

# RIBA

# J February 2015

The RIBA Journal

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**Wedded to the office**

**SelgasCano creates a building you'll want to work in**

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Second Home, by  
SelgasCano  
Photograph  
Iwan Baan



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# 1: Buildings

Dashed by wind and waves, the lighthouse is home to myths of the lonely, heroic worker – although since 1998 those on the shores of the UK have all been unmanned. They are one of the few building types where you can say for sure no-one works.

Yet work places have an isolated identity of their own, they are narrowly considered

offices where the space is for controlled interactions between staff, screens, colleagues, coffee and sometimes clients. The loneliness of the lighthouse keeper is reflected in the cellularisation and partitioning. It's a pretty deadening thought.

So it's great to be reminded by Second Home and Spanish practice SelgasCano (page

6) that networks can be created with verve and imagination, even beyond colleagues; the shared space with its spatially dissolving borders mirroring the electronically-connected world. It doesn't make the splash of Musée des Confluences (page 16) but it beats Google's slide as a fit out that makes ripples in the architecture of people's lives. ●

**Below** The double height greenhouse meeting area at Second Home.



**Second Home, London**  
**SelgasCano**

Words Eleanor Young

Photographs Iwan Baan

There is something hugely seductive about Second Home. It's not the roly poly acrylic extrusion to the existing seventies building that makes it look like an eighties ad agency. It's the brightness of the interiors, the curves, the mirrors and the lush plants. You want to work here.

And that's the plan. The founders of Second Home, Rohan Silva and Sam Aldenton, set out with the idea that while incubator units and places like the Shoreditch's Tea Building are great for start-ups, the next office is harder to find. A short term lease might secure you a space with Regus but where was the character, networking (or joy) in that? In the style of the sort of companies Silva eventually wanted to attract, he started to raise

money from the cool and connected in the world of arts and tech. With it Second Home has the lease of 25,000ft<sup>2</sup> over two storeys of very straightforward office space on the Shoreditch/City border – and is negotiating to expand within the building and elsewhere.

The pair hired Spanish practice SelgasCano to turn it into something special. Its own office just outside Madrid, referred to as Studio in the Woods, has some of the same acrylic curves, bright colours (orange, yellow) and borrowing of nature – that it also explored at the 2012 Venice Biennale. The practice's Serpentine Pavilion this year will no doubt return to this. But for now it is expressed by the 1000 hydroponic plants dropped into delicately engineered shelves, and the two gardeners who will keep them healthy with the help of plant hospital in the courtyard.

Views through the building, crossing the studios of other members (yes, these are not just tenants but club members), is enabled

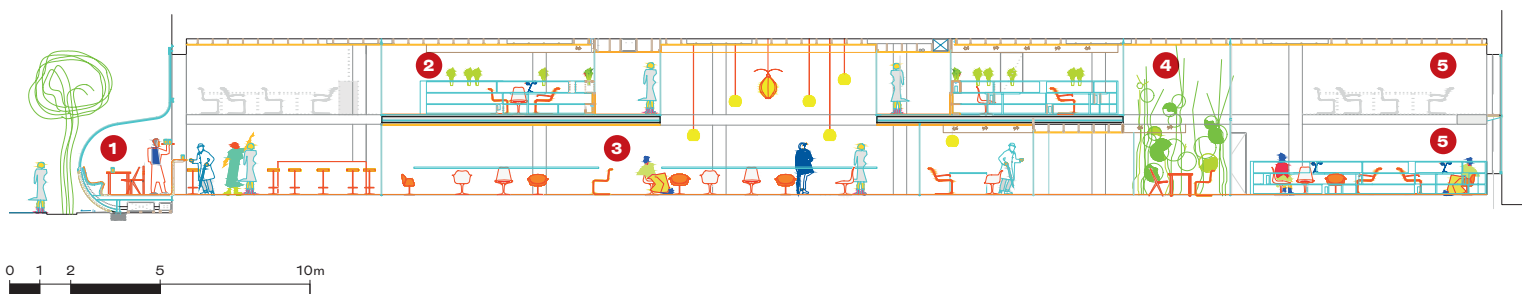
**Below** Curves of acrylic take the restaurant out into the street.

**Right** Complexity and contradiction: a mirrored panel confusingly divides office floors.

**Section**

- 1 Restaurant
- 2 Meeting room
- 3 Drop-in work/events space
- 4 Greenhouse meeting room
- 5 Studio







## IN NUMBERS

25,000ft<sup>2</sup>  
area1000  
plants600  
assorted chairs

by the transparent and apparently simple and inexpensive acrylic curves. Sheets are pre-formed in the factory into three different curves and brought to site (requiring quite generous tolerances). Some of the joints are disguised by acrylic mirrored panels that disguise the jump between the suspended serviced ceiling of the circulation spaces and the higher volumes of each studio. But you are not looking for perfection here, in fact variety is celebrated in the assorted 600 chairs and lamps that give this space a sense of a great café rather than an office.

Central to the concept was the ambition to help occupants expand and contract as needed and to come together and make use of each other's knowledge and networks. Spatially, this is dealt with in the first two

thirds of the ground floor – with its workaday entrance – the restaurant, and a hot desking cum events space in the dark centre of the building. Here the show is stolen by a corian-topped steel flying table: 1.5 tonnes on wires (with a system that has already had to be replaced). Under it will take place those serendipitous collisions that Silva dreams will bring entrepreneur members together, curated and introduced, over a regular lecture or lunch. Architect Jose Selgas is disarmingly modest and accommodating. 'We are very obedient to the rules clients give,' he says. But even so they have misgivings about the table: 'We did try to take it out.' Whether it flies or not, it is the dual vision of client and architect that has made this a spirited space. ●

See more images at <http://bit.ly/1G7pKSK>

**Below** The double height 'greenhouse' meeting room sits alongside the extended mezzanine. Curves and lozenges make forms flow while the SelgasCano-designed desks and shelves perch more geometrically in the studios.





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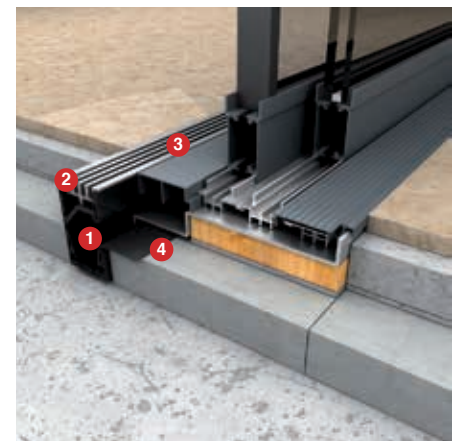
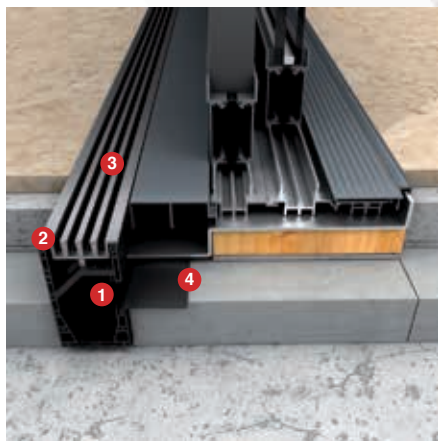
The R47 - Threshold drain has been meticulously created with precision and function in mind. It's not just a product of what is possible, but of what is technically achievable. The channel has an open side entry point that allows the water to be carried from the door track into the drainage channel.

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# Lessons in design and build

Penoyre & Prasad's new architecture school for Portsmouth University successfully unites disparate buildings but reveals the highs and lows of design and build

Words: Eleanor Young Photographs: Tom Crocker

On plan the Eldon Building looks long and thin. From the entrance it looks tall and interesting. Both are true.

The University of Portsmouth's creative arts faculty has been brought together as its own mini campus by the gathering of a 1960s art school, a deep plan 80s array of workshops and studios, some odds and sods and a new building that makes sense of the courtyard at the heart of it. This building, by Penoyre & Prasad, holds together the courtyard and

starts to make a real street of the little Middle Street where students gather at the incised base. Nor is the building too deferential to front up to Winston Churchill Avenue, the dual carriageway that cuts through the centre of this city, edged by oversized bomb site fill-ins from the 1980s and 90s.

The building is just 12m at its narrowest, broadening out where the café and first floor lecture theatre push it into the courtyard. Along the eastern edge of the building runs

**Opposite** A diverting, subtle atrium with a warmth and light that suffuses the building.

**Below** Boldly facing Winston Churchill Avenue with its sliced reveals, the Eldon Building gives a new city presence to the Creative and Cultural Industries Faculty.

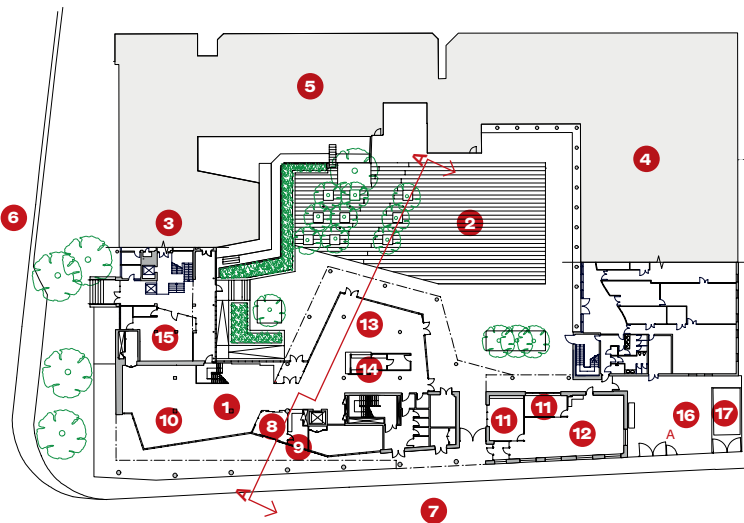
the circulation, kinking reasonably along the four-storey atrium that draws you into the studios above. Here students sit working and talking. Studios and a few offices run the length of the building, a single fire compartment thanks to borrowing the staircases of the buildings it touches at either end. It is a linking and finishing building, a portal to the courtyard and faculty which surround it.

The school of architecture moved here from the Portland Building, designed by Professor Sir Colin Stansfield-Smith – an important figure both here and in Hampshire as a county for establishing a very humane, low-key and light filled design language for its schools. The school might have outgrown the Portland, and longed for more forthcoming relationships with its neighbours (then engineers) but the airy timbered spaces are mourned by staff and students. Ian Goodfellow, partner at Penoyre & Prasad, deliberately brought some of these features into Eldon. The new building is less extraordinary than the Portland but has some dramatic moments, its warmth noticeable in the smaller details. The timber slatted soffits and light atrium, and the possibility of natural light in the lecture theatre, soften the building. Walking around with Goodfellow, I see him greeted warmly by tutors. Nicola Crowson senior lecturer, teaching a studio, puts her finger on the difference between the two buildings: The Portland defined the students' work, in its grid and materiality, this one opens up possibilities with freer studio spaces.

The practice itself has a good record in

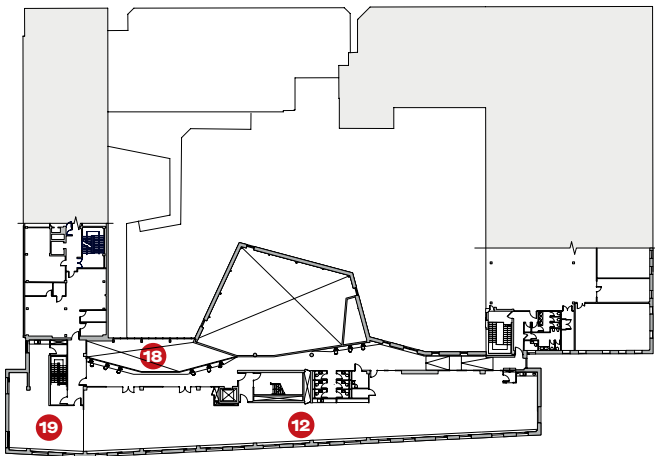


Ground floor plan

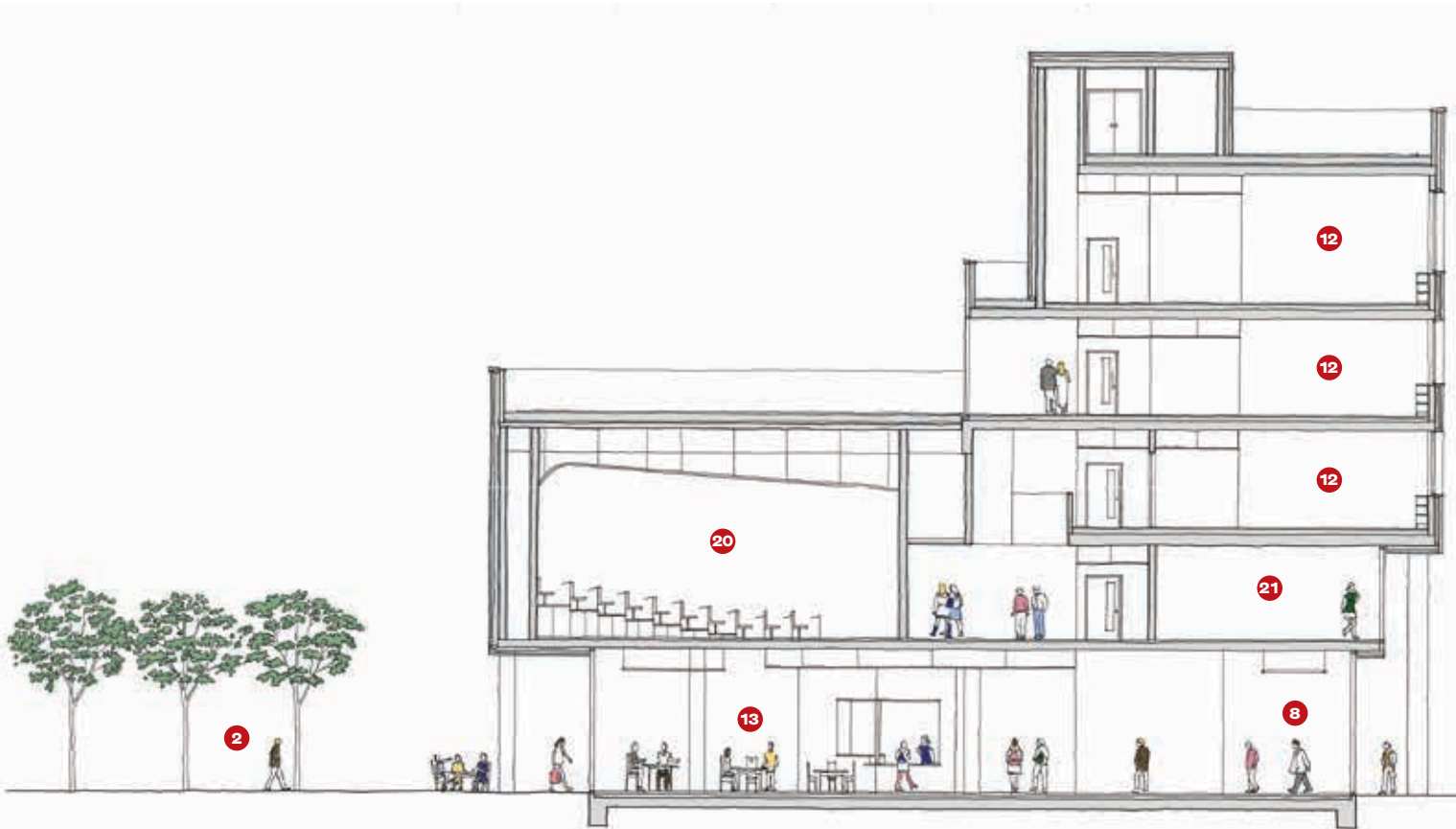


- |  |                            |                         |
|--|----------------------------|-------------------------|
| 1 New Eldon West building              | 6 Winston Churchill Avenue | 14 Servery              |
| 2 New landscaped courtyard             | 7 Middle Street            | 15 Art materials shop   |
| 3 Existing north building (remodelled) | 8 Entrance lobby           | 16 Covered cycle store  |
| 4 Existing south building (remodelled) | 9 Reception                | 17 Existing sub-station |
| 5 Existing east building               | 10 Exhibition space        | 18 Atrium               |
|  | 11 Meeting rooms           | 19 Staff office         |
|  | 12 Studios                 | 20 Lecture theatre      |
|  | 13 Café                    | 21 Seminar room         |

Second floor plan



Section AA





humane buildings that work with people, having completed a notable stream of schools over the last decade. The window at the end of a corridor, elevated floor-to-ceiling heights as on the top floor here, desks and plug in points along the edges of the slim atrium, are all popular and well used. It is not surprising, this is an uplifting and beautiful space. The practice also has a pragmatic approach to inexpensive buildings and design and build that has produced some good results.

But here the process faltered, particularly when it came to the Corten wrapping the

base of the main stair. This was abused before it was even installed and faced further ignominy as it was fixed with rows of protruding screws and coated with a plastic sheen. Junctions and finishes struggle to match the quality of the space and the suspended timber ceiling over the café fails to provide the intended notional sense of enclosure. Then there are user changes: a section on the ground floor has been turned into a Richard and Judy style open studio for students but clumsy carpeting beyond has an unconvincing living room feel.

This is perhaps a good lesson in design and build, and the life a building takes on, for the architecture students it houses. In fact the school of architecture wasn't originally intended to be housed here; it was going into a refurbished building next door until the school's project office costed that (expensive). But it works well, these floor plans are easily and flexibly divided into studios or, at the top, offices. And they put architecture at the heart of the Faculty of Creative & Cultural Industries which the new dean is working hard to connect up meaningfully – the re-

**Below** For end of year show and during the academic year, free-flowing studios open up to the atrium with its informal

workstations. Timbered soffits add a sense of warmth reminiscent of the school of architecture's previous home.



vived courtyard will be essential to bringing them together with fashion, textiles and graphics. The brick and window dimensions may pick up on domestic architecture materiality and rhythms, but they also give this faculty entrance a sense of seriousness that befits its desire to appeal to industry. The corner cutaway and its yellow underside hint at a more playful explorations going on within (just take a look through the picture window). This building shows that, unlike the rash of other arts schools, large floor plates are not essential to creative collisions.

The university has been a driving force behind city redevelopment with an expansion of student numbers and their campuses. For Penoyre & Prasad the university has also been a long term client: starting with its 2007 extension into the park for the ABK-designed library and repeat work on its later configurations, and now a reworking of the city theatre with the university. It is giving Portsmouth some of its more civilised large scale buildings of the last decade, that have a sense of the city as well as the university. Long may it continue. ●

**Below** The Eldon Building encloses a well-used newly re-landscaped courtyard at the centre of the faculty.



#### IN NUMBERS

**£1.3m**

refurbishment cost on north, east and south buildings

**2,000m<sup>2</sup>**

area on north, east and south buildings

**£650/m<sup>2</sup>**

refurbishment cost on north, east and south buildings

**£9.2m**

total cost, Eldon building

**4800m<sup>2</sup>**

area, Eldon building

**£1,903/m<sup>2</sup>**

cost of newbuild elements, Eldon building

#### Credits

**Architect** Penoyre & Prasad

**Client** University of Portsmouth

**Employer's agent and cost consultant** Capita Management Services

**Structural engineer** AKS Ward

**Services engineer** White Young Green

**Landscape architect** J & L Gibbons

**Fire engineer** FDS

**Acoustic consultant** Sharps Redmore Partnership

**Approved inspector** HCD Group

**CDM** CDM Project Management

**D&B contractor** Morgan Sindall

#### Suppliers

**Bricks** Freshfield

Lane/Anthracite Facing

**Windows** Velfac

**Curtain walling** Schueco

**Aluminium rainscreen cladding** CGL Systems

**Green roofs** Blackdown

**Granite paving** Marshalls

**Louvres & brise soleil** Colt

**Partitions** Fermacell

**Glazed screens** Planet

Partitions & WOW

**Raised access floors** Kingspan

**Timber acoustic ceilings** BCL

Timber Products

**Acoustic ceilings** Troldekt

**Lighting** Zumtobel

**Exhibition lighting** Erco





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# Twisted nerve

Coop Himmelb(l)au's Musée des Confluences in Lyon is a topsy turvy cacophony of sliced and swooping steel – reflecting its location and even the eclectic collections inside

Words: Jan-Carlos Kucharek Photographs: Quentin Lafont





The local guide tells me Napoleon Bonaparte so loved Lyon that he wanted his mausoleum to stand at the southern tip of the city's peninsula – the confluence of the Rhône and Saône rivers, where he might stare for all eternity past the merging waters to Marseilles. But I can't imagine Napoleon is any less happy in his current resting place, sunk deep in the Parisian bosom of Les Invalides, surrounded by caryatids, in reverential red porphyry. The guide claims history backs him up. In 1793, when the city fell resisting the French Revolution, Lyon's huge Place Bellecour was piled with bodies and its grand civic buildings razed; the only monument they wanted to build was a great stone column on the city's ruins inscribed 'Lyon made a war on Liberty! Lyon is no more!' But, it seems, Napoleon felt differently. Coming to power in 1804 he abolished taxes on the stricken city's fledgling silk trade, transforming it into a manufacturing powerhouse, and rebuilt the destroyed Place Bellecour in First Empire splendour. And it's a shame Lyon wasn't his final resting place, because the end of the peninsula is a dump: on a brisk Sunday

morning there I even got propositioned by a lady of the night offering to help me put the 'bone' into Bonaparte.

But it's solving the problem of the blighted, post-industrial portside part of the city that Coop Himmelb(l)au's Musée des Confluences is attempting to remedy. You're a way from both Place Bellecour and the charming Italianate streets on the Rhône's west bank; this is the coalface of the city. A dull, flattened brownfield area, only now showing the first green shoots of regeneration with new quick-build offices and a life-giving tram extension passing swiftly through. Before the rail line and the huge elevated autoroute north into the city from Marseilles, the only connectivity would have been huge chains thrown across both rivers to deter any waterborne foe. The new tram is part of a long-term strategy to draw the city down to the rivers' edge; the €185 million Musée des Confluences, the result of a 2001 international competition, is the other.

Opened last December, the museum is itself a confluence of sorts: the merging of two of the city's collections, one of natural history, first established as

The museum at sunrise looking south east from the entrance 'crystal'. At 190m by 90m at its widest, it's part groundscraper, part sandcrawler.



a 'Cabinet of Curiosities' in 1777 and later bolstered with thousands of items brought back by evangelising missionaries; the other the ethnographic collection of the city's 19th century globe-trotting millionaire industrialist Émile Guimet. Over 250 years, the city had amassed a collection of palaeontology, mineralogy, zoology, entomology, ethnology and Egyptology amounting to over two million artefacts, scattered over various sites or stored away. The client, Rhône Regional Council, wanted the new museum to unify the collection, make sense of it, make it intelligible to a lay audience and create a landmark building that would provide a dramatic user experience and announce itself to the city and wider world as a new kind of museum.

Broadly triangular in plan and 90m at its widest, the 46,500m<sup>2</sup> museum is no shrinking violet and has been called 'something remarkable which should provoke curiosity' by Coop Himmelb(l)au's outspoken frontman Wolf D Prix. Positioned right on the prow of the peninsula, it looms large in every direction, most conspicuously from the raised road, and is a car crash

of concrete, steel cladding and glass covered steel structure. Prix is keen to assign meanings to all the forms and the assemblage here is given some sense of order by being broken down into 'the plinth', 'the cloud' and 'the crystal'; the distinction does actually help. In the concrete plinth you'll find the large and small auditoria, group workshop spaces and museum plant. The windowless, steel and steel-clad Cloud houses the museum's nine exhibition halls over four levels; with the Crystal broadly defined as the reception, lobby, shop and circulation, connecting these and the halls to each other. Key to the whole concept is the 'Espace Liant', an exterior space that manifests itself around the 14 posts and three piers that spring from the plinth into the belly of the 6000-tonne steel cloud. Accessed from the Crystal, this open esplanade offers visitors a ringside seat view of the merging rivers. Apart from this there is no other function to this space, but it was an imperative for Prix that the museum did 'not block the confluence and also be an expression of its turbulence.'

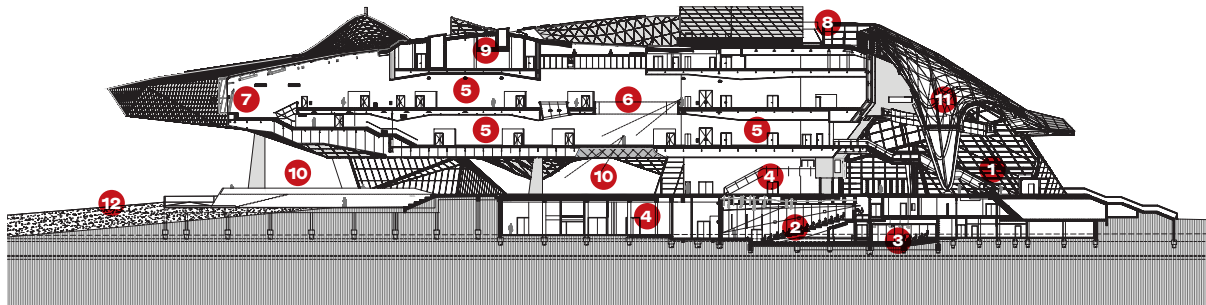
On a good day you can apparently see their different

**Below** Musée des Confluences, looking south showing the Saône on the left and the Rhône hidden by the rail line and raised autoroute. Sucking down the crystal's roof is the glazed lobby 'gravity well', all accessed from the entrance staircase.





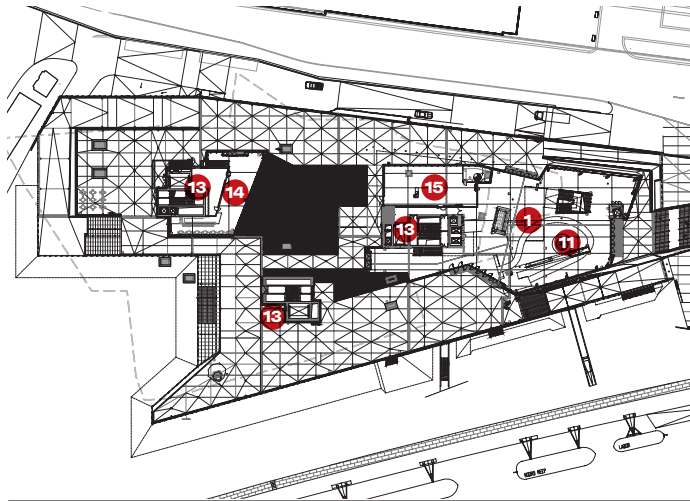
Section AA



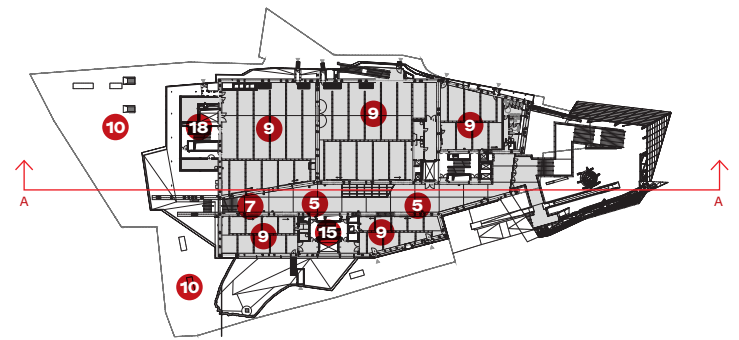
0 10 20 40m

- 1 Reception 'crystal'
- 2 Large auditorium
- 3 Small auditorium
- 4 Storage areas
- 5 Central access corridors to halls
- 6 Double height space
- 7 Grand stairs to confluence viewing window
- 8 Public access roof terrace level
- 9 Exhibition halls
- 10 Espace liant
- 11 Gravity well
- 12 Sandbank to confluence
- 13 Core areas
- 14 Restaurant
- 15 Library

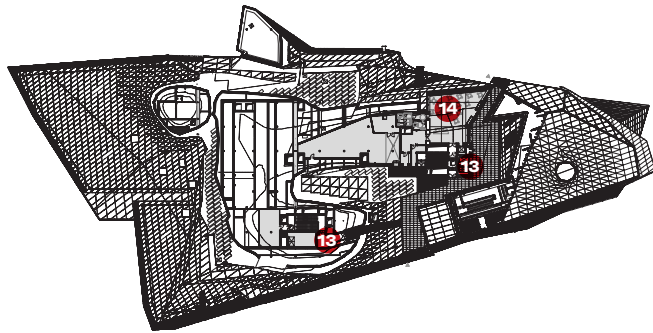
Entrance level plan



First floor plan (hall level)



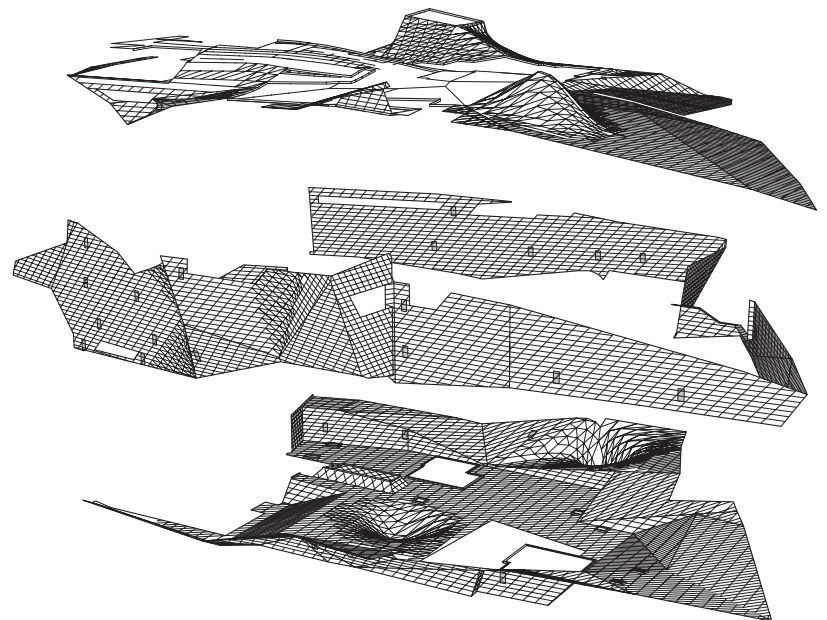
Roof level restaurant/café and terraces



0 5 10 20 40m



The skin of the Cloud



coloured streams, but on this dull one, the two grey rivers merged languidly despite a winter swell, seeming to push the boat out to underperform. It's all a bit bemusing, so perhaps the 'turbulence' made so manifest in the overt, plunging vortex of the Crystal's steel structure is to be read on a metaphorical level; in the high and low level traffic flows, in the rail lines or whoosh of a speeding tram. Perhaps it speaks of a turbulence yet to come from a fully built-out and occupied peninsula. As it is, whether there's turbulence or not, its epicentre is currently the mangled steel of the Crystal – the first thing the visitor will address. Its effect ripples out, contorting the 190m long exterior skin, with exhibition halls in the Cloud subject to these formal forces. The road-facing east side gets most manipulation, the 'slow' 'river face more sheer, rising out of it. It seems counter-intuitive – you'd expect the 'fast' face to be the smoother one, and so would Prix, which is why he reversed it. 'It was a deliberate contradiction; like a Bach fugue where he reverses a normal rhythmic for compositional effect,' he says,

justifying the rampant shape-making that's been occurring here. From the south the halls, expressed as a skin of various angled steel planes, cantilever over the Espace Liant, their weight seemingly supported on no more than one curving pier that spirals into it.

Internally, it's all about the experience, which starts in the Crystal and the great steel vortex of the museum's gravity well that greets you on entering. More than gestural, this is a primary support that reduces the Crystal's overall steel requirement by a third, sucking the glazed facade deep into the centre of the space. The stairs, escalators and ramp that carve and curve through the space are as much about moving you round the sizeable glass volume as they are about taking you anywhere. There are lifts, but the ramp is a sheer indulgence, a kind of cultural helterskelter that might show exhibits on the way to the four hall levels, like Wright's New York Guggenheim route busting its coil.

Lifts and ramp lead to the lobbies that run centrally between the halls; a kind of stacked canyon of space, cut out to allow views down as you ascend, allowing light



**Left** The gravity well: stairs, escalators and ramps accessing the halls and upper level café restaurants will create a user experience from the start.

**Right** The central corridor between exhibition halls runs back to a view of the confluence.

**Far right** Exhibition scenography has been put in the hands of various designers and each has a distinct feel.



**IN NUMBERS****€3980**  
cost per m<sup>2</sup>**20,975m<sup>2</sup>**  
site area**9300m<sup>2</sup>**  
footprint**46,476m<sup>2</sup>**  
gross floor area**41m**  
tall**2m**  
artefacts

to spill down from the rooflight that runs along it and links to the glass wall at the south end, giving views back to the confluence. After the great shakes of the lobby circulation in the Crystal, this feels much more underplayed. You might counterpoint the decadence of this circulation with the windowless 'black boxes' of the halls themselves, shaped according to the forms that manifest themselves on the steel-clad exterior. The sceneography for these rooms was let out to different designers, so there are varying approaches to how the different collections are handled, some more successful than others. The collections themselves are eclectic; modern sculpture might appear in a show on Neolithic man; one feels that if the collection does give it national importance research-wise, it's not obvious. Exhibits are selective and follow directed narratives; museum curator Nicolas Dupont acknowledges that, but claims that the point is to have general appeal – most importantly to attract people and families who have previously been intimidated by traditional museums. This also accounts for the generous café spaces at lower

and roof levels, bypassing the museum and accessible for free. The dramatic circulation and entertainment spaces are about presenting a social face to the city; one that appeals to everyone rather than just for corporate events. Dupont says this will also be supported by subsidised tickets, late openings and outreach programmes. He tells me the museum is not anticipated to ever run at a profit, adding that public collections wouldn't exist if that was a pre-requisite.

A museum is a kind of mausoleum – both hold dead things – and as Napoleon in his sunken splendour might affirm, they are more about the viewed than the viewer. It is this fundamental relationship that has been responsible for the civic gravitas of the world's great institutions. They take it as given that the things inside its walls are older and more important than we might ever imagine, and last longer than we ever would. We are dust, and this respect for the objects was expressed in classic architecture and forms (modernists included) that tried to embody, as best as possible, that sense of timelessness. The 21st century however has seen a shift



in the dialectic. Now it is generally the visitors who are the point of focus and for whose needs the physical space of the building is arranged. Collections are pre-curated for ease of user intelligibility; the route dictated by the joint variables of optimum content for an optimum time slot.

The Musée des Confluences is not a bad example of this typology by any means; in the run of things, it's probably quite a good one; there's clarity to its formal language, albeit metaphorical, and the visitor experience is characterised in places by heady drama. But it troubles me because its prime design motivation is the stated desire to express turbulence and change. At 15 years in gestation, one has to ask the question that if society and the means by which it communicates has shifted even in this time, at what point do these forms of frozen flux cease to be relevant – to become 'dated' themselves? And what are we saying if the experience takes precedence over the exhibits? Despite that, when pressed Pritz is adamant that his response would be the

same were he to design it again.

Faced with a similar conundrum, Pei, for example, chose a timeless pyramid at the Louvre, Mies a classic enclosure and an interior of compromised flexibility in Berlin, and Cedric Price a theoretical 'fun palace' framework, subject to constant change and reinvention. All these try, in their own ways, to deal with the immutable truth of our own mortality while responding to the place of the artefacts that track our time on the planet. Coop Himmelb(l)au's Musée des Confluences is brash and bold, a swirling monument that attempts to draw the whole peninsula within its frenzied vortex – to generate an energy that this post-industrial peninsula is lacking. That may serve a purpose in terms of a developing urbanism but I wonder if, in all that palpable tumult, there was any room for the museum to consider the resolution that immediately follows the rivers' turbulent confluence; to express their calmness rather than just their chaos; if, for a museum, still waters should actually run deeper? ●

**Below** Approaching the city by road from the south, the museum announces itself as an 'iconic' form.



Credits  
**Client:** Département du Rhône, Lyon  
**Architect** Coop Himmelb(l)au  
**Local architects**  
 Planning: Patriarche & Co  
 Execution: MESA Workshop/Grégory Perrin  
**Project management**  
 Chabanne & Partenaires  
**Construction survey**  
**Lyon:** Debray Ingénierie, Caluire et Cuire  
**Costs:** Mazet & Associés; CUBIC  
**Structural engineering**  
 Design: B+G Ingenieure, Bollinger und Grohmann  
 Execution: Coyne et Bellier; VS\_A,  
**HVAC** ITEE-Fluidess  
**Security fire consultation** Cabinet Casso & Cie  
**Acoustics** Cabinet Lamoureux  
**Lighting consultation**  
 Har Hollands  
**Landscape design** EGIS aménagement



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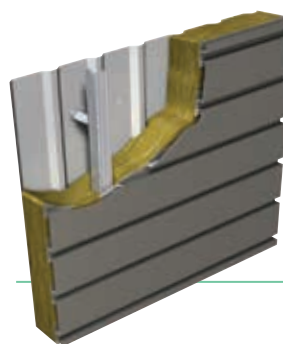
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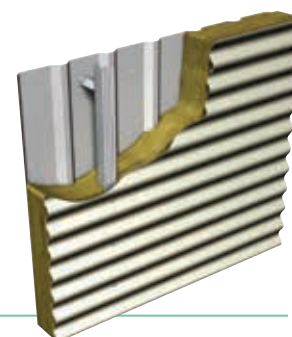
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# Welcome to the future

Solar cloth, the Wonkavator and 3D printed steel nodes are just some of the technological leaps nearing reality

Words: Stephen Cousins

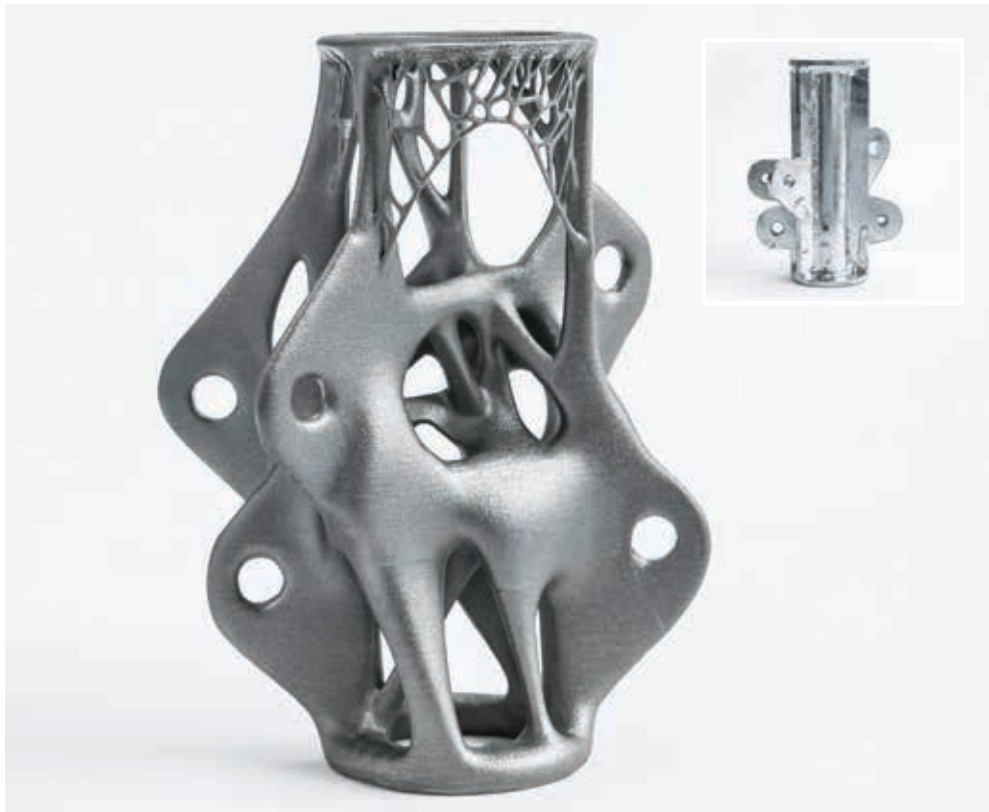
With the global population expected to reach between 10 and 11 billion by the end of this century, according to a 2014 study by an international research team led by Washington University, up from 7 billion today, and buildings responsible for 40% of worldwide energy consumption, the pressure has never been greater to develop and embed sustainable technologies that ease demands on power, natural resources and space.

In the context of impending global fuel shortages and government carbon reduction

commitments, researchers, scientists and technology firms are pushing forward a new wave of environmental solutions designed to help buildings create at least as much energy as they consume, and reduce their impact during design, construction and operation.

In the UK, technology start-up the Solar Cloth Company has developed a high performance photovoltaic fabric that could overturn the negative associations of traditional PV panels. Dutch designers are using 3D laser scans and BIM to pioneer a mass-pro-

duction approach to sustainable retrofits for social housing, as well as using additive manufacturing techniques to make complex steel components for buildings more efficiently. German firm ThyssenKrupp has developed what it claims will be the first rope-free elevator, capable of moving both vertically and horizontally, with associated benefits to energy consumption. And the latest Organic LEDs (OLED) from South Korean firm LG have parity, in terms of efficiency and luminance, with existing LED designs. ●



## 3D-printed nodes

Efforts to scale up 3D printing technology for use in the built environment include a recent Arup-led project that showed how additive manufacturing techniques could be used to produce complex steel connections more efficiently.

The structural engineer collaborated with design software company WithinLab, 3D printing specialist CRDM/3D Systems and manufacturer EOS to create 1,200 intricate steel nodes for a proposed street lighting scheme in the Netherlands. The research project began after the scheme was put on hold and Arup decided to investigate the efficiencies that 3D printing could bring.

Amorphous-shaped nodes are all similar but subtly different in design and used to support angled steel tension cables as part a lightweight steel structure of angled struts and lighting attached to the sides of buildings on a main street.

The research demonstrated that designing the nodes for production using additive manufacturing using tough maraging steel meant they could be formed faster and to higher quality than being cut and welded individually by hand, as set out in the original design.

'This approach has tremendous implications for reducing costs and cutting waste. But most importantly, it potentially enables a very sophisticated design, without the need to simplify it later to lower costs,' said Salomé Galjaard, team leader at Arup.

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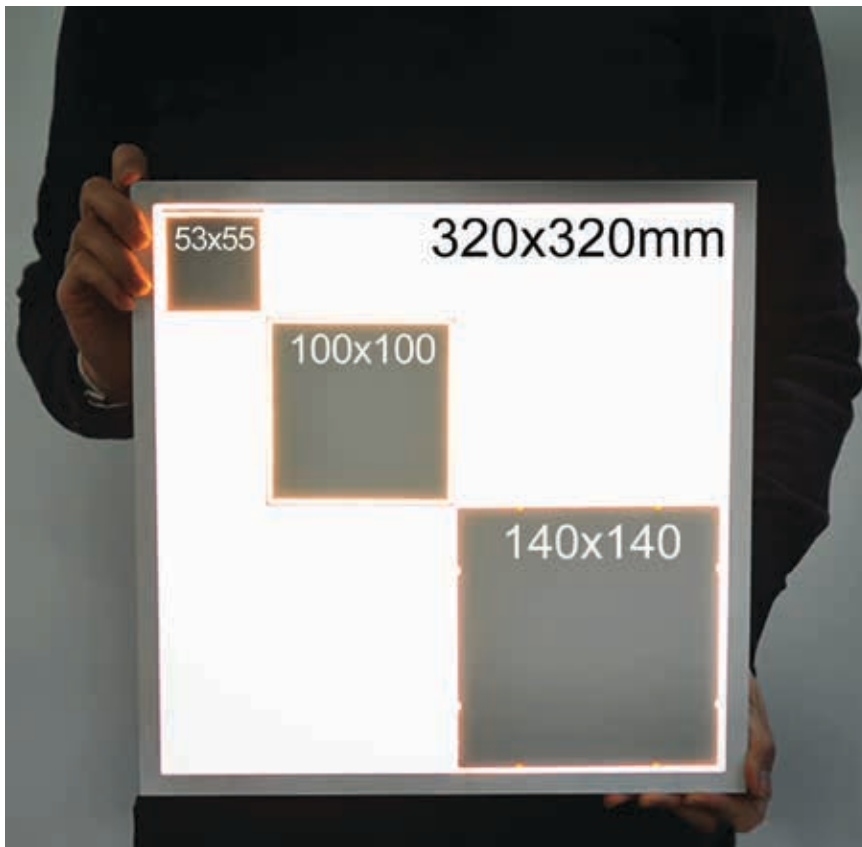
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LG CHEM

### High luminance OLEDs

The non-decorative, functional application of organic LED lighting (OLED) came a step closer in November when LG Chemical, part of the LG Group, announced it had developed a super-efficient OLED panel capable of matching the performance of traditional LEDs.

OLEDs emit light by applying a voltage to an ultra-thin layer of organic dye. Unlike point light sources, they produce a diffuse light across a surface, more closely matching natural light, with little glare. Heat emissions are very low, eradicating the need for heat sinks and reducing a building's cooling requirement.

Until now the technology has been limited to an intensity of 60 lumens per watt (how well a light source produces visible light), but LG claims to have ramped that up to 100 lm/W, equivalent to fluorescent lights and LEDs. Its new OLEDs have a lifespan of 40,000 hours, compared to 20,000 for fluorescents and 50,000 for LEDs.

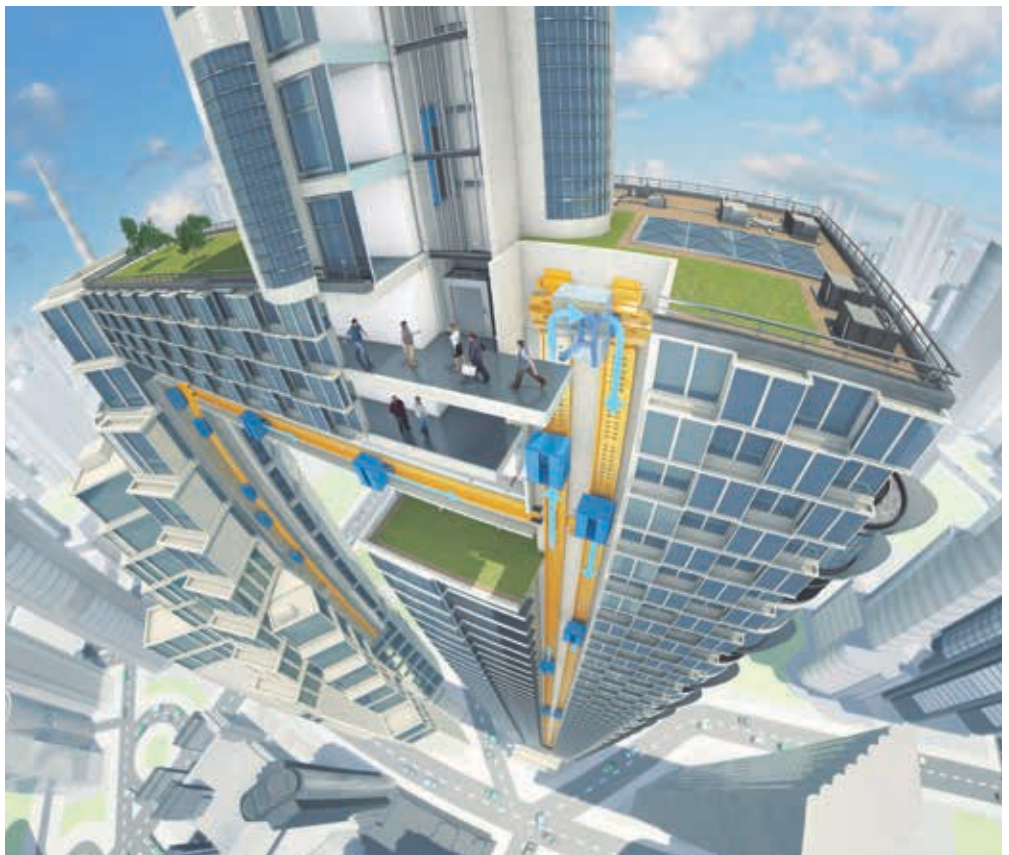
Despite this, widespread use of the technology still faces obstacles, particularly on cost, which is roughly 10 times that of LED counterparts. Florence Lam, head of Arup's global lighting practice, told RIBA: 'As a diffuse light source that makes surfaces glow, there is still little you can do to manipulate OLED light to control quality, colour and optics – unlike point source LEDs, which enable you to alter the shape of the beam to put the right accent on objects or spaces, making it more suitable for architectural lighting. I see OLED as an interior design tool, not a practical lighting solution, but that could change in future.'

### Multi-directional elevators

Who would have thought Willy Wonka's idea for the 'Wonkavator', revealed in the 1971 film of Charlie And The Chocolate Factory, would ever exist in the real world? Multi is the first ever rope-less elevator system, developed by German firm ThyssenKrupp, which utilises a system of linear motors, guide rails and high powered magnets to move cabins in both vertical and horizontal orientations.

ThyssenKrupp claims that by enabling multiple cabins to run through the same shaft, the technology, due to be trialled in 2016, will increase shaft transport capacities by up to 50% and reduce elevator footprints up to 50%.

The system is also likely to have environmental benefits, reducing the peaks of energy consumption normally associated with accelerating or decelerating heavy cabins, explains Michael Ridder, head of communications at ThyssenKrupp Elevator: 'In a 300m-tall building, traditionally you might be moving masses of up to 50 tonnes, including the cabin and counterweight system, which requires a large amount of power to overcome inertia. Conversely, Multi cabins are lightweight and have a drive attached directly to the cabin, making acceleration and deceleration very energy efficient. Although more cabins could be running at once, the peaks of energy consumption would be flattened out, which is a huge advantage in terms of a building's smart grid.' Energy is also harvested from descending cabins and channelled back into a building's electricity supply.



**Energiesprong**

The Dutch government is pioneering a new mass-production approach to sustainable social housing retrofits, using high accuracy 3D laser scans and BIM to map existing properties then wrap them in bespoke prefabricated insulated skins.

The Energiesprong programme, or Energy Leap, aims to make 111,000 existing homes energy neutral by covering them in snap-on insulated panel-facades, insulated roofs fitted with 24 solar panels, and heat pumps, hot water storage tanks and ventilation units stored in garden sheds.

Most of the properties are 1960s or 70s terraces. They take just 10 days to upgrade and come with a 30-year energy performance warranty from the builder.

A Faro Focus3D laser scanner produces point cloud data from building elevations, which is used to create a collaborative AutoDesk Revit BIM model. Into this, subcontractors add bespoke BIM objects for the high-insulation facades, roofing elements, and some internal features, ready for off-site manufacture.

Tom Jongen, head of sustainable renovation projects at BAM Woningbouw — one of four contractors completing the works — said: 'Doing the 3D scans makes it much easier to design and fit all the new components. All the roofing and wall elements are bespoke designed and pre-manufactured to fit exactly.' Although the team is working on repeat terraced housing, a separate model is required for each home



due to defects caused by age, settlement and so on.

Energiesprong is making waves outside Holland. A consortium of UK housing associations under trade body the National Housing Federation, and their counterparts in France and the Netherlands, have bid for European Horizon 2020 funding to expand the programme across all three nations. The plan is for both the UK and France to have 100,000 improvement deals in place by January 2018.

**Solar cloth /spray on solar**

Solar Cloth aims to make integrated solar photovoltaics an architectural feature in its own right.

The lightweight tensile material, developed by Cambridge-based start-up The Solar Cloth Company with the University of Cambridge and several European universities, incorporates a layer of thin-film PV that can be stretched into a variety of forms. It was developed to unlock projects not suitable for conventional solar panels, such as heritage buildings, or non load-bearing roofs on supermarkets or stadia.

Solar Cloth is 100 times thinner than conventional silicon glass backed solar panels, and, at 3.3kg/m<sup>2</sup>, around a fifth of the weight. The base solar cell technology, copper indium gallium diselenide, also boasts a higher light to electricity conversion rate.

Earlier this year, the system was installed on the roof of a 'car port' in Cambridge, which won the firm an innovation of the year award at the 2014 UK Solar Industry awards. It is now in discussions with two 'well-known London museums' about developing a Solar Cloth to complement the period buildings they occupy.

Spray on solar PV came a step closer in November when University of Toronto researchers revealed a new method for spraying cells on flexible surfaces.

The SprayLD system is designed to blast a thin layer of minuscule light-sensitive materials, known as colloidal quantum dots, onto surfaces such as film or plastics. Until now, CQDs could only be applied using the slower and less efficient batch processing approach.

Canadian scientists claim a car roof wrapped with a CQD-coated film would produce enough energy to power three 100-Watt light bulbs, or 24 compact fluorescents, so imagine its potential for a building.

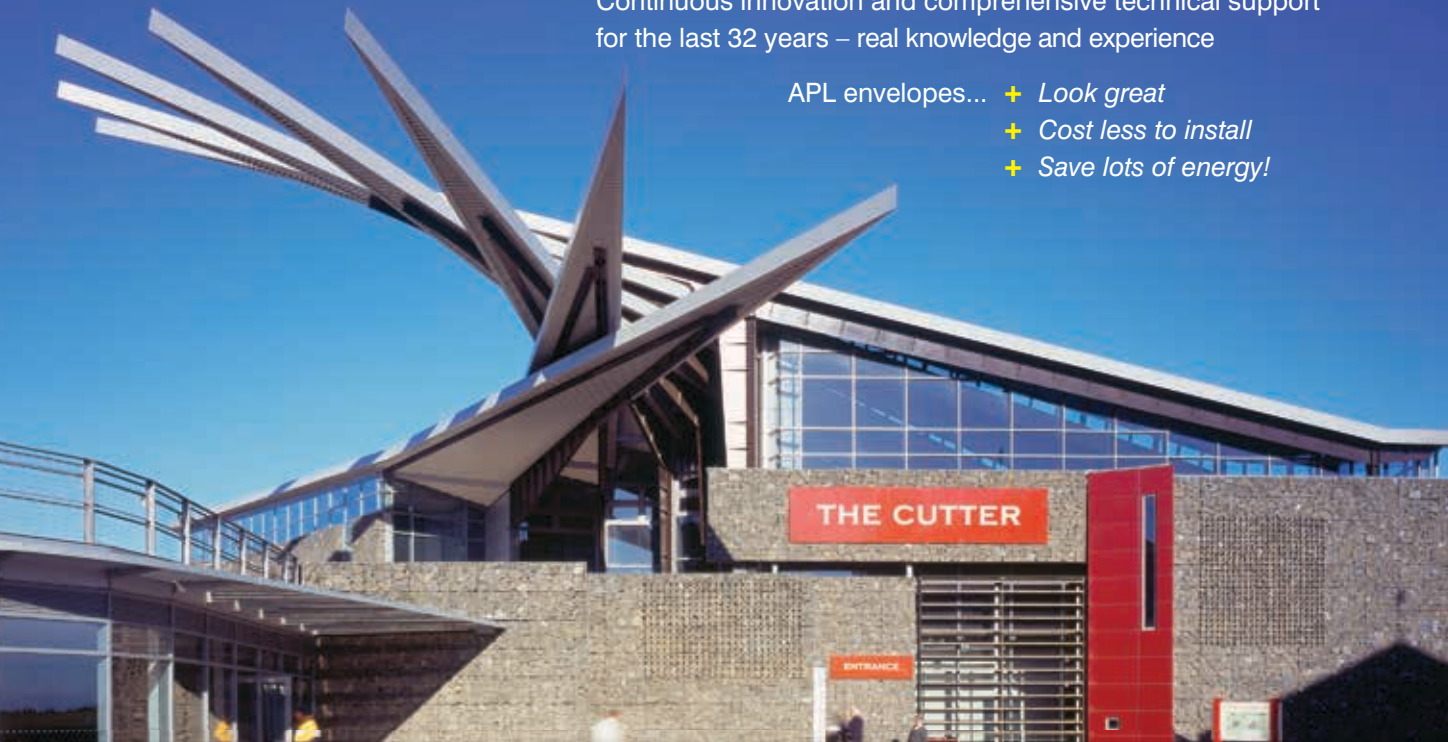


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# The GreenBuilding Company's GreenLab

Kerakoll Group's philosophy is to develop products that cause the least possible harm to the environment and human health. It has christened this GreenBuilding

The construction of Kerakoll's new R&D facility, the GreenLab, is in keeping with its philosophy to minimise harm to the environment, and gives its technicians the best possible conditions to continue research and development in the following themes:

- Products with low environmental impact which will lead to the reduction of CO<sub>2</sub> emissions.
- The study of indoor pollution, the development of natural alternatives to cement and calculation of the degree of breathability.
- Research on VOC emissions.
- Development of solutions for heat insulation and energy efficiency.
- An acoustic laboratory for analysing avant-garde technology.

All research and development for the Group will be carried out in the building. Its nine laboratories, equipped with the latest technology, will have 100 researchers





working in them once it is fully operational.

Architect Studiobios was inspired by the hills around Sassuolo, where the building was built: its shape is reminiscent of natural animal and plant forms here, as well as the kilns that were once used for the ceramics for which the area is famous. Its asymmetric shape has a light roof covered in white ceramic trencadis suspended as if floating above the massive walls.

A fundamental element in the success of the GreenLab is its network of scientific collaboration with research centres, universities and architects at both national and international level, which aims to deepen the multidisciplinary approach to research and development.

Kerakoll also intends to strengthen its existing ties with some of Italy's biggest ceramic groups to work on the development of innovative and sustainable solutions for fixing ceramics in accordance with

the latest building energy efficiency regulations.

#### Healthy, natural materials

The GreenLab was designed and built using the very best natural materials. These were selected from those that have the least impact on the environment, the lowest VOC and CO<sup>2</sup> emissions and the highest energy efficiency rating, to make the finished building an example of GreenBuilding par excellence in Europe.

#### Energy efficiency

Geothermal heat pumps provide most of the thermal energy needs of the building, and photovoltaic energy also provides up to 16KW of energy.

The positioning and design of the architecture limit heat loss in winter and maximise the use of natural forms of ventilation.

#### Water management

Rainwater from the roof is collected, treated in natural filtration systems and used for irrigation and bioclimatic cooling and to top up water lost from the bioclimatic cooling tanks through evaporation; waste water from sanitation and changing rooms is disinfected organically with UV rays and then reused. This cuts water used in the WCs by 30%.

An innovative Sustainable Urban Drainage type system of purification, milling and slow soil infiltration will also be used. ●

#### Project details

**Client** Kerakoll Spa

**Architects** Studiobios Associati, Florence, Italy

**Laminated Wood** Rubner Holzbau

**Steel** Stahlbau Pichler



**Opposite page** The outside of the GreenLab showing the solar panels and striking shape.

**Above** The wooden roof of certified European origin and the steel structures are recyclable at the end of their lifecycle.

**Left** Some of the 100 researchers that work in the Lab with Kerakoll CEO, Gian Luca Sghedoni

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# 2: Intelligence



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live

## Ivan Harbour



Rogers Stirk Harbour and Partners is designing Lewisham Council some temporary housing to make better use of its brownfield sites. We asked senior partner Ivan Harbour if homes are where his heart is

**Is this the first time a local authority has come to an architect with a proposal of this nature?**

It's certainly a first for us! Lewisham's an authority with a desperate housing shortage, which resulted in it doing some enlightened thinking about temporary uses for its brownfield sites which are earmarked for regeneration. We worked on a project with the YMCA for its Y:Cube low-cost housing and Lewisham contacted us after seeing that.

**Does temporary mean temporary design or do they need to be more robust than that?**

These are volumetric homes that arrive on site fully complete, transported on the back of a lorry. They are then connected together and linked up to services on site. Because they are being lifted and moved, structurally they need to be intrinsically robust; they'll also be sitting on smaller foundations too. Like the Y:Cube, they'll have insulation levels that far exceed current Part L. Fuel poverty's a big issue here – the lighting and heating of these homes will cost about £1 a week.

**What volumetric technologies are you looking at? Have you learned from previous projects like Oxley Wood?**

That was a pre-fabricated rather than volumetric. For the Ladywell site scheme we have been looking at a number of fabricators. SIG is doing the Y:Cube but we're looking at other specialists and investigating both steel and timber to build the units. In essence we'd like to think it's not so far from the way we're building anyway – a significant proportion of the Leadenhall Building was manufactured offsite.

**As an architect, would you want to live in one?**

Honestly, there are people in the teams working on the project who would jump at the chance to live in one of these! The designs have a generosity of space and simplicity to them. Lewisham was keen that these homes be a design statement for some of the 600 families in the borough in greatest need. But I think that concentrating on look is a bit short sighted. It's more about kick-starting bigger ideas for resolving the crisis in the housing sector. This is a £4 million scheme that can house 24 families for the foreseeable future – it's more than paying for itself.

**Speaking of homeless, are you looking forward to the move to the Leadenhall Building?**

I've been on the river at Hammersmith for 30 years and loved it there. We thought long and hard about the move and I'm excited by the fact that we're swapping the 'country' for the city. We're planning to bring our own sense of warehouse living to the 14th floor.

### DESIGNED WELL, BUILT WELL, LADYWELL

The project for 24 temporary family homes on the site of the former Ladywell leisure centre in Lewisham responds to the high demand for housing in the borough. It's intended that the fully fitted-out two-bed homes be procured for a maximum budget of £4.3 million and be on-site for one to four years. All units exceed the current space requirements by 10% and are helping to meet the council's shortfall in this housing type. The scheme also brings into use sites sitting vacant as part of complex regeneration plans. 'We have thousands of people on our waiting list and are paying out for expensive bed and breakfast stays. That is a terrible waste,' says Lewisham mayor Sir Steve Bullock. 'We are showing with this partnership that we can achieve real quality and value for money.'



Intelligence is officially approved RIBA CPD. Look out for icons throughout the section indicating core curriculum areas.

# Value engineering



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# Fuelling the research engine

It benefits the profession and there are plenty of areas that could benefit from it, so how can architectural research be encouraged? Our expert panel discussed the issues

**Pamela Buxton**

Everyone knows that research is a good thing, not only for the practices who carry it out, but for the profession in general. But why are so many architects ill-equipped to carry it out? What can be done to better match up practices with collaborators and funding? And what topics are ripe for research? These subjects were up for debate in a discussion about research hosted by the RIBA.

One of the first issues to emerge was what constitutes research. Participants wanted to make the distinction – that too often becomes blurred – between CPD, service for a client, and genuine research.

'There's a confusion between CPD and research,' said Irena Bauman, director of Bauman Lyons Architects. 'For us, research is finding new knowledge and disseminating it to others.' She added that true research should also involve a clear research question and methods, and be based on an in-depth understanding of the previous knowledge base.

While the dissemination of research

knowledge was seen as vital, this does not always come naturally to architects, whereas in other professions, such as law, there is an enormous amount of knowledge sharing.

'Our profession is bedevilled by secrecy for fear of criticism and recrimination,' said Cambridge University professor of architecture Alan Short, although several participants felt this was beginning to change.

One of the key barriers to research was the nature of architectural education, suggested Short, pointing out that most undergraduates, though potentially highly capable, are simply not taught research practices to the same degree as students of other disciplines. As a result, he added, the profession may be disadvantaged since it often does not produce the conventional research outputs that senior civil servants and other quasi-governmental bodies are used to. Nor are the brightest undergraduates likely to proceed to a graduate research degree since it would excessively delay entry to the profession.

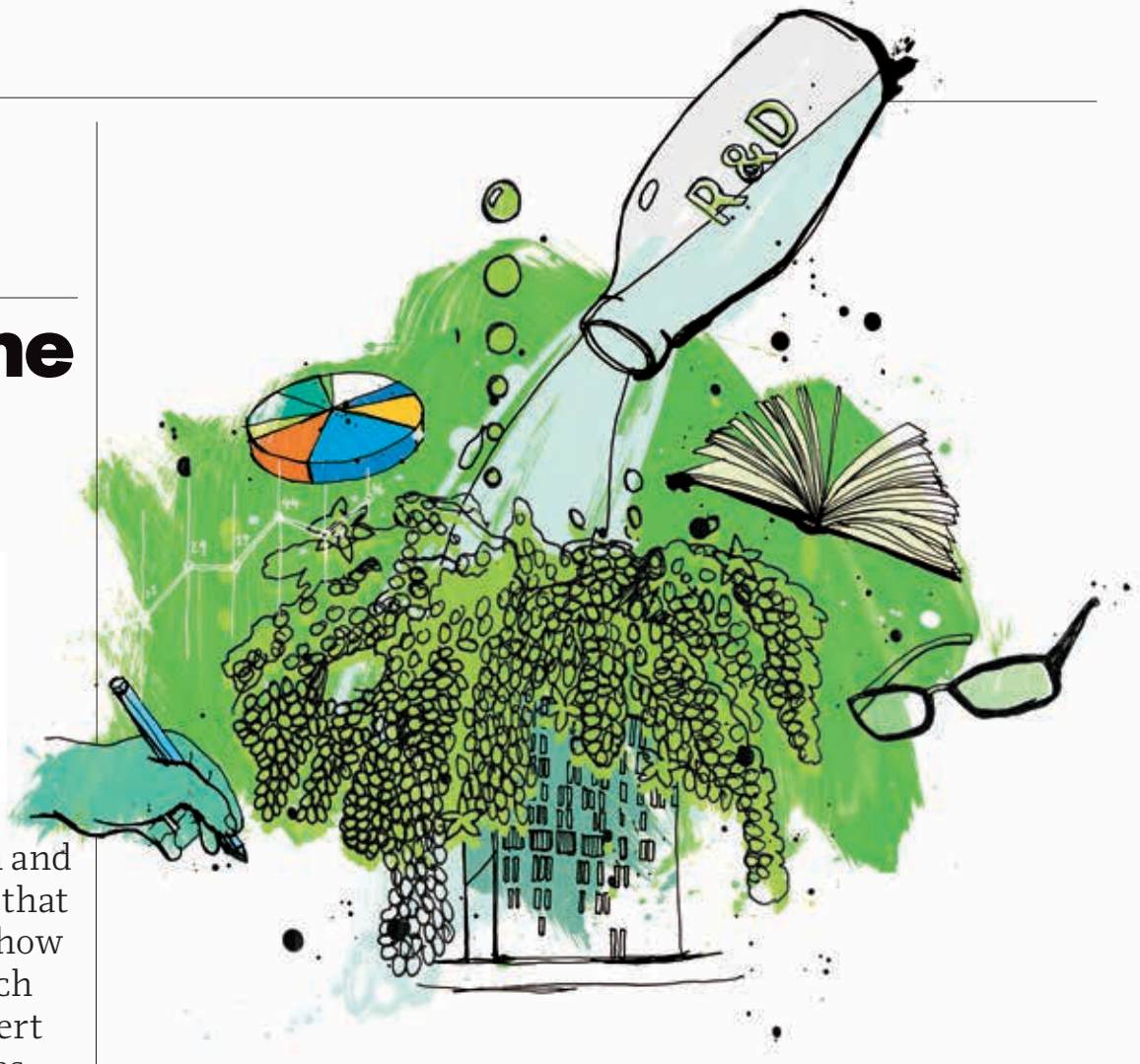
Bauman stressed the importance of

identifying a research question if you are to obtain funding for your research. 'You have to have an interest in a subject, and research something very specific rather than an endless field,' she said. 'The research question is the beginning of where you go for funding.'

Anna Liu of Tonkin Liu talked about the importance of following instinct and intuition when identifying research questions that pursue the unknown and undefined. Her practice carried out research with Arup into the potential of a single-surface shell lace structure through a number of competition proposals before winning an RIBA research grant to develop this further.

This grant and an exhibition have already led to unexpected collaborations – for example, a tissue engineer has asked the practice to use the lace structure's principles to design an insert for a trachea operation.

Not all practices are so successful at uniting funding with areas of interest, and the round table participants identified securing research partnerships and funding as a significant challenge. The RIBA's Anne Dye,





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who was chairing the discussion, asked what they thought might help to facilitate research partnerships between practice and academia.

While there was a general feeling that architects needed to do more to tap into the significant amount of built-environment research already being carried out at universities, several participants felt that more radical change was required.

Bill Dunster, principal of ZEDfactory, was concerned about what he called 'fake research', which fulfils what funders want to hear, but doesn't necessarily benefit clients or the profession. He called for architects involved in research to become more like shepherds with a clear direction of travel, rather than merely the sheep. To this end, he wanted the RIBA to step in to encourage peer review of research with universities and professional expertise.

'As the learned institute, the RIBA should be the forum to look at research and challenge it openly,' agreed Architecture 00 co-founder David Saxby, who also made the distinction between intrinsic research, where an architect is developing their personal agenda, and extrinsic research, where the research is driven by an identified need or deficit of knowledge.

Dunster also wanted the RIBA to take a more active role in procuring funding and directing research.

'Why doesn't the RIBA approve a

research topic, and organise a series of parallel research projects with other professional bodies to give collaborative, co-ordinated diverse responses?' he asked. 'Bringing everyone together would be an exciting, creative opportunity.'

Short said it was possible to obtain funding for research with a significant design component as long as the exercise was constructed in an established research format with all its procedures and checks. He suggested the creation of a new research council which would identify areas for design research, and then directly fund them using money set aside by the government or the EU.

Most architects had no idea where EU research funding was going, said Dunster, adding that it was important that the research outcomes were disseminated and made available to busy practitioners.

There was also a need for architects to get closer to funders such as Innovate UK (formerly the Technology Strategy Board), which recently earmarked £50 million for its Future Cities Catapult programme.

Saxby said there was a need for a brokering of partnerships to help small practitioners who wouldn't otherwise have the resources to pursue research grants. Even understanding the bureaucratic intricacies of the necessary form-filling can be a barrier to putting bids together, he

## EXPERT PANEL

Chaired by Anne Dye, RIBA head of technical research

### Alan Short

Alan Short is professor of architecture at the University of Cambridge. His research group develops prototypes for very low-energy, non-domestic buildings across the world's principal climate zones within both present-day and future climates. Recent research includes the resilience of hospitals, and the opportunities for adaptation to changing climates. He won the first RIBA President's Award for Outstanding Practice-Located Research in 2007.

### Bill Dunster

Bill Dunster is principal of ZEDfactory, which specialises in the design of low-carbon, low-impact buildings. Current research includes the commercial viability of delivering affordable public and private sector housing with zero net annual energy bills. Its findings challenge government and industry-funded positions that suggest higher environmental performance standards are not commercially viable. ZEDfactory is also researching whole-life performance for climate-neutral development.

### David Saxby

David Saxby is co-founder of Architecture 00, a cooperative architectural practice with a focus on sustainable design. It is notable for designing the WikiHouse, the first open-source, digitally manufactured two-storey house. Architecture 00's research includes open-source architecture, digital design and manufacturing, and the future of housing.

### Anna Liu

Anna Liu is a founding partner of Tonkin Liu. The practice was recently awarded an RIBA research grant for the continued development of Shell Lace Structure, an ultra-light, single-surface structure it is developing with Arup.

### Irena Bauman (via Skype)

Irena Bauman is professor of sustainable urbanism at the Sheffield School of Architecture, and director of Bauman Lyons Architects. She has completed two research projects on climate change adaptation strategies for commercial buildings, and is researching Retrofitting Neighbourhoods: Designing for Resilience, which will be published by RIBA Publishing in September.

## RESEARCHING RESEARCH

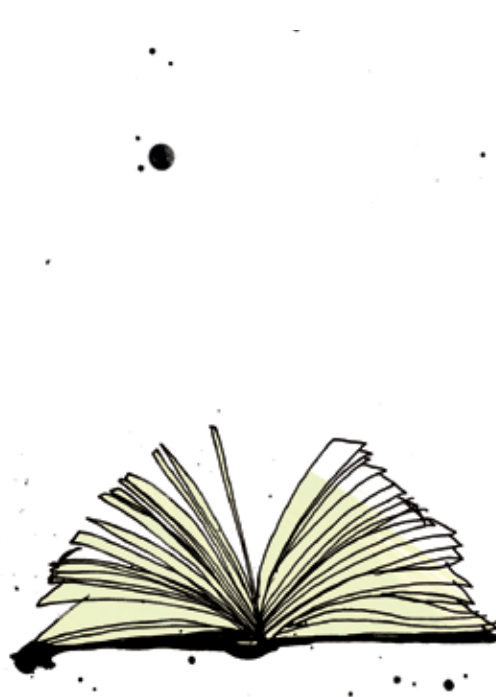
While architects consider research to be intrinsic to their work, there is very little separately funded research activity in architectural practices, and few practices access public research funds.

That is one of the main findings of *How Architects Use Research – Case Studies From Practice*, a new RIBA report which looks at how practising architects view research.

It found that linkages to academic and other research organisations and knowledge bases are quite weak and, where they do exist, are generally based on individual relationships. Research is mostly focused on individual building projects, and is therefore largely funded through marginal elements of project fees. It is usually technical or functional in nature, with popular areas including environmental sustainability, energy efficiency and research into materials, products and construction techniques. Post-occupancy evaluation is also emerging as an important area.

Architects included in the report include PRP Architects, which was the only practice interviewed that took advantage of major government R&D funding, and Axis, which uses research to develop its practice around Passivhaus methods.

*How Architects Use Research – Case Studies From Practice* is published this month by the RIBA. See a summary of the findings at <http://bit.ly/1Ba24d3>



added, although Bauman thought that these wouldn't be insurmountable for anyone used to dealing with PQQs.

Saxby also suggested the idea of 'hackathon'-style events, where architects agree a challenge and a data set, and work intensively over a short period. This might appeal to young architects, and could subsequently lead to resulting ideas being further developed with research grants.

All agreed on the importance of disseminating research. With the internet, this was no longer restricted to academic journals. Saxby's practice, Architecture 00, publishes under Creative Commons, and has an open-source approach to its research. It recently had 1.5 million views for a 15-minute video on its digitally manufactured WikiHouse.

'As long as someone takes the research, uses it, and then adds to the knowledge by sharing again, we don't have a problem with it,' said Saxby.

But too much information – or as Dunster put it, 'web-based rhubarb' – can be a problem in itself when it comes to navigation.

'Dissemination is easy,' said Saxby. 'Quality control is the issue – that's where peer review comes in.'

There was no shortage of ideas for areas of architectural research. Saxby suggested accessing on a human level the Smart City agenda of using data-driven systems to deliver efficiencies – for example in carbon output

While dissemination of research knowledge was seen as vital, this does not always come naturally to architects

and resource consumption. Harnessing from the bottom-up, such technology could give citizens new choices for different behaviour, he said. Another important area was defining the metrics of the built environment so that they take account of human experience and building use.

Liu wanted to further explore biomimicry and how architects could learn from nature at all sorts of scales. Short suggested reviewing and reinventing key traditional building types, such as the deep-plan hospital and the glass office building, in the light of new knowledge on subjects such as airborne infection.

'Reinventing the hospital is a huge exercise with enormous collaborative opportunities,' he said.

Post-occupancy evaluation (POE) was identified as another area of great research potential but, thought participants, was being held back by lack of funding. The RIBA is looking into the role of professional indemnity insurers in encouraging POE, and Bauman wondered whether it might be possible for practices to use R&D tax credits to finance extra work in this area.

Despite funding challenges, it is clear that many architects are extensively engaged in research. Bauman felt that architects were 'incredibly well-placed' to carry out rigorous research and make a valuable contribution to the research community. ●





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# Back to excellence

Welcome to the Schueco Excellence Awards for Design & Innovation 2015 in association with the RIBA Journal

Following their successful launch in 2014 the Schueco Excellence Awards are back.

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

Commenting on last year's awards, Mike Lane, managing director of Schueco UK Ltd, said: 'I am delighted that the Schueco Excellence Awards are now in their second year. The competition is providing the UK's architects and Schueco's network of fabricator-partners with the wider national recognition that their talent and hard work deserve.'

Award winners and commended entries will be published in a special RIBA Journal awards supplement in July 2015.

Last year saw a hugely varied field of buildings entering the competition, with the best demonstrating how dedicated input and collaboration from design team to specialist subcontractor through the supply chain to Schueco show the transformational power of the cladding and window system.

## Enter now! Deadline for entries: 9 April 2015

- Have you developed a truly innovative facade?
- Have you used Schueco as an essential part of your Passivhaus strategy?
- Have you adapted a glazing unit to make a seamless detail with a more traditional design?
- Do you just want to show off your beautiful envelope?

From small projects to housing to commercial buildings we want to hear from you.

## The categories

- Education building
- Health building
- Commercial building
- Small project
- Individual house
- Residential development
- Sustainability
- Specialist contractor
- Schueco special merit award
- Steel project

**Below** Last year's winners: Duggan Morris' Ortus (left) won the health category and the Schueco special award, while Manchester School of Art by FCB Studios triumphed in education.

## JUDGING

The judges, chaired by RIBA Journal editor Hugh Pearman, will look for creativity, innovation and collaboration using Schueco systems to deliver excellent buildings. Judges include: Paul Monaghan, director AHMM; Mary Duggan, director, Duggan Morris Architects; and Bob Allies, partner, Allies and Morrison. Winners will be announced at the Schueco Excellence Awards lunch in June 2015 and published in a special RIBA Journal awards supplement in the July 2015 issue.

## ENTRY ELIGIBILITY

### Who can enter?

UK-based ARB registered architects, the Royal Institute of the Architects of Ireland and fabricators

### What can be entered?

- Buildings completed between 1 January 2013 and 1 January 2015
- Buildings using Schueco products or systems
- Buildings may be submitted in more than one category

## ENTRY REQUIREMENTS

Entries must be submitted by email to [schuecoawards@ribajournal.com](mailto:schuecoawards@ribajournal.com) by midday, 9 April 2015

All entries must be submitted in English and include:

- Contact details
- A maximum of 600 words of explanatory text
- A minimum of four and maximum of 10 photographs of the building
- A clearly labelled site plan
- Clearly labelled key working details
- Clearly labelled key sections

The information submitted in your entry may be used on the Schueco and RIBAJ website and in the RIBA Journal.

By entering the awards you acknowledge that Schueco, RIBA Journal and their partners have the right to reproduce any photographs, drawings and other material supplied in whole or in part in conjunction with the awards, without payment of copyright.

## JUDGING

- The jury's decision is final
- The jury reserves the right to re-categorise any entry or reject those that do not comply with the entry requirements
- No correspondence will be entered into by the organisers or the judges regarding feedback on entries
- Judges will be asked to declare an interest and withdraw from the process if a conflict of interest arises

### Judging criteria

Judges will look for entries that demonstrate how creativity, innovation and collaboration using Schueco systems have delivered exemplar design and product solutions to achieve original concepts.

### Winning and shortlisted entries

Shortlisted entrants will be notified in writing.

Representatives of shortlisted buildings will be invited to attend the awards lunch which will take place in June 2015.

Winners will be announced at a special awards lunch in central London in June 2015.







Being Safe

Designing &  
building it

# Future-proofing: the evidence

How can innovation make our buildings fit for the future? BACA has just won an RIBA commendation for practice-led research

**Robert Barker and Richard Coutts**

On the edge of Norwich, a 19ha brownfield site bordered by the Wensum and Yare rivers acted as the basis for Baca's award-winning Climate Adaptive Neighbourhoods project. Susceptible to flooding, the site was part of a masterplan for regeneration in the city.

This plan used many of the same Long-term Initiatives for Flood-risk Environments (LiFE) principles Baca had also developed, including a non-defensive approach to flooding and building layouts to allow flood water to flow safely through the site and attenuate peak rainfall. However, the research enabled more site specific and detailed testing of future flood levels, rainfall duration, mean and peak temperatures, drought, and heatwaves.

The study site comprised a block of 72 new homes and 2,000 ft<sup>2</sup> retail and restaurant space. This block was used to explore prioritising adaptations that could be applied over the lifetime of the building, and to identify lessons for others. Measures to tackle future flooding issues should also incorporate solutions to other climate change challenges.

A range of adaptation options was tested by simulation modelling and expert advice,

and future climate risks assessed. These showed a trend towards higher temperatures, more frequent and intense heat waves and drought, increased intensity and duration of rain storms and higher flood levels. Adaption options were used to establish building massing, elevation and materials. Key design drivers were the height of future flood levels, the means to control overheating, space required to attenuate rainwater and the space needed for grey water storage.

The base building design (before the research work) was reasonably well suited to cope with the future climate but identified as being at risk of overheating and water shortages if the more extreme climate occurred.

Elevating buildings above the predicted flood level to create a void beneath was the most effective way to manage flood risk. Sustainable Drainage Systems between buildings would tackle future surface water flood risk and provide landscaping. Greywater recycling was found to be more cost effective than rainwater harvesting as droughts increased.

Overheating could be managed with passive measures, unless temperature change was more extreme. All could be retrofitted after only slight modification to the base building design, except thermal mass of the superstructure. The building was reconfigured to allow deck access to the flats to provide solar shading, service risers to be sized and changed into stack vents (if required) and for mechanical cooling to be added in predetermined spaces inside the units.

One of the most positive findings was the potential for flood-risk management measures to improve cooling opportunities and

provide space for rainwater harvesting.

The nearby water could be used for cooling and also lowers surrounding temperatures, while the flood void provides passive ventilation and cooling. Heavy masonry construction, for ground floor resilience, would add thermal mass. Finally, the potential to use the flood void to harvest large amounts of rainwater warrants more detailed research, particularly in areas of water stress.

Based on their benefit to reducing risk, the most cost effective measures were: flood resistance measures (based on Net Present Value in 2037), swales (based on CAPEX), labyrinth and stack ventilation (based on NPV in 2058), and water saving devices (based on CAPEX); but the benefit of each was limited. Therefore, the initial measures chosen were raised construction, swales, additional trees and water saving devices.

Changes to the base building to manage future climate risks were found to increase the capital cost by only 0.3%. Removing the raised deck raised it by 1.4%.

Thresholds such as annual outside temperatures, tidal water level changes, mean annual precipitation and peak annual precipitation were to be identified to act as triggers for retrofitting improvements.

A local development order, which would enable adaptation measures to be retrofitted as permitted development rights for all buildings, was put forward to facilitate works. ●

Robert Barker and Richard Coutts are directors at architect BACA. For images, links and a longer version of this report go to [ribaj.com](http://ribaj.com). To see more on the CAN report and the LiFE project see <http://www.lifeproject.info>

Measure	Initial construction	Retrofit 1	Retrofit 2
<b>Comfort</b>	Heavy weight construction (masonry) Deck access shading	Add system for labyrinth Add balconies on the south side of the building	Install HVAC system
<b>Water – river flooding</b>	Raise building and car-parking to min 2.7m AOD In-situ concrete slab to ground floor Resistant lower walls	Install flood resistance measures (door guards etc)	Install flood resilience measures
<b>Water – surface water flooding</b>	Install ground level swales	Extend swales	Replace paving with permeable paving
<b>Water – drought</b>	Install water saving devices and greywater recycling system	Install rain water harvesting system	None required
<b>Construction</b>	Heavy weight construction (masonry)	Install flood resistance measures (door guards etc)	Install flood resilience measures

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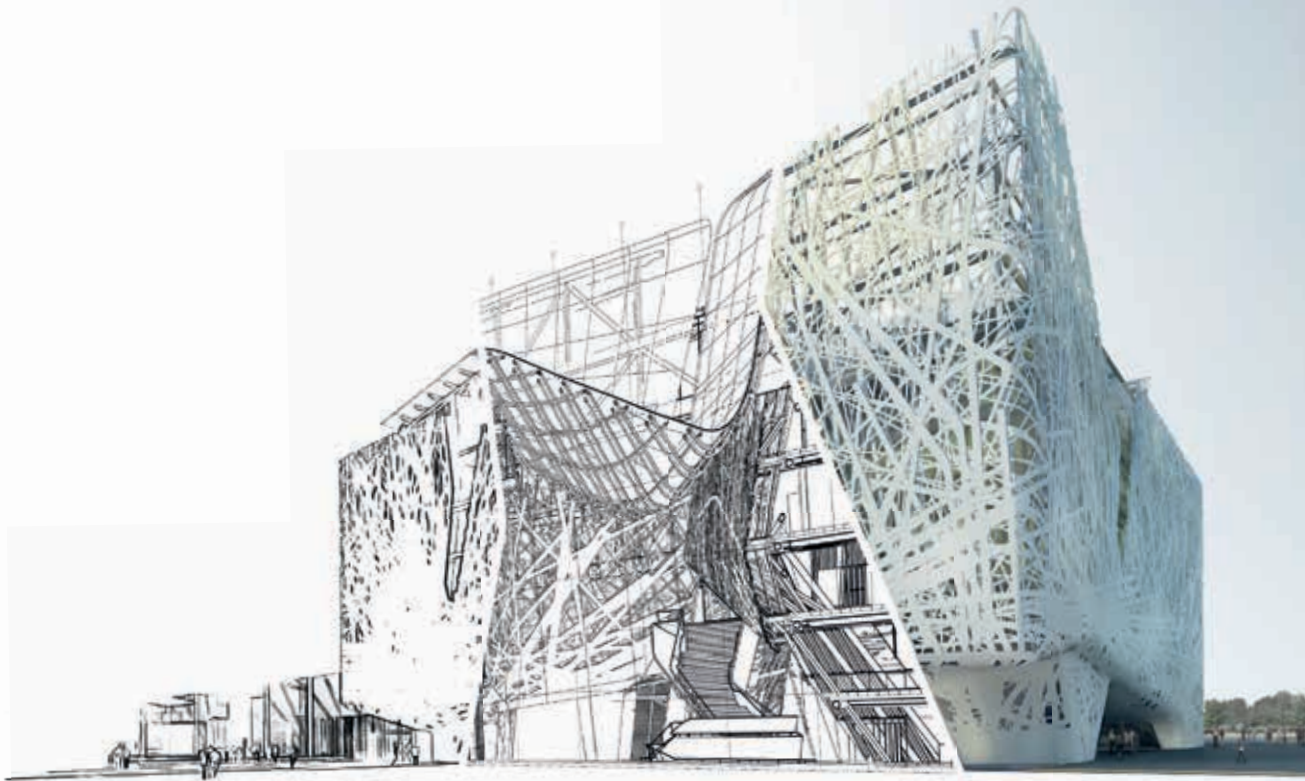
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External  
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# Office moves for the better

Growing investor confidence in office building, and how the profession can best exploit that, came under scrutiny at an RIBA roundtable with workplace clients

## Matt Thompson

Demand for office space is still far short of pre-recession levels, dampened by slow growth in employment, high business rates, sky-rocketing energy costs, and more flexible working practices. Outside London, developers are taking advantage en masse of planning relaxations that allow changes of use from offices to residential. Some fear a net reduction in the total stock of office space.

Despite that, workplace design is at an interesting crossroads, mediated by the pervasive influence of digital connectedness and new thinking around employee wellbeing. The existing workforce is asking for change and designers are now being asked to cater for the so-called iGen – the upcoming generation of true digital natives whose flexible work styles, attitudes, and world views are significantly different to those of their parents.

Employers have acknowledged the link between health and productivity, and are exploring the implications. The Australian financial sector, for example, has used workplace design to create future flexibility and transform the image of the sector.

Recruitment strategies also impinge on architecture. The lure-and-retain zeitgeist in high-end workplace design today is about lifestyle, incubation, cross-pollination, flexibility and co-working to engage employees, promote collaboration, flatten hierarchies, improve productivity and encourage innovation. It is no surprise that place-making, architecture and interior fit-out – work for architects, in fact – are among the chief means to those ends. And as a 2014 paper by HOK points out, 'Though the design and construction of buildings comes with a signifi-



cant cost, this pales in comparison to the cost of compensating employees who are not engaged, healthy and performing at high levels.'

Chris Kane, CEO of BBC Commercial Projects, believes that UK offices are failing to keep up. 'We have been trained to think about space in silos: the construction silo, the interior/fit-out silo, but the two are starting to converge. We need to design from the inside out as well as outside in'. Andrew Bugg, head of project and building consultancy at Knight Frank, confirms that for end users the speed of change is the greatest challenge.

## Second-guessing occupiers

With occupiers preferring to rent space, the market for design services is mainly tenant-commissioned fit-outs or developer-led renovations or shell-and-cores, leading to different imperatives for designers.

Where the occupier is known, the architect can design a bespoke solution. If not however, architects are asked to shoot for generic appeal – flexibility in the grid, good levels of daylight, the potential for good acoustics, an effective M&E strategy, and low running costs. Kevin Chapman, UK head of offices at Lend Lease, says: 'A big frustration is that we don't often get the chance to design a building from scratch with a clear occupier brief. We are not therefore designing a building for a specific tenant but a pool of occupier groups who may have different needs.' Bugg calls this a 'disconnect', claiming that since the workplace is a tool for business, 'interior architecture is where the value lies.'

Developer clients need to hone their products for enduring market appeal and profitable lifetime yields for investors. As they rarely occupy the spaces themselves, they are desperate for evidence of what works from post-occupancy evaluations (POEs) and

'We don't often get to design a building for a specific tenant; we're designing for a pool of occupier groups who may have different needs'

Kevin Chapman

## 'Architects need to be business analysts – you need to understand how the client's business works'

Andrew Bugg

bemoan architects' lack of involvement beyond practical completion. The problem is succinctly spelt out by Despina Katsikakis, independent workplace consultant. 'Architects produce a solution and walk away from it when the organisation moves in. By then the organisation has already changed and the solution needs to evolve accordingly.' The roundtable panel acknowledged the barriers to carrying out POEs, suggesting that a way to overcome them might be to 'require' regular staged validation of designs in the RIBA Plan of Work. The panel maintains that architects should be 'learning organisations' who validate their own work as standard.

### Office go-between

Office procurement often lacks unified control and vision. Although ambivalent about who manages it, Kane wants collaborative simplicity: 'What's important is how the interface works between all the different parts of the project.' In an ideal world, the roundtable panellists favoured having one firm to act as a general practitioner who understands the problems but knows when to refer to specialists. While Bugg wants architects to take this role Neil Usher, BSKyB's workplace di-



rector, is happy to place it elsewhere as long as architects and other consultants are 'open and honest about what they can and can't do so the client can plan the interface'.

Clients value architects' creative problem-solving and foster creative tension to force better solutions. Chapman looks to architects to push the boundaries: 'We want them to tell us what rules we can break so not all offices end up the same, to create something that satisfies all parties.' Kane agrees to a point, but not at the expense of wider project priorities. Bugg echoes this: 'Architects need to be business analysts – you need to understand how the client's business works.'

For Usher, the chief value added by architects is as agents of change who have the courage to lead and humility to listen. 'The workplace is a journey, not a product. You need to understand the pace of change and provide the basic principles of design. Organisations need to be as agile as possible and architects need to enable that.' Indeed, it seems successful office architecture is about how well the changing practical and emotional needs of workers are supported. As Katsikakis puts it, the most valued workplace architects 'create experiences, not products'. ●

## 'The most valued workplace architects create experiences, not products'

Despina Katsikakis



### TOP TIPS FOR BEING SUCCESSFUL IN WORKPLACE DESIGN

1. **The future is unknown:** maintain maximum flexibility and adaptability
2. **Focus on occupiers'** practical and sociological needs
3. **Facilitate change** over time to accommodate disparate needs of future occupiers
4. **Learn from post-occupancy evaluations** how design makes more appealing workplaces and so improves commercial yields
5. **Collaborate effectively** with the project team to simplify procurement.
6. **Listen to clients' needs** and solve problems creatively

### RIBA CLIENT ENGAGEMENT PROGRAMME

The RIBA's Client Liaison Group is running a series of round table discussions to listen to and understand external perceptions of the architectural profession and the value architects bring to the project team, and ultimately to identify the tools needed to promote architectural services in these sectors successfully. The feedback from interviews with workplace clients is included here; and 60 second clips of the one-to-one interviews are available on [architecture.com](http://architecture.com).

See others from this series at [ribaj.com](http://ribaj.com)



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Procurement  
& contracts

# Sit up and take notice

If you fail to serve a payment notice on time there's no quick fix

Douglas Wass

Claims against architects for failing to advise clients to serve payment notices and pay less notices on time have become more likely as a result of the recent case of ISG Construction Ltd v Seevic College.

The rather complex Housing Grants, Construction and Regeneration Act 1996 (the Act) (which applies to most building contracts) have four central provisions.

First, building contracts must require either the client or the contractor to give a payment notice to the other not less than five days after each stage payment becomes due, stating the sum considered to have been due on that date and the basis on which that sum is calculated.

Secondly, the application for payment is deemed to be the payment notice if the client fails to serve a payment notice and, before the date on which it was required to issue it, the contractor has made an application for payment in accordance with the building contract which sets out the information required in a notice.

Thirdly, if the client fails to serve a payment notice in any other circumstances, the contractor may serve one instead.

Finally, the client must pay the sum specified in any payment notice unless it serves a pay less notice on the contractor an agreed time before the final date for the stage pay-

ment, setting out its intention to pay less than the sum in the notice, the amount it considers due, and the basis on which that is calculated.

In the ISG case, ISG's application for a stage payment of £1,097,696.29 was deemed to be a payment notice because Seevic failed to serve its own payment notice. Seevic also failed to serve a pay less notice meaning that it was contractually required to pay the entire sum claimed by ISG. Seevic nevertheless refused to pay the sum claimed on the ground that the value of the works carried out by ISG was far lower than £1,097,696.29.

## Conflicting conclusions

ISG referred its claim that Seevic must pay £1,097,696.29 to the adjudicator, who ordered it to pay the full sum claimed plus interest.

Seevic separately referred its claim against ISG to another adjudicator, who decided that the value of the work at the relevant date had been around £300,000.

ISG applied to the court for an order that Seevic be required to pay it the sum of £1,097,696.29 plus interest laid down by the first adjudicator, and also that the second adjudicator did not have jurisdiction to determine the value of ISG's work at the relevant date because Seevic's failure to serve a payment notice or a pay less notice meant it could not dispute the value of the work.

The judge granted the orders requested by ISG meaning that Seevic will have to pay £1,097,696.29 plus interest to ISG and seek to recover any overpayment through subsequent valuations, the final account process and/or court or adjudication proceedings.

The problems for a client in these circumstances are that: the loss of cash may unnecessarily affect its ability to fund its business and make other investments, and the contractor might become insolvent – making it impossible to recover the cash.

A client might well try to recover any losses it suffers from its architect if the architect is acting as the employer's agent or contract administrator and has failed properly to advise on the service of the relevant notices. Architects should take care to ensure that they fully understand the complicated notice regime if they are taking on this sort of work. ●

Douglas Wass is a partner at Macfarlanes  
Keep your contracts watertight: find all our  
legal columns at [ribaj.com](http://ribaj.com)

Seevic's failure to serve a payment notice or a pay less notice meant it could not dispute the value of the work

## FIT FOR HABITATION

The Defective Premises Act 1972 requires a person taking on work for, or in connection with, the provision of a dwelling to see that the work is done in a workmanlike and/or professional manner with proper materials, so that the dwelling will be fit for habitation when completed. In *Rendlesham Estates Plc & Others v Barr Ltd* it was decided that:

- Whether or not a dwelling is fit for habitation must be judged by reference to the standards current at the time when it was built
- The dwelling must be fit for habitation by all types of person who may reasonably be expected to occupy it, including babies and those who suffer from common conditions such as asthma
- A dwelling is fit for habitation if it is capable of occupation for a reasonable time without risk to the health or safety of the occupants and undue inconvenience or discomfort to the occupants.



Designing &  
building it

## Call yourself Architecture?

Maria Smith takes to the  
moral high ground



Maria Smith

### News Release: Architecture found guilty of unacceptable professional conduct

At a hearing of the Architecture Accusation Board on 30 January 1932, Architecture was found guilty of unacceptable professional conduct and issued with a reprimand.

The allegations considered by the Professional Righteousness Committee were that Architecture failed to adhere to its scope of services, repeatedly evaded responsibility for the construction of its projects, and produced drawings rather than architecture.

Architecture denied all allegations but later accepted in evidence that it had made an error in respect of appointing others to oversee the building work, and acknowledged that once this became apparent it still only visited the site sporadically.

The committee found that Architecture did not cover all the requirements set out in the Architects' Mode of Construct. It further found that Architecture had demonstrated a waning knowledge of techniques and processes, and not dealt with client complaints.

The committee took account of Architecture's unblemished career, that it had fully engaged in the process, and had apologised to its clients. It also noted that Architecture had taken steps to address its failings and produced a copy of its amended scope of services.

The committee concluded a reprimand was appropriate and proportionate.

### Second offence

At a second hearing of the AAB on 30 January 1998, Architecture was again found guilty of unacceptable professional conduct and issued with a penalty order of £5,000.

Architecture was appointed to design and act as contract administrator for a project in a city. Following completion, the client wrote to Architecture to notify it of an obvious lack of technical design proficiency.

The two allegations brought were that Architecture failed to equip itself with adequate technical design competence (on the grounds that the numerous specialist consultants made it unnecessary) and secondly, that Architecture showed interest exclusively in the conceptual basis for the project.

In defence, Architecture referred to problems that had been occurring in the world. It did, however, accept that it had permitted the quantity surveyors, project managers, design managers, development consultants, community engagement specialists, facade engineers, and party wall surveyors to undertake all the work Architecture considered itself superior to, and focussed solely on, the notion of justification for an abstract ideal.

The committee found Architecture guilty on both allegations, saying every profession should remain abreast of technical design knowledge and that it would not have been difficult for Architecture to read the technical information provided by the consultants.

In deciding the penalty, the committee considered that the history of the complaint was a serious aggravating factor. It noted that the failings of Architecture had seriously affected its client, who had been forced into accepting what they felt to be an inferior project. In all the circumstances, it considered that a fine of £5000 was appropriate.

### Third strike and...

At a third hearing of the Architecture Accusation Board's Professional Righteousness Committee on 30 January 2025, Architecture was found guilty of unacceptable professional conduct and erased from the Register.

The complainants raising the allegations against Architecture had bought a property from a developer for which Architecture acted as architect. Architecture would also become the director of the main contractor on the development, an investor in the social enterprise that was to lease the property, and member of the action group bemoaning a lack

The committee found  
Architecture guilty,  
saying it would not  
have been difficult  
for Architecture to  
read the technical  
information provided  
by the consultants

of indigenous craft skills in the local area.

Problems soon arose when a technical hitch with the information sharing platform fractionally delayed communication between the networks of stakeholders, preventing the co-design processes from maturing across all nodes. This meant the complainants could not complete their purchase.

The allegations faced by Architecture were that it had outsourced not only the construction of the project and its technical design, but also communication of design to a plethora of consultants, that in effect Architecture had failed to provide any architectural services at all.

Architecture denied all the allegations, asserting that it was merely acting according to the directives of government procurement policy, maximising the potentialities of web 2.0, and responding to emergent systems of accumulation and organisation of information. The committee rejected these arguments due to a lack of understanding of the vocabulary used to describe them.

In deciding what sanction to impose, the committee took into account that Architecture had two previous findings of unacceptable professional conduct against it in the last 100 years; had displayed a lack of openness in its dealings with the complainants and the AAB, and had shown little or no remorse for its actions. It was erased from the Register. ●

Maria Smith is a director at Studio Weave. Read the uncut version and all her columns at [ribaj.com](http://ribaj.com)



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# 3: Culture

## Did you say eyesore?

How to spot an architectural philistine



Hugh Pearman Editor

Dear Hugh,

*I suspect that my friend may be an architectural philistine, but is there a sure-fire way I can prove this? I'd hate it to spoil our relationship. Yours anxiously, 'Spacemaker'*

Dear 'Spacemaker',

As it happens there is an infallible test for architectural philistinism, and it is this. Does he or she employ the term 'eyesore'? If so, unfriend them now, while there is still time. Best, Hugh

Dear Hugh,

*I feared as much. Before I delete all social media connections with my former chum, could you explain both why we are communicating in this antiquated epistolatory format, and why the word 'eyesore' carries such significance? Confused, 'Spacemaker'*

Dear 'Spacemaker',

I'm afraid I have invented you as a character purely to make a point in my column, after which you will cease to exist. This is why you find yourself wearing a smoking cap and writing with a steel-nibbed dip-pen on

*'Ugly' is often more interesting than 'beautiful'. Ugly has character. Beauty is often vapid*

laid vellum paper. As for the matter of 'eyesore', let me explain: It's a lazy way to dismiss something you happen at the moment not to like – a building, say, or a wind turbine farm. If challenged on this, the usual response is to claim that it is ugly.

There are several things wrong with this way of seeing the world. For a start, it assumes everything must be 'beautiful', but beauty is only apparent by way of contrast with what is not beautiful. Moreover, 'ugly' is often more interesting than 'beautiful'. 'Ugly' has character. 'Beauty' is often vapid. Elegance can veer into brittle dandyism. But above and beyond this is the fact that – surprise, surprise – opinions on what is ugly and what is beautiful change over time. And here, dirt – always the developer's friend – comes in. In the 1950s and 60s it was normal to dismiss High Victorian buildings with their fussy turrets and dormers and hard brick and tilework as not just ugly but dirty too. Somehow the buildings were to blame for their dirt, which implied lack of hygiene – the mantra that gave rise, via sanatoria, to modernism. Dirty ugly buildings got demolished.

Today nobody is quite so naïve, surely? Oh yes, they are. In the campaign to get the great Preston Bus Station listed, those opposing used the same terminology as the demolishers of the 1950s and 60s. It was an 'eyesore'. It was 'ugly'. It was dirty, stained, smelt of urine, etc etc. Now it's listed and a comprehensive plan has been put in place to re-use and upgrade it. I dare say it will be cleaned.

As I write this, demolition is getting under way on John Madin's former Birmingham Library despite an active campaign to save it. This has always been the way: what survives from any era is a lottery. But one thing you may be sure of: if anyone uses the word 'eyesore', their minds are firmly closed.

Apologies for now terminating your fictional existence, 'Spacemaker'. You and your friend have outlived your usefulness.

Hugh ●

I've descended into the burial chapel for the leader of Mussolini's youth-venerating Arditi, in the vault of a Roman exedra  
**Adam Nathaniel Furman in Rome:**  
[ribaj.com/culture/roman-holiday](http://ribaj.com/culture/roman-holiday)

The connections of ideas from different sources showed just how well this event was curated

**Architecture for All**  
reviewed: <http://bit.ly/1HU1TmM>

Winged dark figures suggest some ghoulis nightmare

**Black and White Gothic**  
reviewed: <http://bit.ly/1HNiulU>

# Divine right?

The Prince is banging his architecture drum again



Oliver Wainwright

Thirty years after the Prince of Wales' 'monstrous carbuncle' speech, there is a strange feeling of déjà vu in the air. Not only has the prince issued a 10-point manifesto calling for a return to 'traditional styles' that employ the 'divine geometries' of nature, but the government has established a housing design review panel that bears the hallmarks of a product of one of his infamous 'black spider' memos.

Judging the aesthetic merits of our homes, alongside folksy architecture tsar Terry Farrell, will be the prince's pet classical architect, Quinlan Terry, and philosopher Roger Scruton, a vocal opponent of modern buildings.

It would be easy to dismiss the committee as the latest ineffectual sop on an impervious house-building industry – if it wasn't for the fact that the prince's back-stage meddling has derailed a number of major projects in the past that he simply didn't like the look of; and that his camp of mindless photocopy-classicism is alarmingly on the ascendant.

For one, there are signs that mighty overseas investors are prince-proofing their projects ahead of planning. No doubt mindful of the fate of Richard Rogers' scheme for Chelsea Barracks, another Gulf-backed consortium has commissioned Quinlan and Francis Terry to draw up plans for the Hyde Park Barracks site, where Basil Spence's sadly unlisted brick and concrete fortress stands. The architects claim it takes inspiration from Haussmann's Paris, while the developer has said it is 'something which would make future kings and queens be proud'. In reality

The truth is that Quinlan Terry and his chums are simply not very good classical architects

it will be a glowering mega-block, like some grim Victorian workhouse glorified with appliquéd mouldings and pompous spires.

Francis Terry has also been drawn into the battle of Mount Pleasant in north London, where the privatised Royal Mail is desperately trying to squeeze out every last penny from its former sorting office car park site with an oversized scheme by a clutch of decent contemporary architects. A local campaign has put forward an alternative scheme, modelled by Terry on a Georgian circus, surrounded by triangular courtyard blocks. But by making the argument one of picturesque pediments vs stripped brick reveals, the campaign has distracted attention from the chief evil – that the scheme includes only 12% affordable housing. Independent assessments have shown it could achieve 50%.

The mods vs trades style war, which threatens to rear its ugly head again, also crucially overlooks the debate we should be having: that of good vs bad architecture, cornice or not. The truth is that Quinlan Terry and his chums are simply not very good classical architects. Historian and traditional architecture enthusiast Gavin Stamp has described Terry's work as 'stiff, pedantic and uninspiring', the result of 'classical details stuck on to dull boxes'. Terry may well copy faithfully from Palladio and the ancient orders, but he does so with a leaden hand.

Robert Adam, another vocal classicist, might draw on a more liberal back-catalogue with a more imaginative hand, but it verges on Disneyfied vulgarity. His proposal for a trio of tower blocks in Reading topped with green domed cupolas is like something from Ceausescu's Romania with a twist of Sheikh chic.

None of our self-styled 'radical classicists' draw on truly progressive classicism, sticking to a kind of learned-by-rote pattern-book facadism. There is none of the startling originality of Lutyens, or the elegantly stripped classicism of McMorran and Whitby, whose inventive Wood Street police station stands as a monument to a promising strain of 20th century architecture that petered out too soon. The truth is that intelligent classical traditions are being kept alive by talented architects from Stephen Taylor to Caruso St John – but in ways that seem too subtle for the prince and his reactionary design advisers. ●

Oliver Wainwright is architecture critic at The Guardian. Read him here every other month and at [ribaj.com](http://ribaj.com)

## ROYAL AMBITIONS

If the truth of Prince Charles's intentions to influence architecture when he becomes king wasn't already obvious enough, it was made even clearer in the New Years' Honours. The only architect to be recognised with a royal gong was none other than his personal favourite: step forward Quinlan Terry CBE.





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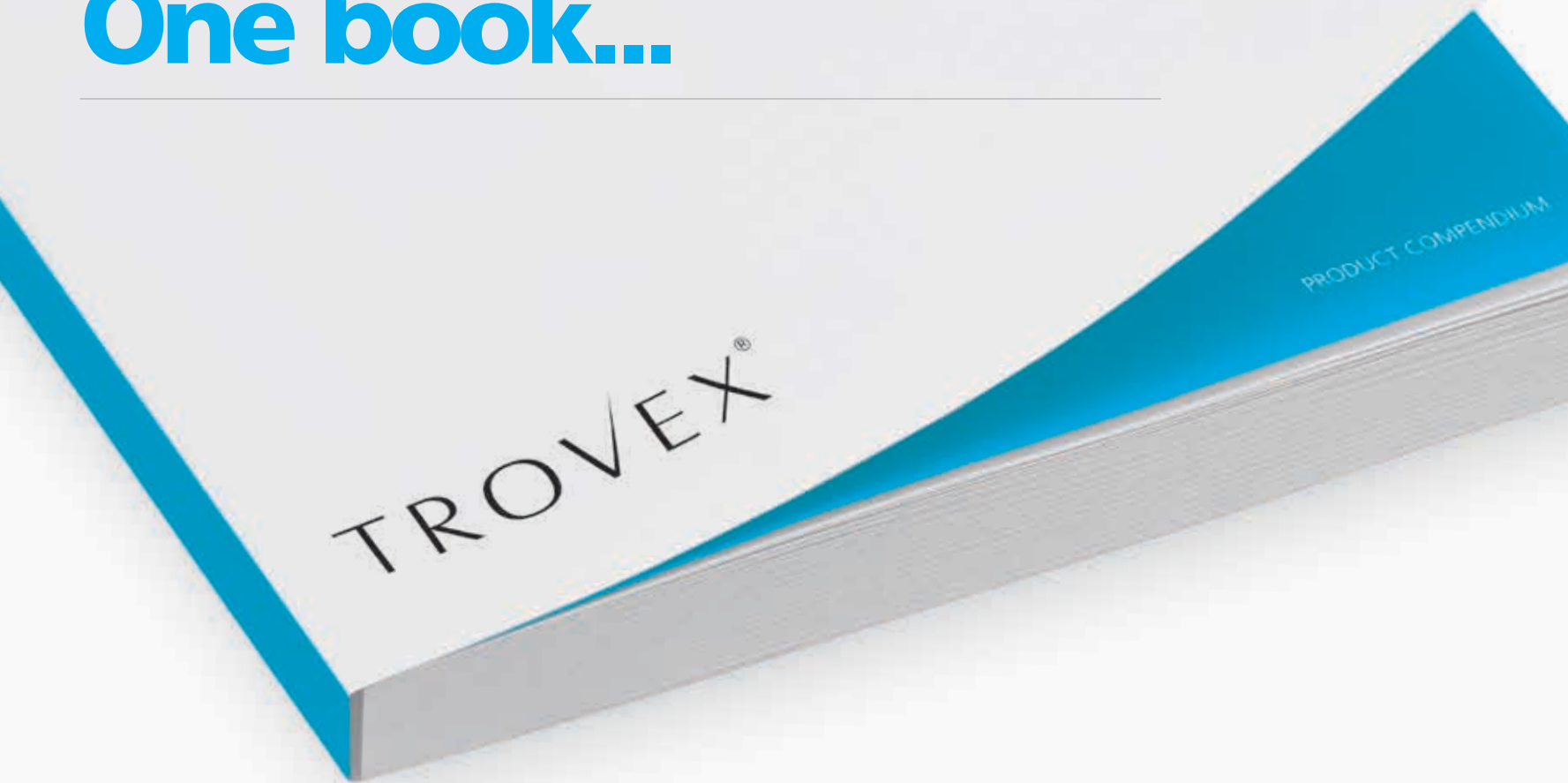
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# The game is global

With construction at the forefront of world globalisation, the RIBA has an ambitious plan



Stephen Hodder

Over the last two years the RIBA has been gearing up to an ambitious and important strand of international work. Spearheaded by Peter Oborn, vice president international, and Marcus Deeley, head of international, the strategy received further endorsement at December's RIBA Council. Seeking to promote and facilitate RIBA members globally, it also sets out a blueprint for the Institute to participate in international dialogue in a meaningful way. On fascinating trips to Brazil and to India recently, I held conversations on these themes that were insightful and useful.

The long-recognised shift of the construction market towards the new economies in Asia, South America and the Middle East has been made more significant by a relatively static home market. An assessment by Global Construction Perspectives and Oxford Economics forecast more than 70% growth in worldwide construction by 2025, giving a total value of \$15 trillion. China, India and the US are together expected to deliver 60% of global construction growth over this period. In contrast, western Europe's construction market is expected to shrink by 5% in 2025 over its 2007 pre-recession peak.

The RIBA Business Benchmarking Survey 2013-14 shows that 20% of practices are working on projects outside the UK, and 16% of total income comes from overseas projects.

The RIBA is aiming for a 30% increase in international fee turnover from £300m to £400m over six years

For large practices (more than 50 staff), 27% of fee income is generated by international work. The Middle East contributes 28% from international projects, South and East Asia 19%, the EU 17% and North America 15%.

Scope for increasing international fee turnover is considerable. By facilitating practices' access to international work, the RIBA is aiming for a 30% increase in international fee turnover from £300m to £400m over six years together with a doubling of practices working internationally (particularly SMEs).

The Institute's strategy recognises that it should help to equip all practices with the knowledge, contacts and skills to trade around the world. First, it will break down trade barriers by engaging with organisations such as the Architects Council of Europe, UIA, CAA, and other international institutes to develop standards on issues including sustainability, procurement and professional qualifications.

Secondly, we will promote our own resources globally using our Collection and an international prize. We will also extend our international branch network, review membership categories, and recruit more alumni from RIBA validated schools. Finally, we will provide access to expertise and market intelligence by continuing to work with UK Trade & Investment, which runs trade missions and is developing a regional training programme for practices who want to work overseas.

We are already seeing how meetings with incoming delegations, trade missions and initiatives such as Shanghai Shop Windows, together with a presence at international conferences such as Mipim and Arcasia, are collectively delivering tangible international opportunities for our members.

This work will intensify this year. Last month we received a delegation from India, including the presidents of the Indian Institute of Architects and Council of Architecture, and launched the RIBA Chapter in Chennai, India. I have enjoyed the exchange of knowledge and ideas during these meetings, and I look forward to meeting delegations from South Korea, Oman, and China between March and June. And in June, we will be hosting the Commonwealth Association of Architects' 50th anniversary alongside the international conference on 'Designing City Resilience'. ●

For more details, email [marcus.deeley@riba.org](mailto:marcus.deeley@riba.org) @HodderPRIBA

## MUST-KNOW FACTS FOR FUTURE LEADERS

The Future Leaders programme – for the next generation of practice leaders – will this year consider the industry game changers that are transforming the way architects will design, present, deliver and collaborate – from the initiation of a project and throughout the life of a building. Tickets will go on sale on 12 February. You can find out more or book at [www.architecture.com/](http://www.architecture.com/)

## Deborah Saunt and David Hills, founders of DSDHA, refuse to be boxed up by specialisms

Words: Hugh Pearman Portrait: Wilde Fry

# Free spirits

Not for nothing is the home of Deborah Saunt and David Hills in Clapham known as the Covert House. For a start, it is remarkably difficult to find – through a gate down an alley leading to a mysteriously landlocked Victorian house, then left through another gate into the backland between the gardens of the streets to either side. Finally you get to what appears at first to be a compact single-storey new dwelling on a plinth – white, its frame, window and door openings dematerialised by mirrored reveals. Closer up, it discloses itself as a two-storey house, sunk into the ground. Once through the front door, you find a stair plunging downwards. Saunt's voice drifts up: 'Make yourself at home.' Our photographer is finishing his portraits. I take a seat on the Hans Wegner 1950s-designed sofa in the upstairs living room.

The Covert House – an exercise in monolithic in-situ cast concrete and the play of light in which, as Saunt says, 'white becomes a material' – is an object lesson in how a determined architect can achieve good results against all odds. The pair found the run-down hidden Victorian house with its big, wholly overgrown garden bristling with self-sown sycamores, persuaded the owners

to sell, divided the site, built the new house in the former garden and sold the old one to friends. Needless to say this process was protracted, given some well-heeled neighbours inevitably inclined to object. Hence the self-effacing nature of the house, its edges deliberately ambiguous. Water, glass and polished stainless steel play games with transparency and reflectivity. The family finally moved in, finishing off the house around them, last year.

With a recent practice move to a new studio in Vauxhall converted from a Victorian industrial building (another savvy property purchase, right at the heart of what is a fast-regenerating area and close to the Vauxhall Pleasure Gardens park which they planned), and with a healthy office head count of 36, it's a pivotal time for the practice. Fellow DSDHA directors Tom Greenall and Martin Pearson spread the client-relationship load, increasingly representing the practice themselves. 'That's the size we like it,' says Hills, noting that to an extent they can regulate studio size by juggling projects they supervise and those in which they collaborate with other architects. Some clients – such as developers Derwent London









Arguably two strands of influence – the ultra-restrained versus Dutch-flamboyant – have woven through their work, sometimes manifested on the same building

**Left** Alfred Place near Tottenham Court Road in London, redesigned by DSDHA as a pocket park.

or Berkeley Homes – have well-established working drawings and project-management procedures which to an extent make the size of the design practice irrelevant. For their large Berkeley Homes blocks in Westminster, they are working with EPR. 'We don't want a big back-of-house', confirms Saunt.

Saunt and Hills – she born in Australia but long UK based, he from Essex – set up officially in 2001. She had worked for Tony Fretton, he for Erick van Egeraat's London office. Arguably these two strands of influence – the ultra-restrained versus the Dutch-flamboyant – have woven through their work ever since, sometimes manifesting themselves on the same building. Before that they had trained at Cambridge and both worked for MJ Long of Long and Kentish.

From the start, DSDHA was a name to note, not least because of Saunt's engagement with public debate and, later, TV profile. Both set great store by teaching – at Cambridge of course, though more recently Saunt has moved allegiance to the Cass while Hills concentrates more on practice. The output was always interesting, from schools through housing to art and craft galleries. It has always looked beyond the confines of the building. Their teaching has tended to concentrate on urban planning, which helps

explain why the practice is known for many public-space projects, especially parks. A key one at the moment is the 'greening' of areas of Camden, north of the impending Tottenham Court Road mega-interchange. One aspect of this is turning Alfred Place – running north from the Building Centre and New London Architecture – into a lush mini-park. This will work with other pocket parks and street modifications in the area – all commissioned by the Borough of Camden as part of its West End Project to help absorb and ameliorate conditions for the bustling population once Crossrail is in operation.

Other large housing schemes are under way in Camden's Somers Town and Greenwich Peninsula, while they continue with smaller projects such as a second work premises for jeweller Alex Monroe. Talk of schools – a steady strand of their work – gets us onto two aspects of their approach which they feel strongly about – not being typecast, and needing real client feedback. DSDHA doesn't have a house style or a particular specialist area of expertise – they are resolute general practitioners, and now large enough to offer multi-specialisms. 'We didn't really pursue BSF schools,' remarks Hills at one point. 'There wasn't a conversation there. I've been to a lot of consultation meetings, and there

can be a formula to them. But to let users inform the design in a real way is to take it right into the design process.' The whole BSF programme was just too faceless for them. Besides, DSDHA famously prefers projects with a strong element of research, and to get those you don't want clients that are too risk-averse. Yet it does land the clients: before it built the biggest residential building in the 2012 Olympic Village (now East Village), it had never done a housing block.

Then it's off in the Prius to see the new office, in an oasis-like urban yard at the heart of the Vauxhall fleshpots. 'That's a Korean knocking shop,' says Saunt gleefully, peering out at a nearby building. Their own shop is a small four-storey hive of a building, originally an 'essence' or perfume works. It's well packed with DSDHA people. Everyone takes part in charettes for competitions while the four directors lead design reviews every Wednesday. And if the two founders, still young by architecture's standards, aren't there, the reviews happen anyway. There's a collegiate feel to the place.

So how, in the end, would one define a DSDHA project? Saunt has the answer: a dash of the unexpected, like the Covert House. 'We want our buildings to slightly pull the rug out from under people,' she says. ●





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# Retail in detail

Industry experts, architects and suppliers will give this year's Retail Design Expo the opportunity to investigate all aspects of this important sector





**Opposite page**  
Lego by FITCH



**Left** The Retail Design Expo launch event attracted a great deal of interest

**Below** Ab Rogers, Interiors Head, Royal College of Art who is one of the keynote speakers at Retail Design Expo

Retail Design Expo has quickly established itself as the UK's leading event for the entire retail design industry, attracting exhibitors and speakers from around the world to the home of retail design – London – with its unique focus.

The two day event, to be held from 10-11 March 2015 at Olympia, is dedicated to retail design. Design agencies, architects, visual merchandising practitioners, point-of-purchase designers and manufacturers, shopfitters, lighting companies and specialist materials suppliers are all taking part.

Since its inception the event has been supported by a stellar steering panel formed of industry experts. Senior directors from retail brands including John Lewis, Selfridges, Ted Baker, Marks & Spencer, Tesco and Dixons have helped shape the event to meet the retail sector's needs.

They have been joined by architects including Reardon Smith and Ab Rogers Associates, top design groups including Dalziel & Pow and Fitch, and by retail property developers Capital & Counties and Land Securities, to ensure that all aspects of the retail design industry are represented.

'I am supporting Retail Design Expo because it is a pioneer, working to re-establish retail design as a creative venture and to encourage debate and dialogue,' says Ab Rogers. 'Retail needs to be rigorous, poetic and flamboyant and to use sensitivity and psychology in its approach to celebrating the object it is selling while nurturing the customer that is buying it. Retail Design Expo is bringing a new focus to these issues.'

'The retail design industry has lacked a recognised forum for many years. Retail Design Expo fills this void... offering a chance to share ideas, trends and opinions

with competitors and collaborators alike," adds David Dalziel, group creative director of Dalziel & Pow.

Industry groups POPAI (Point of Purchase Advertising International), NAS (National Association of Shopfitters) and SDEA (Shop and Display Equipment Association) are also supporting the event.

The conference programme is at the heart of Retail Design Expo. Two Retail Design Theatres will discuss the hottest trends, such as what store formats customers want, the role of retail in revitalising towns, the future of the pop-up and how to make global store formats work locally. Speakers will include Eva Jiricna Associates principal Eva Jiricna, Gensler principal Jon Tollit, SPAR head of retail Ian Taylor, World Duty Free Group marketing head Matt Chambers, Boxpark founder Roger Wade and 02 head of store design Simon Bentley.

A dedicated Visual Merchandising Theatre will see presentations from figures including Ruth Aldous-Taylor, head of retail visual identity at The National Trust, and Carlotta Jacobs, senior design manager at Selfridges. Meanwhile VM Live! will feature live demonstrations of visual merchandising techniques and skills.

These combined attractions have been highlighted by Retail Design World, a new title launched alongside Retail Design Expo to give the industry a year-round focal point, and by a growing list of media partners that now includes titles such as Blueprint, Marketing and Retail Design Blog.

The resulting attention has seen potential visitors rushing to pre-register: thousands have already done so.

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# Mack the architect

RIBA exhibition is a blast against 'the icy perfections of the mere stylist'

John McKean

Over six weeks at the end of 1900, scenery and interior settings exhibited in Vienna by Charles Rennie Mackintosh and his colleagues were visited by an astonishing 24,000 people. Mackintosh was lionised, as this early fame was sucked into the tornado of Art Nouveau. Within a few years that had sped past, but its shadow befogged the view of his architecture for a generation or more.

When in the 1920s he showed collaged elevation drawings of his recent, substantial project in Chelsea (right) at the RIBA, Harry Goodhart-Rendel in *The Architectural Review* called it 'curiously old fashioned', and later added that 'much of Mackintosh was rather a fraud'.

The range of his production – drawings, paintings, objects and buildings – was always set to confuse. The 1996-97 Mackintosh exhibition, which drew over 350,000 visitors between Glasgow, the New York Metropolitan, Chicago Art Institute and Los Angeles, never reached England. Its centrepiece was a small but wonderfully restored luncheon room: screen walls, leaded glass, huge gesso panels, pendant lights, chairs and tableware.

It's pretty easy to display decorative arts, scenery and interior settings to form a successful exhibition – and comprehensive publication or even catalogue raisonné – for paintings or chairs. Visitors to the V&A, for example, will know Mackintosh objects well. But what of his architecture?

Professor Pamela Robertson, who has held a flame for Mackintosh for many years

Mackintosh, crucially supported by his wife, in 1900 almost uniquely stood against the 'Modernist' hierarchy

as custodian of his wide-ranging trove at Glasgow University, has now topped her career with an over-arching and definitive catalogue of his architecture. This magnificent achievement by her team is the AHRC funded archive Mackintosh Architecture ([mackintosh-architecture.gla.ac.uk](http://mackintosh-architecture.gla.ac.uk)).

It is meticulously scholarly and freely available; a very fine tool. But it is the dry bones. This is not the Architecture. And indeed it is not its task to be a guide to understanding Mackintosh's architectural magic.

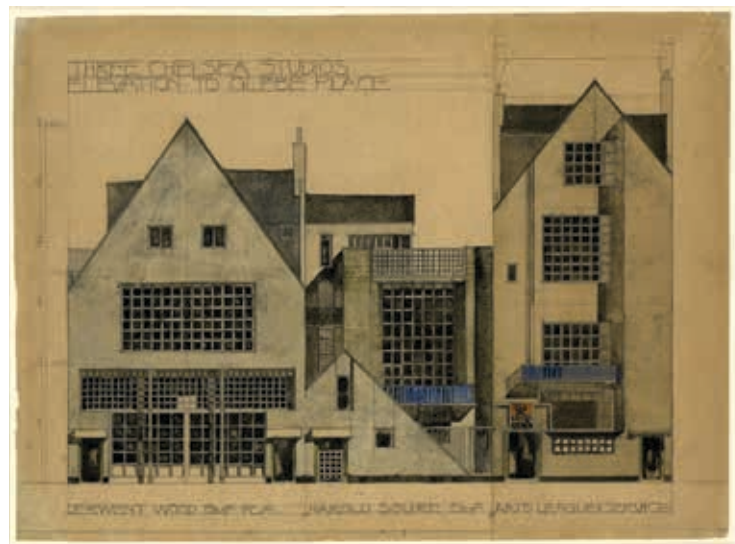
To celebrate this project we now have the linked exhibition, also from Robertson's Glasgow University, billed as 'the first devoted to his architecture'.

How best to exhibit architecture is a constant live debate. I may share Adolf Loos' antipathy to showing interior space in photography, but constructing spaces in our heads from drawings or models is an intellectual exercise which needs training. If you are the only architect who has never been there, and never seen the misleading photos, try inhabiting the Glasgow School of Art's late three-layered library from the architect's plan and section in the online archive. (NB there is no E-W section, which might help the unwary, and don't try building it on your computer!)

In an exhibition, especially one hoping to attract the non-architect, the subject may be contextualised brilliantly and his portrait well painted in image and text. But the best-intentioned shows often fail to grasp the essence of what made that architect special. The inevitable stress on spectacle over experience is impossible to avoid.

Can an exhibition present what makes

**Below** Rather a fraud? Design for a block of studios in Chelsea, London.



Mackintosh the architect important today?

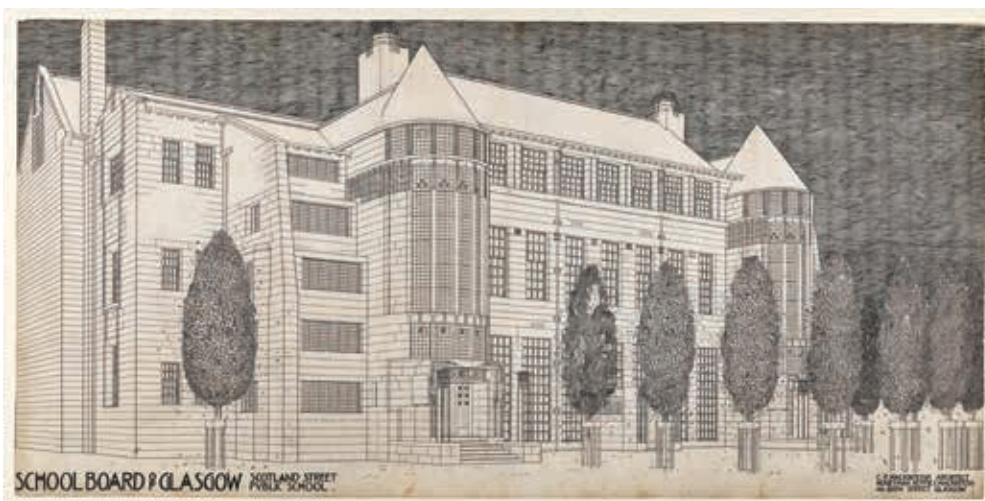
Mackintosh's architecture elevates the conventional. His planning, carefully, traditionally developed, is brought alive as it is formed in detail round that armature. The armature (utterly conventional school board plan, bourgeois house layout, standard art school parti) ensures it fulfils the basic needs. But then he elevates it, and it elevates us.

In the old notion that architecture consists of a 'mould of form' clothed in a 'glass of fashion', the plan form is presumed generative and more important. Mackintosh, crucially supported by his wife, in 1900 almost uniquely stood against that 'Modernist' hierarchy. For them the complete experience, space and surface which attracts the eye, the hand, the body, are at least as important as the armature beneath. Shapes sketched with sturdy common sense are embellished and detailed, often with virtuosity.

Perhaps architecture, so far as at any given moment it deals with traditional needs, should be customary; but then, so far as it has to meet changing conditions and ideals, it must be experimental. This last sentence was written by Mackintosh's youthful mentor WR Lethaby, shortly after completion of the Glasgow School of Art. But it precisely states Mackintosh's achievement there. The plan diagram is entirely traditional, the electric-powered air-conditioning with fans from Cincinnati (its ducts sadly fanning the chimney of flames last May) very experimental, and the place-making entirely Mackintosh.

In his conventionally planned board school, the girls on one side and boys the other reach cloakrooms and classrooms on what appear – in a glance at the perspective (above) – as Scottish round stair towers. In fact, standard dog-leg stairs are pulled back from the curved edge (half-landings offering mezzanine cloakrooms expressed as a cascade on the elevation), and instead of the expected helical risers, there are astonishing, tall cylinders of space enclosed in glass with the thinnest strips of vertical red stone.

As in the complex asymmetric symmetry of the Art School facade or the plan for Queen's Cross church, Mackintosh comforts the inattentive first glance, but offers much more to those who see what they are looking at. His magic reveals itself slowly. This is the opposite of parametric paradigmatic computer-generated shapes, where the vast skull on the plinth forms an utterly memorable



*Mackintosh comforts the inattentive first glance, but offers much more to those who see what they are looking at*

first image, its crannies then to be explored by fascinated ant colonies.

Mackintosh wins us with the most body-related gestures, and ones which – like the sloping floor of Ronchamp – hugely impact our inhabitation of places but are almost invisible to the naked exhibition or archive. Sit in the 'wall-seats' of Hill House's upper corridor (at least while the Art School corridors remain unavailable), or in the side aisle of the not-quite symmetrical church; catch a purple sparkle in the corner of the eye embedded in a timber column, or move through his own (reconstructed) living space; see the morning winter sun land on the pillows of the Hill House master bed or push the luminous swing doors into the Room de Luxe.

One final image: the little niche, carved, at a low head height, into the gently ogee-curving reveal of the master-bedroom door-case at Hill House, precisely scaled and placed to hold a single rose in its vase. In this liminal space, literally between white and black worlds, one might pause momentarily to take a breath, but barely notice the architectural transition – but for the aroma of the flower just by one's nose.

This first exhibition of Mackintosh architecture deserves imaginative reading, mindful attention. It is too easy to miss the four steps up from the public world to the domestic in Hill House, to miss the cornice bands which unify rooms within rooms of different heights – unless you are there. Mackintosh can teach all architects the power of small gestures. That is his architectural mastery. ●

John McKean wrote *Charles Rennie Mackintosh: Architect, Artist, Icon* and runs *Cognoscenti cultural history tours* (@cognoscentitrav)

**Above** Scotland Street board school – not as conventionally planned as you might expect with its stair towers housing cylinders of space.

#### **Mackintosh Architecture**

18 February 2015 to  
23 May 2015  
The Architecture Gallery, RIBA,  
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Installed by contractors Thomas Vale Construction, the 368m<sup>2</sup> of Canjaere Classic Golden was chosen due to the standard 30 year warranty against rot and decay, leading to reductions in both time and cost for maintenance, particularly important in school applications where durability is a major concern.

After installation in 2009, the A. Proctor Group was invited to use the project as a showcase for the aesthetics of the Canjaere Classic System.

## REVISITED

In 2014, the Group returned to Staffordshire to revisit the project. After 5 years of service, including several of the harshest winters in recent memory, appearance of the hard wearing Canjaere Classic system is virtually unchanged from when it was installed.

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# Ray Moxley 1923 – 2014

Fighter for private practitioners, and an imaginative and forceful construction manager whose 'rapid building' system won him the Chelsea Harbour and Excel schemes



After war service as a captain in the 81st West African Division, Ray Moxley trained at the Oxford School of Architecture where he met his future wife Jacqui. After three years in local government architect's departments, a legacy in 1953 enabled him to leave, start his practice and buy a plot of land just outside Bristol. On

this he parked a caravan in which he, his wife and their first child lived while he built a house for them on the site, carrying out every trade himself.

Moxley then became the editor of Mitchell's Building Construction, writing the first volume. Another first saw him build Bristol's joint-first high rise block in 1964, and a year later he joined Mike Jenner to form Moxley, Jenner and Partners. After this the workload grew quickly, eventually requiring the appointment of further partners – one of whom, Ann Scampton, he was to marry after the collapse of his first marriage. When a few years later it became clear that a presence in London was necessary, it was decided that he would open and run the practice's office there while Jenner would continue to look after the Bristol and Cardiff offices.

As a private practitioner Moxley found himself caught up in the concern over the constant growth of local government architects' departments in the 1960s and 70s. Architects were becoming increasingly worried about these departments, which employed over half the profession – although a study revealed that the overwhelming

number of buildings given awards or illustrated in magazines at that time were designed by private practitioners. Moxley tirelessly lobbied MPs about this, and founded the Association of Consulting Architects to fight for private practice. More than any other individual he was responsible for halting, and eventually reversing the trend.

His exceptional drive and determination made him a superlative construction manager. He developed a method he called rapid building, based on the principle that the loss of the developer's income for every week of delay is very large, while the additional costs involved in providing a very fast drawing and negotiation programme are insignificant. His success in this field brought in many commissions. The most notable example is Chelsea Harbour, on a huge site adjacent to Lots Road Power Station in south London, consisting of unused railway sidings and a filled-in coal harbour and its lock to the Thames. Working with Chamberlin, Powell, Bon and Wood, his practice prepared design and production drawings in six months for a huge number of houses, flats, industrial and commercial buildings, 8ha of underground parking and a marina in the excavated harbour. Planning permission was granted at 11pm on 15 April 1986. The pile drivers started at 7am the next day. The largest building, of 20 storeys, was topped out 18 weeks later. His last work was Excel, the International Exhibition Centre, which was completed by his son Michael.

Moxley served for some years on the RIBA Council and became a vice president. Two of his three children became architects, each eventually running their own practice. He died on 11 October 2014 aged 91, survived by his children and his wife Ann. ●

Mike Jenner

## In Memoriam

**JAMES ALAN MORRISON BELL**  
ELECTED 1950, WILMSLOW,  
CHESHIRE

**ALAN JAMES WYATT**  
ELECTED 1956, COLCHESTER

**JOHN DAVID POWRIE-SMITH**  
ELECTED 1962, ALFRETON,  
DERBYSHIRE

**VIRENDRA SAHAI**  
ELECTED 1962, CAMBRIDGE

**JOHN REYNOLDS PANK**  
ELECTED 1963, NOTTINGHAM

**KEITH JOHN FEREDAY**  
ELECTED 1969, BATH

**ANDRZEJ BISZTYGA**  
ELECTED 1973, GUILDFORD,  
SURREY

**MOSES EKER**  
ELECTED 1942, LONDON

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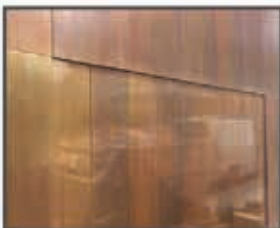
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# Exchange

## Straight to the point

It's been bugging me for ages (Steel Intelligence, RIBA January 2015). Almost without question I have admired the work of Denton, Corker Marshall and had been keenly anticipating the wonky columns and undulating roof of the Stonehenge Visitor Centre. When seen against the woods the sketches showed a remarkably sympathetic understanding of the landscape context.

But why the flush eaves? If it had been down to me I would have added some cantilevered arrow heads to each of the four corners. Cut square on the inside they could be bolted straight onto the existing structure. They could then project out into the fresh air as far as possible in a tree-like manner. Job done and for not much money!

**Martin van Zeller, Harrogate**

## Comfort break

I was very surprised by the dismissive tone of the article about grants made by the National Churches Trust (Compendium item, Matthew, Mark, Luke and John, in Products in Practice Nov/Dec 2014) and the astonishment that so many churches have been installing WCs for the comfort of users of the building.

It would appear your journalist does not visit churches very often or they would know that increasing numbers of them are used as community buildings as well as places of worship.

The parting comment about parents no longer attending church once their children had got a place at the local church primary school was uninformed and stupid.

**Helena Fickling, Moreton**

## Sense of entitlement

I totally agree with Daniel Rosenfelder (Letters, January 2015) and also find it hard



We welcome letters but retain the right to edit them: letters@ribajournal.com RIBA, RIBA Enterprises, Broad Street House, 55 Old Broad Street, London EC2M 1RX

to understand why our function has not been protected.

However, I disagree with the final word of his first paragraph and would replace it with the past tense – 'enjoyed'.

Yes, the word 'architect' is protected by law but a local authority near me has about 20 'accredited agents' – of whom only four are architects! There are plenty of 'architectural' designers and the like but how can the general public be expected to dig their way through that list to find an architect?

It is surely time for all self respecting architects to lobby our president for answers.

**Doug Fowler, Clevedon, Somerset**

## Tweetback

*Readers like columnist Maria Smith of Studio Weave's wry vision of a future where the whole profession is struck off the architecture register (page 48)...*

Sitting on the train chuckling at @studioweave glimpse into an unfeasible future in @RIBA. We certainly need more mental flogging prep!

**PAD studio**

**@PADstudiouk**

*But there were mixed responses to our panel report on research in practice...*

Interesting debate RT @RIBA. Share and enjoy: why disseminating findings is a vital part of #architectural #research [ow.ly/Heg3t](http://ow.ly/Heg3t)

**FINSA IRELAND**

**@Finsalreland**

@RIBA. Pitching for work then trying to turn a profit is the priority for all practitioners except academic architects with time to spare!

**mark dudek**

**@markdudek1**

*And it's fair to say the response to Robert Adam's neoclassical towers in Reading was not enthusiastic...*

@RIBA. More inept design from the 'leaders' of traditional architecture

**Eamonn Canniffe**

**@eamonncanniffe**

@RIBA. This looks awful, but Reading is full of awful buildings, so at least it's in-keeping with the surroundings?

**Darren Wing**

**@darren44**

Re the discussion on ligatures (Letters, January 2015), if you wish to pursue this kind of anachronistic and obscure typographical affectation, why not also use an 'f' (without the crossbar) instead of an 's'?

**Brian Loudon**



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### Dower House adds Impey Wetrooms for Luxury Conversion

Independently owned Dower House Hotel in Dorset has recently undergone a refurbishment which saw all ten ensuite bathrooms in the hotel converted into stylish wetrooms using Impey's Aqua-Dec EasyFit and Impey's Waterguard tanking system, delivering a reliable and fast solution for each room.

The wetrooms were chosen to maximise the efficiency of the space available and also to provide a more contemporary and luxurious feel to the bathroom and shower rooms.

Stephen Pelling from Impey Showers, said: "Wetrooms are the ideal solution for hotel bathrooms because not only do they make the most of the space that's available, they can be installed in rooms with awkward proportions and as an additional benefit, enhance the feeling of luxury in a room, giving visitors the experience they desire."

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### NVELOPE's clads BREEAM excellent office

NVELOPE, the rainscreen cladding specialist has supplied its NV1 system to a recently built BREEAM Excellent rated office in Aberdeen. The vertical cladding support system has been applied to the five storey bespoke building, supporting approximately 3000 square metres of granite cladding. NVELOPE's NV1 flexible point brackets were well suited for this project as they allow for expansion and contraction of the cladding when under strain from various weather conditions including strong winds.

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Biomass boilers specialist Wood Energy is introducing five new service and maintenance plans for its installations. Considered to be a first for the industry, the company is offering 20-year boiler warranties. Wood Energy's boilers already come with free five-year body and electrics warranties. Under the new maintenance schemes, this can be extended to up to 20 years, depending on boiler type and application to match the period that payments can be made under the commercial Renewable Heat Incentive scheme (RHI).

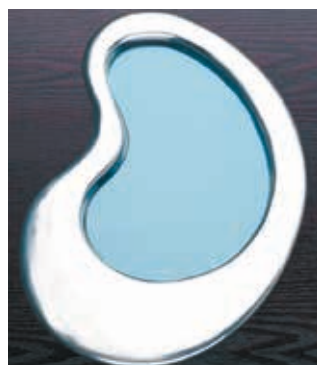
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### Mapei contributes to outstanding green spec at The Crystal

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### New Comar Website: Mobile, Social Media & BIM Ready

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BIM information is available through logging into the Comar Partner Website. Simply register for a password. The Comar Partner website offers further detailed technical information, such as their extensive range of Technical Manuals, Test Certification, NBS templates and clauses, and for their fabrication partners CNC and tooling information.

Find the new website at [www.comar-alu.co.uk](http://www.comar-alu.co.uk)



### Light at the museum

Zumtobel has delivered a new architectural lighting scheme for Oxford University's Grade 1 listed Museum of Natural History. Only limited drawings of the building existed so the building was manually measured and digitally modelled. An appropriate fixing system that would not damage the building was also required. The resulting architectural lighting solution comprises a combination of Zumtobel, Bega and Limburg LED luminaires, which improve the overall lighting in the museum as well as illuminate the architectural features of the building, enhancing aesthetics and providing an energy efficient solution.

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### Stone cladding, a natural complement to traditional brick

Morris Homes chose Taylor Maxwell's Stonepanel™ natural stone cladding to put the finishing touches to the 80 homes in the rural phase of the Vista development. The site off London Road in Peterborough is the country's largest zero carbon housing development and was voted the winner of the Best Low or Zero Carbon Initiative at the 2013 Housebuilder Awards.

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### Cembrit

Kent housing development, 'The Poppies' has benefitted from the installation of Zeeland fibre cement slates from Cembrit. The slates were specified as the textured surface and square edges give a very natural appearance and complement the external weatherboard and brick finish. Zeeland slates are manufactured to the highest European standards using Portland cement together with a formulation of superior blended synthetic and cellulose fibres and are finished with a high quality, semi-matt acrylic coloured coating.

w: [www.cembrit.co.uk](http://www.cembrit.co.uk)



### Cliff hanger for Kingspan

Situated just metres from a crumbling cliff face, Cefn Castell is a stunning property that has been featured on the latest series of Grand Designs and includes a number of Kingspan Insulation products. Despite its limited life expectancy, the owners were determined to do justice to the striking location and made construction quality a priority. Kingspan Kooltherm K3 Floorboards and Kooltherm K8 Cavity Boards were installed on the ground floor and exterior walls, with Kingspan Thermataper TT47 LPC/FM fitted on the flat roofs.

w: [www.kingspaninsulation.co.uk](http://www.kingspaninsulation.co.uk)



### Copper memories

Corrugated Nordic Brown copper, from Aurubis Architectural, defines the character of a new secondary school in Strømmen, Norway, and is reminiscent of the town's industrial heritage. White Arkitekter's competition-winning design is a rigorous interpretation of its programme. Conceived as a hilltop plateau, the entrance level is open in character with extensive full-height glazing, accommodating specialist areas including a library, workshops and studios. Floating above is the more introverted copper box, housing all the classrooms and related spaces, organised into three different grades. Copper satisfies the client's requirement for a 100-year lifespan school and its sustainability credentials are important in this low-energy building. But the unique visual characteristics of the corrugated Nordic Brown copper proved central to the design, both as a thoroughly contemporary material changing over time and as a memory of the riverside sawmills and later heavy industries in the town. Nordic Brown products are pre-oxidised at Aurubis' factory to give straightaway the same oxidised brown surface that otherwise develops over time in the environment. The thickness of the oxide layer determines the colour - either Nordic Brown Light or the darker Nordic Brown - and the darkening oxidation process continues in the natural environment.

w: [www.aurubis.com/finland/architectural](http://www.aurubis.com/finland/architectural) e: [g.bell@aurubis.com](mailto:g.bell@aurubis.com)



### TRUE TO TRADITION: New handmade clay tile to launch in early 2015

A new range of premium handmade clay tiles is due to launch from Marley Eternit at the beginning of 2015. The Canterbury handmade range acknowledges Marley Eternit's heritage of previous handmade clay tiles, which were available until the early 1990s.

Marley Eternit is bringing back traditional skills to provide a genuine handmade tile that architects are looking for in today's market. The new Canterbury tiles will be available in three colours; Chailey (orange), Loxleigh (antique) and Burford (brown) with its own handmade fittings range.

Premium projects and heritage sites can benefit from the high quality aesthetic of the richly coloured tiles, particularly in areas subject to specific planning requirements and where handmade roof tiles form part of the architectural vernacular, such as the south east.

The tiles will be handmade by skilled craftsmen, using locally sourced Etruria Marl generally accepted to be the finest clay for strength and durability.

t: 01283 722588 w: [www.marleyeternit.co.uk/handmade](http://www.marleyeternit.co.uk/handmade)



### IKO launch Academies Brochure

IKO PLC has launched a new marketing initiative to promote the importance of maintaining the watertight integrity of school roofs. The brochure provides details on the range of services provided by IKO including a no-obligation free roof appraisal, bespoke design meeting legislative requirements to reduce site risk, a range of warranty packages, assistance with the tendering process and a partnering approach to obtaining funding through the bid process. A copy of the brochure can be downloaded at: w: [www.ikogroup.co.uk/flat-roofing/](http://www.ikogroup.co.uk/flat-roofing/)



### Desso launches new circular economy material stream

Desso has developed a new material stream for its carpet tiles based on a partnership with a group of drinking water companies in the Netherlands. In collaboration with Reststoffennu in the Netherlands, Desso has found a way to upcycle re-engineered calcium carbonate (chalk) from local drinking water companies. The result of this new innovation is that Desso's products with EcoBase™ backing will now contain on average 50% positively defined recycled content.

w: [www.desso.com](http://www.desso.com)



**Witley Park**  
near Godalming, Surrey, 1900

Dell & Wainwright were one of the great partnerships in the history of British photography. Their innovative work for the Architectural Review was extremely influential on both their contemporaries in the 1930s and the younger generation of photographers who operated after the war. While a reasonable amount of information has so far been available on Mark Oliver Dell (1883-1959), hardly anything was known about his partner HL Wainwright – other than that he was originally one of Dell's students and much younger than him. A recent breakthrough – courtesy of the RIBA Information Centre – has

been his identification as Herbert Lionel Wainwright, born in London in 1902. After Dell retired in 1946, Wainwright, who died 30 years later, continued working in the modernist tradition and to a very high standard, as demonstrated by this photograph of a house designed by Patrick Gwynne in 1962. The vertical and diagonal lines create a beautifully balanced composition that draws the eye towards the window in the background. Graphically strong, the image also conveys the fluidity of the space and its simple modern décor. ●

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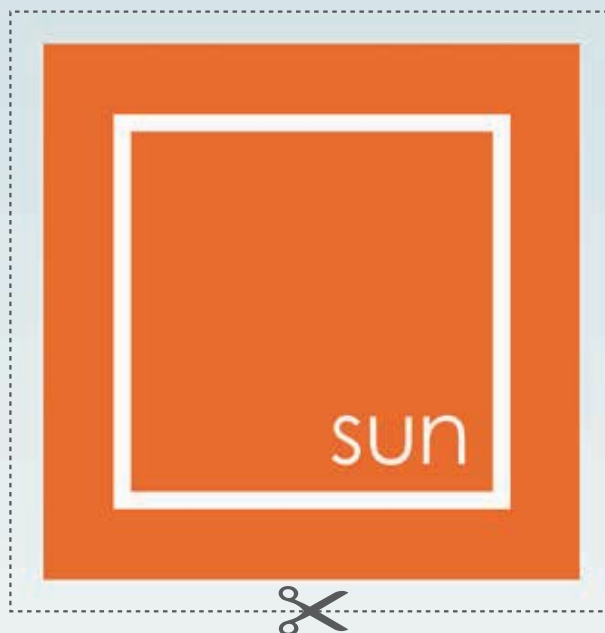


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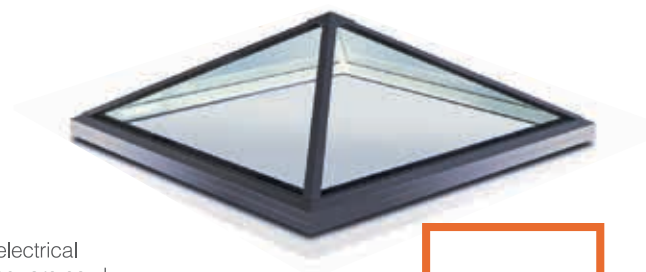


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