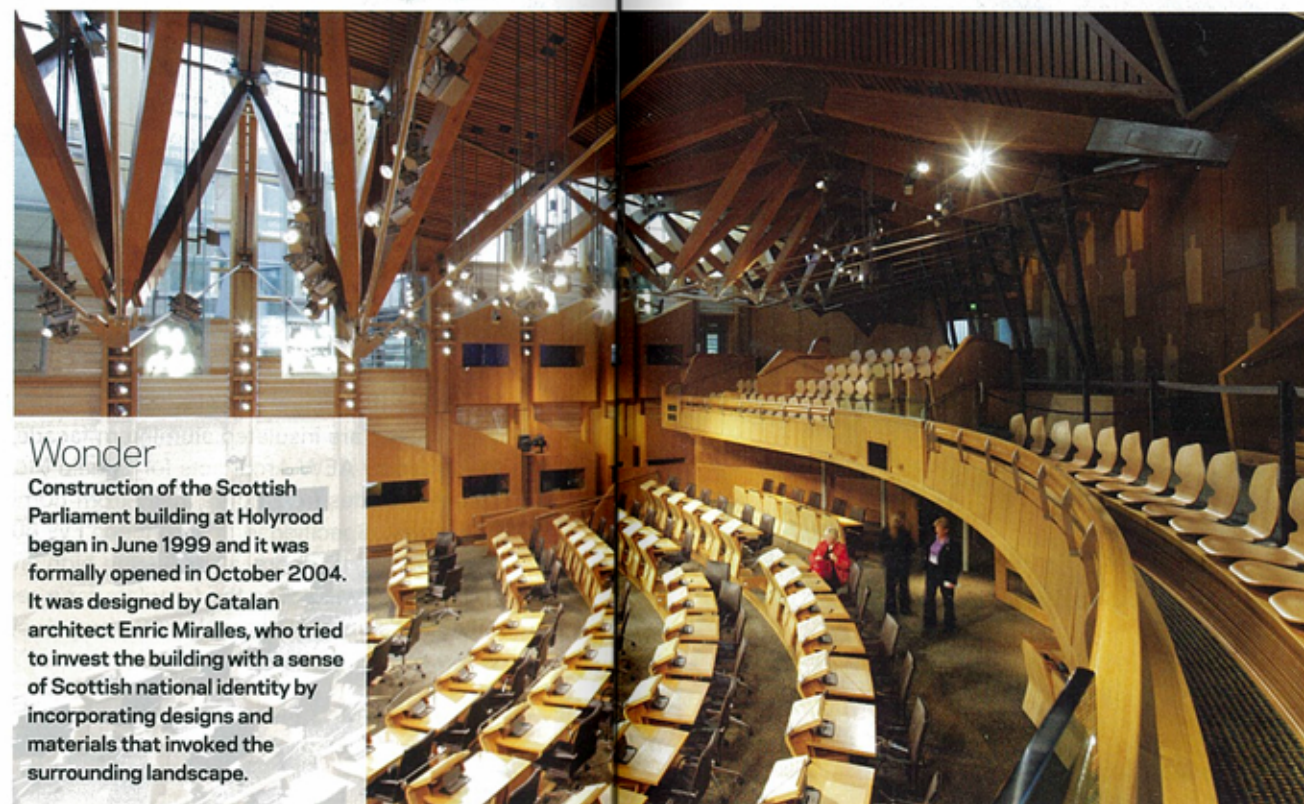
So far, the 21st century has not produced a better building in Britain than Enric Miralles' Scottish Parliament in Edinburgh. As a whole, the building's interior is a labyrinth of benign strangeness where, exploring, one comes upon extraordinary rooms, including the great debating chamber. It is difficult to conceive of a space more conducive to reasonable discussion, in contrast to the confrontational dog pit that is the English House of Commons. Most potentially symbolic is the landscaped connection to Arthur's Seat, the outcrop of rock overlooking the centre of Edinburgh. If I were Scottish, I would run for parliament just so I could work here.

Meanwhile in London, one of the most esteemed architects in the world (not least by myself, normally) has inexplicably given us Central Saint Giles, a mixed-use commercial development that dwarfs the

cityscape around it. It is clad in facades that resemble giant waffles containing too much food colouring. These, we are told by the Renzo Piano Workshop, reflect the colours of the buildings around it. I am at a loss to find any facade even approaching the dayglo hues of the building in the vicinity.

There is some attempt at making a decent public space at its centre but the sheer scale of the cliff-face facades combined with the relentless homogeneity of the hard landscaping undermines any sense of place. Standing in Denmark Street, London's Tin Pan Alley, and looking down this small scale street to a vast vertical trifle of luminescent red, yellow and green, gives one the impression of experiencing a cacophonous bum note.

Simon Gill is owner and founder of **Simon Gill Architects**



Wonder
Construction of the Scottish Parliament building at Holyrood began in June 1999 and it was formally opened in October 2004. It was designed by Catalan architect Enric Miralles, who tried to invest the building with a sense of Scottish national identity by incorporating designs and materials that invoked the surrounding landscape.



Blunder
Central Saint Giles was the first building designed by Renzo Piano to be built in the UK. It was completed in May 2010. The mixed-use scheme comprises a 15-storey residential block and a larger 11-storey commercial block, with tenants including Google, NBC Universal, and Mind Share.