

The RIBA Journal

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# March 2016



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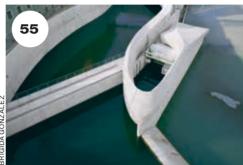
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Bjarke Ingels by **David Vintiner** 





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# 1: Buildings

What is that smell? The emphasis tells you there is something wrong, something out of place. The ammonia waft of rotting melons on Mediterranean streets, carbonised rice blackening an ignored pan, the stench of stale beer as you pass the pub extract. Better the satisfying smell of completion from drying plaster, slowly transforming from the cold sharpness of the building site bouquet to a rounder, more comforting aroma, mixed with paint, soon to be layered with good coffee. At the Watts Gallery (page 20), a scent was especially commissioned to evoke an earlier ambience of paint and canvas. It is hard to manufacture the 'right' smell. A study of the ingredients, airflow, volumes and materials could make a book. Can the cool marble freshness of the Victorian gallery be sustained as visitor numbers go up? Can the piney release of timber touched by the sun last beyond those first few years without resort to the fakery of air freshener? Can a stuffy classroom, dull smells dulling the senses, become a place for fresh thinking? When you design for light and air don't forget the air. •



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The artists are all anticipating that themes they're painting might not survive in that form for much longer Artists' records of Britain as war struck: ribaj.com/culture/recording-britain

we can store clean energy for use later Techie Mark Kerr cuts his energy bill by 80%: ribaj.com/ products/powerwallbattery-solarstorage

This is the future...

# Remade in Chelsea

Peregrine Bryant's new berths for the famous Pensioners have brought Wren's Royal Chelsea Hospital comfortably in to the 21st century

Words: Pamela Buxton Photographs: June Buck

When Christopher Wren designed the Royal Hospital Chelsea in 1692, each In-Pensioner lived in a 6ft x 6ft windowless cubicle just big enough for a bed, table and chair with a shutter opening onto a wide corridor with views over the hospital grounds. While there had been quite a few improvements since then, by the time architect Peregrine Bryant was asked to carry out a feasibility study for the hospital's restoration in 2006, it's fair to say that the 17th century accommodation did not meet 21st century expectations, in particular the not unreasonable desire for en-suite facilities. To prove it, numbers were falling due to lack of demand. Clearly, something had to be done to safeguard the hospital's use as a retirement home for army veterans.

A decade later and it's a very different picture. After the completion of a £20 million restoration, all the 'wards' and their oak-panelled 'berths' have been restored and

enquiries are up to join the community – now there's even a waiting list.

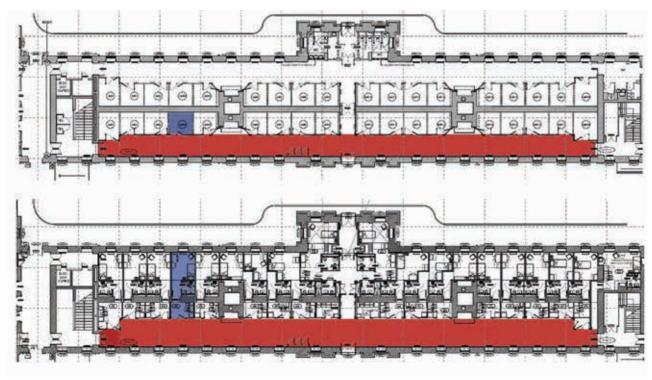
So how did Peregrine Bryant do it? The architect's solution was both radical and traditional. On the one hand, the back-to-back layout of the wards has fundamentally changed, but on the other, the new design restores Wren's emphasis on a social corridor, counteracting the concern that residents might retreat to their new, larger, rooms.

'For the original use to continue the building had to change... the challenge was taking forward the major interventions needed in this grade I listed building and persuading English Heritage and the local authority that they were justified,' said Bryant.

In the original design, the cell-like panelled bedrooms were arranged in the middle of the plan flanked by two social corridors running alongside the windows. When the lengthy restoration began, the original berths

had already been enlarged from 4.18m² to 7.52m², reducing the corridor widths, but were still without their own bathrooms, direct daylighting or ventilation control – all key ambitions of the restoration. To create the necessary larger en-suite bedrooms, something clearly had to give, and it was decided to have just one rather than two rows of bedrooms, pushed to the perimeter to give each IP an opening window, and enlarged to accommodate an en-suite wet room and WC while retaining the open-ceilinged study area overlooking the corridor. This arrangement also allowed the architect to create a wider communal area with large easy chairs and tables.

These improvements reduced the number of berths in the long wards to 20 per floor, taking the total number from 288 to 205. However, further new accommodation for 100 pensioners has been created in a refurbished building elsewhere on the site.



Left Annotated plan showing the original arrangements (above) and the refurbishment plan (below), with one social corridor removed and replaced by extended bedrooms.

Social corridor

Berth



**Above** Social corridor reinstated to full width, west wing.

**Right** Wren's original timber screen has been reused on the updated accommodation.

Far right Finished bedroom, now with natural light and ventilation, west wing.



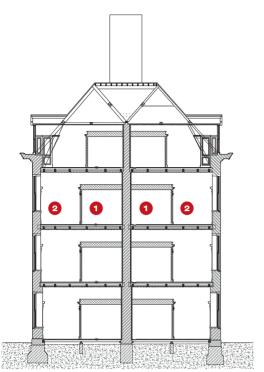


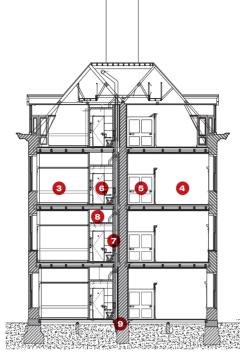




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Above Original west wing first floor longer view looking south.

The principle of the social corridor has been maintained in the new iteration.

- 1 Original berths
- 2 Original social corridor
- 3 Bedrooms extended to perimeter wall
- 4 Widened social corridor
- 5 New study space
- 6 Newbathroom
- 7 Vertical riser serving bathrooms
- 8 Horizontal service duct to bathroom
- Original structural wall, knocked through in every flat

The restoration was hugely challenging to implement due to the variations in levels and joinery that made setting out each berth a special case. First the whole ward was cleared, with each individual piece of oak joinery carefully labelled and then restored to remove centuries of darkening polish. A false ceiling was replaced with a new higher one to accommodate servicing such as the new misting system. When the oak panelling was re-installed in the new berth configuration, it was a particular challenge to ensure that the new bedroom walls lined up with the panelling on the walls when breaking through the original central spine wall. To accommodate the services required for the new wet rooms and two new kitchenettes on each wing, the redesign incorporated 21 wet vertical risers, two vertical electrical risers and one horizontal riser in the wetroom drop ceiling.

Both the IPs and the RHC are delighted. 'Since the Long Wards were renovated we've seen a marked increase in the number of veterans applying to live at the Royal Hospital, and we believe many of them are choosing do so because of the newly upgraded facilities,' said Andy Hickling, director of estates, facilities and quartermaster of the Royal Hospital Chelsea. 'Peregrine Bryant's design has not only preserved the historic fabric of the buildings left by Wren, but it's also allowed us to continue a 300-year-old tradition of caring for those who have so loyally served our nation in the army.'

When RIBAJ visited, the social corridor was clearly fulfilling its function and IPs are keen to show off their comfortable new berths. Anyone nostalgic for the cell-like originals can visit the recreated 'heritage berths' on the ground floor, before returning to the comfort of their own deluxe suites. •

Credits

Client Royal Hospital Chelsea
Architect Peregrine Bryant
Project manager Capita
Quantity surveyor Cyril Sweett
M&E consultant ch2m
Structural engineer Hockley and
Dawson
Contractor Wates Construction
Subcontractor M&E ImtechMeica
Timber repair and joinery South

Eastern Carpentry
French polisher F Bennett and Son
Dryliner and plasterer David
Andrews Construction
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### **Buildings** Photograph





### El Tren Diamante, La Paz, Bolivia 2014

Photograph: Nick Ballon
Words: Jan-Carlos Kucharek

Over the years that photographer Nick Ballon travelled from his home in England to Bolivia to visit his grandmother in La Paz, he'd probably tell you that not a lot had changed – until the last 10 years that is, when Evo Morales became president. The country's first Aymaran incumbent, his left of centre policies and socialistic 'Evonomics' ushered in a sense of pride for the indigenous working classes, and a desire to manifest their new-found in-

fluence and affluence. The La Paz suburb of El Alto, which exploded in size in that time, is where Ballon started noticing a formal typology spring up, reflecting that confidence. It turns out the new 'Salones de Eventos', for hire for weddings and big family events and with very strong references to traditional Andean patterns, were all designed by a local bricklayer who'd made good, by the name of Freddy Mamani. A weird hybrid, with retail space at ground and owners' homes perched on the top, Ballon took it upon himself to record this strange, 'bling' vernacular – and in more than two dimensions. The annual

Alasitas fiesta in January honours Ekeko, the ancient Aymaran god of abundance, and is marked by people giving 'dream' toys to each other reflecting their 'wants' for the coming year; be it a new phone, car, money, diploma – or a house. As a play on this, Ballon asked local artisans to craft models (inset) of Mamani's designs from his photos; he doesn't know why they chose to make them of glass, but they did. Each one little more than 20cm high, these pint-sized forms are an uncanny reversal of the pagan festival – totems of desire more precious and fragile than the realised dream itself.

# Care, flair and hanging stairs

If architecture students at Norwich University of the Arts need a lesson in design, all they have to do is look around them at Hudson Architects' refurbished Boardman House

Words: Eleanor Young Photographs: Joakim Boren

A solid civic Sunday school building may not be the obvious place to teach the architects of tomorrow. But then for many years Norwich has not been the obvious place to study the subject. It's only since 2012 that this flint-ful cathedral city has had an architecture school. Norwich University of the Arts was fully fledged as a university in the same year and operates out of 12 buildings all within a few streets of each other. There are 89 students in the architecture school and Boardman House was bought for them.

It is named after its original architect Edward Boardman, who borrowed an Italianate style that was already considered a little passé when it was designed. The handsome yellow brick face has, however, weathered

well, belying the twisted muddle of offices and access that Hudson Architects found inside. Rather like its mother church next door, the central space is a double height hall with a wide gallery encircling it at first floor level and housing regular alcoves.

In these days of open plan teaching and creative mingling, a little bit of fixing up and some work on the access might have done the trick for the architecture school and its downstairs neighbour of media studies. And at £2,374/m² with no frills, Hudson Architects has infused this potentially sober building with characterful quirks, partly by historical accident, partly by the design of two set pieces.

The first well handled accident, as you

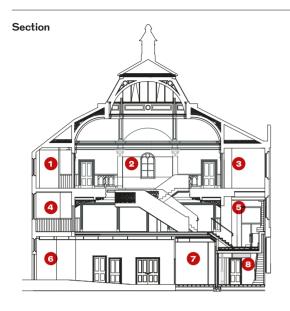


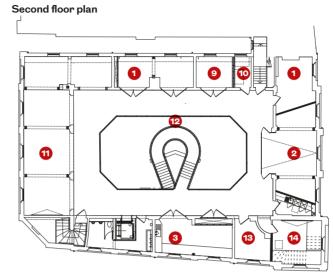
Far left A way in to architecture. Left The Italianate corner of Boardman House. Opposite Scrolls and tendrils of the old balcony and

new staircase.



# **Buildings**University





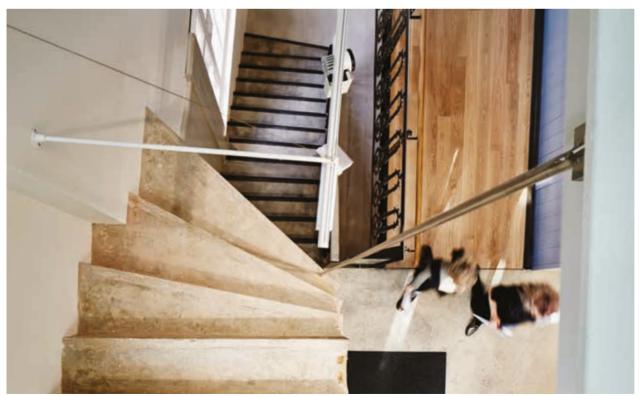
### Key

- 1 Print room
- 2 Seminar room
- 3 Model making room
- 4 Server room
- 5 Main entrance lobby
- 6 Corridor
- 7 Control room
- 8 Lobby
- 9 Office
- 10 Disabled refuge
- 11 Design studio
- 12 School room
- 13 Portfoliostorage
- 14 Group tutorial room

enter, is a surprise: a hanging stair, half a cantilevered staircase, truncated in an earlier refurb above head height. And, on the other side, the dado rail embedded in the wall that would have followed the staircase down into the entrance. At the end of the slim double height atrium a new little staircase runs up to a wall of mirrors, turning a slot alongside the lift shaft into something more than leftover space and giving the original window alongside a place to light. All this is done amid a toned down building where red doors

complement the university's light grey walls and timber panelling, modestly highlighted in a gentle shade of pewter. The only other strip of colour is the full height blue of new timber panels. Elsewhere there is a leftover door to nowhere, remnants of impossible windows and fragments of tiles. These might be pieces of 'significant fabric' or not, but either way it's done with a lightness of touch.

But the essence of space is in the vaulted school room of Boardman House. Entering from the narrow atrium, the openness of



Left From above but going nowhere, the original cantilevered staircase, sliced in two by a previous refurbishment.

**IN NUMBERS** 

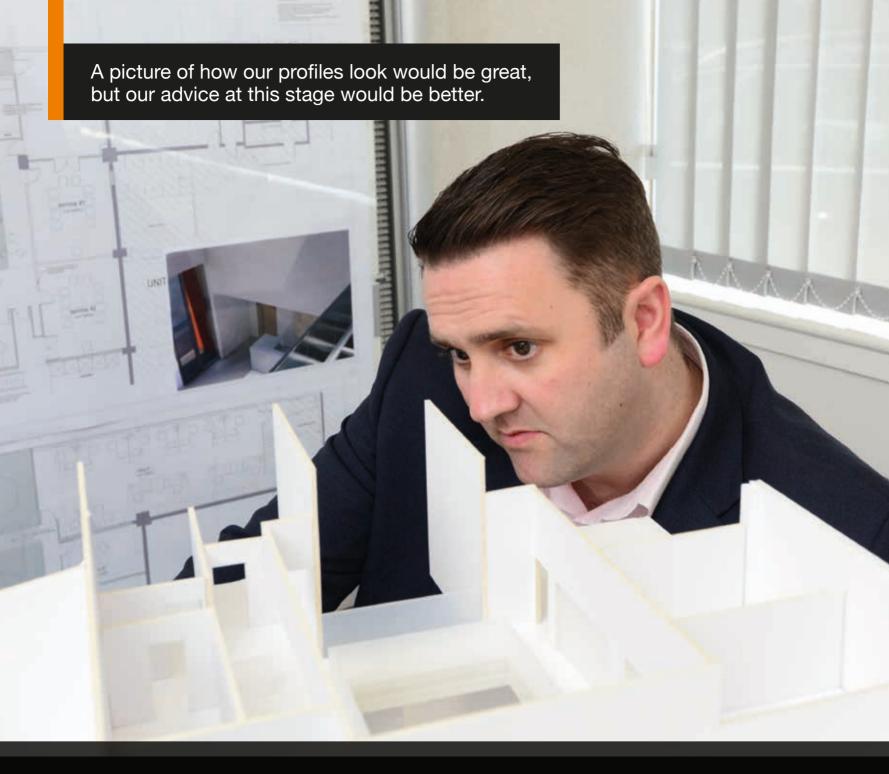
1,474m<sup>2</sup> gross internal area

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the space comes as surprise. But this is even more true of the beautiful new curving, decorated, staircase, its water cut steel decoration echoing the elegant tendrils around the building's original balustrades. It is bold both visually and in the way it takes hold of the room, pulling the open volume into a swirl of stairs and apparently eating up the space. But what it does of course is act as a dividing device to create different spaces. The focussed areas for screens and display under the stairs, computers to one side, an open plan lecture or crit space to the other. As you ascend you appreciate, as will generations of architecture students, the care and attention that has been lavished on the staircase as the oak on the treads is oh so carefully set out to follow the stairs up and around to the top of the architecture school.

Up on the first floor is the invisible studio, depending which angle you are looking from. A glazed wall of switchable glass keeps the school room gallery visually intact, while pushing out into it, first translucent then opaque, reflecting the spaces around it. In the telling it might sound an expensive diversion but it is simple enough, bar the glass technology, and adds a level of sophistication that should set students thinking about what materials might do for them.

Anthony Hudson was one of those who encouraged Norwich vice-chancellor Professor Last to add a school of architecture to this arts school. Hudson Architects' reworking of the building under the energetic and diligent stewardship of project architect Jenny Harvey looks set to be one of the most important ingredients in making this intimate little school a success. •



Above Dividing the space with a swirl.

Left Now you see it, now you don't, as the glass switches the room and its reflections are more or less readable.

Credits
Architect Hudson
Architects
Client Norwich University
of the Arts
Main contractor Balfour

Structural engineer
Rossi Long Consulting
M&E Mott MacDonald
Quantity surveyor Aecom

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# In search of the bigger picture

ZMMA's sensitive approach to renovating the Artist's Village of Victorian painter George Frederic Watts has created a gallery with enchanting detail, but not enough fun

Words: Isabelle Priest Photographs: David Grandorge

'The organisation is getting to the point where I no longer know who everyone is or what they are doing,' remarks curator Dr Nicholas Tromans as we walk down the hill towards the chapel at Watts Gallery Artists' Village in Crompton, near Guildford in Surrey.

Tromans joined Watts Gallery Trust in 2013, two years after ZMMA finished refurbishing the original 1904 picture gallery. Tomorrow marks the next stage in the site's development, with the opening to the public of the renovated and extended studio of celebrated Victorian artist George Frederic Watts.

Over just more than 10 years, the self-styled Artists' Village has transformed from a crumbling collection of buildings and homes in private ownership to absorb an extended first-rate gallery, chapel, cemetery, studio, workshop and café – and it is on the cusp of paying off a private loan for Watts' home, Limnerslease, at the centre of the site. Watts Gallery now employs 55 staff, along-side a further 300 volunteers, and draws around 37,000 visitors a year. It's come a long way from the tales of chickens running around freely, leaky roofs and the shift rota for the volunteers that used to take tours.

Work on Watts' studio is also by ZMMA. Forming the east wing of the main house, it was commissioned by Watts and his second

**Right** New timber frame extension and entrance. **Below** Artists' Village map.







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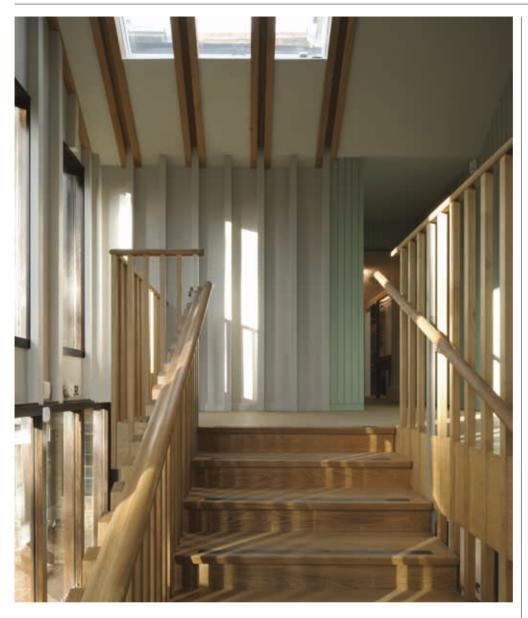
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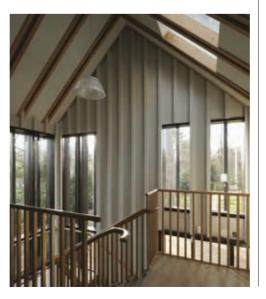


### **Buildings** Gallery



**Above** Beautifully detailed stairwell and entrance way.

**Right** Looking back from the landing over the new stair and rear garden.



wife, Mary, as part of a live/work winter retreat to escape the trappings of London.

'The studio is a three-year project which is in a sense coming back to where the whole story began – when the Watts' moved out of Holland Park to take up a winter residence here from 1891,' explains Tromans.

Watts died in 1904, but Mary, who was 31 years his junior, continued to live in, work in and transform the site until her death in 1938, when it passed to their adopted daughter Lilian. The house was taken over by bomb making company Ardente during the Second World War, before being bought and split into three by sculptor Estcourt James Clack in the 1950s.

The intervening years saw the house, in particular the studio and galleries, much altered, as it moved between different private owners until a local architect bought the studio and middle section. By coincidence, when the architect came to sell, so did the remaining west wing owner. It was at this point in 2011 that the Trust gathered a handful of generous investors willing to hold the building for five years interest-free while it raised funds to buy. That loan expires this year, and although not quite enough money has been accumulated, the Trust hopes other potential donors will be tempted by seeing the studio first and intrigued to know what is on the other side of its closed doors.

The first signs are promising.

Selected in two competitive tender and interview processes, first as architect and then as exhibition designer, ZMMA's project deals with the section of the original house containing the studio and a later gable-ended annexe for workshop storage to its side.

'The challenge here was to make the public entrance to the studio distinct from that to the house,' explains Adam Zombory-Moldovan, director at ZMMA.

A small extension to the rear of the original addition accommodates a new staircase and re-orientates the building to face the back garden, so visitors can enjoy the view of a new gently winding path through the woods off Pilgrim's Way. From the top of the hill and at the forecourt, visual links are now visible from where Watts worked to the exhibition in the gallery in the valley below.

'What we were clear about from the beginning is that we did not want to build new,' explains Tromans, 'Instead, we have recovered what was originally there and altered it

# **Buildings**Gallery



**Above** The studio, which is dominated by Watts' unfinished work. The Court of Death.



**Above** New oak shutters have been added to the windows for conservation and insurance purposes.

so it is fit to receive a large number of visitors and recover Mary Watts' vision.'

'Architecturally, art historically and in terms of landscape, we felt the building was there waiting for us. We did not feel we had to carve it out of nothing, or rebuild it. It was there caught in a suspended animation. Every time we moved a few trees, cleared some brambles or removed a recently added partition wall, there was another chunk of history or landscape, another layer of the land that seemed to make sense and connect those different parts of what we are now calling the Artists' Village.'

In the new remodelling, significant Ernest George-designed architecture and details have been reinstated and conserved.

On the exterior, this has meant restoring the walls and windows. Meanwhile, the new extension is a modern domestic-scale timber structure continuing the visible timber frame facade of the original house. This extension, which is more like an extrusion of the original annexe, has been configured using oak, terracotta tiles and painted timber boarding to replicate the constructional and material honesty of the Arts & Crafts original.

Inside, the building opens into a tastefully and carefully detailed modest two-storey exposed timber entrance hall containing an oak stair. A double-height window fills the space with light. Shadows pick up the detail of the frame and stream across the floor from slender balustrades. Downstairs, Watts' for-

mer canvas room has been converted into a conservation studio that will have its own resident conservation fellow and a former kitchenette has been turned into a learning room that can accommodate up to 30 children. In addition to the 50 school groups that will attend the Artist Village this year, the intention is to restart the Thursday evening terracotta modelling class for locals that Mary initiated at the turn of the last century.

In a move that reserves the downstairs for 'doing', upstairs is displayed the history of Watts Gallery that it is hoped will inspire new work and attract visitors. Moving through two galleries first, the Compton Gallery introduces the Watts family; the other is dedicated to the artistic work of Mary. But



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as two small rooms effectively reconditioned into a minimal contemporary space, the galleries are slightly formal and slow.

It is unfortunate then that these are the series of rooms which create the build-up to the main event: Frederic Watts' studio itself. This is the centrepiece that until this point has not really been treated deservedly, given the agreeable, if uneventful, journey towards it. In a completely different approach to all the previous rooms, the curators have used contemporary photographs and journalistic accounts from the Trust's archive to restore the studio to what it was like when Watts worked there. Painted deep red with a south-facing double-height window for winter daylight, the room is packed with original easels, artworks, collected curiosities, painting paraphernalia, oils, brushes and even a specially commissioned scent flown back from Los Angeles. Unlike the two galleries, the studio focuses on technique and process so there are many incomplete works on display, including Florence Nightingale and Watts' final self-portrait. The space is characterful and authentic, mixing new objects with old, and dominated by Watts' The Court of Death, which hangs ready for finishing touches on a building-scale easel. The floor hatch to lower the artwork to paint the top has been reinstated.

As if walking back into the Victorian studio of one of Britain's then most acclaimed portrait painters, visitors are encouraged to move around freely here, unobstructed by barriers and railings. And the complexity of this exhibition masks the architectural reconstruction work, including the removal of a 1970s mezzanine floor which cut through the space. Necessary alterations for insurance purposes, including new oak shutters and a lengthened picture slot window, are subtle and do not detract from the overall productive atmosphere.

The outcome of all this work is that ZMMA has largely created a polite, soft building and exhibition, appropriate to an increasingly commercial and expanding organisation. It has lost character along way, creating an unclear journey and experience. Is it a house museum, or a contemporary gallery? With the type of displays here, more distinction between old and new architecture would have been welcome. The beautiful details and carefully chosen materials are attractive in their own right, but overly

sensitive and not overwhelmingly exciting or interactive as a museum really needs to be. Intermittent references to the architecture of domesticity create an air of stagnation that fails to capture the progressive social values intrinsic to the Watts' narrative. It is a pleasant experience but one that, without my own artistic purpose/project, would not quickly draw me back. More of the studio's informality in the other galleries, and less sanitisation throughout, would have been more fun and artistic. As with Watts' own personal endeavour to paint portraits as good and lasting as Rembrandt's, one cannot help feeling that the Dutchman's studio museum in Amsterdam also did it better. I await the conversion of the remaining house.

Credits

Client Watts Gallery Trust
Architect and exhibition designer

ZMMA

Services engineer Arup

**Structural engineer** Adrian Cox

Associates

**Lighting designer** Sutton Vane

Associates

**Graphic designer** Lucy or Robert

Landscape designer Todd

Longstaffe-Gowan

Access consultant MaceMark

**Quantity surveyor** William G Dick

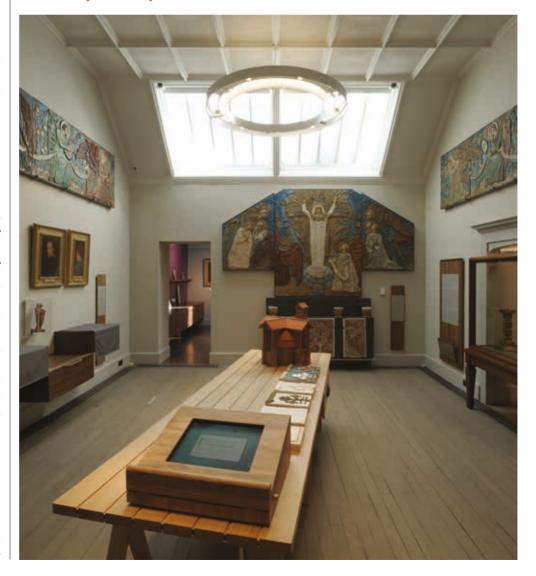
**Project manager** Focus

Consultants

**Building control** MLM

Main contractor Buxton

Below The Mary Watts Gallery



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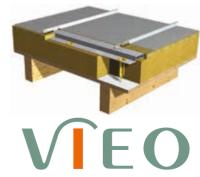
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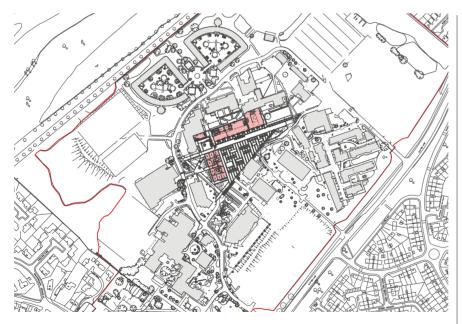
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**Buildings** 





**Top** The module of the pavilion building extends across the landscaped piazza.

Above Site plan showing new and refurbished buildings and reconciliation of clashing grids. There's a familiar pattern at universities, especially those with inherited older post-war campuses: the need to tie together or replace disparate, much-modified older buildings while providing new central facilities for greater numbers of increasingly demanding students. The other requirement is for architecture of stature: buildings that attract and keep people, students and staff alike, in what is a highly competitive market. The new complex at Nottingham Trent University's

Clifton campus by Evans Vettori demonstrates how to achieve this bundle of objectives through a rigorously urbanistic, essentially neoclassical approach.

Beginning life as a low-budget college of further education in the early 1960s, complete with student residences in low barrack-like blocks, the campus sits on exposed high ground south of the Trent outside the city, next to the huge postwar council-housing suburb of Clifton. It went through all the usual changes and mergers before emerging as part of one of the new universities introduced in 1992 by John Major's government. Its overall history, trajectory and present-day requirements are remarkably similar to that of another high-ranking former polytechnic, Oxford Brookes (RIBAJ, August 2014).

Faced with the usual jumble of unsuitable time-expired buildings and architecturally regrettable more recent ones, all laid out on two clashing grids which probably originated from the lie of the land, the architects reached for an ancient, effective means of urban reconciliation: piazza and colonnade. The landscaped space resolves the clashing grids by being triangular, while the tall L-plan colonnade defines the principal edges of the space, and links three buildings (central pavilion, teaching block at right angles to it, and a retained, much-altered refectory). The colonnade provides sheltered outside circulation while the piazza – laid out on the module of the new buildings – says 'centre'. This is about much

# **Buildings**Nottingham Trent University



more than new facilities and low-energy buildings. The word Robert Evans of Evans Vettori uses is 'gravitas'. Although he doesn't say it, another might be 'materiality'. This is a tactile place.

On a windy, sporadically wet winter's day, arriving by bus from the city centre as the students do, I found that the place plainly operates well as the intended social and pedagogical condenser. The university's project manager Craig Smith makes the point that British universities are predominantly winter places – it's only

a transient population in the summer months – so it's precisely such conditions you need to design for. He adds that the new architecture of the campus is so self-explanatory as to make signage almost redundant. Since the main run of buildings was completed in January, the students have colonised its various spaces naturally.

Accommodation is the customary list – such campus upgrades typically include everything from internet-connected study spaces of various sizes and degrees of privacy and formality, through flexible



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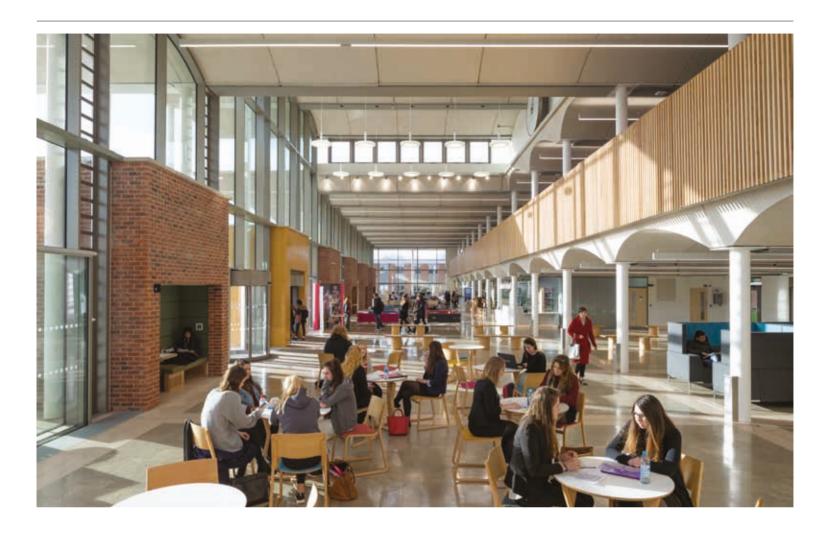
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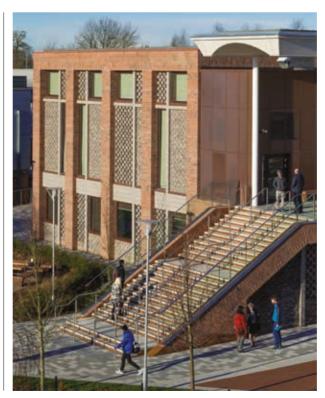


### **Nottingham Trent University**



lecture theatres, teaching rooms and libraries to better cafés and restaurants. All of these are addressed here with considerable verve, intelligence and charm. The 2,000m² pavilion building with its slightly raised entrance portal is the campus gateway, and houses the more informal spaces plus glass-walled teaching rooms on a mezzanine. The equally-sized new teaching block is just that – a run of large lecture theatres above, entered from colonnade level, and a variety of teaching rooms below, divided by some very impressive automated acoustic sliding walls. A broad pedestrian way through this block to the outlying campus also runs below colonnade level: originally intended to be open, it now takes the form of a very large draught lobby to avoid becoming a west-east wind tunnel.

The overall composition is all about smooth pale precast concrete vaults, white-painted steel columns and – in this redbrick city - textured and patterned brickwork, though in softer shades. Rhythm is established by the march of the colonnade on the 4.5m module, stretching to nearly 100m where it strides on beyond the central pavilion to absorb the former concrete-framed refectory, now given added height and daylight via a generous clerestory. Where the colonnade



Above Main pavilion with mezzanine on the right and individual study pods defining the facade on the left.

Left Side and rear elevations of the teaching block are exercises in textural and perforated brickwork.



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Far left Brick cubes mediate between interior and colonnade, containing semi-private study spaces.

Left Detail of brickwork in teaching block.

Below Teaching room arranged in groupworking format.

turns the corner and runs in front of the teaching block, this is done with just one extruded module, so the vaulting runs in one direction throughout. So the teaching block does not feature the vaulted roofscape that is such a feature of the Pavilion building on its two levels: instead, more straightforward concrete planks are used. Where the land falls away at the southern end of the teaching block, the colonnade terminates with a broad staircase of civic dimensions; level access is provided at other points.

On the pavilion side, that long colonnade could have seemed somewhat relentless if unrelieved – nor did the architect want an airport-lounge feel. So the columns are given a counterpoint in the form of brick boxes that break through the facade glazing system. On the inside, these are cosy study booths with screens and a window. Outside, a little seating notch is made in alternating cubes, lined with glazed brick in various colours. The central entrance cube adopts the same language but is clad overall in a yellow-glazed brick. In one or two places there are infelicitous details, probably arising from the design-build nature of the project. Cheap concrete copings to the brick-box rooms along the main facade – highly visible from the mezzanine within – are





a shame in this otherwise very refined space with its luxurious floor of fossiliferous limestone, for instance. But there aren't too many instances like that.

In all 370 precast vault units were used, in various configurations. Of course, a perpetual challenge of exposed-structure buildings is where to place the services if you want to leave the vaults uncluttered. Here this is done by turning the service zones vertically. In the case of the naturally-ventilated Pavilion, a shallow service zone runs along the front face of the mezzanine, disguised by timber ribbing. In the mechanically-ventilated teaching block, a bigger service zone sits behind a copper-clad wall beneath the colonnade, while inside the lecture rooms air moves through perforated brick walls at the front of the spaces.

The architect clearly relished the chance to detail brickwork to blank or partly blank elevations caused by large spaces behind: the rear elevations of both new blocks show just how to make infill panels interesting. Meanwhile at the other end of the new complex, the re-use of the existing refectory structure, modified

with its new lantern roof and absorbed into the overall aesthetic, is exemplary. Total demolition is by no means always the answer: lateral thinking here saved both time and money and helped towards the overall BREEAM 'Excellent' rating, dropping only to 'Very good' for the teaching block.

There is something of the feel of Basil Spence's Sussex University here, and Evans is happy to acknowledge another influence in the layout of the piazza - the similarly modular brick-paved space outside the British Library by Sandy Wilson. Both those places certainly have the gravitas that Evans was after. Finally the new buildings start to define other spaces away from the main square: quads emerge between them and the surrounding buildings. In particular this involves the last part of this project still to be completed - a link between the pavilion and the refurbished library.

Nearly a quarter of a century since Nottingham Trent won university status, its Clifton campus has a centre that feels appropriate and goes well beyond mere provision of updated facilities. It looks and acts the part. Client Nottingham Trent University **Architect** Evans Vettori Structural engineer Landscape Re-Form M&E Couch Perry Quantity surveyor (pre-contract). Pulse (post-contract) **Project manager** Craig Smith, NTU Lighting consultant **Precast concrete** 

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# Nothing's black and white

Buckley Gray Yeoman's refurbishment of a postwar warehouse to modern office is a masterclass in balancing retention and modernisation

Words: Isabelle Priest

Boom times in the 1950s and 60s deposited countless offices, warehouses and factories across the UK. But as the industries they were made for declined or moved abroad many are left awaiting an uncertain fate – often disregarded architecturally by planners and the public, and degenerating towns and cities.

Maple House is a typical example, facing Bunhill Fields on City Road by Old Street's Silicon roundabout in London. But, aside from the financial imperative that makes it possible, its location is almost inconsequential. Now known as C-space, the building was once a carpet factory, and despite its prominent location, it had become sorry-looking and forgettable. It was most recently used as server park for, no doubt, a glitzy City office.

No surprise then that when Buckley Gray Yeoman was directly approached by developer Helical Bar in 2013, Islington Council had already welcomed a pre-app for demolition and new build. But this is why architects are necessary, and how they can be brilliant.

Buckley Gray Yeoman saw beyond the stained exterior, over infilled ground floor, closed relationship with the street, dingy basement and disintegrating pointing.

'We liked the elements, architectural order and found it handsome,' explains associate director Oliver Bayliss.

It soon established the building could be retained through new windows, external painting, addition of a 'subservient' pent-office and reorganisation of the interior.

# Three key moves

In three masterstrokes Buckley Gray Yeoman relocated the entrance to the courtyard, reviving it and creating a new daytime public right of way through the building. It cut back the ground floorplate by 1.5m from the perimeter transforming the dark, dingy basement to a lighter lower ground. And it pulled the final of the five bays back to align with the listed Georgian house attached, while





Top Refreshed City Road facade with carriageway entrance arch. Above Maple House before Buckley Gray Yeoman's refurbishment.

creating a more open forecourt and carriageway arch to the new entrance.

As a result, much of the original building and structure remains. The structure and brickwork has been painted white and black to emphasise the vertical aspect and create a more contemporary, striking look.

The architect stripped the building back to the frame, keeping the mid-height double skin and cavity brickwork beneath the windows. When the additional level was created the roof was removed in response to the council's sensitivity to the height compared with the neighbouring Wesley Chapel. This careful work shaved off 500mm. The new roof is simple deck and ply, and sits on top of 12,000ft² of additional office space – achieved by recessing curtain walling with 250mm-deep caps to add depth and interest.



On the ground floor, bricked up elevations to the street have been replaced with full-height glazing that lets in light to both the ground floor and former basement. Bricks removed at this level have been reinstated to infill the original dog-leg roofline on Epworth Street, making it uniform and ready for the new storey. All the windows across the building have been replaced with double-glazed operable aluminium alternatives, with the undersides dropped to even up heights across the facade. On the side elevation, new decorative tiles have been commissioned to match the missing 1950s originals. Their pattern has also inspired the frit on new full height glazing on the dropped back bay.

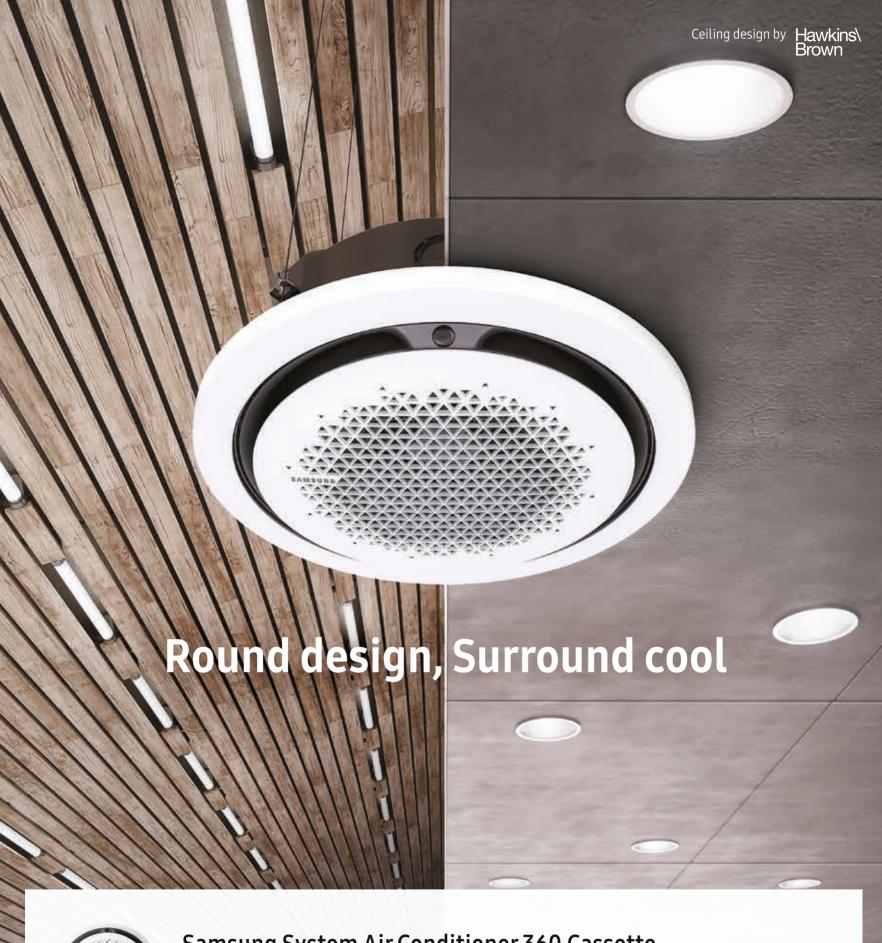
The carriageway arch, excavated beneath one of the bays, leads to the newly public courtyard and route past the bike store to the street behind. Here, the focus is the entrance, a glazed pavilion which overcomes the original 1.5m step in ground level height from which carpets were once lifted straight into the back of lorries. Exterior and interior are paved with red bricks in a herringbone

# Ground floor plan



- Carriageway arch Courtyard Reception

- Waitingarea
- Lobby
- Office floor Void to lower ground floor





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pattern. Along the entire Epworth Street elevation the building has been extended enough to increase core space around the existing lift shafts, saving money and construction headaches. Either side of the core, this extended space is used for generous terraces, faced with stack-bonded grey bricks, with horizontal soldier coursing elsewhere.

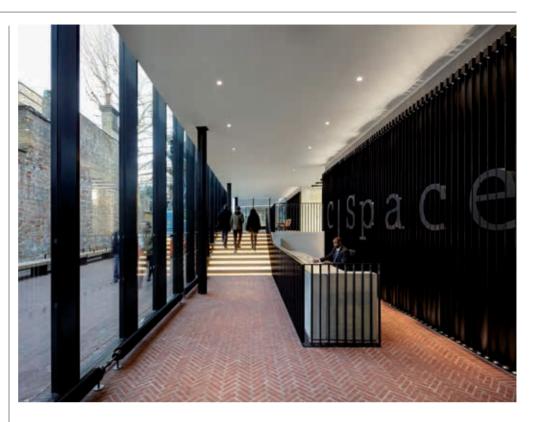
Inside, the building shell has been left purposefully raw and industrial to contrast with the City of London just metres away. This is to attract tenants more interested in the community of Shoreditch than the other direction. Buckley Gray Yeoman has freed up the plan by removing two of the building's five stairs – rendered unnecessary by modern fire engineering. Services are in a 250mm-deep plenum of air in the floor; beneath the fan tiles are small air conditioning units that can be individually adjusted and moved.

Ultimately the building's boundary position has attracted Mullen Lowe, an advertising agency whose clients include the Post Office, British Heart Foundation, Persil, Seat, Lenovo, Etihad and Samaritans and whose intention is to give a buzz back to the building with, for example, projected film screenings in the courtyard. The agency signed up early, taking the lower ground to second floor, as well as half of the third floor. Fit out is designed by Studio Octopi, and at 46,000ft² is the practice's biggest project to date.

# All for one

Following an invited competition in May 2015, the interior design brings together all the previously distinct Mullen Lowe Group agencies. Studio Octopi's overarching concept integrates the three agencies as the 'City of Mullen Lowe' with the unifying motto 'Non mihi, non libi, sec nobis' (Not for you, not for me, but for us). Much of the material palette is consistent between floors, including Bolon flooring, Baux acoustic panelling and even a red rainwater pipe from the upper storey. Different colour schemes help each arm maintain some individuality.

The ground floor is the agency's shared space and adopts the role of the 'town square', brought to life by park benches and a table 'river'. Spanning the length of the building is  $500 \, \mathrm{m}^2$  of open plan, reception, library, café and bleacher seating, much constructed of spruce plywood with a white oil coating. At the eastern end, four meeting rooms and the boardroom are arranged around a quieter



space. Each room is separated by an 'in-between space' or 'alleyway' providing breakout areas lit by festoon lighting and lined in colourful acoustic panelling, also found in the editing suites downstairs.

The plywood continues throughout the work floors where it is combined with four variations of Portuguese cork pin board and exposed galvanised drywall partitions. At its most exciting on the first floor, Studio Octopi and Mullen Lowe London have reworked the traditional ad agency layout of closed offices for creative teams (two people, hired and fired throughout their lives together) into semi-open enclosures along a central spine. Each team is separated by three quarter height partitions that provide a sense of privacy and encourage ownership. Young creative teams are allocated one wall, creative director teams, two. Rather than releasing teams fully from their offices, the solution keeps a level of privacy and quiet required in such concept-intensive and competitive work. By contrast, on the second floor Mullen Lowe Open and Mullen Lowe Profero unite around a 'lawn' break-out area and a 'tech space' which is both a workshop and an area for showcasing developing technology.

Without even a carpet in sight now, let's hope others will follow suit. ullet

**Above** Reception with herringbone brick patterned floor that runs from outside to in.

Credits

Architect Buckley Gray Yeoman

Client Helical Bar

Project size 5,760m<sup>2</sup>

Completion date November 2015

**Project manager** GVA Second London Wall

Quantity surveyor Arcadis

Mechanical/electrical engineer Hoare Lea

Structural engineer Alan Baxter Associates
Contractor Willmott Dixon

Interior fit-out

Architect Studio Octopi

Client Mullen Lowe Group

Project size 4,300m<sup>2</sup>

Project manager and cost consultants Bollingbrook

Mechanical and electrical consultant Ingenium

Consulting Engineers

AV consultant Electric String

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# Intelligence



# .iam Young



The academic and thinker's 'Unknown Fields Division' runs architectural projects in places like container ships or Chernobyl. Now he's offering an MA on fiction and entertainment at LA architecture school SCI Arc

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So what kind of people are applying for the course?

Unknown Fields Division does speculative projects - films, installations, essays, drawings that address how we occupy space and that try and instigate change by being propositional. This won't be some kind of predictive science fiction course; it will be about shaping the future, not predicting it. We want to give designers the tools to sketch out these possible futures.

Architects in conventional practice have less and less scope and influence in the built environment; we'd argue that there's another way to practise. We're not saying it's about the dissolution of the profession; we're just interested in what it might mean to practise as a gamer, a storyteller, a film maker or director. These are all alternative architectural career paths we'd like to develop. The constraints on design are not just physical but political, cultural and commercial.

It's LA, so we're planning to co-opt all forms of popular culture. Projects could be cinema or web-based, could be a screenplay or a novel, a public performance or some kind of direct action. The most interesting propositions will use the most appropriate media to express the idea. Our job is to provide the methodological umbrella under which they can research. They can choose whatever research argument or thesis they want - the MA will be the supportive environment in which they can work their ideas through.

A too small one! I'm an ironic hipster who graduated to a converted stable in the East End stuffed full of props and with project concept art across the walls. But I have to say, with the travel back and forth I feel I'm living more in airport lounges, my domestic mess is the state of my desktop and I seem to be occupying a whole load of stitched together junk space...

We've just gone through the first round of applications and they are generally architecture graduates looking at alternative ways to communicate their ideas. It seems architects are becoming a lot more open to discussing ideas about space and the city using different formats. We're going to build an online community too and look at how we change ways of working collaboratively in virtual space. We want to progress Zaha Hadid's old idea of running a diploma unit in an airport!

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# Managing the estates

David Cameron has 100 troublesome council estates in his sights. But are his accusations justified, or his remedies realistic?

### Claire Bennie

Taken in its own right, demolition can be a rational act. Parts of cities are often built, changed, demolished, and rebuilt – this is all part of the lifecycle of any normal urban area where standards, uses and land values evolve as the city grows. But with estate regeneration, we are talking about the future of our shared public land, precious and diminishing. We need to take collective care not to make irrevocable decisions based on either conspiracy or bad science.

For centuries, old homes have been cleared to make way for new ones, with varying state motivations, spoken and unspoken. Peabody and others cleared slums to improve public health, as did local authorities after the first war. Providing 'homes for heroes' fuelled 20s and 30s slum clearance; but it was



DANIEL HO

Thatcher and Blair's regeneration efforts moved the dial back towards economic regeneration

**Above:** Original frame of Park Hill remained while everything else is new infill.

the post-war 'anti-poverty' initiative which became one of the most ambitious state-led programmes, with 1.5 million UK properties demolished, affecting a massive 15% of the population. Thatcher and Blair's regeneration efforts moved the dial back towards economic regeneration as well as physical, and now we have Cameron's declaration of war against disadvantage. Six claims for and against Cameron's regeneration plans follow.

# The case for estate regeneration

The latest case for the prosecution cites the elimination of poverty and disadvantage through redevelopment (full or partial) as its driver; the production of new housing is given as a 'by-product'. The 100 yet-to-be-identified estates will not always undergo full scale redevelopment, and the current £140m pledge is for planning work only.

# Sixties estates are a focus of poor social outcomes and crime due to their physical nature

Reviews of evidence about the effects of past 'area-based investment' show that these programmes are not proven to have solved al-

leged social problems. Experts I asked were clear that addressing any social dysfunction had to be de-coupled from physical regeneration. Wind-blown walkways, hidden corners, floating blocks in unloved landscapes and extensive ground floor garaging are the less welcome tropes of such estates. But a self-selected, design-oriented population with very few social challenges (and with the ability to pay a high service charge) allows such estates to thrive and be valued. By contrast, council estates from the time suffered a spiral of decline due to ill-advised letting, repair and management policy changes, and have ended up housing families with huge challenges. Perhaps it is these families that need investment and support, not their homes.

# Sixties estates are unrepairable, unmortgageable, unheatable, unhealthy: in short, unviable

When buildings cost more to manage and maintain than the rent they generate, or if service charges and running costs are crippling residents, doing nothing is not an option. This introduces the awkward refurb vs demolition tipping point. You could retain and invest

£100,000 to £150,000 per home, necessitating the sale or market rent of between 30-80% of those homes to fund the works. This is the model at Sheffield's Park Hill, where grade II listing provoked such a strategy. Demolition and rebuild will cost a lot more, but may be justified if the buildings cannot be salvaged – costing more than say £200,000 per home to refurbish. Is it greener to refurbish or demolish estate buildings from the 60s? Expert views differ, depending on the building life assumed, but buildings with extensive cold bridging can be so awkwardly constructed that an overclad is all but impossible.

# New homes for the future community could be achieved via redevelopment

Estate agent Savills' recent report shows that 1% of London's land (about 1,600ha) could be available for redevelopment on 60s estates, yielding a prize of between 50,000 and 360,000 new homes. The upper figure may be worth the candle, though financial realities mean these will almost certainly be all market tenure, and will take 10-30 years to start delivering. Sales values would need to start at £500,000 for a new two-bed home



Left: Kidbrooke Village replaces the unloved 1960s Ferrier Estate. Phase 4 by CZWG is the first of 3 new urban blocks set in high-grade landscape.

Right: The south elevation evidences Barber's picturesque urban form-making, part of the regeneration of Grahame Park estate in Colindale, north London.



IORLEY VON STERNBERG

for a doubled density scheme to pay for itself, and for all social housing to be reprovided. Estate renewal is therefore unfunded in most places outside London: full redevelopment has only worked in recent times with a mix of substantial gap funding and loss of affordable housing, as well as large density increases.

# The case against estate regeneration

The case for the defence is put by unlikely bedfellows: estate residents, concrete heritage enthusiasts, green campaigners and a growing minority of property professionals.

# Redevelopment results in unacceptable community fracture

How do you put a value on the loss of an intricate and irreplaceable neighbourly ecosystem, evolved over 60 years? It has been tried, but the data on the outcomes for residents rehoused on or away from their estate is very slender and needs more analysis. This major downside of new housing creation is often borne by social housing residents alone, not helped by ill-formed compensation packages. Suburban redevelopment would yield far greater density gains, but is hampered by freehold house ownership and a lack of incentive for those owners to bother. Post-war estates, still in public ownership, are easier to pick off for redevelopment but surely there is a much simpler 1,600ha to develop, as long as we do it with class? Can I mention the 33,000ha of Green Belt in Greater London?

# Estate regeneration is time-consuming, expensive, risky, reduces social housing and benefits developers

Achieving multi-stakeholder buy-in, getting planning, achieving vacant possession, riding recessions and selling the new homes to achieve the cross-subsidy is not for the faint-hearted, and takes twice as long as anyone ever predicted. The previous point about reduced social housing is exacerbated by involving private sector developers whose (perfectly rational) business model in the UK is to sell homes and walk away (with margins of £40,000 to £80,000 per home). In a downturn, major housebuilders cannot participate, creating uncertainty. Councils and others could commit (some are, depending on their ability to borrow) to retaining most of the new homes themselves in order to rent them at various price points. Forget instant returns: patient capital is the name of this game.

The ambitious post-war 'antipoverty' initiative demolished 1.5m properties and affected 15% of the population

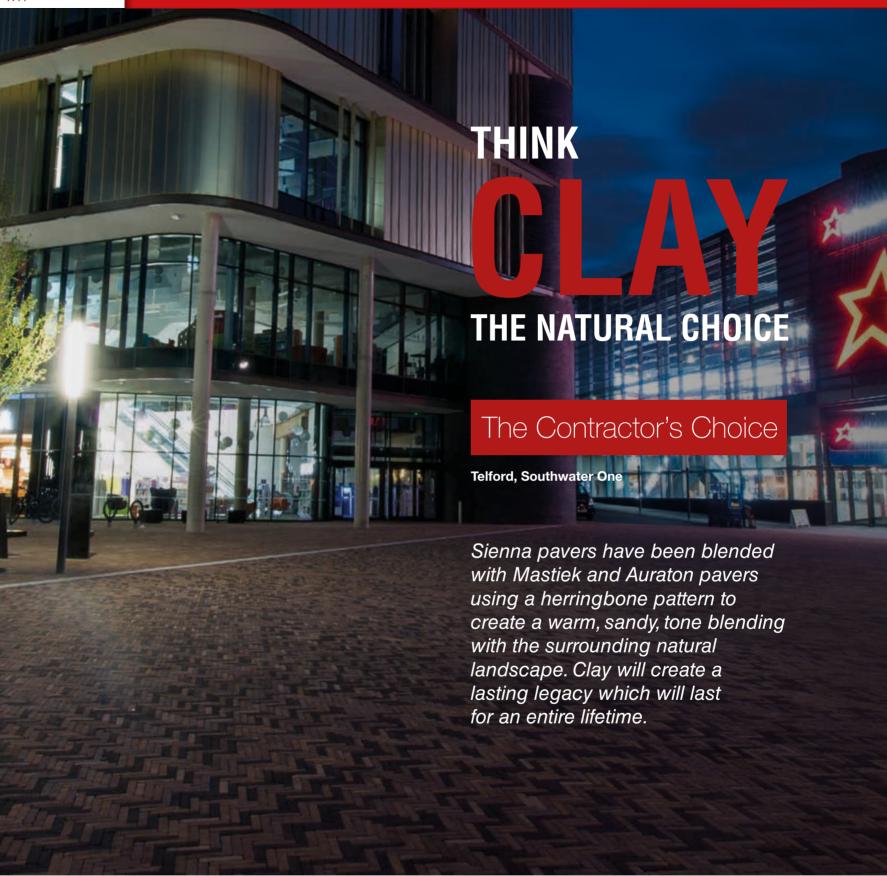
# New high densities create ugly, anti-urban places with high management costs and built heritage is lost

Great developments can be high density, tall and not necessarily in traditional formats. Two factors must be taken into consideration: people should be housed in block types appropriate to their needs and design quality must be exceptional. Heritage issues may not always win the day but must be a factor in demolition vs refurbishment decision-making, and replacements must be architecturally worthy.

# The verdict

How should we weigh all these pros and cons in the balance, and whose opinions and concerns should count for more? My view is that the stock condition and the density prize are the key two considerations in a demolition decision, and that a lot more thought needs to be dedicated to the effects on, and compensatory measures for, existing communities. The arguments for demolition are often opaque and patrician - 'we know what's good for you'. Professionals and residents should together devise a rigorous but simple cost benefit methodology to examine each estate. Compelling leadership and communication is then needed to mediate that analysis and reach a conclusion if we are to avoid the current stand-offs at these first 100 places. •

Claire Bennie is an architect and housing developer and was formerly development director at Peabody



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# From flood threat to urban opportunity

# A POWERFUL STATEMENT

A hydroelectric power station along the River Iller in Kempten, Germany supplies 10.5 million kWh of renewable energy a year to approximately 3000 households. The sculptural forms, designed by Becker Architects, evoke the power of water, with a likenesses to glacial structures carved away by melt water. The aesthetic of this power station helps to create a local landmark building that is equally functional in water management and energy generation.

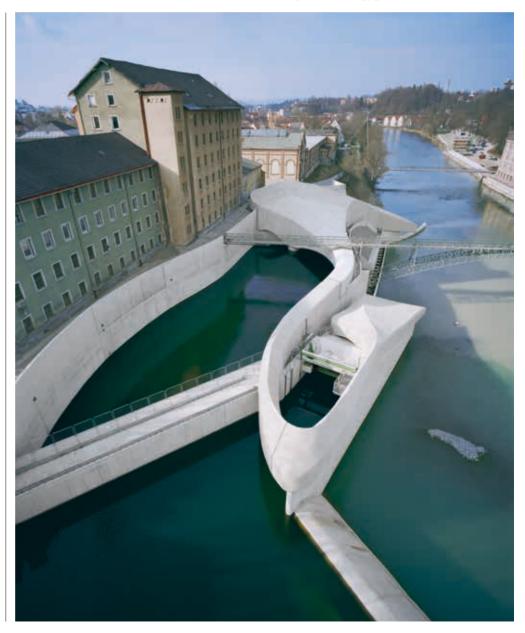
In this extract from a new book, Aquatecture, its authors examine how to make water work rather than threaten cities

# Robert Barker and Richard Coutts

At a city scale, the inter-relationship of different parts of our infrastructure becomes crucial to continuity of services, from power to flood defences. Breakdowns to any one service can significantly affect many people and businesses.

Take New Orleans. Hurricane Katrina and the failure of the levee caused an almost total evacuation of the city, flooded approximately 80% and generated an estimated US\$17 billion in damages. Faced with Hurricane Gustav three years later the mayor decided to evacuate the city to avoid a similar catastrophe. This too carried a significant cost to the economy, though in the end the hurricane only causing limited flooding.

This shows how major infrastructure projects have a lasting effect on a city, powerfully influencing its opportunity for growth or evolution. The need for them to operate in potentially different climatic conditions has to be factored into the design. More unexpectedly, infrastructure as a whole can provide multiple benefits – such as green and blue corridors as conduits for other services,



Where defences are required, better design can improve their integration within the environment and maintain access to the water



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energy and transport. Neighbourhood energy hubs can be connected to each other or to a city heating system, as well as provide safe havens from flooding. Flood defences may be required around older, high-density, or historic parts of the city, but these could also be public spaces.

# Energy

A distributed energy network has the potential to improve resilience in the event of failures or disasters. This can work well with neighbourhood or district energy centres, allowing them to supply power back to a larger grid/network, particularly when there is a range of renewables generating power at different times – as with the dedicated local energy centre at the 2012 London Olympics. Achieving zero-carbon through on-site renewable power alone can be difficult for cities because they need so much energy. As a result regional energy centres located outside the city are likely to be necessary.

# Flood defences

City-scale flood-risk management requires many different measures, involving planning, resilience, attenuation, relief chan-

nels, and protection. Continuity of flood defences must be considered: first, to ensure that standards of protection are consistent; and secondly, to avoid weak points that, if breached, could compromise the integrity of the whole system. When set back from the river edge, defences can be integrated within the city plan, public space, parks and road network, rather than canalising the river. This can be cheaper and improve quality when combined with other infrastructure. Where defences are required, better design can improve their integration within the environment and maintain access to the water. In Spain, OAB Architects worked on the designs for Benidorm's sea walls and promenade to create a colourful, undulating sculptural wall. Also in Spain, Basque artist Augustin Ibarrola playfully decorated the concrete sea defences in Llanes, a fishing village in Asturias. Elsewhere, integrating sea defences with steps and seating in the public realm has made them less discernible. And they needn't be visible at all. The world's largest underground flood storage facility was created in 2009 in Greater Tokyo to alleviate flooding during typhoons. When the river level reaches its peak, water is chan-

# **ISLAND IDEAS**

A €365m new flood-relief channel and dyke has been built in The Netherlands to reduce the risk of flooding and help support redevelopment of Lent. Eiland Veur Lent and Nijmegen is part of the national 'Room for the River' programme to deliver a series of measures to make space for water and reduce flood-risk. Baca provided landscape and development ideas for the island created by the new waterway. The proposals for an ecotourism destination embrace the water/ landscape with recreation, facilities and innovative flood-proof buildings set on the waterfront. Construction on the flood relief channel began in 2013 and is due for completion this year.



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nelled into five silos before being pumped through tunnels and discharged into an adjacent river. The silos are 25.4m high and 177m long, and connected via 6.5km of tunnels.

### Wastewater

Waste treatment facilities are typically built outside urban areas and treat waste from several settlements. Decentralised waste treatment reduces dependence on centralised systems as it is often difficult to find space for waste treatment in cities, particularly in high-value central locations. Sustainable drainage can help to reduce the capacity required in wastewater treatment plants by removing surface water from foul drains. The city of Shenzhen in China has built the world's largest integrated two-stage wetland to clean the Longgang River, which carries the unfiltered effluent of 20,000 inhabitants and their industries. The wetland, with a 20,000 m<sup>2</sup> surface area and a cleaning capacity of 5,000 to 7,000 tonnes per day, began operating in 2001.

### **Transport**

Efficient and interconnected mass transport systems are better for all settlements: high-density and compact or low-density and distributed. Although water can be an obstacle to movement, it may also be used for transport. Water buses operate in many major cities - such as the Thames Clipper in London, the Himiko in Tokyo, the Rotterdam water bus, and the Batobus in Paris. Bangkok, Venice, Chicago, Sydney and New York all have water taxi services. City-scale bridges can help connect districts and allow expansion into other areas. The experience of arrival, crossing and departure is an opportunity for architectural elaboration and place-making. Pulteney Bridge in Bath replaced a ferry crossing over the River Avon in 1774; shops built on both sides of the bridge seamlessly link with properties either side of the river. Once a common sight, these shopfilled bridges have become unique attractions. In 2003 a new crossing called The Murinsel, by architect Vito Acconci, was built on the River Mur in Graz, Austria, to reconnect the city with its river. At its centre, a floating island housing a café and terraces creates a moment in the journey and a mid-river meeting place - popular with locals and tourists. Urban watercourses are vital multi-functional conduits; they should be planned with other means of transport to work with them



and complement the system as a whole. Interfaces between different transport hubs and routes are opportunities to create civic delight and assets for future generations.

### Leisure infrastructure

During the 19th century there was much investment in the construction of pleasure piers. The St Pauli Piers (1839), also known as the St Pauli Landing Stages or Bridges, are the largest landing place in the Port of Hamburg and a major tourist attraction. Brighton Pier in the UK has welcomed visitors since 1891; Chelsea Piers, New York, followed in 1910.

These large structures required substantial engineering works and are an example of public and private investment in primarily leisure-specific infrastructure. Piers may extend far out from the land to find deeper water for sea-going vessels and allow tides and currents to flow unhindered beneath them. They offer a combination of accessible public space, fee-paying entertainment and fairgrounds for thrill-seekers, and wonderful panoramic views. Bregenz's Festival on the Lake pavilion performs a similar function.

Working with water at infrastructure level is exciting both for design, city engagement and the future resilience of our cities. We like to be near water, so architecture's mantra should be to make it work for the city. •

Aquatecture by Robert Barker and Richard Coutts, RIBA Publishing, £35 HB. Buy at ribabookshops.com

### WATER MUSIC

For the last 70 years the shallows of Lake Constance have been transformed biannually for the Bregenz Festival 'Opera on the Lake'. The modern all-weather platform is fixed to piles driven into the lake bed, but the original floating stage was built on top moored two barges. The extraordinary sets and beautiful setting are great example of water placemaking and attract visitors from around the world.

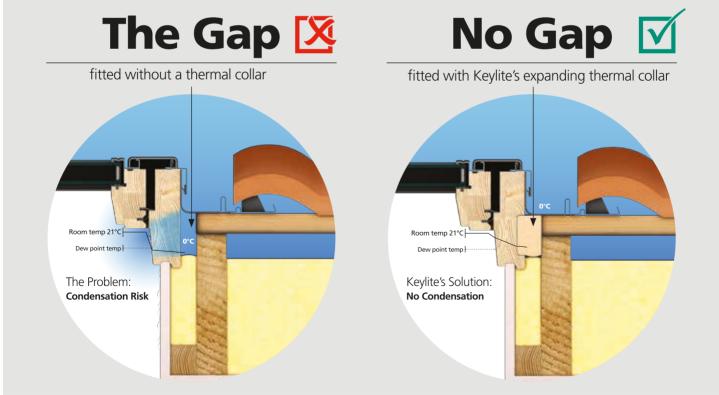


# Nobody likes gaps!

**97%** of roof windows are installed without a proprietary thermal collar to fill the gap between the window and the roof.

Keylite is the only manufacturer with an integrated thermal collar which expands to fill the gap, at **no extra cost**.







The frameless insulated sliding doors by Swiss manufacturer Sky-Frame blend naturally into their surroundings. So it is hard to say where the living room ends and where the view starts. **SKY-FRAME.CH** 

SKY-FRAME







Procurement & contracts

managemen

Internal managemen

# Now for the fine print...

The most common reasons for dispute are defective work, extension of time and valuation of the final account

Collaborate, litigate, mitigate. How do architects use contracts?

### Adrian Malleson

Contracts and associated legal issues are not limited to the architectural profession. Among respondents to the latest NBS National Construction Contracts and Law survey, three quarters administer construction contracts, and most are involved in preparing them or providing advice and guidance.

When differences arise between those involved in a project, they can be resolved using a range of means without escalating to

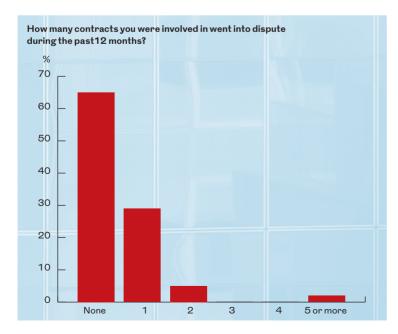
dispute. Architects frequently turn to these: more than half carry out negotiation at site level, over a third look to expert advice and mediation or negotiation at board level, and 14% turn to a dispute adjudication board.

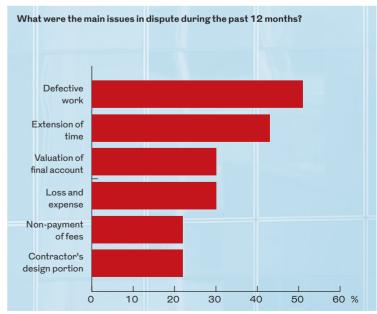
However, such efforts do not always succeed. While almost two thirds of architects had no dispute in the last 12 months (compared to 56% among all respondents), one third did (though most of these had only one).

It is disappointing to see that the number of disputes has not reduced over the three years we have been running this survey. Indeed, architects are much more likely to say the figure is rising than falling, though most feel it is remaining the same.

The most common reasons for dispute are defective work, extension of time and valuation of the final account.

Given the number of disputes, and the range of issues that cause them, it seems there is something adversarial about the construction sector. This thought is not new; the Egan and Latham reports clearly described it more than 20 years ago. The recommended remedy is collaboration, where responsibility, risk and reward are proportionately shared and collectively owned. With this approach the design team works more efficiently and it is often a better way to deliver client requirements. It may reduce or even eliminate disputes and their associated dis-





# **Intelligence**Contracts

ruption and costs – the Olympics' exemplary buildings and construction processes are a good examples of this.

However, the survey found that most architects had not adopted any collaborative techniques in the past year, and only 14% collaborated on all projects. Collaboration among architects is lower than for consultants as a whole, and significantly lower than among contractors and clients.

Collaboration is most commonly operated through a contract that includes the ethos of mutual trust and co-operation. Of those who collaborated, 60% did so in this way – though we might question whether the inclusion of 'ethos' in a contract is sufficient to delimit, maintain, and enforce collaboration through the life of a contract. A more structured approach was adopted by 38%, using a formal partnering agreement.

The reasons for not collaborating reflect the variety of work in which architects are involved. Projects are often too small to warrant collaboration, or the client decides against it. However, there are other factors too. Architects tell us that parties may have different aims and objectives in a project, and over a fifth tell us that established divisions between professionals prevent collaboration.

There are strong links between project type and size, the procurement method, and the contract selected. We found that 57% percent of architects used traditional procurement most often, and 32% favoured design

and build. Only a few used other methods.

This is reflected in the type of contract used; 73% had used JCT contracts in the past year, 28% had used the new RIBA contracts, 19% had used NEC contracts (typically for higher value collaborative projects). Bespoke contracts were used by 15%. Looking at the industry as a whole, we can see that the use of contracts that support collaborative working is increasing year on year.

This leads us to the government's construction strategy, at the heart of which is collaborative working, supported by BIM. This year will see all government-funded construction projects start to require 3D collaborative BIM, irrespective of size.

BIM provides the tools for better collaboration, because it provides the shared information environment in which a clear description of who is responsible for what, and when is held. It can show how the responsibilities of construction team members are integrated with, and depend on, one another. It was agreed by 46% that BIM aids collaborative projects: only 9% disagreed.

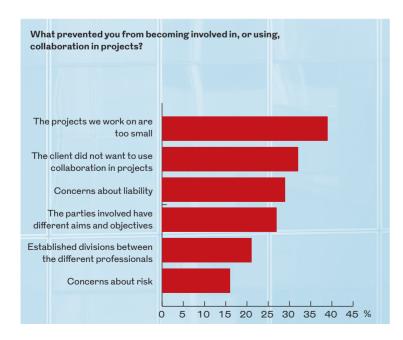
Given the centrality of BIM to future work methods, we explored where, contractually, BIM currently sits. We found that in the last 12 months, only a minority had included BIM in any form in contracts – yet those who had were clear on its importance, with 69% telling us that 'we recognise a BIM model as contractually binding, in the same way as specifications or drawings'.

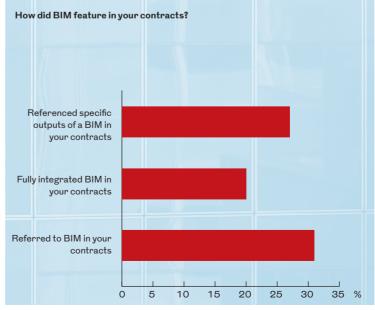
BIM provides the tools for better collaboration, because it provides the shared information

This suggests there is work for the lawyers; BIM's central role will increasingly need to be mirrored in contracts.

This year we move to Level 2 BIM; in the coming years there is an impetus for Level 3. The problems of adversarial, non-collaborative ways of working can be resolved in a new way. As we move to a fully digitised, collaborative working this will increasingly need to take place within a fit-for-purpose legal and contractual framework.

Download the full NBS National Construction Contracts and Law Survey 2015 at thenbs.com













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# RIBA Principal Designer Course

The course explores the Principal Designer role in an interactive and engaging format, designed and led by architect Paul Bussey, author of *CDM 2015: A Practical Guide for Architects and Designers*, and civil engineer Tony Putsman from the Institution of Civil Engineers (ICE).

# Who is the course for?

The two day course provides a comprehensive understanding of the CDM Regulations and the practicalities of being a Principal Designer. The course is mainly aimed at architects with three or more years' experience.

## Course Fee

£395+VAT for the two day interactive course including refreshments, lunch and a copy of *CDM 2015: A Practical Guide for Architects and Designers*, RRP £25

# How to book your place

Visit www.architecture.com/principaldesignercourse to download the booking form and for more details on the course content. Alternatively, contact Mona Devereau, RIBA CPD Manager mona.devereau@riba.org or call 0151 703 0107.

# **RIBA In-Practice Principal Designer Courses**

The RIBA also offers this course delivered in your practice, as well as a one day in-practice course for those with more CDM experience.

I found the RIBA Principle Designer course both helpful and refreshing in its pragmatic approach to undertaking the PD role, humanising HSE guidance into workable solutions suitable for projects of all types and sizes, whilst not diluting the underlying seriousness of the subject. Pat Mills, Clague

# Capitalise on the skills you already have and embrace the Principal Designer role

# 2016 dates and Locations

**RIBA North East, Newcastle** 10 and 17 February

**RIBA North West, Manchester** 8 and 15 March

RIBA Yorkshire, Leeds 23 and 30 March

**RIBA West Midlands, Birmingham** 5 and 12 April

RIBA East, Cambridge 4 and 11 May

**RIBA South West, Bristol** 17 and 24 May

**RIBA South/South East, Reading** 1 and 8 June

RIBA Wales, Cardiff 16 and 23 June

**RIBA South/South East, Crawley** 5 and 12 July

**RIBA London** 

3 and 10 August

The course (12 hours in total) is delivered over two days with a week-long gap in between, allowing you time to reflect and revise, carry out your own CDM analysis report and review the suggested reading.





# **SIG Roof Lines**





# Lead by example

A glass and zinc facade inspired by lead flashing on existing buildings has given students at Northbrook College clean lines on a contemporary building

You could say that the existing vernacular of West Durrington's Northbrook College in Worthing directly inspired its modern reinvention - despite the fact that it's been interpreted using completely different materials. 'The college buildings were all a dark brown brick and we wanted to contrast that with something striking, light and open,' says ECE Architecture associate Gary Kelly. 'We had to demolish part of the original building and its lead flashing got us thinking.' The result for the college, which offers a wide range of creative degree courses, is the modern zinc and glass clad facade of its new Learning Resource Centre, forming the social heart of the redesigned campus, with its new entrance, three-storey atrium, library and refectory.

Huge sloping steel V columns support the large span precast concrete hollowcore floors. These are one component of the

building's aesthetic; the other is the partially glazed zinc shingle facade inspired by the lead flashing. Initial concerns that the prepatinated NedZink NOVA sheet might be affected by salty air from the nearby coast were rapidly scotched and, having used it before, the firm was confident that the material had good general robustness.

ECE Architecture had decided at planning to go with strip windows, which had knock-on implications for the facade's shingle design as alignment was everything. 'We wanted strip windows on the first and second floors, which would either be 350mm high or 700mm ascertained from eye levels when seated or standing. In the end we ran with a 600x350mm standard shingle of 0.8mm NedZink NOVA,' says Kelly.

With a steel structure, the facade is supported on 150mm Metsec channels between columns with 150mm Rockwool

running between them. The outer side is formed of 12mm cementitious board, 100mm thick PIR Celotex insulation and a 25mm ventilated cavity. Helping-hand brackets run out from the channels to support an outer layer of 18mm OSB smart plyboard. The NedZink NOVA was then attached to this via a Tyvek breather membrane between layers. Kelly explains that sealing the cementitious board joints with bituminous tape, an airtightness line is established at the outer face of the board, giving an overall wall U-value of 0.15W/m²K.

Cladding sub-contractor Kingsley Group, which installed the shingles, advised that instead of alternate rows being offset at panel midpoints, they should run a third of the way along the panels to avoid an obvious 'zig zag' effect along the facade. ECE Architecture had originally thought to fold the shingles around the corners but, says Kelly, it was decided to run a folded section of the zinc along the edges to create a crisper line that would otherwise be achieved by folding it — a detail also used on the parapet.

It seems the new Learning Resource Centre has been well received by students and locals alike. 'There's a busy main road running alongside the Northbrook site so the LRC's zinc skin is visible to a lot more people than the 2500 students who use it,' says Kelly. 'And with its triple height atrium space, refectory and new study rooms inside it really does feel like the heart of the modernised campus − the college loves it!' ●



**Top** The front elevation of Northbrook College's new learning centre framed in its zinc shingle skin.

**Above** Non-centred shingle set-out creates a less zig-zag facade effect.

# Shingles' might

Architects will never tire of the diverse textures, colours and forms made possible by the humble metal shingle



Left MVRDV's stainless steel shingle clad Balancing Barn brings reflective drama to its context.

Below left Spain's Casa del Acantilado's zinc shingles adapt to every curve of the building's roof form

**Below right** Studio Egret West The Fold, Sidcup with it's KME TECU gold shingles.

Metal shingles may be traditional in origin, but today they can be manufactured in almost any size, orientation and texture, giving architects great flexibility to express building volume and skin, and adding new depth and interest to roofs or facades.

Interesting recent examples include the Amphibious House by Baca Architects, a family home on the banks of the Thames in Buckinghamshire designed to float on rising floodwater. The building is sheathed in a homogenous grey cloak of titanium zinc diamonds, a scaly lizard-like skin that reflects the river's shimmering water.

Meanwhile, the Balancing Barn holiday home in Suffolk, by Dutch firm MVRDV, features a highly reflective cladding of brickshaped stainless steel shingles, a playful futuristic aesthetic that changes appearance in response to the seasons.

# Multiple colours

SIG Zinc & Copper supplies a range of zinc, copper, stainless steel and aluminium shingles in finishes such as natural or weathered zinc, copper alloys, tin plated stainless steel, and colours including green, gold, bronze, red, brown or blue.

All shingles are manufactured and supplied ready to fit, produced in standard versions by NedZink in the Netherlands, elZinc in Spain, Aperam in the UK or KME TECU in Germany. Bespoke versions are made by SIG partner companies in the UK.

Simon Walker, category manager at SIG Zinc & Copper, comments: 'It is possible to achieve vastly different aesthetics using shingles in different shapes, sizes and materials. We see it as part of a move by architects to contemporise older traditions, for example taking the small fish tail-type shingles seen on historic French mansard roofs or chateaux and opening up the spec to create a modern effect.'

The variety of shingle sizes and shapes gives scope to create continuous surfaces over complex curving or angular geometries, in a way not possible with a standing seam.

This effect can be seen on the Casa del Acantilado in Spain, by GilBartolome Architects, where bespoke elZinc Natural shingles give texture and definition to an



undulating amorphous roof punctured with complex curved window openings. A more crisp contemporary effect was achieved on the West Durrington Campus building at Northbrook College (see p.65) in Worthing, where NedZink NOVA zinc shingles continue around walls and soffits.

The smaller the shingle, the smaller the radius that can be covered. Shingles from SIG Zinc and Copper are available in sizes from 600x1200mm down to just 142x240mm, or 72-90 shingles per square metre.

### Sustainable choice

Zinc, copper and stainless steel shingles score well on sustainability. Each offers a minimum 40 years life expectancy, and as natural non-ferrous metals they have a patina that protects the product, requiring zero maintenance, and no coatings or paints. All are fully recyclable, and, on average, 20% to 30% of zinc shingles include recycled material. That means strong BREEAM and general environmental credentials.

Shingles are most commonly installed on a vented plywood wall build-up, fixed over a breather membrane to an 18mm-thick plywood substrate with a clip. Subsequent shingles overlap and interlock. Behind the plywood layer is a 50mm ventilated cavity, then another layer of breather membrane, a layer of insulation and a vapour control layer.



Installing one shingle at a time is a fairly labour intensive process which can result in higher labour costs when compared, for example, to running a 500mm-wide aluminium sheet from ridge to eave.

The cost of zinc, copper and stainless steel shingles also depends on such factors as metal choice, finish, size and orientation. Using fewer large shingles means less manufacture than a large number of smaller ones, and bespoke shapes and sizes can be more expensive than standard off-the-shelf units.

## **Avoiding** waste

Architects should consider shingle dimensions and material wastage, says Walker: 'They like to see clean lines run through a building: for example a vertical line across a door frame that continues to coincide with the edge of a window. But asking for very specific dimensions late in the design can mean a lot of discarded material.'

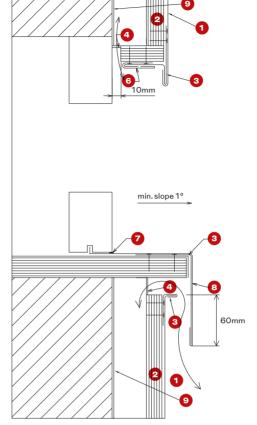
A 500mm wide piece of zinc will produce a standard 430mm-wide shingle (70mm is lost in the joints and folds), but a 228.4mm shingle would still have to be cut from the 500mm-wide sheet, resulting in wastage that must still be paid for. For those going the bespoke route, it is key to engage with SIG's designers early, says Walker: 'Shingle modularisation, wastage and cost effectiveness are key concerns. It is important to achieve the desired aesthetic within some form of modularisation if you don't want your QS to have a heart attack.'

SIG Design & Technology offers a complete and impartial design and supply service, covering all eight steps to help create the perfect roof and/or cladding. It first works with the architect's aesthetics and budget to develop several options. The preferred design is then developed into a full project proposal including a 3D build-up demonstrating how elements fit back to the substructure, the specification and detailed drawings.

'We take a lot of the laborious work away from the architect because shingles are often not a specialist subject for them,' says Walker.

Guarantees of up to 30 years are available, if shingles are installed by SIG-approved contractors. Installation is relatively simple, but edge detailing, penetrations and so on are more tricky. A range of edging details is available, including for ridge, verge, penetrations, eaves, parapets, the base of cladding and more. If SIG Zinc and Copper is involved in the design and supply of the substructure then extended warranties are available for the full build-up. ●

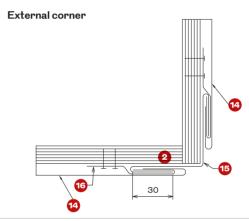
### Window details



Parapet

Slope 1°

Slope 1



- 1 NedZink shingle
- Plywood
- 3 Continuous fixing strip
- 4 Insect mesh
- 5 Galvanized stee support angle
- 6 NedZink continuous welted fixing strip
- 7 Mastic sealant
- 8 Window cill
- 9 Breather membrane
- 10 NedZink parapet capping
- 11 Timber nogging
- 12 Ventilation gap
- 13 Breather membrane
- 14 NedZink shingle panel15 Continuous corner strip
- 16 Shingle clip

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**Planned** 

Maintenance

# Common purpose

A strongly collaborative approach to school building has worked wonders for IID Architects, Wates, and Arnold Hill Academy



**Under the** tight budgets of school building programmes today, partnering has obvious efficiency benefits for main contractors and suppliers. But what does it mean for architects?

Richmond-based IID Architects found out for itself when working for contractor Wates on the design of Arnold Hill Academy in Nottingham, part of the government's Priority School Building Programme (PSBP). The £14 million project included a 3,640m² flat roof, designed in collaboration with supplier SIG, which is working in partnership with Wates across several schools.

'It was a very collaborative process for us, which was critical given the speed of the PSBP programme' says IID Architects associate David Moore 'We were able to benefit from lessons already learned and gain efficiencies by working with a team like SIG, which had already worked on similar projects as one of Wates key supply chain partners.'

### Old colleagues

The new school building is a three storey superblock incorporating all major teaching spaces. It uses Wates' ADAPT modular steel system, which IID was familiar with through its work on other Wates-built schools. The system includes typical construction details for dealing with roof junctions which can be tailored to suit each project.

'We worked very closely with SIG and Wates,' says IID director Richard Matthews.



**Top** Visualisation of the completed school. **Above** Single ply was used to cover a storey-high change in roof height at Arnold Hill, removing the need for a render finish.

'We'd used SIG products before but not with this much collaboration, which arose from the batch nature of the framework appointment and speed of the programmes. On traditional one-off contracts or D&B we wouldn't normally get this level or speed of input.'

At an initial meeting, IID discussed its design intent with SIG and shared drawings. SIG then developed detailed drawings of the roof installation, drawing on its specialist experience of similar, but not identical, flat roof projects for Wates.

Once architect, supplier and contractor were happy with the design, SIG finalised details for manufacturer, and produced its own 1:5 drawings of the installation for

the specialist contractor. According to the architect, build-ability for early weather-tightness and removing crossover of trades at roof level was key in adjusting the detailing to suit the sequence of site operations.

# Efficient and satisfying

'It's a very good, streamlined process — everyone knows what they're doing. The benefit for us is how quickly the programme moves forward without delays during procurement... It saves a lot of time as you get to the solution more quickly,' says Moore.

The installation by Advanced Roofing used mechanically-fixed IKO Amourplan P single ply waterproofing on top of 140mm thick IKO Enertherm ALU PIR rigid insulation board. This sits on a IKO Spectravap PE vapour control layer, which in turn rests on a concrete plank and metal deck roof structure. SIG designed all the interfaces with protuberances – such as sunpipes, roof lights and air handling ducts – as part of its guaranteed system to ensure that waterproofing was maintained throughout the installation. While IID was more involved in detailing the parapet, there were no interface complications with the rest of the building.

This teamwork approach and resulting swift design solution was essential since the flat roof was an early package in the programme in order to make the building watertight as soon as possible.

'They were very keen to get the roof deck on so that the building was substantially watertight and they could start on the internal metal stud partitions,' says director Richard Matthews, adding that the collaborative nature of the partnering arrangement meant the architect had peace of mind in knowing that the installation would turn out as designed.

Arnold Hill was IID's first secondary school using the Wates ADAPT approach, and it would like to use the experience it has gained on more projects with the contractor.

The new school building will be complete in time for the start of the autumn 2016 term.

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# Digital impact

Technology and its effect on all our lives won't bypass the workplace. We need to be ready for radical change

### Dale Sinclair

New business models, driven by the digital era, are changing the world around us and will influence the jobs and skills required in the future. The architect's role touches on many parties and it is essential that we understand and plan for these changes.

In January the World Economic Forum (WEF) published 'The Future of Jobs'. The report builds on the hypothesis that we are entering the fourth Industrial Revolution, where artificial intelligence, big data, the internet of things, robotics, nanotechnology, 3D printing and many other topics will radically alter employment patterns and the skills required. This theory is solidifying and the data provides an increasingly consistent story about the new jobs landscape.

In relation to the design professions, the report concludes that more jobs will be needed in architecture and engineering. This aligns with a recent Oxford University study that highlighted that the core roles of design professionals (architecture and engineering) were resilient to computerisation.

To underline the pace and breadth of change the report quotes one popular estimate that suggests that 65% of today's primary school children will end up in jobs that don't yet exist. The report is intended

as a call to action and we should react to it. The biggest losses in the future – office and administrative roles and management – or the biggest gains – business and financial operations – might affect society as a whole rather than the design process per se. We need to consider the second and third areas of job losses, in manufacturing and production and in construction and extraction, before the clues to the future are revealed. Do these changes define the point where construction moves to the on-site assembly of offsite manufactured components on a large scale? Will we need to reconsider radical changes to Stages 4 and 5 of the RIBA Plan of Work?

# A different place to work

The biggest trend affecting business models is predicted to be the 'changing nature of work, flexible work', which suggests that architectural practices will need to respond to a different office environment in order to grow and succeed. This trend is followed by processing power, big data and mobile internet/cloud technology. It's harder to picture what impact these trends might have on the design process, although the proliferation of articles on virtual reality give an indication.

The report considers the gender gaps and the importance of increased diversity in the workplace – highlighting, for example, strategies for women's workforce integration including 'promote work-life balance', 'setting targets and measure progress' and 'development and leadership training of women'.

Of greatest interest to the RIBA is the section which highlights that the biggest barriers to change are insufficient understanding of disruptive changes (51%) and resource constraints (50%). These suggest that getting across the nature of likely changes and the speeds of these changes should be a core goal of the RIBA and practice leaders.

While demand for skills such as cognitive abilities or social skills will remain high, some of requirements will differ. CPD will need to shift emphasis as whole life learning gains momentum and we discover that we all need to get upskilled and/or reskilled for this new world. Funding new learning outcomes will not be easy. Practices will need to make significant 'leaps of faith' to invest in upskilling their staff before the benefits have been gained. Individuals will also need to take a more proactive approach.

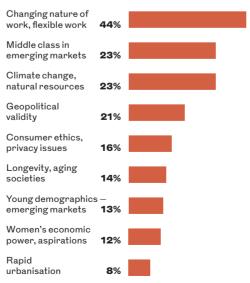
In summary, it is comforting to be reassured that the creative process will remain robust to computerisation, but we all need to be alert to the significant changes facing roles that wrap around the design process – and how this will alter the DNA of design and project teams. •

Dale Sinclair is director of technical practice, architecture, at Aecom

# Drivers of change

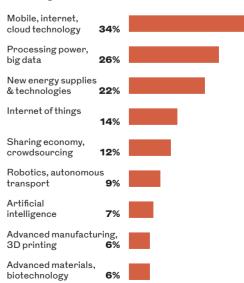
 $Percentage\ of\ respondents\ rating\ driver\ as\ top\ trend$ 

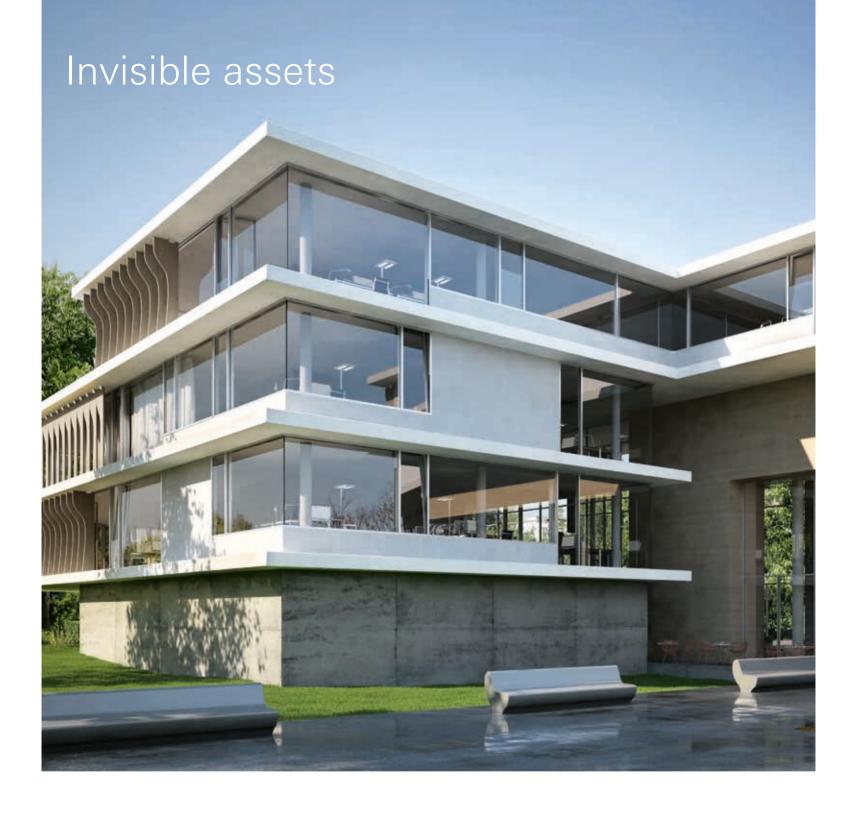
### Demographic and socio-economic



Source: Future of Jobs Survey, World Economic Forum Note: Names of drivers have been abbreviated to ensure legibility

# Technological





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# Angst avoidance

Relationships and quality control can plague small projects. One practice decided it was time to take charge

### Chris Mackenzie

As architects we want to make good buildings, but recently, when small projects dominated our work, we concluded that the most frequent obstacle to quality was contractors. We came up with the idea of taking on all the off-site management, putting to the test our growing conviction that we could do better.

Private clients always ask us to recommend contractors. That can be tricky. A local builder will probably do a decent job but avoid risks and largely ignore contractual responsibilities. A more established contractor is expensive for small projects, and often appoints its 'B team', fails to manage site activities, and tends to make lots of contractual claims when the job doesn't look profitable. While in traditional procurement the contractor theoretically bears a lot of risk, we find that when problems arise, the cost burden usually falls on the small project client.

# **Total control**

Our best projects are undoubtedly those where we have had a full appointment to see the project through the construction stage – although clients don't always grasp the difference between a contract administrator and a project manager. What they really want is both, but don't always want to pay for it, so may attempt the DIY route of 'self build' – and all its risks. Another important factor for most private clients is that VAT is charged

at a full 20% but is not recoverable. Employing a non VAT-registered tradesman directly can save them a lot of money.

So we took the plunge and offered some clients our alternative model. Contractors like the reduced risk and paperwork, and clients can balance a better service in return for assuming greater risk in terms of time and money. There is no fixed lump sum contract, but overall costs are potentially reduced, quality is improved and we manage any risks.

We have recently completed our first 'Construction Management' project, and are engaged on three more to be built this year. The first was a small single storey building, with a very nice and ultimately very happy client, which gave us a low risk opportunity to test our theory. Thankfully it has been successful: on time and (just) under budget.

We aim to agree the procurement route before starting Stage 4 design (Technical), allowing us to format design information to suit the works packages. We use NBS Scheduler for specification/pricing on a trade package basis, and BIM to help with procurement and construction; 3D component drawings and schedules, and/or 3D drawings describing just the works in a package. Builders and suppliers love this, putting our jobs in the 'low hanging fruit' category.

# It's a team thing

Our in-house construction manager is supported throughout by the project architect on technical matters, reducing paperwork for trade contractors, and setting up trade accounts so the client can buy some materials directly without a mark up. She maintains the programme and budget throughout so that the client, foreman and relevant trades are kept fully in the picture. It becomes a team environment, avoiding the usual aggravation.

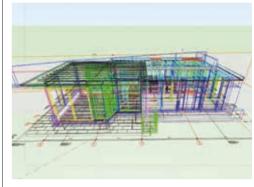
The other key person is the site foreman. So far we have engaged (on behalf of the client) an experienced self-employed tradesman who can deliver one of the main packages and act as foreman. He co-ordinates all site activities including health and safety. Our practice Designscape acts as principal designer throughout, and principal contractor on site.

It is important to us that we maintain the professional consultant relationship with the employer throughout. We have no financial conflicts of interest in this arrangement as our fees bear no relationship to the project cost and there are no mark-ups – only the

client benefits from savings. But it is important that the client also accepts the risks, which we undertake to manage and advise on.

We are taking this slowly and learning lots as we go – testing trades people and identifying the good ones. It won't suit every project, but it does offer the potential for a better quality outcome from the same or smaller budget, and it is definitely less adversarial. The younger architects in the practice have enjoyed being more involved in the construction phase, and understand the process much more fully, including being able to see the contractor's perspective. It offers a new respect for what they do, and why they're paid so much!

Chris Mackenzie is founder director of Designscape



Above A4 as wireframe model.

# **BASIC PRINCIPLES**

Construction Management Services: replaces Stage 5 onwards in the traditional Architect's Appointment.

# **Preconstruction phase**

Establish a list of trade packages with a scope for each package and a long list of potential trade contractors
Establish a budget – broken down by package

Establish a programme

Issue packages to trade contractors for tender — includes drawings, spec, scope of works / pricing schedule

Analyse tenders; make recommendations for each trade

**Issue** 'purchase order' contract to each trade contractor — bespoke contract drawn up with professional help — simple, plain English contract terms. Contract is a direct contract between the Employer and the Trade Contractor.

# Construction phase

Oversee site establishment – security, welfare, H&S etc Regular site meetings: budget, programme, H&S Valuation / payment of works contractors Order sundry materials Pay all invoices (direct from client's account for the project)



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# Future perfect

Maria Smith gazes into her crystal glass



Maria Smith

Great news! I met a wise old sage at the bottom of a wine glass. She told me the future of architecture and it's just what you'd expect. Now settle down and I'll tell you all about it.

Just as we get thoroughly fed of up the narcissism of small differences between our practices, the digital humanities movement will reach maturity. The likes of infant-BIM and document control software will have accrued a vast digital, searchable, mappable library and testament to built-environment practice. Suitable precedent in law will be established concurrently with the requisite learning algorithms to allow a computer to read every drawing, every specification, every folder structure, every report, every fee proposal, every early warning notice, everything, everything, everything, and from it deduce how many distinct methods of practice there really are. We will not be surprised to learn that there aren't very many, as we will be not be surprised to learn that it is processes such as methods of generation and justification that define us, and not what the end products happen to look like.

The handful of Methods defined, all built-environment practices will be disbanded and all practitioners will become free nodes in a vast network of human resource. Each practitioner will take psychometric

tests to determine their alliance to each Method and aptitude for specific Roles. Some will qualify for several, some for none. We will be not be surprised to learn that fewer practitioners will be needed when the system is more efficient, as we will be not be surprised to learn that the future will be about not more infrastructure and more resource so much as algorithms helping us make much more efficient use of precious resources.

So PQQs, resource-draining competitions, loss leaders and speculative punts will be no more. When a client has a job requiring services, they will fill out an online questionnaire that will determine which Method and which team best suits its project. The online System will then identify the best available team and automatically invite them. The invited practitioners will click to accept or reject their mission. If the first chosen doesn't accept then the System will ask the next best fit and so on. It will take into account geography and success of past projects and rapport and unfortunate sexual histories to assemble the best willing and able team for the client. The System will also ensure that younger practitioners gain the diverse experience essential for the System's sustainability. The old 'need the experience to get the experience' quandary will be destroyed.

The System will manage projects via workflows set up for each Method. Meetings will be arranged at mutually convenient times and places and while corporeal meetings will still be preferred, AV technology will now allow a near-perfect simulacrum of actual presence. Software with delightfully intuitive interfaces will manage deadlines, offer handy checklists, and prompt upcoming tasks. Mistakes will therefore be few and the economies of scale permitted by the System will allow it to insure itself.

The workforce will be happy. Work-life balance will be appropriate. Throughout the project, practitioners will give feedback on how happy they are. Sensors on workstations will measure heart rate, pupil dilation, duration of attention span and so on. The System will build each practitioner's career based on extensive knowledge of individual motivations and pleasures. Its power will lie in its ability to process qualitative information and, like a big digital mama, it will learn to understand and nurture us. The System will know it needs to accept our humanity for its own survival. It will therefore take

The system will take into account geography and success of past projects and rapport and unfortunate sexual histories to assemble the best willing and able team

precautions. It will throw a couple of wildcard practitioners into every team. It will orchestrate drunken encounters between people it knows could comfort or learn from each other. Every now and then it will extend a deadline and send every team member some Russian literature and a stick of bubblegum.

Today's future has learnt from the futures of the past and will make a future that is efficient, but not utilitarian. Today's future knows that good enough is good enough and perfect will eat itself. Today will make a future that works for us blobs of sensitive flesh propelled by unstable cocktails of hormones and atavist urges. We blobs can't work, can't design, can't solve problems, can't motivate ourselves to do anything much if we can't distinguish ourselves just the right amount from our peers: we blobs can't abide homogeneity, but nor can we cope with excessive differences. Today's future will therefore create a System that will carefully breed us, marinate each of us in uniquely prescribed recipes of experience that keep us acceptably each.

The bottom of the glass was cagey about how much this revolution would change the built-environment itself. I dare say we will not be surprised to learn that it changes both completely and very little.

Maria Smith is a director of architecture and engineering practice Interrobang and curator of Turncoats

# A boost for craft and art

Does new technology mean that the age of mass production and homogeneity is over?



Architects have a 2% chance of being made redundant in the future as a result of computerisation, according to the study 'The Future of Employment: How susceptible are jobs to automation?' by Oxford University academics Michael Osborne and Carl Frey. New technology is 'quite unlikely' to destroy the architect. By comparison, for the many of the trades that work with architects on site, 60% to 70% can expect to be replaced by offsite manufacture and robotisation.

The original paper, published in 2013, was motivated by John Maynard Keynes's frequently cited prediction of widespread

technological unemployment 'due to our discovery of means of economising the use of labour outrunning the pace at which we can find new uses for labour'. In recent decades, computers have indeed replaced people in a number of jobs, including bookkeepers, cashiers and telephone operators. Most recently, poorly performing labour markets in advanced economies have intensified the debate about technological unemployment.

So while there will be industry changes around construction and property – even estate agents have a 68% likelihood of being replaced by automation – questions

It is within our capability now not to have monotonous repetition; we can have mass customisation and greater variety **Left** (left to right) Ronnie Mills, Friedrich Ludewig, James Baker, Alan Shingler, Nigel Headford and Nigel Ostime facing Simon Appleby, Tim Partington and Tom Murphy.

Right Roundtable menu.

remain over what architects will do and how they will work. AluK's first roundtable took this as its subject, asking: 'To what extent does new technology mean that the age of mass production and homogeneity is over?' Discussions addressed how this third industrial revolution will affect the production of construction information and the way buildings look.

### **International Style**

For much of the 20th century, shortly after Henry Ford initiated the use of assembly line manufacturing, architects imagined a similar future for architecture. Enter the International Style, the machine for living in, and later the 1960s obsession with prefabricated buildings. Ever since architecture has moved toward greater levels of global homogeneity – which still attracts major criticism.

Yet today, technological advancement has turned a corner, progressing to such an extent that the loss of individual identity in the 20th century may be reinstatable while retaining the benefits of the second industrial revolution, including the assembly line.

'It is within our capability now,' said Nigel Ostine, the roundtable's chair and project delivery director at Hawkins\Brown, 'We can avoid monotonous repetition; we can have mass customisation and greater variety.'



#### WHO WAS THERE

Nigel Ostime project delivery director, Hawkins\Brown (chair)
Nigel Headford, head of sales - major projects, AluK

Interested in producing a system that works in a systemised manner to create bespoke solutions and to start using BIM all the way through the design and construction process.

# **Alan Shingler**, partner and head of residential, Sheppard Robson Architects

Fascinated by how to use BIM and technology in later stages, and in parametric modelling to design and inform components and form at an early stage.

# Friedrich Ludewig, founder, Acme Architects

Young practice that works with contractors to create customisation, and sees little repetition in architecture.

# Simon Appleby, design director, Berkeley Homes Central London

Interested in how systems and armature added to buildings –

# facades, bathrooms, etc — can be improved by technology. Ronnie Mills, technical director, McMullen Facades

Concerned with how building facades that can go through a production line process while still incorporating design intent.

## Tim Partington, director, Chapman Taylor

Keen to understand how to improve ways of working with contractors and get smarter at building things.

## Tom Murphy, architect, David Miller Architects

Early adopter of BIM in architecture: believes it can be used to create bespoke solutions that are not costly.

# James Baker, architect director, BDP

Interested in how BIM can be fully integrated from stage C with sub-contractors, particularly regarding facade technology.

What is the current technology we have, how is it being used and what is coming up?

For all the potential and discussion of a mass customisable future, participants at the roundtable felt overwhelmingly that this future has not arrived.

Friedrich Ludewig, founder of Acme Architects, said: 'Independently of what we do in the office – all the things we see going out, all the things we send – architecture and construction is still an incredibly handmade industry.'

Nevertheless, it wasn't felt that it would be fair to put a judgement on whether or not architecture and construction are behind the curve. It was pointed out that few designers have cracked the digital production of, for example, T-shirts, where repetition is high — rather that it is more effective to ship the manufacturing to sweatshops in Bangladesh.

'Even with unitised facades, there is a lot of hand labour putting them together and they are then installed by people control,' continued Ludewig. 'So far every time we have gone with a very digital product to the market, we have hit a brick wall where it is costed double the price of doing it by hand.'

## Every job is different

The reason for this was not just put down to tooling up costs. Around the table, everyone agreed that architecture is a different game; each project is different, always tailored to a site, programme and orientation.

'We are often unfairly compared to the car industry,' said Tim Partington, director at Chapman Taylor. 'Every building we do is essentially a prototype. It responds to context, textuality, the client's requirements. Architects do not have the luxury to test a product then refine and refine it. When we developed something similar for the schools programme, as soon as we took it out to commercial clients, it had to become much more flexible, responding to individual needs.'

Additionally, if practices have invested in R&D, working with technologically advanced

software or systems for a long time, it has not been matched by real achievements – the programmes are there, but they lack a real-world translation so stay virtual. While Tom Murphy of David Miller Architects thought BIM was able to provide that by 'cutting out so many potentially wasteful processes between design stage and construction on site', Alan Shingler, partner and head of residential at Sheppard Robson Architects, disagreed.

'We are working on a civic centre in Hounslow, producing it in Revit and standardising components as much as possible,' he said. 'The problem arises when going out to procurement: our client doesn't want to go down the nominated supplier route because of cost, so now we are devising three different ways to fabricate the panels.'

The biggest obstacle was seen as the supply chain – even with a Lego-like kit of parts.

'It has been 30 years since the first computer came my way,' said Simon Appleby, design director at Berkeley Homes Central London. 'It was in a room on its own. We have got to a point where we can go to site and hold up an iPad to see what should be there, so it is baby steps. These days you can draw things in 3D and hand them to a manufacturer to take into their software, but getting that back into your software or into a client-friendly enduser maintenance manual is a nightmare. Everybody has built it in a different system. We need one platform.'

# Early involvement

Speaking on behalf of McMullen Facades in Belfast, Ronnie Mills insisted that it is now possible to create the same building physics but adapt them to every design: 'It is about getting balance, not designing from scratch. Getting on a job early is when manufacturers can bring the most value.' Objections to this were that it would prevent clients going to the open market, and that the computing power needed to organise all the subcontractors would still require a room at the end of the corridor in which to carry out



the complex calculations occurring even, for example, from changing a door height.

So what is on the horizon?

As the participants focused mainly on pitfalls in the supply chain and making side of architecture, Murphy identified that to become more efficient in the future, the process needs someone on the project – client, architect, contractor – to drive it through, tying all these different systems together.

'In my office,' agreed Shingler 'there is a gap between those who really understand what, for example, Revit can do, and those who understand what they want Revit to do. I'm learning Revit, but I rely on other people to do it. For me it will be about not where the tools are, but how to use and apply them to the process we all understand; not to try to force something that's not set up to the changes.'

Yet some members of the group did feel the software was still not up to scratch and

Everybody has built it in a different system. We need one platform

There are no curves in Switzerland because architects there have been using ArchiCAD for 10 years

Above left (left to right)
Alan Shingler, Nigel
Headford and Nigel
Ostime.
Below Tom Murphy of
David Miller Architects.
Bottom right James
Baker (left) and Simon
Appleby (right).



would welcome improvements to iron out problems that obstruct its fundamental use anywhere along production.

'What we have at the moment cannot do options, is not instinctive and does not understand at different points in the design that the architect hasn't made up its mind, that there is more than one way of doing it,' explained Ludewig. 'Software is not set up for mass customisation. It is necessary to work back and forth between different software to get the result we want, filling in all the corners along the way. There are no curves in Switzerland because architects there have been using ArchiCAD for 10 years — the constraints of the programme end up in the design.'

### Model contracts

These problems materialise again at a manufacturing level, with Mills, Partington and Appleby agreeing that it is not possible to run a factory in Revit and that it is necessary to spend a lot of time optimising drawings. A way around this should be on the horizon.

Mills raised a further last minute issue: that soon it would be necessary to address the contractual position of a building model. 'This is non-existent at the moment. As a sub-contractor who is signing up to take design responsibility to deliver a facade in a



building, right now the building model has no status in our contract documents. It doesn't exist in that legal framework. We have to look at how to deal with that as it will move from designers towards fabricators. We must be very careful how we use the model because it is not contractual and it is always live.'

Should we customise just because we can?
The jury was out on whether mass
customisation was positive. For some
architects around the table it meant
constricted designs and flawed processes, but

others saw it as a major asset, particularly for certain types of buildings including residential, hotels and schools.

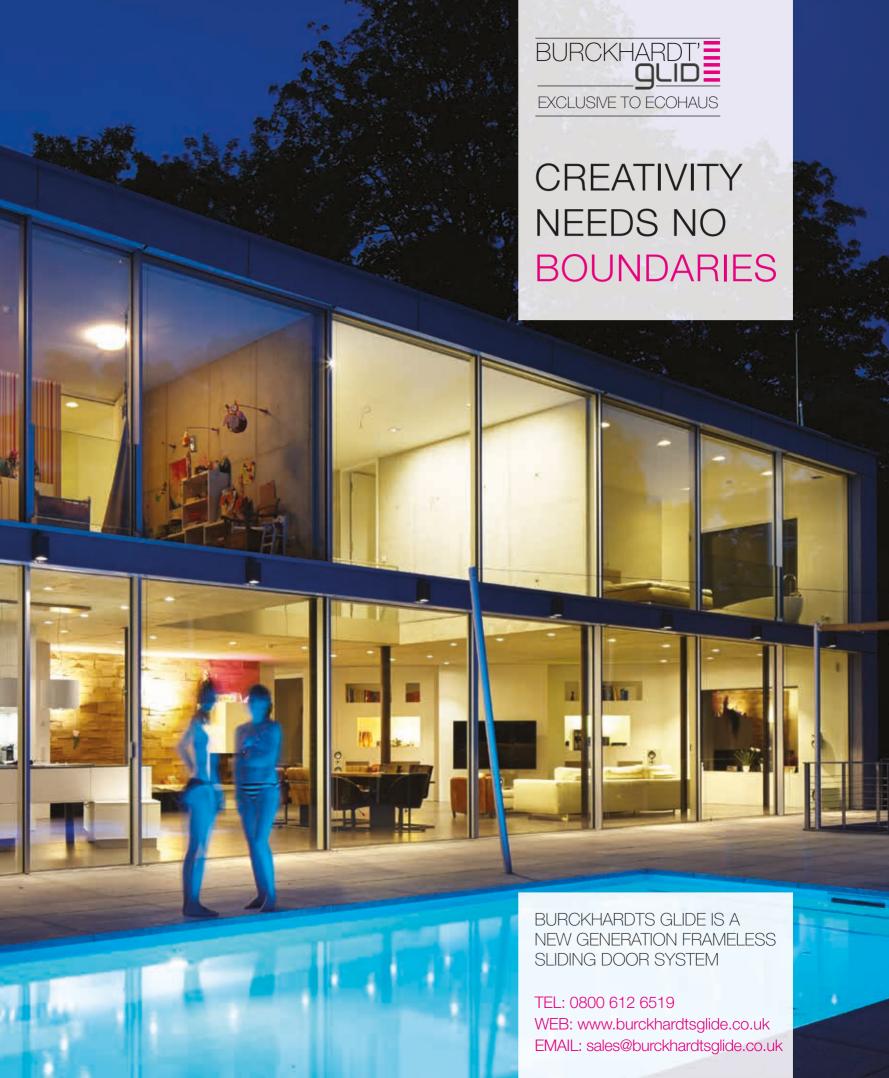
'One of the biggest advantages we have seen with the early implementation of BIM is that it allows you to create bespoke solutions for essentially the same price as a standardised building,' said Murphy. 'You are producing information that goes straight to a CNC. It cuts out the ambiguity that was there with 2D drawings.'

But real potential was seen was in architectural expression and a shift to greater ornamentation through implementing bespoke elements crafted using machinery such as CNC machines and digitally printed glazing – Here East in London by Hawkins\Brown was cited as a key example. Technological changes such as 3D printing to create prototyping and grow metal parts would make customisation affordable. The key will be about using standardised systems to produce customised objects.

Ostime explained: 'Now it seems that the International Style was just that, a style, and we are getting to something more culturally rich.' There is an appetite for ornamentation from clients – and that's where the creativity of architects, so essential to the process and reliant on people power, comes in. •

AluK and RIBAJ will be continuing this conversation at ALUK's new London showroom (Worship St, EC2A 2AB) on 14

April from 18:00, with Nigel Ostime as chair again. To participate at this free-to-attend seminar please go to ribaj.com/alukseminar



# 3: Culture

# Better unbuilt?

The value of each speculative building is hotly debated, but one takes the biscuit



Hugh Pearman

Is there such a thing as an unnecessary building? Even follies have their purpose: incidents in a Picturesque landscape, places of resort. The popularity of the Landmark Trust's holiday properties – many of them restored follies of one kind or another – is testament to this. Being extraordinary, you could argue, is reason enough for some buildings to exist. Nobody was clamouring for that modern folly par excellence, Grayson Perry's and FAT's A House for Essex, built for Alain de Botton's Living Architecture. But having been built, it is so popular that you must enter a ballot even to be in with a chance to pay to stay there.

You could argue that Renzo Piano's Shard in London is unnecessary. Nobody but its developer was calling for it to be built. It does not fulfil a 'need' beyond the desire of the developer to make money out of a speculative building. Protests against such places tend to focus on this fact, as they did with the (long since listed) Centre Point by Richard Seifert, which stood empty for years as a tax dodge before finding an office use – and now

One feels a stab of nostalgia for the 1970s squatters who briefly took the place over finding a re-use as superprime apartments priced between £3m and £55m. Necessary? One feels a stab of nostalgia for the 1970s squatters who briefly took the place over.

Then again, London is the pre-eminent city of commerce and most of its admired historic fabric - Bedford Square, say, or Covent Garden, Spitalfields or Belgravia, or any of the swathes of outlying Victorian terraces - are the result of pure speculation. Just floorspace of various kinds. Other cities everywhere tell the same story. Where there is trade and industry there is property speculation - and customers. The only question is the extent to which it is controlled by the state, and balanced by public, non-profit and social enterprise ventures of the kind celebrated by our recent MacEwen Award. This has preoccupied our masters, usually fruitlessly, since at least the time of James 1.

Consequently one can appreciate the irony in modern-day speculative developers moving into areas of historic speculation, something that is historically inevitable and in every case controversial. A wealthy, expanding (and physically constrained) city will always have such flashpoints. And while I find it especially hard elsewhere to stomach the rash of buy-to-leave apartment towers for overseas investors and mega-mansions for absentee oligarchs – well, the stock is there and one can (with difficulty, at present) imagine them one day turned over to house the poor.

But I do know of one utterly useless proposed building. A private venture nobody but its backers asked for, that has bizarrely attracted a very large amount of public money for no good reason. A leftover from the days of Princess Diana mania that has very large question marks indeed hanging over the nature of its procurement, to the extent that the process has even been condemned by the president of the RIBA. I give you London's Garden Bridge. And having given it, I would now like to take it away again. What a profligate use of scarce taxpayers' money that is.

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# **Gulf wars**

Absence, gigantism... Will Wiles falls into a big hole



### Will Wiles

Almost the first thing you see in the original Star Wars (1977) is Very Big Indeed: an Imperial Star Destroyer, one of those arrowhead-shaped ships that are so very ineffective at destroying other, smaller ships. But that's nothing! It's not long before we meet the Death Star, which is so big it can be mistaken for a small moon. But is it big enough? When the Empire rebuilds the Death Star in Return of the Jedi (1983), it's even bigger. Either planet-kerploding technology isn't subject to miniaturisation, or it's a sign of the Empire's decadence, and a military-industrial procurement system run amok.

In JJ Abrams' new Star Wars instalment bigger is still better. Even the Death Star Plus looks like one of Vader's stray golf balls against the Dark Side's latest weapon, which sucks up stars and spits out multiple kerplosions.

Why this recurring gigantism? It must be related to all that space. Too much of it, so terribly empty. Ships hanging like splinters of precious metal in an ocean of night – that whole shtick was played out in Kubrick's 2001: A Space Odyssey. From the start of the Star Wars franchise, George Lucas seems very concerned by the size of the cinema screen, and of space itself – eager that both are fully exploited. The real estate, in both cases, must be properly filled. You can even hear the difference in the score. Kubrick's Ligeti versus Lucas' John Williams. Less is more versus more is not enough.

Back on earth the same sort of horror vacui, horror of the empty space, applies to some desert countries, and demands the same solutions – always bigger. No wonder

Back on earth the same sort of horror vacui, horror of the empty space, applies to some desert countries, and demands the same solutions — always bigger

Rem Koolhaas's proposed convention centre for Dubai resembled the Death Star, and Jean Nouvel's National Museum for Qatar has the air of Star Wars' space ship junk yards.

However, solving one empty-space problem merely opens up another. An external void is swapped for an internal void. There are, of course, a lot of hangars, flight decks and engineering bays in a film series that is, in large part, about fighter pilots. And those are necessarily big. But there are also a lot of holes. The internal volumes of these giant bases are programmed with a great deal of nothing: gulfs, chasms, shafts. Often these are spanned by spindly bridges, making for dramatic showdown locations, and cliff-faces to climb or exciting canyons to fly through.

It's an architecture of absences, and I have a theory about where it might come from. What's the most exciting and best-known modern building in the US, circa 1977? Minoru Yamasaki's World Trade Center in New York, the Twin Towers. Very Big Objects, in the openness of a plaza – also, an implied canyon. Or is it an early postmodern influence? What is that notch at the prow of the Millennium Falcon, if not a split pediment?

I fell into a hole, Star Wars-wise. I was five years old when Return of the Jedi came out, and at university by the time the 'special editions' arrived in the cinemas. Star Wars toys were things friends' older brothers had, and my first experience of the films was out of order, with interruptions, on TV at Christmas. They were a collection of scenes for me, but hugely memorable and entertaining scenes, partly thanks to all those impressive spaces. The imaginative mortar for those fragments was mystery: a sense of something larger that had yet to be revealed, a broader sense of mythology connecting the shards. Gosh, but the Abrams outing is entertaining, in the best tradition of the series. However I wish that JJ's energetic imaginative had done more to fill in some of the holes in the universe. Who's in charge? Where is everybody? Exactly how does any of this work? All the films trip from empty site to empty site: desert, swamp, icy waste, primeval forest. To give them credit, the ill-fated Lucas sequels tried to flesh out cities, government, trade and so on, but managed to make it all utterly enervating. Perhaps that's what scared Abrams off. Star Wars continues to flee from emptiness.

Will Wiles is a journalist and author. Read him here every other month and at ribaj.com

## THE CHASMOS

Once you start spotting holes in Star Wars, it's very hard to stop. The 'trench run' at the end of the first film speaks for itself. The pit of Sarlacc. Another pit-based worm that almost swallows the Millennium Falcon. The Big Bad of the Abrams film has a colossal echoing throne room for what appears to be nothing more than a hologram. He has a trenchlike scar running down the side of his head, too. In one of the moments. Abrams toys with our expectations, the viewer is surprised to find that another character is not scarred. No scar! It's an ironic hole.

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# Time to take a lead

Don't view new technology as a threat – for the role of lead designer it is an opportunity to be grasped



Jane Duncan

Design leadership in the digital age requires more than a chat over coffee with the builder.

As architects we recognise the impact of changing global economic conditions, emerging disruptive technologies, and increasingly the need to establish more collaborative work processes. We often think of BIM as the means to effect change through technology, and fail to review the roles and behaviours which need to be adopted. In truth we need both to incorporate the changing technologies and adapt our processes, moving from established project delivery routes – for all sizes of project.

Technology alone only takes things so far; there is serious potential for risks to escalate when the architect's expertise in delivering successful projects is passed down the line to BIM operators.

BIM can of course help to deliver more efficient, intelligent and cost effective design processes and enhanced services to clients – particularly in relation to the whole life value of buildings – but BIM processes themselves are changing the leadership playing field.

Architects need to look up from their immersion in design and delivery, where we overlook the importance of the rather understated lead designer role – one which most of

Do we understand the role of lead designer and value it ourselves? What does the role require in collaborative construction? us carry out on every project we do.

The potential is there to magnify the architect's role as leader of the whole design, and building, process – a role we may have inadvertently conceded to others through relinquishing liability. Architects will be welcomed to lead if we become better listeners and refiners of information that arise during the stages of design and construction.

Little has been published about the role of lead designer, although the RIBA client forum revealed that it is a role clients value greatly. The question is: do we understand and value it ourselves, and what does the role require in collaborative construction?

Recent articles suggest the role can be partially automated using BIM tools such as clash detection – though if it is undertaken well there should be no clashes and project details will be well considered. Poorly undertaken it can result in site queries, and a design compromised by the need to integrate variations – and costs – late in the process.

The role will require varying collaborative skills for each aspect of an emerging design. For example, agreeing the size and location for a plant room with the design team needs a different focus to discussing materials for the main elevations with the client or planners.

Balancing a single minded approach for certain aspects with collaborative behaviours for others is not easy. The lead designer understands the building inside out, and is best placed to identify and evaluate design risks in a manner that allows them to be managed, eliminated or cost allowances made. Yet we do not, on the whole, embrace this opportunity and the truth is that architects could become further marginalised.

We need to face up to a changing industry, and ensure that the key lead designer role is valued and understood, and that we diligently undertake it. We should harness technology to deliver better co-ordinated buildings where risks are managed more effectively.

In summary, the lead designer role is a core one that wraps around the work of an architect. Defining the role, agreeing what it entails, considering how it might add value in a digital world and demonstrating to our clients that we have the skillsets to undertake it, are crucial tasks in defining the role of the architect in the future. Complacency will no longer cut the mustard.

@JaneDuncanPRIBA

# CATASTROPHIC ENLIGHTENMENT

In March and April the RIBA is running a series of discussions with leading architects and experts from around the world looking in depth at themes explored in our new exhibition 'Creation from Catastrophe: How architecture rebuilds communities'. Yasmeen Lari, Razia Igbal, Reinier de Graaf, Henk Ovink and Kunlé Adeyemi are all taking part. Booking is essential at architecture. com/creation and attendees to the RIBA's Future Leaders event on 15 March receive a special rate architecture.com/ futureleaders2016

New Street's makeover took eight years to complete and cost £750m. With a footfall of 35 million passengers per year - making it the busiest building in the UK outside of London - the project was about as high profile as it gets.

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Bjarke Ingels is famously uninhibited by expectation or tradition, but if you think his buildings are barmy just check his order book. There's a clear philosophy behind his youthful success

Words: Jan-Carlos Kucharek Portrait: David Vintiner

# Reason in madness

'Amazing,' says Bjarke Ingels, nonchalantly. We're sitting in London bistro Villandry for lunch and he's just checked his messages. I'm mid-sentence, so fail to ask what made him say that; but come the next day, it turns out he could just have been informed that he'd won the \$50 million police station for the Bronx or been sent the final PR visuals for the Spiral Tower in New York, or realised that young Belgian wannabe architect Étienne Duval's YouTube job application to work at his firm had gone viral. Or he could just have found out he'd been appointed architect of this year's Serpentine Pavilion or that Google had agreed to his and Thomas Heatherwick's latest barmy proposal for the firm's futuristic 24ha HQ in California. I say 'amazing' if my network provider offers me a half price data bundle: and it suddenly dawns on me that Bjarke's phone is hot property. So I feel mildly complimented that he didn't look at it again until the end of the interview.

Ingels orders the pan-fried Brill from the waitress, who jokingly warns him that it's BIG; not surprisingly, this seems to appeal. Part of the 42-year-old hotshot Danish architect's allure is his disarming charm. He's just given a masterclass lecture for the RIBA's Royal Gold Medal week, ending with a video of a prototype steam 'smoke ring' – designed for his waste to energy plant ski ramp in Co-

penhagen - rising behind him like a halo in an azure sky. Looking around with his dentist mother's smile, Ingels likes my café choice though I don't mention that it used to be the offices of Foster & Partners; I feel it best he isn't aware of the irony. Looking at home on the banquette and having supplanted Foster on the World Trade Center 2 building - now on ice due to the Murdoch pre-let falling through - the young boss of a 300-strong firm in both Copenhagen and his adopted New York probably doesn't need his ego feeding as well as his appetite. Or, I wonder, when you're as successful as he is, does the ego just sublimate into something more benign, redemptive even - a bit like that ring of steam?

Ingels' connection with OMA and Rem Koolhaas as the figurehead of deconstructivism itself seems a Shakespearean – even Freudian – intrigue; a jostling office of egos, one assumes, all in thrall with the master, and all aiming, at some point, to supplant him. It could even explain the spin-off names; Joshua Prince Ramus' REX, Ingels' and partner Julien de Smedt's first office PLOT and now Bjarke Ingels Group truncated to BIG. I ask if it was all as Oedipal as it sounds. Ingels cites Koolhaas as a key influence but seems keen to distance himself from OMA's office culture, even though he was one of only 35 people. 'It was a slightly stressful

When you're as successful as Bjarke Ingels, does the ego just sublimate into something more benign, redemptive even?



# Turning ideas into reality with WICONA system solutions



# WICTEC 50 - experience innovative façade technology



Velocity Village, Sheffield

WICTEC 50 is a concept for modern-day architecture that reconciles the elements of heat storage, air conditioning, light provision and fire and noise protection within a single façade design.

The WICTEC 50 SG façade system from WICONA features a 'toggle' to retain the glazed units within an infill channel to allow fast and efficient installation, whilst delivers a frameless appearance as an alternative to silicone bonding





Left The West 57
project in Manhattan,
now completing, uses
programme needs,
daylight requirements,
zoning and views to
generate its novel form.
Below The 2013 Danish
Maritime Museum sunk
in the shadow of Elsinor
Castle in Helsingør.



Above BIG's WTC 2
proposal; stacked boxes
reflecting the client desire
to create attractive rental
space for finance, new media
and entrepreneurs.
Right 8-House (2010). The
largest private development
in Denmark; mixed-use and
all crowned with a connecting
ramped walkway.





environment with a lot of mid-management power struggles in and it made me think that a major part of leadership is how you set the tone,' he tells me. 'Children learn from their parents how to behave but I was taken with the idea that it was possible to have an affirmative environment without the negativity or stress.'

Ingels uses the word 'truth' a lot in our talk; truth as in 'blatancy' of ideas or in what he's saying right then, the 'truth' of your intrinsic nature. He was at his younger brother's birth and recalls seeing him grow to become 'the same personality now as when he was born; the same core, just with more layers added'. At OMA for only 18 months,

it seems his truth didn't tally with those of the office and he felt there was another way to practise. 'Of course there's ambition at BIG but you deal with it in different ways,' he caveats. 'I just wanted to work in a manner more conducive to my own happiness.'

Given his firm's success, why doesn't he come over as arrogant, as most people would expect him; and how does he nurture an office culture that discourages egomania? It turns out it's a meritocracy centring on communal authorship of ideas. He explains: 'Shared credit is important. We deliberately never talk about who came up with an idea because if someone has dibs on it, it demotivates the rest of the team who work on it for

years to make it happen.' Ingels admits he's the 'chief curator of the ideas and project direction, but via an iterative process, we educate each other until the design concept becomes more manifest'. This method, he claims, 'empowers the contributor and motivates everyone to contribute more'.

But surely such multiple authorship results in architecture as spiritless and explicit like the diagrams through which the firm so keenly communicates its work? The question sounds hollow given that a couple of years ago BIG seemed to be winning almost every competition out there. But its \$460m West 57 rental housing in Manhattan, now going up, typifies the firm's output. A courtyard form extrapolated up to 40 storeys on one edge to take advantage of zoning heights, river views and daylight, it is a bizarre pyramid with one of the faces, replete with terraces, a hyperbolic paraboloid. The manipulation of site constraints with the programme here as at his Mies van der Rohe Prize shortlisted Danish Maritime Museum, sunk like Yorick in the grounds of Hamlet's sacrosanct castle in Elsinor – generates the building form; but doesn't madness that way lie? Ingels insists not, adding: 'The courtyard's the cornerstone of Copenhagen's urban life - communal but not public. We felt it would be amazing to bring this successful form to New York'. This 600-apartment Scandi-American hybrid, he explains, is merely the result of new context and regulation.

But surely he admits West 57's form is at odds with the New York tower typology? 'So what?' he retorts, 'Have you seen the standard of New York rental real estate? It's the least interesting architecture on the planet! And what's wrong with taking conditions that generate mediocrity to create something extraordinary?' Ingels tells me that his favourite projects remain his early ones - those with the lowest budgets that had to work hardest and which made his name. 'I'm proud of the 8-House and The Mountain because for spec condos in the lowest income zip code in Copenhagen we created radically new housing typologies in a sector starved of innovation,' he says. He had gone further in his earlier masterclass, claiming that the 8-House, with its infinity loop 'streets in the sky' running over it, treads where the Smithsons failed to.

Not them it seems, but who then are Ingels' heroes? Le Corbusier and Jørn Utzon are spoken of in reverential tones and Rem 'was



Left BIG's Amager Bakke waste to power plant in Copenhagen. under construction. The firm commissioned bods at the University to create the ring of steam that pumps out each time 1 tonne of CO<sub>o</sub> is saved. **Below** Danish Pavilion at the 2010 Shanghai Expo-the Little Mermaid goes on holiday. **Below** Bjarke Ingels meets and greets at the RIBA

my first love', but he finds his pulse racing for the work of Herzog & de Meuron and Sanaa, who both 'keep things incredibly fresh.' His New York move has rubbed off on him, with Saarinen and the Cartesian, stateside high modernism of SOM's Gordon Bunshaft, especially his 1952 Park Avenue Lever House, resonating for him. He's understandably enamoured by the Flatiron building too. It's on an awkward triangular site, but 1902 real estate values were such that it generated the iconic extrapolated wedge form; the design clarity a result of functions of rental value, engineering technology and urban zoning policy. Ingels is aware it laid claim to the territory of 'Yes is More' long before he ever coined the term.

He seems no fan of high tech, much as I try and engage him with the idea of Foster's sleek machines; but he seems taken with the formal romanticism of Rogers and is impressed that 'he pulled off the Cheesegrater with such purity of intent – taking an experimental idea like its glass service wall and running with it'. We talk of Foster and Rogers as the 'head' and 'heart' of high tech and I think it's coming back to the idea of the ghost in the machine, the spirit that makes the design 'fire'.

I feel I'm hitting deaf ears when I bang on about the symbolic power of Gehry's Beekman Tower in New York, the instinctive way in which its melting Titanium skin formally interpolates the genus loci of the city. It's a gut instinct I sense in two of his projects – his  $\pm 40$  million intervention on the  $\pm 0.5$  billion Amager Bakke waste to power plant, and the Shanghai Expo Danish pavilion – projects where BIG gets to the very heart of the matter. On the former, this was the irony



of the Danes' desire to ski played out in a flat country; in the latter the idea was the wish to bring to China the only aspect of Danish culture a Chinese person might get – the story of the Little Mermaid. This clarity of emotive intent, bound into the formal rationale, sparked the architecture. By contrast, BIG's New York office towers, be they stacked boxes or spirals, might owe their syncopated jazzy rhythms to the spirit of Flatiron thinking – but to me they're still a way from singing the blues.

I don't think that remark bothers Ingels. To be up there, if not ruthless, then you'd certainly need strong convictions about your design approaches - a fact borne out by his remark that his work's 'not about style but almost mechanics. You have to interrogate the parameters and be strong enough to love the result.' It seems not everyone is. When I mention the ambivalence with which BIG seems to be held in Copenhagen and ask if he thinks prophets are ever welcome in their home towns, he laughs and concedes that of BIG's built output, very little is in Denmark. 'There seems to be some kind of mechanism in place there that makes it difficult for us to get work,' he adds without elaborating; but

with his Lego Museum in Billund now under construction, it's another assumption he won't let define him.

So where does the thick skin to counter naysayers come from? Apparently it's all in Deleuze's interpretation of Nietzsche, and how he had to transcend the morel 'givens' of his time, to turn reactive forces into affirmatory ones. 'Nietzsche used rigorous logical thinking to liberate the mind unfettered by moral outcomes. He went beyond what people considered reasonable in order to create new values.' This it seems, is where he posits his own thinking in terms of his practice. 'It's what architecture should be about - not to be limited or inhibited by established typologies.' And the forms are but the start. Ingels paraphrases 'Vers Une Architecture' saying Corb wanted to create new typologies that lend themselves to the forces of competition and industrialisation and so become more refined. I take it he's referring to his own output when he appends it with 'that's why the first versions are always more raw'.

As for Ingels - he's not leaving NYC any time soon. The US seems receptive to his 'raw' ideas and the \$1 billion DryLine project - flood resilience for 10 miles of Manhattan shoreline post Hurricane Sandy, where his firm's role intercedes between massive civil engineering requirements and the needs of local communities - is ongoing. And he seems very happy. He's in love with a Spanish girl he met on a flight to Burning Man festival and is tanned from a weird retreat in Sri Lanka where he was on 'an absurd rice and veggie diet' - but still orders mint tea instead of the expected caffeine at the meal's end. He's been chilled and charming throughout; the very opposite of the nihilistic tendencies of the misunderstood Nietzsche, whom Ingels seems to live and breathe. 'He said "freedom, yes," but moved the idea on by adding "freedom to do what?".' From where I'm sitting and with a mindset like his, I'd have to say pretty much anything.





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A prime example has been the growing popularity of glazed bricks to deliver highly attractive facades. Portfolios of real ceramic glazed bricks in a huge variety of colours, sizes and finishes – such as frosted,

gloss and satin, are opening endless design possibilities. Ibstock's Linear collection of longer, thinner bricks is also proving popular to create a striking effect by juxtaposing a traditional building material with contemporary design style. The Linear range has more than 70 options to create one unique building after another.

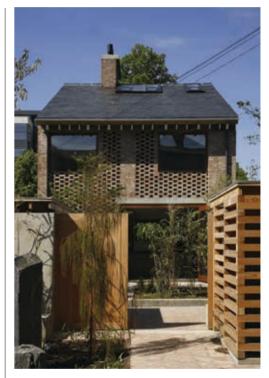
Tilebrick is another example of how brick can stretch design possibilities. This novel brick can simulate a traditional tile-hung wall elevation, or create striking contemporary facades. Tilebrick's special design means it can give a monolithic appearance without the visual disruption of mortar joints and can still be laid using traditional standard mortars. As such, it is contributing to the creation of original and contemporary architecture across the UK.

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Ibstock's decade of award success shows how its quality products and design solutions help architects achieve award-winning projects. It is committed to continue developing market-leading and inspiring brick choices to ensure it continues to help create the stand-out buildings of tomorrow. •



# PAST WINNER PROFILE Best International Project, BDA Awards

**Dublin** – Using a mix of Ibstock's Ivanhoe **Cream and Cooksbridge Yellow bricks from** the Buff colour range, TAKA Architects generated memorable visual impact throughout this scheme - House 1 & House 2 in Donnybrook, Dublin – including elements such as brick-lined terraces. The distinctive blend of shades of bricks delivered an intricate and attractive exterior appearance, echoing the property's location on a steep hill. The overall aesthetic effect of the house's exterior is characterised by the implementation of thick masonry walls, extra wide mortar beds of 25 to 30mm, perpends and flush joints, giving the property a simplicity of form.

# Apart from the in-crowd

Mavericks at the RA throws up lots of absorbing questions and opinions. It's a shame it's so inaccessible

## Hugh Pearman

Mayericks is the RA's latest show with book attached, but I'd recommend the book rather than the exhibition, which really amounts to little more than a scheme of wall decoration lots of coloured discs bearing faint images and words - in the strange in-between spaces that the RA reserves for its more modest architectural offerings. Half of it is in the tight little café jammed around the glass lift up to the Sackler Galleries. You have to squeeze past tables to be able to see it all. The other half is on the sloping run down to the Grand Restaurant, where you are jostled by Friends up in Town, charging towards their quiche and salads. Exhibitions don't stand a chance in these conditions, a situation one hopes will improve significantly with the extra space offered by the RA's Burlington Gardens expansion.

So don't rush to the RA specially for this, though certainly take a look if you are passing – but do read the book, by curator Owen Hopkins. I say this even though I can guarantee you will disagree with his choice of a dozen names, if not his general premise. What makes a UK architect a maverick? What does being a maverick in this context actually mean? What are the criteria? Can you be simultaneously a maverick architect and commercially very successful?

This cannot be an objective matter but Hopkins makes a decent go of it – in particular by daring to sidestep certain perhaps-too-obvious examples (Hawksmoor, Lutyens, Goldfinger, Outram, or Turner Prize-winning Assemble, say) in favour of more neglected historical figures he clearly wants to give a bit of an airing: Robert

What makes a
UK architect a
maverick? What
are the criteria?
Can you be
simultaneously a
maverick architect
and commercially
very successful?



Smythson, CR Cockerell, James Wyatt, HS Goodhart-Rendel.

He's on more familiar ground with Vanbrugh, Mackintosh, Stirling, Cedric Price and FAT - and possibly even Zaha, though here is where the 'commercial success' question arises, not to mention Establishment approval, as evidenced by the Pritzker Prize and Royal Gold Medal. In her case, I'd say the term is justified: the jagged corners may have been replaced by more fluid lines in her work and she runs a very large office, but no-one could say any edges have been blunted when it comes to Zaha's all-or-nothing attitude. Hopkins has to work harder to convince me that John Soane or Charles Holden - both architects very much of the Establishment if remarkably original in their work - quite suit this description. Perhaps the title of the endeavour could have been 'Obsessives' but that's only one aspect of maverickness.

Hopkins defines his terms thus: 'The

Above: CR Cockerell's The Professor's Dream of 1848. But he built the Ashmolean in Oxford.

**Below:** Robert Smythson's Hardwick Hall — Elizabethan high-tech.



Mavericks: Breaking the mould of British architecture

Exhibition: Royal Academy of Arts, Piccadilly. To 26 April

Book: SB, £12.95, is available from https:// shop.royalacademy. org.uk architect who refuses to conform to the norms of mainstream architectural culture. This may be in terms of designing in an idiosyncratic way that actively disregards stylistic convention, or it could be about being at the leading edge of architectural design and thought.'

It's not necessarily about being a genius, Hopkins insists, though historically the maverick and the genius can merge. A maverick can be identified in the present, he notes, while it takes time for genius to be recognised. Nor, almost by definition, can there be very many of them – because 'maverick' tends to suggest 'difficult' or 'experimental' and there are not endless clients prepared to entertain that in architecture.

'There is nothing more detrimental to an architect's career than a reputation for buildings that don't work, either aesthetically or practically. So, it takes a special character – someone of confidence, conviction and abundant self-belief – to be a maverick architect, and it is this, I argue, that sets them apart from mavericks in other creative fields,' he says.

Internationally, we think we know who they are: Hopkins cites Brunelleschi and Michelangelo, Ledoux, Boullée, Gaudí, Loos, Buckminster Fuller, James Wines and Rem Koolhaas. We can all play the parlour game of compiling our own list – Wright? Murcutt? Mockbee? Predock? Shigeru Ban? Gehry? The director of this year's Venice Architecture Biennale, Chilean architect Alejandro Aravena? But Hopkins says he is fascinated by British maverick architects in particular because we throw them up with satisfying historic regularity. This, he suggests, might be something to do with our relative remoteness from the European mainstream.

'Britain has always been at the tail end of adopting European cultural innovations – whether the Renaissance, baroque or modernism – and it does so always on its own terms and for its own reasons,' he avers. This gets interesting. So the classical architecture of the Renaissance was slow to take hold in Britain not because we didn't know about it – we did, as Henry VII's tomb in Westminster Abbey of 1509-11 by Italian sculptor Pietro Torrigiano makes clear – but because of our national character of suspicious conservatism. This is why successive generations of talented British architects have made their names overseas before they were accepted



It's not necessarily about being a genius, Hopkins insists back home while others, such as Price, were just so far ahead of the game that it took time for us to acclimatise to their ideas.

'To operate, mavericks need opportunities to take risks and, above all, to fail,' he says. That means well-heeled and adventurous clients, of the kind that Smythson was able to attract. Bess of Hardwick was only one of his roster of risk-taking clients who wanted show-off palaces in which to entertain the Court and cowe the populace.

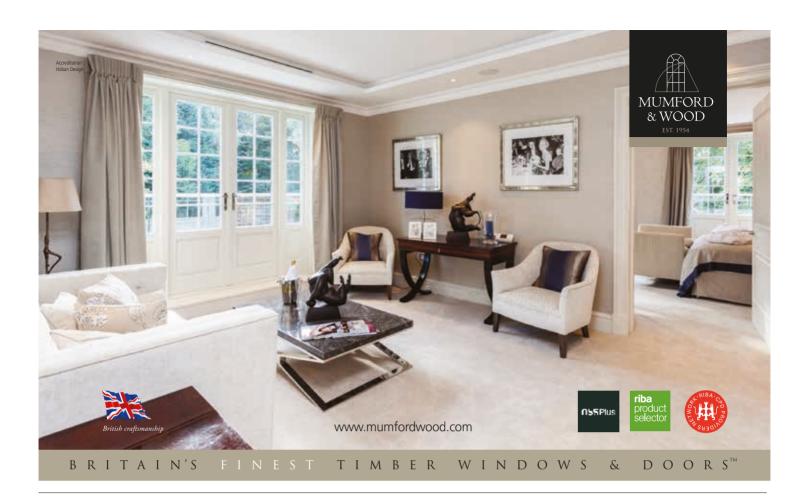
For my money, FAT are the indisputable mavericks in this narrative because they vigorously championed postmodernism when it was in its very depths of unfashionability. For quite a while they seemed to actively enjoy their status of unbuilt provocateurs, and it is notable that it is only after they finally got a handful of mostly well-received buildings built that they called it a day. There is something admirable in that. A number of younger practices now operating fruitfully owe a lot – possibly everything – to FAT.

This, then, is a wholly subjective and partial compilation of free-spirited, convention-defying, British architects. In an age of peer-reviewed committee-written academic books, that comes close to being rather refreshing. Feel free to disagree violently.

Left: HS Goodhart-Rendel's Hays Wharf HQ in London's Tooley Street. His contemporaries found him strangely outmoded and he just didn't care.

Below: FAT with Grayson Perry: A House For Essex, for Living Architecture, after which FAT split.





# Arabian Gulf: Lands of Opportunity? Working Internationally Seminar

The RIBA, in collaboration with UK Trade and Investment (UKTI) and the RIBA Gut Chapter, is holding a one day seminar to explore projects' opportunities for UK architects across the Gulf Cooperation Council region (GCC).

The GCC is a regional political organisation comprising Bahrain, Kuwatt, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. These countries represent a population of some 48 million and a GDP of around \$1670 billion; and major construction and intrastructure spending is planned over the coming years.

- Speakers include:
  Caroline Buckingham RIBA VP Practice (chair)
  Mr Abdestam El-Idriss Arab Brisish Chamber of Commerce
  Sumaye Debbagh Chair of the RIBA Gulf Chapter
  Susannah Poulton UKTI East of England

# 7 March 2016

10am to 5pm 66 Portland Place London W1B 1AD

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# Paul Scott 1965 – 2016

Partner at Make: patient, positive and naturally gifted architect who inspired young colleagues and friends with his professional passion and zest for life



Paul Scott, who has died aged 50, was passionate about architecture and had an exceptional career that spanned some 30 years. His professional achievements were not limited to the buildings he designed but the passion for architecture he instilled in others. He was a naturally gifted architect who led by example and

inspired a generation of young architects with his technical expertise, love of design and professional influence.

Over his career, Paul developed a commendable portfolio of projects that improved social inclusion and prompted community regeneration. He gained considerable expertise in the design of tall buildings in particular, and was a keynote speaker at many conferences on the subject across the world. He addressed the great and the good of tall building design, including its role in urban design and ability to mitigate the impact of population growth. He was also an external examiner at The University of Nottingham's acclaimed master's course on sustainable tall buildings.

Paul was born in Braintree, Essex, and studied architecture at Leeds Polytechnic and then the Polytechnic of East London. In between he worked for his father's firm, Scott Simpson (Electrical), which specialised in large retail installations. Paul worked on sites, gaining valuable experience and understanding of the construction process, and produced project drawings in the main office.

I first met Paul at Foster + Partners in 1991, soon after he had gained his diploma, when I offered him a position in the office. His infectious, engaging manner was immensely refreshing. He started working on the Commerzbank in Frankfurt and lived there for a year before returning to London to play a key role on the ARAG Tower in Dusseldorf. During this time, he also helped realise the Scottish Exhibition and Conference Centre (SECC) in Glasgow. It was while working together on The Gherkin for Swiss Re in London – for which Paul led the architectural team – that we became lifelong friends. Paul subsequently went to work for Glen Howells Architects in Birmingham, while I went on to start Make.

When Make won the bid to design The Cube in Birmingham, I called him immediately.

Paul joined Make as a partner in 2005 and quickly became a key member of our senior team. He established our Birmingham studio and led The Cube team to completion, then returned to the London office, where he worked on many of our most complex buildings, including the Thomas Clarkson Academy in Wisbech, the Montpellier Chapter hotel in Cheltenham - where he lived - and The Temple House hotel in Chengdu, China. Paul had always wanted to work with his friend Robin Partington, and at one point left Make to do so. The door was left very firmly open for him to return, and we were very glad when he did a short time later. In the years that followed, he led the design development of some of our highest-profile projects, including 40 Leadenhall Street in London, Wynyard Place in Sydney, Aranya in Mumbai, and Arena Central in Birmingham.

Among Paul's many passions outside work were his love of fly fishing and unwavering support for Tottenham Hotspur. Just as he roused his colleagues with his love for architecture, he inspired friends to share his enthusiasms introducing me and many others to the joys of fly fishing.

Above all else, though, was Paul's love for and dedication to his family. He was a devoted husband and a proud father. Our thoughts and prayers are with his family, particularly his wife Jane and teenage daughters Isabella and Annie, at this bewilderingly sad and terrible time.

Paul was always smiling and had an energetic, seemingly never-ending enthusiasm for life. He was a true gentleman, kind and patient with everyone. Nothing was ever too much trouble for him. When he was diagnosed, just over three months ago, with cancer, he remained incredibly positive and dignified. He still came to work between treatments and stayed active on his projects, determined to stay helpful as long as he could. He never gave up the fight to keep going, and we had all hoped he would be with us for longer. He was far too young to leave us when he did.

Paul's legacy of celebrated buildings, inspirational mentoring and wonderful memories will remain with all of those who knew and worked with him. He will be sorely missed by us all at Make and beyond. He was quite simply one of kind – unique and kind to a fault.

Ken Shuttleworth

# In Memoriam

RUPERT DESMOND HENLY
FLECTED 1948 CHELTENHAM

STANLEY WALTER MIDWINTER

NORMAN BARNETT HARRISON ELECTED 1954, STRATFORD-UPON-

PROFESSOR DENIS ROLAND

ELECTED 1956, KINGSTON UPON

GORDON REAH JAMES LAWSON FLECTED 1958 LONDON

RONALD LESLIE DICKINSONE

ELECTED WEST MALLING

**JOHN BADHAM** ELECTED 1960, LONDON

BASILTHOMAS VEAL ELECTED 1966, BRISBANE,

BERNHARD JOSEPH BEINE

GORDON WILLIAM MCINROY

ELECTED 1978, LONDON

ALBERT IVAN RIDSDILL

GARETH DALE HOSKINS OBE

ELECTED 1996, GLASGOW

**LEONARD LLOYD-SMITH**ELECTED 1949, LEICESTER

**JOHN BURKETT** ELECTED 1953, LONDON

To inform the RIBA of the death of a member, please email membership.services@riba.org with details of next of kin



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# Celebrate collaboration

Schueco is back for a third year with its established Excellence Awards, in association with the Riba Journal. Could you win an award this year?

Now in their third year, the Schueco Excellence Awards are now firmly established in the architectural community.

The awards recognise and celebrate the work of architects, fabricators and subcontractors that Schueco has collaborated with in developing and realising the firm's facades, window and door systems for successful buildings.

As they were 2014 and 2015, the winners of the 2016 awards will be published in a special supplement in July and showcased to the entire RIBAJ readership.

The awards have always displayed the great variation that the best architects can achieve by working with Schueco's design driven products and systems across all building typologies. Projects that were judged in the last two iterations of the awards are wonderful examples of great design resulting in exemplar buildings at all scales.

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# Why should you enter one your projects?

- Get your work published. Over 30 projects will be showcased in the July issue of the RIBAJ
- Catch the eye of leading UK architects who will judge your work
- Showcase your collaborative strength and promote your practice to a national audience.

## The Judging Panel

- Hugh Pearman, Editor, RIBAT
- Paul Monaghan, Director, Allford Hall Monaghan Morris
- Louise Cotter, Director, Carr Cotter
   Naessens Architects
- Jose Silva Hernandez-Gil, Associate, Duggan Morris
- Chris Macey, Group MD, Wintech Group





**Left** Last year's winner: Dun Laoghaire Lexicon library and cultural centre, Dublin, by Carr Cotter & Naessens Architects.

**Above** Unobtrusive framing maximises sea views from the library.

# **Exchange**

## Spitalfields response

We were disappointed that last month the RIBAJ gave Tim Whittaker (who is not an architect) of the Spitalfields Trust the opportunity to speak about our Blossom Street project [Norton Folgate] without giving our four RIBA registered practices a right to reply. Once again the Trust's comments are littered with inaccuracies and untruths and we welcome the opportunity to correct these as follows:

- 1 There are no statutorily listed buildings on the site and the locally listed buildings are retained. It is factually inaccurate to say, as was reported, that our scheme involves the demolition of listed buildings.
- 2 We are not 'clearing the site wholesale'. All buildings which make a positive contribution to the conservation area are retained, including Georgian, Edwardian, and Victorian buildings and warehouses. The vast majority of buildings proposed for demolition already have permission.
- 3 We are not reducing existing buildings to 'shells'. This is not a one size fits all, but a building by building approach which will include straight restoration, remodelling and some facade retention.
- 4 There are no 'blanket floor plates'. Of the 52 floors in seven buildings across the scheme, 31 are less than 4,000ft², designed with small and medium sized enterprises in mind. The largest floors range from 10,000 to 15,000ft², characterised as 'grow-on space' by the GLA.
- 5 The article suggests we are proposing a 14 storey building in the heart of the conservation area. Great care has been taken to respect the four storey scale here. Taller elements are placed at the periphery of the site, addressing the scale of the emerging city fringe, the principle of which was established by the 2011 consented scheme.





Instagram

We welcome letters but retain the right to edit them: letters@ribajournal.com RIBAJ, RIBA Enterprises, 66 Portland Place, London W1B 1AD 6 We are not destroying the network of routes and passages. We are adding to the existing number of passages and yards and all these will now be accessible to the public.

The so called 'alternative scheme' by Burrell Foley Fisher (BFF) appears to be nothing more than a felt tip pen sketch. No drawings have been submitted to the local authority or any other statutory bodies and there is very little information in the public realm on this 'viable' alternative. We feel particularly let down by BFF, a firm once known for its architecture but now sadly seen as a gun for hire against other architects.

Our scheme is fully supported by Historic England, GLA, Cabe and Tower Hamlet's own officers and design review panel CADAP. There are letters of support from local residents and businesses who see the scheme as a major opportunity to bring life back to these three sites through sensitive development to protect what is important, complementing this with high quality infill architecture, bringing to an end a planning saga which has run on for over a decade.

Thank you for allowing us to set the record straight.

Paul Monaghan (Allford Hall Monaghan Morris)
Joe Morris (Duggan Morris Architects)
David Hills (DSDHA)
Paul Williams (Stanton Williams)

# Editor's note:

Due to an interview misunderstanding, we inadvertently reported that the demolition of listed buildings was involved in this project (point 1 above). This is not the case. The Spitalfields Trust informed us of this error when the piece appeared online, and we immediately corrected it. By then it was too late to change the print version however. We apologise for this mistake.

#### **Wordsmith**

The February RIBA Journal was attractively wide-ranging – and special appreciation to Maria Smith for 'Negative Equity' (page 59). She poetically encapsulates, for this commercial 21st century, the wry humour of HB Cresswell in an earlier age ('Honeywood File' and 'Honeywood Settlement').

MP West, Coddenham, Suffolk

#### Tweetback

This month we received a lot of love for our inaugural MacEwen Award — architecture for the common good (RIBAJ February 2016)....

Christoph Oschatz @ designbykiosk Love the #MacEwen Prize Winner Building — The Oasis Children's Venture, take a look

Simon Carne @simon\_carne
Just had my spirits raised by
@RIBAJ MacEwen Award
winner Oasis.

DrawMyCare @ MaryOToole10 Brilliant! Segal re-used wins MacEwen award architecture for the common good.

While our Parting Shot on Peter Moro's Hille Showroom (p88) provoked readers...

createstreets (0) createstreets
When buildings called 'uncompromising' left wondering with whom should have compromised?
Neighbours? City? Residents?

Robin & Lucienne Day @ Robin\_Lucienne Fabulous #PeterMoro showroom for Hille - just tragic that #RobinDay's spiral staircase was later destroyed.





E: cpd@brett.co.uk T: 0845 60 80 579

W: www.brettpaving.co.uk

# Title: PermCalc: Permeable Paving Design Software

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W: www.geberit.co.uk

### Title: Embedding Acoustics into Design

Bathroom noises, caused by sanitaryware and pipework, can be an issue in multiple floored buildings, such as hotels, offices and apartments. This new CPD by Geberit is designed to help architects understand and combat this problem. Providing a technical insight and definition of 'noise' and its causes, the CPD covers current British Standards relating to limiting bathroom sound, plus Geberit's thorough approach to noise reduction; which starts with good design and ends with appropriate product choices and correct installation techniques.



E: training@schluter.co.uk T: 01530 813396 W: www.trainedwithschluter.co.uk

# Title: Integrated Solutions for Wetrooms with Tile and Stone Coverings

Through this CPD, gain the knowledge and confidence in specifying an integrated system for a complete CE marked waterproofing solution and learn the key considerations in the design and installation of wetrooms and shower areas.



C: Steve Sykes
E: sales@betacalco.co.uk

T: 0870 165 7481 W: betacalco.com

# Title 1: The Language of LED in Architectural Lighting

Design considerations associated with LED lighting, including how LEDs work, their application, comparing LED quality and challenging the manufacturer. Explores the relevance to BREEAM & Part L

# Title 2: Sustainable Lighting in Period Buildings: Q&A

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E: Elizabeth@urbanfront.co.uk

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rea-time session: 4pm-/pm.
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# Title 2: Designing Functions & Reliability into Entrances

The issues that influence the function of main entrance design and technology. This seminar aims to offer an understanding of how user expectation influences door design and links this with hardware selection, entrance configuration and floor finishes.

Product update 105



# Bespoke ceiling design for barn conversion

An early 20th century barn that underwent extensive conversion features an intricate solid wood feature grill panel ceiling, custom-designed and made by the expert Hunter Douglas team. Hunter Douglas was commissioned to manufacture and supply 245m² of the grill panels to create an individually designed ceiling that softened industrial-style roof of the 600m² singlestorey building. Using ayous solid wood stained to look like oak comprises 35mm x 35mm slats with 17mm gaps.



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# Scotland the brave

The EPIC Guide to the Conservation of Fuel and Power Regulations covers a number of the key changes that have been made to Section 6 of the Scottish Building Standards. Although the methodology that was first introduced in 2007 is still being used, a significant difference is the use of a concurrent notional building specification to set the Target Emissions Rate for new buildings, and a revised NCM Modelling Guide for Scotland has also been published.

To download the full guidance document, visit the EPIC website:.

www.epic.uk.com/energy.jsp



# Comar Architectural Aluminium Systems

Comar has completed an extended rebuild of John Ray Infants School which was burnt to the ground days before the pupils returned from summer holidays. This project was completed using Comar 5P.i ECO Top Hung Windows. The aluminium P.i & P.i ECO window and door systems use trademarked Polyamide Insulated (P.i) that provides exceptional thermal performance and reduces heat loss through the thermal break ensuring low U-values and therefore ensuring energy bills are minimised.



# Armstrong launches its project showcase A Book for 2016

Bold use of a suspension system without any actual ceiling tiles in an airport and gold tiles that flow from the soffit through to the walls of a retail unit are just two of the stunning projects featured in Armstrong's A Book showcase for 2016. The 94-page coffee table-style annual brochure takes readers on a grand tour of new-build and renovation projects in the UK and globally.

www.armstrongceilings.co.uk



Hille showroom London, 1963

Hille was founded in London in 1906 by Russian émigré Salomon Hille, primarily to restore and reproduce 18th century furniture, but it was a change of direction after the war which established the company's reputation as one of the foremost pioneers of modern British design.

Salomon's daughter Ray built valuable relationships with leading architects and designers of the time, including Robin Day. From 1949 he was Hille's primary designer and was responsible for the famous polypropylene stacking chair as well as graphics, shop design and exhibition stands. Ernö Goldfinger was commissioned to design a bold

new office in Watford in 1961 – Lord Reilly of the Design Council commended the 'admirable sense and courage in commissioning so uncompromising an individual'.

Two years later, internationally renowned émigré Peter Moro was chosen to create this showroom on Albemarle Street, London. The result was an equally uncompromising, appropriately modern setting for Hille's products, with a rough concrete frame juxtaposed with smooth black aluminium mullions. Day's interiors, featuring an impressive spiral staircase, are now sadly lost. • Justine Sambrook

Hugh Pearman

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