RIBA J

PIP

Products in Practice
Mar/Apr 2014

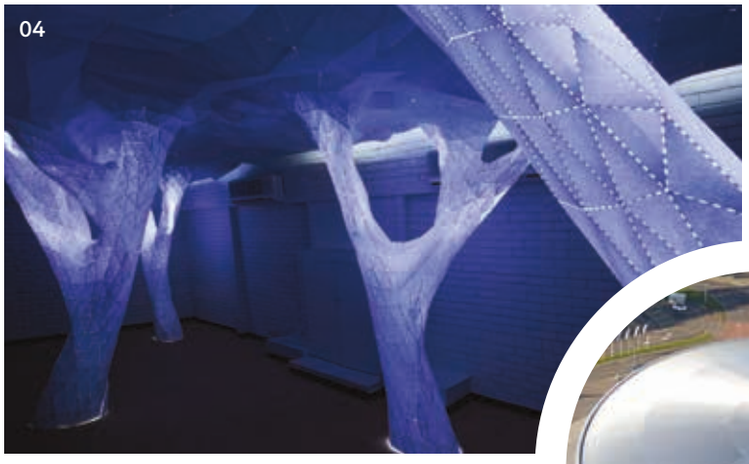
A miss

...is as good as a mile. Or is it? The maxim attaches very little import to the notion of anything less than perfection, but if there's anything to be gleaned from this issue's features, it's that compromise is a wonderful thing. Mole Architects' work is very much based in the real world, and it has honed its skills not necessarily through bookish study, but by living in the kinds of spaces that it builds for others. And so it tweaks them as it learns, is clearer about where the cost savings are best made; and is engaged in comfortable habitation and beyond.

Likewise, Wilkinson Eyre showed professional acumen by running with an existing planning permission, and without any radical design changes, to optimise both space planning and thermal performance without any formal resubmission. Changing the nature of the cladding and the space from behind the glazing line was a savvy move. When goalposts move, adults try new approaches. But kids? Kids keep kicking the ball about and get on with it.

This discipline has seen enough crackpot master plans to know that Utopia doesn't exist – that the perfect solution is impossible. Far better then, to comprehend the conditions as they stand, to analyse and interpolate them, and to create around them a grounded but happy medium. Second best can be twice blessed.

Jan-Carlos Kucharek, Editor



Cover image: Facade of 10 Brock Street office building in London by Wilkinson Eyre

Compendium

MATHIEU DUCROS

Hole in one
Boat manufacturers don't generally like holes, but French firm Beneteau seems delighted with this filigree facade at its Givrand HQ. With more perforations than a Tetley teabag, HI-Macs' acrylic stone mesh helps shade the sun-drenched building behind, and sports an appropriate wave motif too. The lacey shroud bestows a demure modesty on the structure – actually two buildings made one by the cladding. After the recent presidential shenanigans, the nation will no doubt welcome modesty in any form!

Cold comfort
If you thought some of the Living Architecture sites were remote, they're nothing on this. Dune house architect Jarmund/Vigsnaes designed the Rabothytta cabin for the Norwegian Trekking Association, as a base camp for mountain expeditions, overlooking the Okstind glacier. At 66° north, 1200m above sea level and only 60km south of the Arctic circle, this cabin envelope needs to perform, and the highly insulated timber structure was protected with Dupont Tyvek Soft and Supro Grid breather membranes during and after construction. Its placement interstitially will help no end with the product's robustness. Designed 'to accommodate up to 30 people', one can only shudder at the thought of the Nordic après ski parties (see below).

HEMNES TURISTFORENING

Frozen in time
Sto Group launches its 2014 programme at its Clerkenwell showroom in London in March with an exhibition of the charity Arcaid Images' Architectural Photography Award winners. The show will be the first of the group's new 'Werkstatt' events, a German word paying homage to the eponymous 19th Viennese art and architecture movement. No surprise, then, to see Tim van de Velde's photo of Peter Zumthor's Bruder Klaus Kapelle making it onto the walls as a prizewinner, but it does beg the question whether the truly iconic 2007 building can ever make a bad photo. Classically photogenic, it would look good wrapped in a bin bag – a bit like Kate Moss. Well, that's the organ-grinder vindicated – pop to the show to gauge the skill of the monkey.

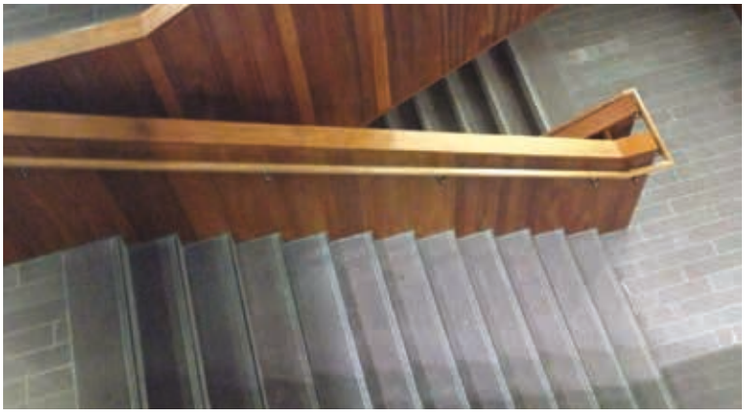
TIM VAN DE VELDE

SUMEDH PRASAD/ORPROJECT

Paper planes
Design group Orproject raised an occidental eyebrow when its 'Vana' installation for the India Design Forum in New Delhi popped into PIP's inbox. The firm, with addresses in London, Beijing and India and formed in 2006 by four eco-obsessed AA Diploma graduates, treads similar territory to a host of other Design Research Lab graduates – but these are leaving an imprint. The parametric Vana is 'an iso-surface around an anastomotic network diagram'. That'll be 'paper trees' to you and me. But for imprints' sake, let's hope they video conference rather than fly…

UPCOMING
Ecobuild ExCel London, 4-6 March
MIPIM Palais des Festivals, Cannes, France, 11-14 March
Sustainability Live NEC, Birmingham, 1-3 April
BIM Show Live Manchester Central, Manchester, 23-24 April
International Passivhaus Conference Eurogress, Aachen, Germany, 25-26 April

Blue Christmas
I've been to London's Berkeley Hotel Blue Bar only once, after a bizarre carol service at the nearby St Paul's, Wilton Place. To get bums on pews it was running an 'X-Factor'-style concert in which the congregation were being asked to vote for their favourite, culminating in a sing-off. Post-show, Lyndon Design's new 'Frank' seating reminds me of the restrained opulence of that cocktail bar's decor. And I ended up plumping for 'Away in a Margarita'; or was it 'Good Gin Wenceslas?' I forget now...



Stone deft
There'll be a welcome in the hillsides ; well the stair cores at least, at RHWL Arts Team's new £89m Guildhall School of Music & Drama, which opened the end of last year in the City of London. Butting up to the Barbican, Welsh Slate supplied stone to the new arts venue Milton Court, which includes a 600-seat concert hall and 223-seat theatre. Over 500m^2 of its Penrhyn Heather Red slate was supplied to the public areas. The sleek stone was chosen to complement the engineering brick floors that run throughout the Barbican and to reduce the building's carbon footprint.

ANDY PARANT

Snow wonder...
It's tough at the top, especially when the top is Mont Blanc. Perhaps it's just the feelgood factor from the Sochi Winter Olympics (what, there is one?), but according to French Property firm Athena Advisors, with sales of ski chalets over €1m increasing by 32% last year, more than just the ski lifts are on the up. The boom's spawning things like the Chalet Husky in France's Val d'Isere; a £10m, 7-bedroom fantasy by Jean-Charles Covarel. The 600m^2 pad takes aprés ski to new heights, with bar, jacuzzi, pool, gym, pistol range, waterfall and climbing wall. The result is, well,intriguing. Covarel 'pre-finances the entire build of every property he creates'. Although it's an architect's dream scenario, this doesn't surprise. Who the hell would pay for it?

ANDREW HENDRY

Square meal
When award-winning chef Régis Crépy wanted to shed light on his culinary creations, Sunsquare filled a hole. The owner of the Great House in Lavenham, 'one of the best restaurants in England' says the Sunday Times, fitted his new home demo kitchen with two of its 1.5m^2 Skyview rooflights. He says 'they were fitted within the hour' – enough time to have the pork belly in and out the oven.

Ecobuild

If those that didn't get a ticket to February's RIBA Gold Medal presentation at Portland Place do nothing else at this year's Ecobuild event, they should pop along to ExCel's South Arena on 4 March from 3pm-4pm to hear doyen of architectural criticism Joseph Rykwert in conversation with Independent architecture critic Jay Merrick. Rykwert has been guiding thinking on criticism for over 50 years, and will here address the subject of private wealth vs. public realm – a particularly resonant theme in this part of London, where in the 1980s Olympia and York's Canary Wharf almost single-handedly introduced the concept of privatised space into the public realm, and where the Olympic Park development represents a natural evolution of the thinking. I can't wait.

The system of multiple drop-down tabs on Ecobuild's website probably introduces an unnecessary level of complexity to proceedings, as does the introduction of 'Core Content Zones' to this year's show – which could be understood as presenting sustainability as a categorised, rather than holistic approach. But personal niggles aside, it seems there's much to engage the 44,000+ industry professionals expected to attend over the three days. At this, its 10th anniversary, the event's seminar programme is strong – as usual – meaning that you'd be advised to check the conference schedule beforehand to make best use of your time.

> My recommendations include the always entertaining 'glass half empty' eco-grumblings of Zedfactory's Bill Dunster at the 'Zero Carbon by 2016?' debate

My recommendations would be the High Speed rail discussion, with Imperial College's feisty Professor John Polak on the panel; the always entertaining 'glass half empty' eco-grumblings of Zedfactory's Bill Dunster at the 'Zero Carbon by 2016?' debate; and the 'Has the Green Deal sent the retrofit revolution into reverse?' seminar. This last will be worth turning up to if only because there'll be no government representation at all at the table. Knauf's Jon Sinfield will be there however; vested interests or not, he seemed to be the only one actively speaking out on national media about the travesty of government downscaling of the Big Six energy companies' ECO commitments recently. Compared to the overarching issue of upgrading our existing built stock, the 6% reduction in carbon emissions for new build homes demanded by the incoming Part L regs seems like fiddling while Rome burns! ●

Ecobuild runs from 4-6 March 2014 at ExCel London
www.ecobuild.co.uk

PIP takes a look at a selection of products exhibiting at this year's show

Ultrascape
Construction products firm Instarmac is giving a new meaning to the term 'walking on glass' with its 'Ultrascape' mortar paving system containing recycled glass. Compliant with BN7533, ensuring that installations have a minimum construction life of 40 years, it means the glass impregnated paviours are robust enough to take punishing daily loads of 1000 'standard axles a day'. Guns 'n' Roses' lead singer Mr Rose will be happy; god knows, with the number of TVs he's thrown out of his hotel window in his time, he'll be reassured to think the shards have been put to good use...
Stand S1604
www.ultrascape.co.uk

Internorm
Think of Passive houses in the UK and you're usually thinking of dealing with extremes of cold, so Internorm's dangling of the carrot of a fancy modern Mediterranean home on its press release in our drenched midwinter is something of a cold comfort...but not without reason! Internorm's new timber and aluminium ranges offer U values of 0.63W/m²K, which works either side of the glass. The new 'I-Tec Shading' is a self-powered solar blind, preventing solar gains in those envy-inducing climes, and along with its 'I-Tec Ventilation', aims to keep a home's jet-set occupants even cooler.
Stand S710
www.internorm.co.uk

Alutec
With Bazalgette's Victorian sewers unable to deal with run-off from the capital's streets, we must be crying out for the mooted 21st century superdrain running beneath the Thames- proving true the maxim that no-one cares about drainage until it doesn't work. Alutec is dealing with the problem from both chronological ends. It's launching its new 76mm Tudor downpipe, an aluminium version of the classic black Victorian cast iron ones – and in 20 colours. If that isn't modern enough, you'll be able to specify them in 3D too, as they're all included in Alutec's high-tech BIM components library.
Stand S1711
www.marleyalutec.co.uk

Kemper System
It looks like diligence, patience and kemperance is the motto at the ancient City of London, where the crenellated 1960s elevation of its Business Library is now topped off with the firm's Kemperol 2K-PUR, as part of the Phase II refurbishment of the building's west wing – done on time in six weeks. And, it seems, the imaginary Company of Glassfibre Makers is involved, with 25% of its non-woven reinforcement fleece made from recycled bottle content. The firm is also showcasing its Kempergro Green Roof system, allowing those glass fibre sheep to glaze...I mean, graze.
Stand S1520/21
www.kemper-system.com

Preparing for 2016

Most of the people we work with have now adopted a BIM application; they use it to deliver their project and there is a go-to guy in the office who resolves any problems with modelling. What amazes me are the questions that still get asked about what BIM means; are we doing level 2 BIM? What's a BIM Execution Plan? We've been working on the project for X months, when do we create an EIR? It tells me there is still a misconception that your software choice makes you BIM capable.

BIM really starts at the end – a model's final requirement should be the goal. You're not just thinking of the design of a building any more but how the process can provide additional deliverables that will allow it to be managed as a long-term asset. Have you discussed what BIM means to your client and its end goals? How will your client manage its building and the information it needs to do so? What will its facilities management software allow it to import; a model, a spreadsheet or some other proprietary format?

BIM really starts at the end – a model's final requirement should be the goal

Have you created a typical BIM Execution Plan (BEP) that lists not just the model-detail but the metadata you will include, and at which stage of the project? This will allow you to show your client and design team what you expect to deliver and when, and allow any extension of services to be added in.

With a 3D model for Architecture, Structures and MEP, are you checking and validating your model before issue? This doesn't necessarily mean an individual needs to be responsible; a model validation checklist can be created for the team to use to review the model against the BEP's requirements.

A typical BEP tells you what you're delivering at each stage. You can improve this by considering your co-ordination tasks and the end goal; you may find that less detailed modelling, but enhanced metadata, early on will let a quantity surveyor change the bathroom specs without making several man-hours redundant.

The government's mandate to deliver all public projects using Level 2 BIM by 2016 means we are likely to see the same requirements from other clients and contractors. If you aren't sure what Level 2 BIM means and how it will shape your approach, take a look at PAS1192-2:2013, which specifies requirements for achieving BIM Level 2, and work out what you need to change within your project workflows to make reach this before the 2016 deadline.

Daniel Heselwood is associate director at BIM consultancy Evolve

Books

High impact fee negotiation and management for professionals
Ori Wiener
Kogan Page, 243pp, PB, £39.99

An architect told me that he has a small circle of architect friends who meet over dinner solely to discuss project fee negotiation, to ascertain that he is charging the market rate. Such financial intimacy is rare but precious; and for those of you not privy to it the old RIBA fee scales must offer very cold comfort. Wiener's book is more reassuring. Writing in an accessible manner, he recognises the difficulty of fee negotiation, but sets it against the perils of discounting for any professional discipline. The mathematics? On page 27 a graph shows how a 10% discount leads to a 30% profit loss. His answers aren't easy; negotiators must be pragmatic and robust, and you need to be sure you know your worth. But it's a stimulating, pithy read. 'If you think hiring a professional is expensive,' he quotes Red Adair, 'Wait until you hire an amateur.'

Residential Retrofit: 20 case studies
Marion Baeli
RIBA Publishing, 128pp, PB, £25

Did you hear the one about the architect who asks his Irish builder 'So Paddy, what's the difference between a joist and a girder?' 'Ah,' he replies 'One wrote Ulysses and the other wrote Faust.' We can be confounded by our own preconceptions, which is why I like the fact that before this book even starts, the author, an associate at architect Paul Davis+Partners, gives precise definitions: units of measurement, energy nomenclature and sustainable terminologies. Only then does she go into detail on 20 completed retrofit residential projects from 1919 to the present, by different architects. Plans and sections augment concise explanatory text, photographs, graphs and diagrams. Many books cover this topic, but in few is the information so readily to hand and comprehensible. An invaluable text for those working in residential retrofit.

A-Typical Plan: Identity, flexibility and atmosphere in the office building
Jeannette Kuo
Park Books 202pp PB £35.10

Some books force a reappraisal of your way of thinking. I found that with Eric Jenkins' 2007 book 'To Scale', which presented urban plans as black and white drawings at exactly the same scale. In this way, Michelangelo's Piazza Campidoglio can be understood on the same terms as, say, Niemeyer's Brasilia Secretariat. Kuo's book on rethinking the office form offers similar pleasures. In one section identical line drawings level Wright's Larkin Building, the Hong Kong Bank and SANAA's Rolex space. In another, a row of single photographs of the same building forces rereading of them all. And short, punchy essays address different architects' and students analyses of the typology. The book shows how the curation of information can be as revelatory as the information itself.

Mental health

What: Anti-ligature ironmongery and window restrictors
Where: Southern Health Trust

The Department of Health Estates and Facilities alert last year, issued after a 'confused and agitated' patient in a secure mental health facility overcame a window restrictor and died falling from a second floor hospital window, would not have taken the sector completely by surprise. Despite recommendations in mental health tsar Professor Louis Appleby's 2001 'Safety First' report, to – as far as possible – 'design out' the possibility for patients to self-harm, the incident highlighted that NHS Estates still had cause to ask if it had fully addressed the issues raised by Appleby.

Part of the problem, explains Clive Stone, director of Primera Life, which claims to be the only ironmongery company in the UK dealing solely in door and window sets for health and custodial environments, is the sheer cost to the NHS of replacing them. 'Purpose-built windows and doors meeting the highest specification could set you back £2500-3000 per window,' he explains. The job for the NHS is to upgrade its estate within limited funding streams.

Primera was born when Blackpool locksmith 'Lockshop' was asked, at the time of Appleby's findings, to carry out remedial works to health facilities in the area. This forced the firm to consider ways to retrofit existing doors and windows.

'We developed our own designs that could be fitted for as little as a tenth of the cost of installing a new door or window,' explains Stone. He says that one difficulty is that guidance for this ironmongery niche covers only domestic wear and tear scenarios rather than those meant to test the window beyond its normal working envelope. 'Restrictors for standard domestic windows are designed to withstand a pushing load of 350N: ours will work to loadings of up to 2000N,' he adds.

Primera's work at the Southern Health Trust is ongoing. The firm has installed its restrictors in more than 20 facilities at a cost of around £200,000, although Stone believes the final figure might be nearer half a million pounds. Each completion requires a Health and Safety assessment to ensure all scenarios have been considered. The final cost to the NHS to upgrade all its UK estate will run to tens of millions, but, he concludes, it's a cost they'll see as justified to prevent needless loss of life, and to avoid the crippling litigation that follows in its wake. ●

PRIMERA LIFE

Following publication of the Appleby Report, and spotting a gap in the market for retrofitting safety ironmongery on existing NHS facilities, Technology Services set up in 2002, becoming Primera Life a few years later. The firm, which specialises in mental health facilities, has an annual turnover approaching £2m and a small team of nine sales, logistical and administrative staff working out of its Blackpool base. But this masks a bigger operation, as the firm subcontracts all its ironmongery orders to regional specialist fabricators to manufacture: the firm that does the casting has 15 employees, metal plate laser cutting employs further 25, and there are 10 spring manufacturers. Elements are brought together at the assembly plant in Willenhall, West Midlands, which employs 70 people. Primera Life is looking to expand into the dementia and care markets, the latter involving completely different approaches to ironmongery design – being more about ease of use than difficulty.

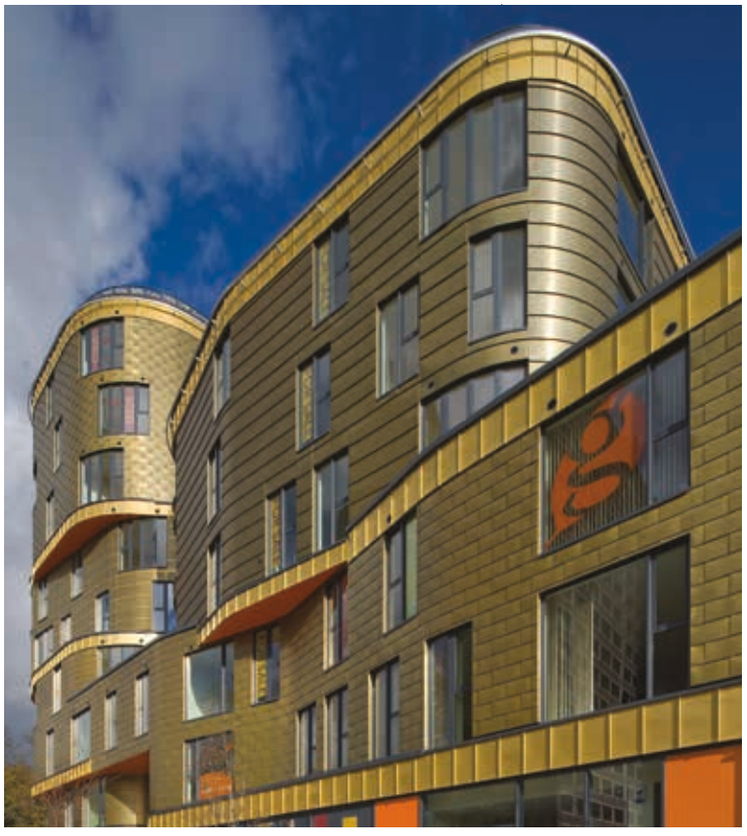
Left Restrictors installed at Postern House Assessment and Treatment unit, Marlborough, Wiltshire.
Above Detail of the simple restrictor installed.

Primera Stronghold window restrictors

National guidance
Anti-ligature ironmongery is generally covered in the Door & Hardware Technical Specification TS011:2013 (B4), which addresses the safety of people who may be at risk of self-harm in special care environments. The Stronghold window restrictor meets these criteria.
Specific guidance
It also meets guidelines in Health Technical Memorandum HTM55 Windows (NHS Estates).
General rules
Where single restrictors are fitted, consideration should be given to a second restrictor/replacement if:
→ The existing is of inadequate strength for the situation
→ The restrictor can be disengaged without a special tool or key
→ The maximum opening exceeds 100mm
→ The window is located where it could be subjected to determined physical abuse
→ The window is located where patients are identified as being at risk and requiring supervision.

Made

Chris Leach
Operations director



What: Prater
Where: Thurrock, Kent

For the firm that put a roof on the Olympic 'Pringle', the Walkers crisps commercials must really have hit home, because when Prater operations director Chris Leach talks about how the firm's making its mark in the competitive cladding business, it's not long before he's talking about them. 'I call it the Walkers Approach,' he says. 'I noticed that as well as nutritional information, they also had a g/CO_2 figure, giving the total embodied energy of the packet of crisps. Our ambition is to do the same with how all our products are manufactured and procured, so we can minimise as far as possible the environmental impact that we, and our clients, have.'

And he appears to be putting his money where his mouth is. To reduce its carbon footprint, he says the firm is looking at its supply chains, and whole life carbon and social approaches. This involves local employment (to reduce employee car miles), video conferencing and making sure its packaging is as sustainable as can be. 'It's all just part of our ISO14001 and ISO9001 external auditing process,' he adds.

The family-owned business began in 1950 as a mastic asphalt contractor, but since 2000 has become a one-stop envelope solutions firm with a workforce of 250 and a turnover in excess of £80m. Its shift from roof to walls was simple. 'We were having to deal with interfaces ourselves, or with specialist subcontractors,' explains Leach. 'So we took control of the whole process.' This means the firm will do anything from manufacturing all its own aluminium sections, sheets and glazing, to ordering it in via the likes of Schueco and Reynaers – and anything in between. This ability to mix and match products and disciplines has given it an edge in projects such as hospitals and schools – multi-functional buildings with more complex elevations that are likely to use timber rainscreen cladding, render and curtain walling.

'Doing cladding, glazing and roofing together means we're effectively a one-stop-shop, in full control of every interface,' notes Leach.

And the firm isn't afraid to punch above its weight, being involved on major projects. As well as roofing the Olympic Velodrome, Prater worked on the roof of its Orbit Tower and the Media Centre. In the capital it has teamed up with Dixon Jones on The Quadrant, Piccadilly; with Studio Egret West at 'The Fold' in Sidcup; and on the refurbishment of London Bridge station. It is completing the £20m roofing and cladding package with the exception of the unitised units to the main tower block on the new £840m South Glasgow Hospital by IBI Nightingale. Most recently its involvement installing the green roof on the Peacehaven Water Treatment plant helped earn the building the Thomas Brassey award at the Institution of Civil Engineers last year.

Although the firm is now part of the German Lindner Group, Prater does manufacture

Far left Prater was responsible for supplying all the envelope components for Studio Egret West's The Fold in Sidcup, Kent.
Top right The 18,000ft² Prater plant in Thurrock.
Below right Manual welding in the Crowborough plant in Sussex has recently been complemented by an industrial plasma cutter.

systems for export, and Leach says it wants to stay true to the targeted markets it has nurtured over the last 60 years. But the competition remains tough, with European competitors seeing the UK 'as a more stable market and wanting to come and play'. Curiously, he's less concerned about Chinese cladding competitors, who he sees as more geared to larger scale, single unitised systems. But competitors aside, Leach is looking to the future with cautious optimism. 'We're seeing opportunities that were put on hold start to come back online, which suggests the economy is looking up,' he says.

But the nervousness is still affecting procurement. 'It's symptomatic that, in response to a downturn, clients only commit to projects at the last moment, putting serious pressure on our production timescales,' he notes. For the sake of company and country alike, you sense he'd like to see both on a more even keel. ●

This editorial is supported by Prater.
www.prater.co.uk

1. TWO FACTORIES, ONE COMPANY

Prater is a specialist cladding contractor providing design and installation services for the complete building envelope, having developed an expertise in the facade design of more complex PFI projects, such as schools and health facilities. The firm also works in the residential, retail and leisure sectors, including stadia design and airports. As well as providing the full range of cladding systems, the firm has developed its skills at off-site manufacture to increase both quality and programme efficiencies. The business has two UK factories, one in Thurrock, Kent, and the other in Crowborough, Sussex. The Kent plant fabricates aluminium extruded products for door and window and unitised cladding systems, using its recently installed CNC cutting and punching machinery, with the Sussex plant concentrating on cutting, pressing and welding of steel sheet. While both plants are small in terms of space, all the machinery is state-of-the-art and none of it over three years old. The Sussex plant recently took receipt of a £49,000 plasma cutter, allowing the firm to fabricate more specialist metalwork components itself.

2. PRICING

Fabrication starts with verification of the estimate price for a job. These are usually ballpark figures based on the pricing of standard components, value engineered to take account of any non-standard elements. The firm uses Logical software, compatible with the systems used by suppliers such as, for example, Kawneer, Reynaers and Schueco. Co-ordinated internally using Excel spreadsheets, this will create the cladding template and be used to generate the final pricing invoice.

3. LEAN PRODUCTION

With the Logical software, the dimensions of any element are defined and the programme tells the nature and amount of items – glass, profiles or gaskets – required to manufacture it. This works order is then sent to the shop floor, where all the components are stored. They are held on shelves in the factory and coded digitally. The 18,000ft² factory is compact, and with space at a premium, the firm wants to optimise its use by reducing order volumes for new components to a two-week storage window: stock is all computer-audited.

4. FACTORY SERVICES

With no reliance on third parties, Prater claims it can reduce risk in aluminium cladding specification. Facilities are up-to-date, with a new CNC cutter taking pride of place in the Thurrock plant and a newly installed metal plasma cutter at Crowborough. Of the 250 operatives the firm employs, only 34 are based at its plants. If the plant is running 24 hours a day in two shifts, it can work at high volume, producing up to 200m² of cladding a week. Unlike unitised cladding, which is fully finished before leaving the plant, stick cladding is assembled on site.

5. MINIMISING WASTE

To meet its commitments to BS14001, Prater has looked to streamlining waste as well as work processes. The firm has reduced the packaging of its products as much as possible to ensure safe delivery to site without the associated wastage. Sustainable approaches also extend to video conferencing to minimise travel and aiming to employ people from the local workforce.

Stackyard House Suffolk

Despite the use of concrete and off-the-shelf glazing, Mole Architects' latest sustainable house still sets the bar high

Words: Jan-Carlos Kucharek Photography: David Butler

South elevation of Stackyard House: the first floor main bedroom peeks over the parapet to the left, basement level bedrooms give views west down the valley. Sliding shutters on windows, manually operated, help mitigate solar gain.

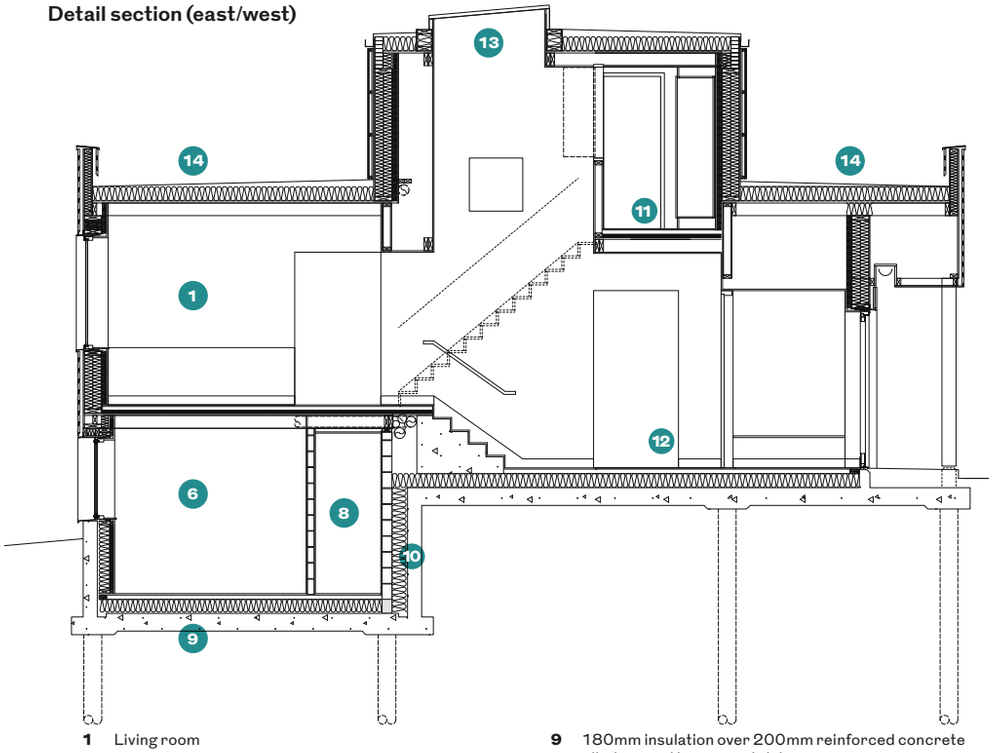
'I kept trying to dissuade them from installing one, but the client was really insistent – we just had to make sure that it wasn't one that leaked air.' Mole Architects' Meredith Bowles is talking about the woodburning stove in Stackyard House – the firm's latest home – constructed for a retired couple to passive house principles in Palgrave, rural Suffolk. As designed there's no need for it, but it's more about warming hearts than bodies. 'They're both from old local farming families and have spent their lives rattling around rambling, draughty 17th century timber farmhouses with open fireplaces,' he explains. 'They thought they'd miss them, so it was to evoke a memory.' There won't be a lot else they'll miss in downsizing from the old place. Here the couple has a modern and highly thermally efficient home and studio that's also Lifetime Homes compliant.

While they didn't know much about passive house principles, Bowles says they were certainly receptive to the ideas, interested in heliotropic buildings and green roofs as well as on-site power generation. They were also naturally at home with the use of timber. And while the design must have been an education for them, in some respects it was for Bowles too. Experience of living in his 2004 Manser Medal winning home, Black House, taught him that, though efficient, his timber home's low thermal mass of meant that in summer heat built up internally. The blockwork walls he constructed in the house for his parents a little later took this into account and performed better. It turns out that Stackyard House, to some extent a product of its sloping site and the fact that it was constrained by an adjacent listed building, proves a hybrid of both these earlier houses.

Bowles explains that stacking floors is a general rule of passive house design: the more it spreads out, or the more external junctions there are, the harder it is to make the building work in terms of both cost and thermal efficiencies. The other driver was the north/south orientation, modified by the fact that the main views were afforded down the valley to the west. Unable to build above the apex line of the existing listed property, it was decided

East/west section

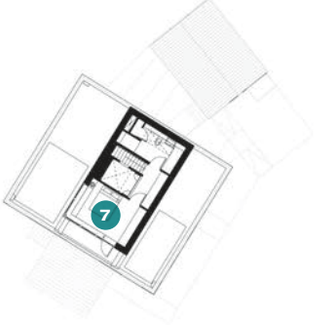
Detail section (east/west)



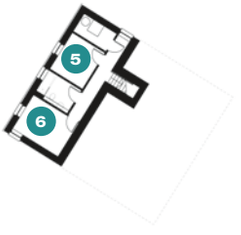
1 Living room
2 Kitchen/dining
3 Study
4 Studio
5 Bedroom 2
6 Bedroom 3
7 Master bedroom
8 140mm blockwork wall on foam glass insulation
9 180mm insulation over 200mm reinforced concrete piled ground beams and slab
10 100mm RC concrete retaining wall with granular backfill
11 Just Swiss timber deck. 20mm ash floor over 60mm screed with underfloor heating on 40mm acoustic insulation
12 As 11, but 200mm rigid insulation over Newton DPM
13 Triple-glazed Sunsquare rooflights
14 Felt roof with wearing layer

Ground floor plan

First floor plan



Basement plan



0 2 5 10m

instead to burrow into the ground, Mole-like, to create two of the three bedrooms. The dig also involved building a reinforced concrete retaining wall connected to solid concrete floors on piles – providing valuable thermal mass in this otherwise lightweight structure. Bowles rues the day he cut the block walls and concrete floor of his own home for cost reasons – their additional weight meant unaffordable amounts of money being sunk into securing foundations in the Fens' boggy peat. Here it's like he's laid his ghosts to rest, so much so that he wanted to carry the concrete, in its raw shuttered form, all the way up through the house. The idea proved too bold for the client, who settled in the end for plastered blockwork at the lower level.

Above this concrete base, the home is otherwise formed of lightweight, pre-fabricated timber panels. The frame was constructed by Swiss manufacturer Schoeb, which Mole used when executive architect on Jarmund Vigsnaes' Dune House for Living Architecture. Described as 'working from a small factory on a treed mountainside next to a saw mill', the romantic notion is tempered by Bowles, who adds: 'but they have an innate understanding of high insulation timber frame, with structures that are more weighty and solid that conventional modern timber systems here. Unlike cross-laminated timber, theirs seem to relate in feel and look to traditional English timber structures.' It's a concept that obviously resonated with the client – the firm was appointed without having to go to tender and subcontracted to work under the main contractor using the JCT Intermediate form of contract. Within the structural panels, 271mm of Ecotherm PIR insulation runs between internal batons. The firm had considered hemp systems like Warmcel but Bowles concedes: 'To get performance you need thickness, and PIR just came through as thinner and cheaper for the same efficacy.'

On the roof the firm opted for a 'warm' flat roof, with 271mm simple rigid insulation system laid to falls with sedum on top. With the envelope performing well generally, the architect concedes that any compromises were made in the specification of the glazing, which was not Passivhaus certified . The triple-glazed units that they considered came in at over £10,000 more than the double-glazed Velfac windows the contractor sourced, an extra-over cost that even the architect couldn't justify to the client. Here, and with the two large rooflights that do not meet the required air tightness criteria, the building falls short of Passivhaus principles. Bowles also concedes that it is difficult to make rooflight frames work thermally using standard components.

It might be one he just takes on the nose. With the MVHR system installed, solar source heat pumps to supply water to the under floor heating, and photovoltaics, the stats seem impressive. Of the 8000kWh used in its first year, around 4000-4500kWh can be attributed to heating demand. Stackyard's 17kWh/m^2/year almost meets the Passive House goal of 15kWh/m^2/year. In primary energy use terms it compares favourably with the 109kWh/m^2/year goal, at 120kWh/m^2/year. The figures can also be read against the fact that the 8m^2 of photovoltaics collectively produced 1500kWh of energy last year. Bowles is upbeat.

'It isn't certifiable as Passivhaus, but obviously, on balance, we're doing pretty well,' he says. So while it might not be the stuff of the German Institute's dreams, Stackyard House still seems to stack up. ●

Top The client's desired high-efficiency wood burner forms the centrepiece of the new home.
Above The bedrooms command views across the valley to the west.
Above right With exposed joists and expression of timber throughout, the architects felt the use of Schoeb gave a greater sense of solidity.

Credits
Architect Mole Architects
Structural engineer JP Chick
Quantity surveyor Sheriff Tiplady
Contractor Willow Builders
Timber frame Just Swiss/ Schoeb AG ●
Suppliers
Mechanical ABC Plumbing and Heating (Matt Southern) ● **Concrete** Formwork Solutions ● **Windows and external doors** Velfac ● **Flooring** Sourced by Willow Builders ● **Internal doors and furniture** Willow Builders ● **Electrical** Norwich Electrical ● **Lighting** Wow Lighting ● **Sanitaryware** Liquid Design ● **Heat pump** Vokera ● **Rooflights** Sunsquare

Specified

1
Aluminium roofing
Kalzip

It seems that reports of a Martian landing in the middle of Glasgow have been greatly exaggerated. The shiny flying saucer that settled between the River Clyde and M8 motorway has been received by the doughty Scots as a world-class live entertainment venue. Shrewdly recognising the Foster design, topped by Kalzip's 125m-span aluminium standing seam roof with a sound reduction index of 53dB, they showed premier league darts in February and have Miranda in March. One assumes that any aliens it did spill out are still trying to get to grips with the notion of fried Mars bars.
kalzip.com

2
Acoustic ceilings
Armstrong

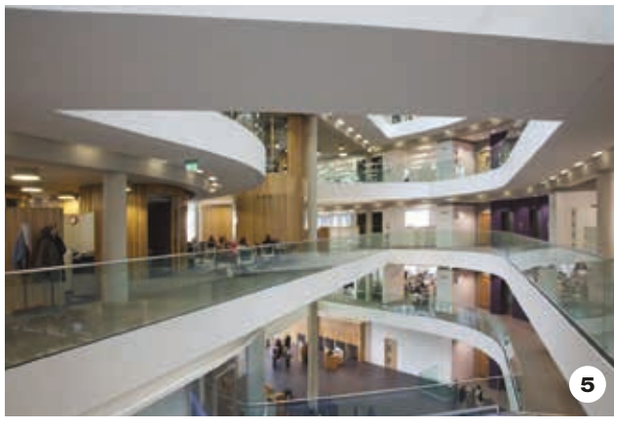
There can't be many children who, asked what they'll be when they grow up, nominate working in insurance. Yet lots of us end up in an office, derided as pen pushers in suits. But it needn't be a grey or drab existence, as this revamped ex-council office for L&G arm Cofunds shows. With Armstrong's mineral and metal tiles and canopies installed to subdue the noise generated by all those hard surfaces, the bright colours could have been chosen by the optimistic young, most of whom believe for some reason that the board meeting is so called because it's boring.
armstrong.co.uk

3
Glass mineral wool
Isover

Isover has put the roll in rock'n'roll with its 'robust yet gentle' G3Touch glass mineral wool. With excellent thermal and acoustic performance as well as first class fire rating, it will be welcomed by anyone wanting to reduce a racket. More the Sound of Silence than the Wall of Sound, it's just the sort of thing for the neighbours of latterday Phil Spectors whose idea of layers is overdubbed guitar riffs. And with up to 86% recycled raw materials it's ahead of the game: who knows, it might even be able to withstand the results of an amp that turns up to eleven.
isover.co.uk

4
Rocksilk slab insulation
Knauf Insulation

Birth, school, work, death – it's the circle of life boiled down to its numbing essentials by the Godfathers. And that's the good life: situations like homelessness are the real trials. But here's a story with a heartwarming ring to it. Different activities within one building – at performing arts charity for the homeless, Cardboard Citizens – have been enabled by Knauf's donation of its Rocksilk Universal Slab insulation. Exuberant dramatics and peaceful guidance meetings can co-exist, so for those who don't know where to go, this is one promising option.
knaufinsulation.co.uk



5
Acoustic ceilings
Rockfon

What some might describe as the labyrinthine systems of local government are physically manifested at Rochdale Council's sleek and complex new civic office building. Open and inviting, its double and triple height spaces keep noise levels in check, however, with Rockfon's monolithic Mono Acoustic TE ceilings. So should Theseus pop in, hoping to rescue seven youths and seven maidens from the Minotaur's dinner plate, he'll still need Ariadne's thread but can rest assured that any derring-do, as he beats the beast to death, will go unheard in the library.
rockfon.co.uk

6
Armaflex insulation
Armacell

Today we need a roll of sticky-back plastic, some cardboard loo rolls, a couple of old curtain rings, two plastic bottle lids and a large square of cardboard. Glue it all together with rubber solution and paint it black to either fashion it into your own two-man biplane, or create a home insulation kit. Valerie here has a rather better one that Armacell made earlier – its Armaflex Class 0 thermal insulation with elastomeric and self seal tubes, coils, tape, flat and self-adhesive sheets, rolls and pre-insulated pipe supports, now with unified technical values. Don't try this at home.
armacell.co.uk

7
Multipor boards
Xella

It's not clear if the European Council has been suffering from an outbreak of wets or whether there are simply a lot of drips in there, but it has turned to Xella Multipor to insulate the internal walls of its Brussels HQ. The firm's Nature Plus-certified boards absorb and release vapour naturally without recourse to a separate vapour barrier, while maintaining acoustic and thermal performance. So whether the atmosphere in the chamber is icy, wishy-washy or at boiling point, the world outside will happily be thoroughly insulated from it all.
xella.co.uk

8
Weber.therm XM
Weber

Thetford in Norfolk has a proud fighting history, as home not only of the warrior Queen Boudicca but also of Captain Mainwaring, whose statue sits bulldog-like beside the Little Ouse. Now the battleground is global warming, so in the local fearless tradition the Ofsted Outstanding' Thetford Academy has ensured its new premises are set for a BREEAM Very Good rating, partly due to its use of weber.therm XM external wall insulation. With such credentials, the school's head must rarely need to use that well-known encouragement, 'You stupid boy'.
netweber.co.uk

Costed

Jonathan White, executive consultant in Gleeds' R&D team, gives an overview of the costs associated with thermal insulation

A high standard of thermal insulation to buildings provides various benefits.

Most obviously, it reduces the rate of heat loss through the building fabric, cutting energy consumption and reducing heating costs. It also increases internal surface temperatures, reducing the risk of condensation.

Among the many thermal insulating materials available, four types are most commonly used.

Mineral fibre is used to insulate empty lofts, under suspended timber floors and for stud walls. For horizontal use the product comes in a roll form which can be laid loose between rafters. For walls a more rigid batt enables vertical fixing.

Rigid boards are used to line the inner skin of the building envelope. It is important to avoid air gaps between the inner skin and the board for it to achieve maximum performance.

Loose fill material, made of cork granules, vermiculite, mineral wool or cellulose fibre, is used for lofts and is ideal for irregular spaces.

Cavity fill can be mineral or cellulose fibre or plastic granules, which is blown into the cavity after construction is completed. Care must be taken to avoid the creation of voids resulting from obstructions in the cavity. This method of insulation can also be used effectively on existing buildings.

Any product's thermal conductivity, or K-value, can be used to calculate the appropriate material and thickness to achieve the required performance.

The rates stated below represent a guide to insulation installation costs and are current at the first quarter, 2014 (vat is excluded). They have been derived from Gleeds' cost database supported by published material, and reflect rates typically submitted through competitive tenders. No allowance is made for sundry costs or related preliminaries costs.

THERMAL INSULATION

The rates below are a sample of general thermal insulation costs.

Rates are capital and assume a new build in Greater London, and are based on current market conditions.

Mat or quilt	
Glass fibre mat, laid loose between joists, 100mm thick	**£2.5-3.5/m²**
Glass fibre mat, laid loose between joists, 150mm thick	**£3-4.5/m²**
Glass fibre mat, laid loose between joists, 200mm thick	**£4-5.5/m²**
Mineral fibre quilt, fixed vertically to softwood, 25mm thick	**£2-3.5/m²**
Mineral fibre quilt, fixed vertically to softwood, 50mm thick	**£3-4.5/m²**
Mineral fibre quilt, fixed vertically to softwood, 75mm thick	**£4-5.5/m²**
Mineral fibre quilt, fixed vertically to softwood, 100mm thick	**£4-5.5/m²**

Glass fibre batt, as cavity fill, including cutting and fitting around wall ties	
50mm thick	**£4-5.5/m²**
75mm thick	**£5-6.5/m²**
100mm thick	**£6-7.5/m²**
Sheepswool mix, insulating batt	**£12-15/m²**

Floor insulation	
50mm rigid board insulation for concrete, suspended ground floor	**£8-9.5/m²**
75mm rigid board insulation for concrete, suspended ground floor	**£8.5-10/m²**
100mm rigid board insulation for concrete, suspended ground floor	**£13-16.5/m²**
150mm, 2 layers extruded polystyrene foam horizontal insulation	**£18-20/m²**

Wall insulation	
50mm rigid board as cavity fill, including cutting and fitting around ties	**£8.5-13/m²**
75mm rigid board as cavity fill, including cutting and fitting around ties	**£11.5-17/m²**
100mm rigid board as cavity fill, including cutting and fitting around ties	**£18-25/m²**
Mineral fibre, cavity fill, 100mm thick	**£4.5-6/m²**

Cutting carbon at work

Now that the benefits of energy-efficient offices are beyond dispute, the challenge is to keep up with the technology

Words: Stephen Cousins

The distinctive form of British Land's Leadenhall Building rises on the city skyline.

THOMAS GRAHAM/ARUP

Attitudes to sustainable office design have undergone a dramatic U-turn over the past 10 years as clients have moved from being reluctantly required by legislation to modify their buildings under BREEAM or LEED to making it a core part of their corporate philosophy and key to how they present their buildings to future tenants.

Environmentally sound, energy efficient offices are increasingly sought-after by tenants looking to cut their operating costs and back up corporate environmental and social responsibility goals. There is also evidence that sustainable buildings lease well in a weak market and improve occupier well being.

Two high-profile office developments, the Shard at London Bridge and the completing Leadenhall Building in the City of London, show how even Europe's largest, most complex and densely occupied office blocks can dramatically reduce energy demand and use by including sustainable materials and technologies.

The Leadenhall Building

The 47-storey Leadenhall Building has become famous for its wedge-shaped 'cheese grater' profile, which features a highly transparent double-skinned glass facade on office levels 5 to 45.

Designed by architect Rogers Stirk Harbour + Partners and services engineer Arup, it comprises an outer single-glazed laminated glass screen and an inner double glazed system that functions as a weather-line and thermal envelope. The space between, which varies in width from 900mm to 1,300mm, is fitted with computer-controlled solar shading blinds able to adjust to three pre-set positions in response to different levels of solar radiation.

'The system ensures that when the office floors require cooling, any solar heat absorbed by the blinds becomes trapped in the cavity. Then it rises naturally and vents out at the top as fresh air is drawn in from below,' explains Andrew Young, project architect at RSHP. 'The practical upshot is that the building's interior is not heated by the sun, reducing both the energy needed to keep it cool and the size and extent of air conditioning plant.' As a result the facade achieves an impressive solar heat gain coefficient, or G value, of 0.12 – 0.15, depending on the elevation, compared to more conventional office facades whose G values range from 0.25-0.35+.

Energy efficiency is further improved by taking a floor by floor approach to air supply, with separate air handling units on each level to allow individual tenants to select specific environmental conditions or operating hours. Each unit also includes a heat-recovery system between the intake and exhaust.

'The floor by floor approach is unusual and much more efficient than running centralised air plant when just a few floors are occupied,' says Andrew Sedgwick, project director at Arup. 'We estimate that it could reduce the energy consumption associated with moving air by around by 30%. Installing separate units might be considered space inefficient, but putting them within the northern core means it hasn't affected office floor space.'

The building was designed to meet demanding sustainability requirements set out by client British Land and it achieved a BREEAM Excellent rating in 2011. Although pre-planning permission for the scheme pre-dated any statutory requirement to include renewable energy technologies, heat exchange pipework was installed in some of the foundation piles to create a ground-sourced heating and cooling

system to provide climate control for the landlord areas that run 24 hours a day.

British Land might also install a 20m-high, 60m-long solar photovoltaic array on the top five floors of the sloping south facade, which have been identified as having significant potential and have the necessary power infrastructure and structural support in place.

Energy conservation technologies in the building include LEDs and fluorescent luminaires controlled by movement sensors in all common areas. A destination control system co-ordinates 20 scenic passenger lifts that run up the north facade and will use around 15% less energy than a conventional system, where empty lifts must often travel long distances.

In addition to low-flow sanitary fittings and aerating taps in wash rooms, an automatic shut down function cuts off the entire water supply to wash rooms when no movement is detected for 10-15 minutes. 'If a tap is left running or the flush mechanism on a toilet malfunctions, water can't run indefinitely. In a building this height, where water is pumped up over 200m, it potentially saves a lot of energy,' says Sedgwick.

British Land wanted extensive metering of hot and cold water, space heating and chilled water services. As a result, each tenant will be charged only for its exact consumption rather than paying a typical flat-rate service charge, which gives them an incentive to conserve energy. 'The system's extensiveness and granularity is impressive and users will be able to see in very fine detail where energy is being used, which can inform regular reviews of how to save energy. It will also enable fast detection of potentially wasteful events,' concludes Sedgwick.

The Shard

The sheer size of the Shard and its sensitive location next to London Bridge station required a lengthy design and development phase, beginning almost 14 years ago when environmental building legislation and client awareness of sustainability issues were still emerging concerns.

Nevertheless, Renzo Piano Building Workshop's (RPBW) detailed design achieved an 'Excellent' rating under the first version of BREEAM, introduced in 2006, and runs around 25% more efficiently than a conventionally-built office block with an estimated annual carbon footprint of 24kg of CO_2/m^2, not far behind some of the world's greenest buildings that range between 15-18kg/m^2.

The £435m, 310m high mixed-use tower includes 25 office floors and its shape, combined with low floor-to-floor heights, means a facade-to-floor plate ratio of just 42%, drastically cutting the heat energy lost through the walls.

'The extra natural daylight means less energy is needed for artificial lighting and for cooling during the day,' explains project architect Joost Moolhuijzen. 'On a sunny day, when ambient temperatures reach a certain level, blinds on the internal skin are automatically lowered.' Reflected heat is trapped in the double-skinned facade and naturally ventilated through the top of the building. This added heat resistance gives the facade has a G-value of just 0.12.

PATRICK MYLES

Internal lighting is provided by low power 5W LED bulbs, and lighting around the perimeter of each floor can be switched off independently of the main floorplate when required. The building's energy demand is further reduced by double decker lifts and a destination call system designed to group together workers travelling to odd or even numbered floors.

Day-to-day heating and power requirements are met by a 1.1MW onsite gas CHP plant, which converts fuel to electricity and recovers heat from the engine to produce hot water. This is, however, less efficient than newer generation CHP plant, such as the fuel cell-powered system in Raphael Viñoly's Walkie Talkie tower.

A large number of energy sub meters have been installed on services across the Shard, with consumption measured and recorded every half hour.

'We have been co-ordinating with different tenants and monitoring what is happening in real time,' says Moolhuijzen. 'It's all well and good building something that is very efficient in theory, but what is important is observing how it is actually used and then working to improve it. This will be our strategy for the entire ongoing development of London Bridge Quarter,' he concludes. ●

We estimate the floor by floor approach could reduce the energy consumption associated with moving air by around by 30%

DOWN TO THE SPECIFICS

Digital technology is changing how sustainable offices are designed and controlled, says Simon Allford at AHMM architects, designer of Google's new HQ and the White Collar Factory, both in London.

Digital technology is transforming how energy use is monitored and controlled in buildings. We are talking to Google about incorporating smart technologies to analyse its HQ building's performance, and our highly complex BIM model for the project is designed to extend beyond completion and into occupation.

At the other end of the scale, there's a trend to put technology in the hands of the building's end users rather than the landlord or the tenant. We are developing an interactive smartphone app for use in the White Collar Factory, a 230,000ft^2 speculative office building in east London, which will alert users to how efficiently the building is working and when to open windows – or not.

Recent post-occupancy evaluation studies suggest that even clients with sophisticated FM departments are not close enough to the real energy usage on the ground, which means waste. Apps can help occupiers to engage directly with the building to modify its behaviour in a more responsive way.

The reuse of existing buildings is fundamentally sustainable, and some recent office schemes show how retrofitted designs can meet or exceed the performance of a newbuild. The White Collar Factory combines contemporary design and older architecture. Roughly 65% of the floorplate will be naturally ventilated, energy performance will exceed that of a compliant Part L building by 20% and we're targeting BREEAM Outstanding and LEED platinum.

Looking forward, as office buildings become more efficient there will be a major shift, with clients becoming more selective about where their energy is sourced, stored and used. Instead of running building services 100% of time, for 100% occupancy, they will supply air and light only to occupied areas of the floorplate, or according to an individual's specific comfort requirements.

Simultaneously, as buildings' power demands reduce, technologies such as computers, services, servers and wiring will become less visible, which will liberate architects to focus on the social aspects of buildings more than ever.

10 Brock Street London

An office scheme born more than a decade ago has seen its facade adjust with recession, regulations and recovery, with a multi-faceted result

Words: Pamela Buxton Photography: Dennis Gilbert

Some 80 different types of glass, not to mention iridescent steel panels and aluminium-coated mesh, have been incorporated into the facade of 10 Brock Street, Wilkinson Eyre's £116m office development near Euston Station in London.

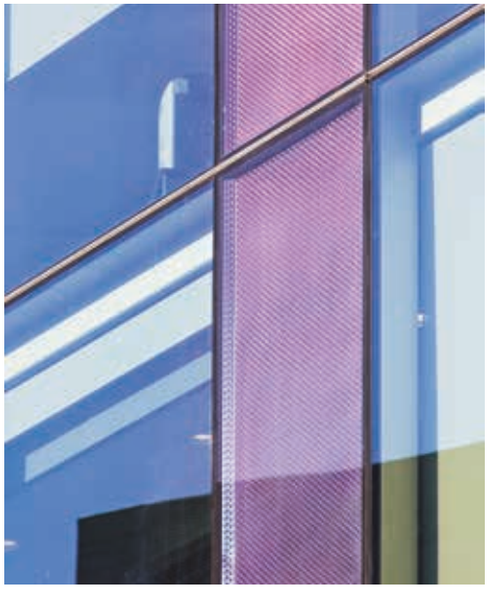
When the practice won the British Land job back in 2003, a far plainer cladding solution was envisaged. But by the time the 49,239m^2 project went ahead – after waiting first for other parts of the Farrell-masterplanned Regent's Place development to complete, and then being delayed by the economic downturn – a rethink was needed to conform to changes in Part L, and to meet the developer's desire for larger floor plates.

'Part L was ratcheted up so we had to redesign the facades and bring them up to performing better by introducing solid parts,' says Wilkinson Eyre director Giles Martin, adding that crucially they were able to make the changes without reapplying for planning permission. 'We turned it into a positive.'

The result was a building that beat the 2006 Part L requirement by 48.9% (it was submitted for Building Control in 2008), and exceeds the 2010 Part L requirements.

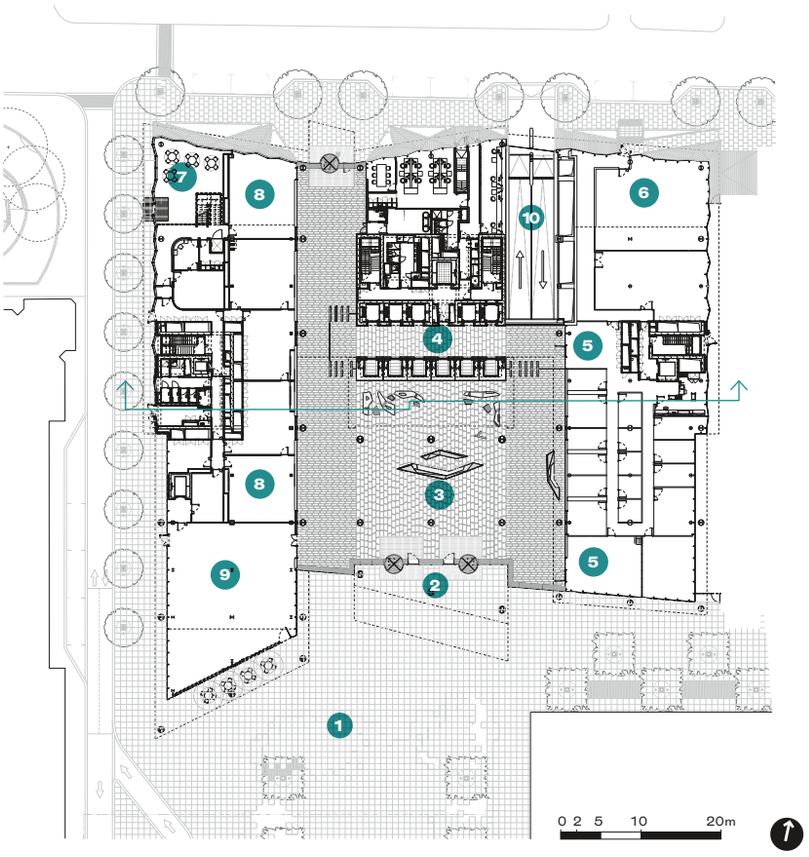
The original design was for three separate towers of different heights, linked by two narrow atria, to give three independent floorplates within the development. This had evolved in the five years before the project went ahead but was decisively changed shortly before construction to instead create one floorplate, a larger lift block, an atrium and three cores – one in each building – positioned towards the rear and sides. This provided large, 38,500ft^2 floor plates on levels 2-3 to suit tenants such as Debenhams, which took floors 0-5 in a 45% prelet. At the same time, the reworked facade is not only more energy-efficient but is also more

Below Solid elements introduced into the all-glazed facade allowed the building to meet Part L regulations without a wholesale redesign.

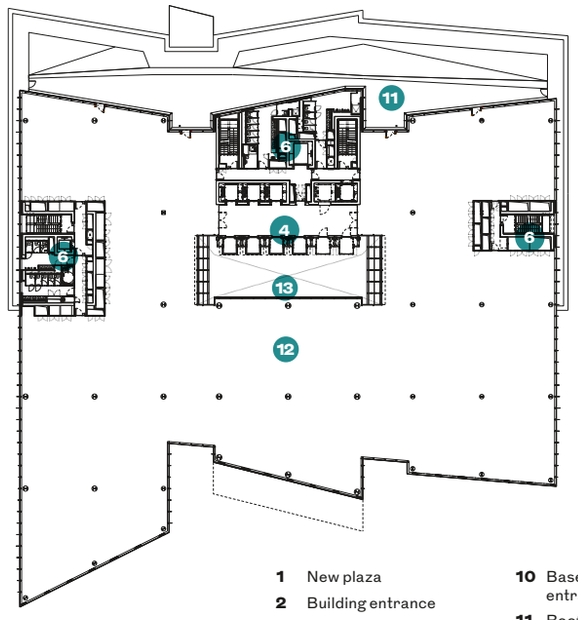


Below The east facade of Brock Street facing Hampstead Road, formed of some triangular facets, also needs to engage with more conventional orthogonal components of the masterplan, left.

Ground floor plan

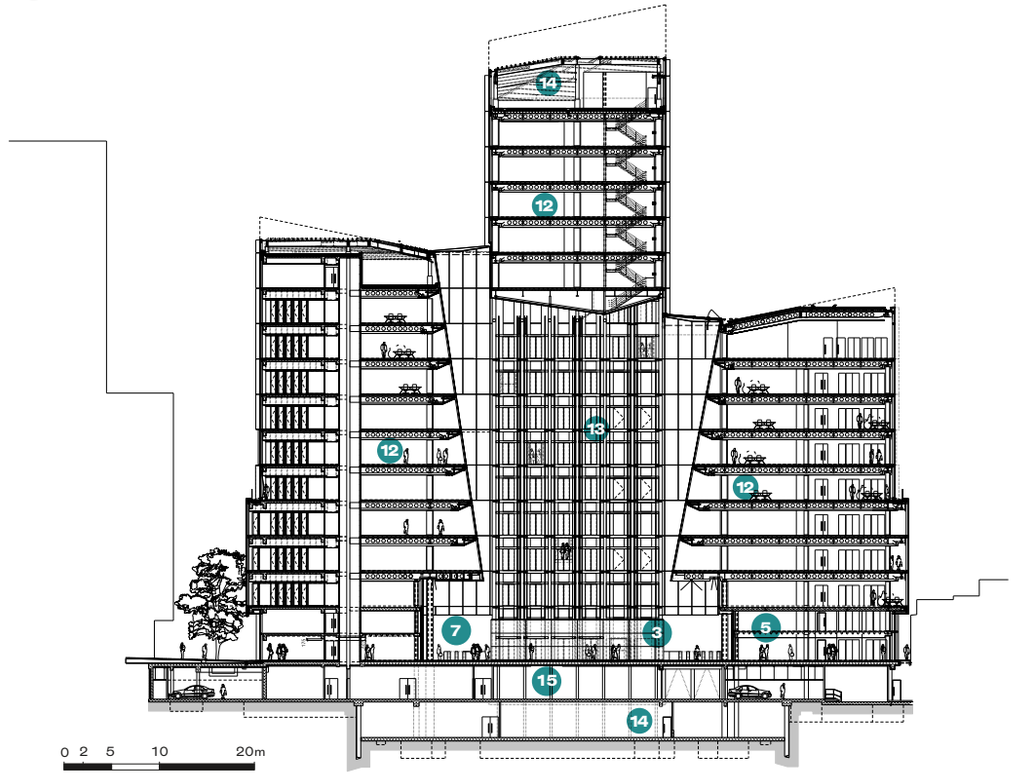


Typical office floor plan



1 New plaza
2 Building entrance
3 Main reception
4 Lobby
5 Office meeting units
6 Office back-of-house
7 Diorama arts studio
8 Multi-purpose studios
9 Restaurant unit
10 Basement vehicle entrance
11 Roof terrace
12 Offices
13 Atrium
14 Plant areas
15 Parking/Cycle basement
16 Cores + WCs

Longitudinal section



distinctive, with a greater impact on the new plaza which it addresses to the south.

The more complex facade was delivered as a unitised bespoke system by Swiss cladding contractor Scheldebouw, with glass from German firms BGT and Interpane, and was only possible within the budget because of the keen state of the market at the time of tender. Rather than an all-glass facade, one fifth of the south side of the building is insulated. Solid, insulated panels within the bespoke anodised aluminium frame system create a more energy-efficient fabric, while allowing the remaining 3.9m high windows to appear as clear as possible and up to 3.4 wide, maintaining the overall effect of a highly glazed building.

'By putting in insulated panels we still had floor to ceiling glass, but incorporated feature panels too,' says Martin.

Planning permission was originally for coloured panels behind glass. After considering and rejecting dichroic glass, the architect

Rather than an all-glass facade, one fifth of the south side of the building is insulated

Left The south facade looking onto Regents Place plaza, part of a managed public space containing works by artists Gary Hume and Julian Opie, and a small steel pavilion by architect Carmody Groarke.

instead used rigidised, anodised, polished stainless steel panels with an iridescent appearance ranging from purple through to green. Having seen this used on Frank Gehry buildings including the EMP Museum in Seattle and Marqués de Riscal winery in northern Spain, it chose to use them differently behind glass. This, says Martin, makes them appear more precious. The highly insulated panels measure up to 3.9m high and 0.5m-1m wide, to give further variety to the already lively elevations.

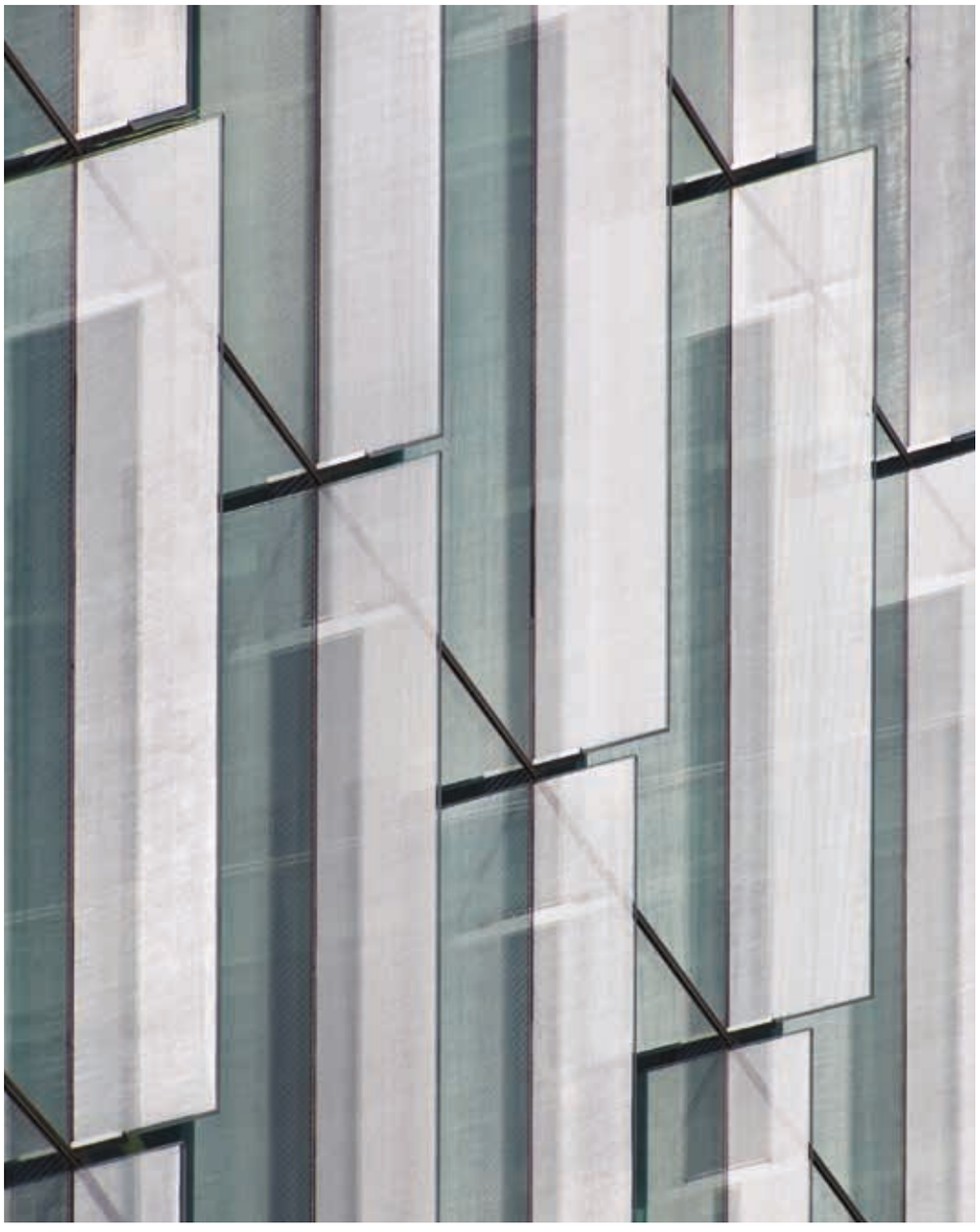
Fritting for the east and west-facing elevations added further complexity, with each layer of glazing requiring two processes. On the outside of the outer glass surface, the fritting dots are baked on with enamelled paint while a low-emissivity soft coating on the inside deals with the sun. The inner pane has a silver grey part frit facing in and dark blue facing out, the inward-facing neutral colour matching the anodised mullions. These different shading treatments contribute to a three-dimensionality in that part of the facade, with the dots on the outer face casting shadows on the inner glass.

The fritting works in tandem with an array of sun-shading fins, arranged in a gentle wave pattern on the west elevation to further animate the facade. Where the fins are thinner, the adjacent fritting has to work harder and so needs to be larger, in widths of 150-600mm.

These fins, supplied by Sefar, consist of aluminium-coated polyestered mesh set in sentry glass laminate, and are being used for the first time in the UK as an alternative to more solid options. Although this is solid enough to handle the sun, it appears quite transparent when the sun goes in.

At the rear the fritting is varied, with white dots used on the upper 'fold' in the facade and grey dots on the lower, giving different reflective effects. Above the rear entrance, fritting is also used to create a horizontal band.

There are also expanses of opaque glass for



Despite the complexity, it's all designed to look as simple as possible, with the same sophisticated cladding system used all the way up the building

Left Vertical fins give dimensionality to Brock Street's facade and help reduce solar gain to the offices.

privacy at the north elevation of the building, where the toilets – with rare benefit of natural daylight – ended up as a consequence of moving the cores. Head-height clear areas in the washing area also allow views out.

Glazing in the two former atrium inlets is treated differently to bolster the original idea of permeability through the building. Here, a triple silver coating with very high light transmission – supplied by Interpane – contrasts with the rest of the facade.

Further fins, this time in 10m-high glass, are used at the entrance, where a feature lobby canopy is used to help draw people into the expansive, 1200m^2 reception.

Despite the complexity, it's all designed to look as simple as possible, says Martin, with the same sophisticated cladding system used all the way up the building, including on the upper plant rooms.

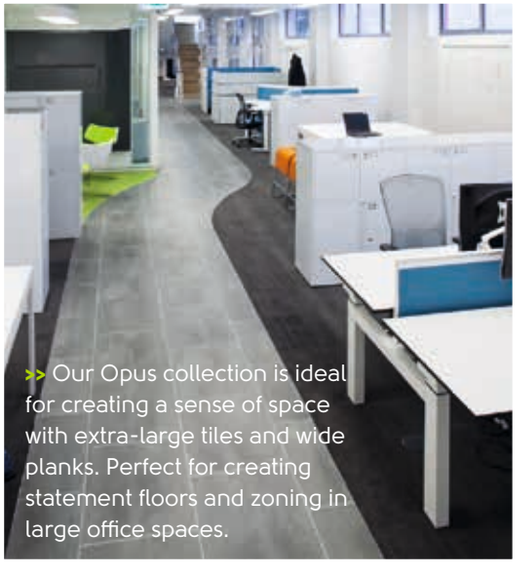
It's been a long journey from competition win to completion and letting. But the patience of Wilkinson Eyre and British Land has been rewarded. It's the practice's first major UK office development – which it hopes will lead to more. And for the developer it's certainly a big commercial hit. British Land fully let the office accommodation – which completes the Regent's Place estate – shortly after practical completion and reportedly achieved some of the highest rents north of Euston Road. As well as pre-let tenant Debenhams, others include Manchester City Football Club, Santander and the ubiquitous Facebook. ●

Credits
Client British Land
Architect Wilkinson Eyre Architects
Engineer CH2M Hill (formerly Halcrow Yolles)
Building services engineer Watkins Payne Partnership
Project management M3 Consulting
Cost consultant Aecom David Langdon
Façade engineering Arup Engineering
Lighting design Maurice Brill
Construction manager Lend Lease

Suppliers
Cladding contractor Scheldebouw ● **Glass suppliers** BGT, Interpane ● **Anodised stainless steel** Inox-Color ● **Glass fins** Sefar

KARNDEAN TALKS: OFFICE FLOORING

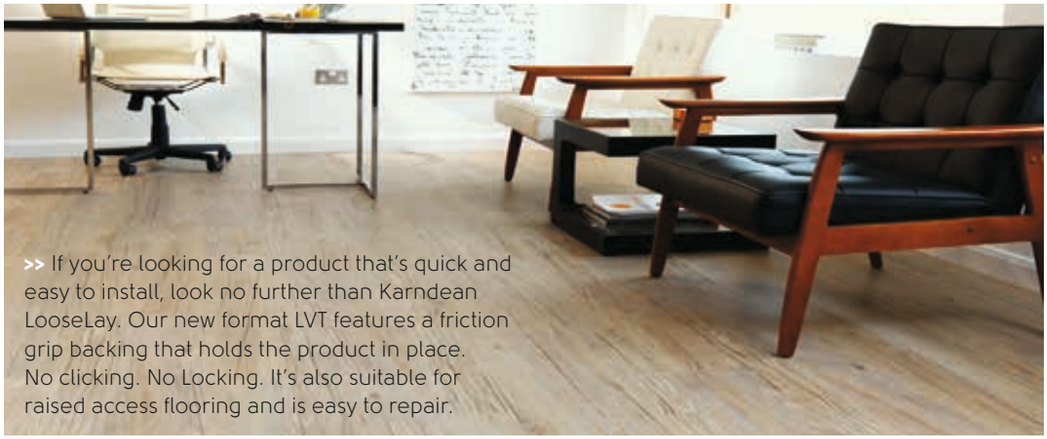
Creating the right office environment is important. Offices are places for thought, discussion and creativity, and choosing the right flooring finish is key to creating a space that's comfortable, inspiring and practical.



>> Our Opus collection is ideal for creating a sense of space with extra-large tiles and wide planks. Perfect for creating statement floors and zoning in large office spaces.

>> Use bold colours and modern furniture mixed with a classic oak for a contemporary look.

>> Sometimes you want to give your client something extra special and this is where Karndean Designflooring can really come into its own. Incorporate design strips or borders to give your finished room plenty of wow.



>> If you're looking for a product that's quick and easy to install, look no further than Karndean LooseLay. Our new format LVT features a friction grip backing that holds the product in place. No clicking. No Locking. It's also suitable for raised access flooring and is easy to repair.

>> If you're out on site with a customer why not use our new augmented reality app to demonstrate what their floor could look like right there and then. The app lets you select and view different floors in the space of your choice and take images to share and compare. See **www.karndean.com/app** for more details.

For more office flooring ideas visit us online at www.karndean.com/office

Karndean Designflooring

Specified

1
Accoya
Accsys Technologies

Moving is such a pain isn't it - you've barely got all those boxes emptied from last time before you find you must up sticks again and refill another round of crates. Why bother unpacking at all? Well, we do our best, but at The Academy of the Jewish Museum in Berlin they seem to be more realistic. Any lingering crates that never quite get emptied will look perfectly at home in the giant 'motherbox' that houses the library, archives and education centre. Looking for all the world like a thing abandoned, at least it's made of durable Accoya timber, and not soggy cardboard.
accoya.com

2
Glass cladding
StoVentec

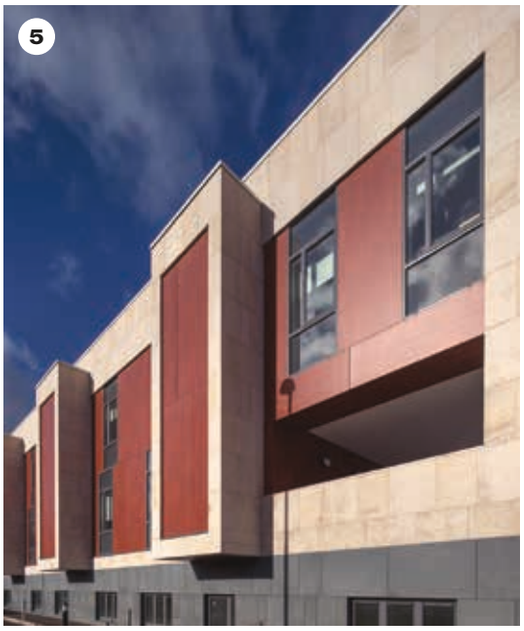
There are moments in Oscar Wilde's prison lament, the Ballad of Reading Gaol, that could well have referred to the miserable daily commute: '... each day is like a year, A year whose days are long'. Now that's all changing with a root and branch upgrade of Reading Station that includes a new bridge and entrances, extra and longer platforms and 21st century technology to improve passenger flow and information. And using 1200m^2 of grey StoVentec obscure glass cladding, romantic notions of smoky Victorian locomotives linger in a modern, shiny smog-free format.
sto.co.uk

3
Sterling OSB
Norbord

Beware the next time you pop into a Blackfriars hostelry to launch the weekend wind-down. Come midnight, as you slur the 'unavoidable delays' explanation down the mobile to an increasingly angry other half, you might start seeing your world turn upside down – literally. But when you wake in a nearby doorway next morning all will become clear – the upside down house is a delightful artwork by Alex Chinneck, made with Norbord's Sterling OSB cladding. Lovely to look at – but no help in the sudden unexpected search for somewhere else to live.
norbord.co.uk

4
Aluminium glazing
Technal

In my day, the headmaster was almighty, and when he said: 'Let there be light,' we all dutifully dashed to the light switches. Now the perpetual search for better educational results is citing a link between learning outcomes and daylight, so Technal's aluminium glazing systems have proven a godsend to Chiltern Trinity School in Bridgewater, Somerset. The firm's Geode-MX Visible Grid curtain walling is liberally glazed, giving pupils no excuse for poor performance. It might even help keep the teachers sane too – is that a bench or a stretcher outside Class 4B?
technal.co.uk



5
Vivix panels
Formica

Over in Dublin, youthful home of course to the aforementioned Oscar, Formica has supplied Vivix panels in Redwood – a life-affirming colour if ever there was one – to St James's Hospital haemophilia and hepatology clinical research unit. No-one has suggested that the emotive shade was chosen with a nod to James' status as the first apostle to be martyred (by sword), but in this land of passion and imagery it's surely down not just to the material's reputed performance and manageable maintenance costs. Come on guys, we want symbolism with our embolisms!
formica.com

6
Rainscreen system
Sotech

There's a certain drama in the purple and grey facade of Outwood Academy in Acklam, Middlesbrough, clad in Sotech's Optima secret-fix, aluminium extruded IPC X plank rainscreen system. Such brooding promise befits a performing arts and sports specialist school – which will also no doubt be keenly aware of the shadow of famous football manager, socialist, cricket fan, drinker and self-promoter Brian Clough, who once lived in the area. Let's just hope students at the school are careful which of Old Big 'Ead's attributes they turn to for inspiration...
sotech-optima.co.uk

7
Equitone
Marley Eternit

St Alban's Academy, in a deprived inner city area of Birmingham, is a school of a different stripe and clearly keen to be noticed. And with good reason: in its five years of existence the maths and engineering specialist school has achieved Ofsted Outstanding status and got itself this debonair new building. Marley Eternit's Equitone architectural fibre cement cladding in natura and textura was specified in grey and warm colours, reflecting the city's red brick and industrial characteristics. Next time they need a new school, perhaps a former pupil will design it.
equitone.co.uk

8
Glass balconies
Q-Railing

Daffodils are budding, lambs gambolling, the days are getting longer and beckoning us from winter hibernation to wander lonely as a cloud on hill and dale. Yet the Lake District, apogee of the outdoor pursuit, seems to be backtracking. Q-Railing's glass balconies contribute to the luxury evident at the Brimstone Hotel below Langdale Pikes, where visitors will surely now be tempted instead to lounge around on the verandahs with pink gins and pistachios, exercising no more than their long distance vision on the area's distant peaks.
www.q-railing.co.uk

Hotel Les Haras Strasbourg

A flamboyant stair dominates the equine-themed conversion of the Napoleonic Stud to a stylish hotel

Words: Jan-Carlos Kucharek Photography: Helene Hilaire

Whether Jesus being born in a stable because there was no room at the Inn played on the religious sensibilities of Paris design firm Agence Jouin Manku is open to conjecture, but it wouldn't technically have been an issue following the completion of its latest project in Strasbourg. The €16m hotel Les Haras in the city's medieval Petite France district is a refurbishment and conversion of the city's Napoleonic National Stud, founded under Royal Charter in 1671 – and housed in 18th Century classical buildings. The mares and stallions finally cantered off in 2005, after which the City leased the complex to France's Institute for Research into Cancer of the Digestive System.

Given the client, the proposal for the site seems, on the face of it, eccentric. A €16m biotech research cluster appended to 3-starred Michelin chef Marc Haeberlin's first brasserie, looking across the courtyard to a 4-star hotel conversion of the stable block. While architects Denu et Paradon and Jean-Pascal Scharf began consolidating the existing sandstone and timber structure and envelope, Jouin Manku was charged with creating the internal aesthetic for the hotel and brasserie. Not surprisingly, they drew heavily on the buildings' history.

Equestrian references predominate behind the pink sandstone walls of the stable block. The designers limited their palette of materials to blackened steel, patinated zinc, untreated oak and leather hide, all referencing the stables. Behind a huge leather reception desk a mural of laser-cut blackened steel and sandblasted or screenprinted glass runs along the wall. Motifs continue in the rooms, with ostentatious leather headboards that partially wrap around the beds offset by more subtle horsey nods, such as the unfinished oak doors to the ensuites, opened with simple leather strap handles.

The heart of the complex however is the restaurant – an 800m² volume soaring over 13m up to apex of its timber roof. Its soffit has been completely exposed, a fitting backdrop for the timber shenanigans going on below. The pièce de résistance of this is the restaurant's staircase, a swirling vortex of timber and black steel that sweeps diners 6m up from the ground to the first floor dining space. Looking like a timber and metal fence that has been given the Cornelia Parker treatment, even the oak treads allude to the dynamism, their nosings going from flat-faced at the bottom, to a pointed 'V' at the top. Diners moving up within it read the solid original timber structure through the craze of curled sprung oak timbers that define the stair itself.

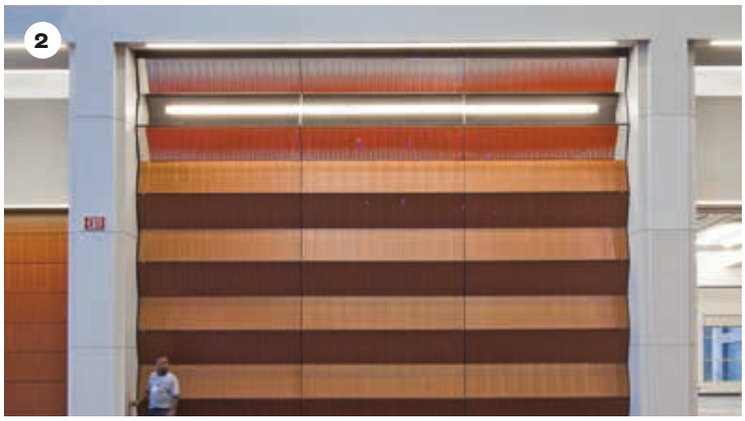
In less skilled hands, the equestrian theming could be overt and badly handled, but Jouin Manku has, like a rider at the Spanish School, kept control of its charge at all times. Naysayers might argue that the ideal scenario would have seen the National Stud stay at Strasbourg, occupying the buildings that were designed for it – but this reinvention of the stables is sophisticated and classy; and a place you'd want to bolt to – rather than from. ●

Client IRCAD, France
Architect Denu and Paradon, Jean-Pascal Scharf
Interiors Agence Jouin Manku
Conservation Simon Piéchaud
Lighting design L'Observatoire international
Visual identity Philippe David

Suppliers
Contractor Chanzy Pardou/ Wiedemann ● **Facade masonry** Scherberich ● **Monumental staircase** Arche du Bois/ Stroh ● **Bespoke furniture** Arche du Bois ● **Ironmongery** Stroh ● **Stone floors** Morreale ● **Timber walls and ceilings** ADD/Millet & Co ● **Open kitchen design** CMA Agencement ● **Leather features and furniture** Corler

Main image The monumental stair from the restaurant lobby to the first floor dining hall and kitchen.
Far left, above Jouin Manku was responsible for the equestrian themed bespoke brasserie furniture.
Far left, below The colonnade of the hotel reception from the courtyard, with steel and glass equestrian mural to the rear.

Specified



1
Timber floooring
Junckers

Seeking a flooring material that would soften and link the glass and steel section of Denmark's Maritime Museum with the old concrete dock that houses its bulk, architect BIG plumped for timber. Junckers' rough, mainly untreated surface must give visitors a marked feeling of walking the plank, or at least original ship's boards. Located in Elsinore, home of the tortured Prince Hamlet and so symbolic of the ties of fate, the intriguing thing about this image is the huge floor numbers, counting down into the distance. What happens at 1? Answers on a postcard...
junckers.co.uk

2
Skyfold partitioning
Style

Skyfold is where we start, a thousand miles and poles apart... well, okay, perhaps not quite that far, but this vertical-rising partitioning system is designed for some pretty big spaces. In fact, thinking about it, with Skyfold you could be stood virtually shoulder to shoulder, with only the 59dB Rw model between you, and be quite unaware of each other, such is the system's acoustic performance. It's a pity 007 didn't have one at his family seat – even the magnificently villainous Javier Bardem might have had trouble up against that. Cocktails all round!
style-partitions.co.uk

3
Tarasafe vinyl flooring
Gerfloor

Just think of the fun your average 14 year old could have on this expanse of shiny floor, skidding and sliding away the school break and working off lots of pent-up energy before the sedentary boredom of double maths. Sadly for boys (and it will be boys) schooled at the Lasswade Centre in Bonnyrigg, Scotland, some killjoy specified Gerflor's Tarasafe slip resistent vinyl safety flooring – although on the plus side it does mean accidents and collisions should be kept to a minimum. Which is good news all round – unless you were looking to get out of maths of course.
gerfloor.co.uk

4
iD Inspiration vinyl tiles
Tarkett

Cheeky chappie and good food crusader Jamie Oliver is reknowned as much for being down with the kids (unless they're hangin out with a KFC, obvs) as for his culinary showmanship. Like any chef worth his TV salt he has a place in the south west and Fifteen Cornwall, his pukka eatery on the beachery, now sports a floor laid in Tarkett's luxury iD Inspiration 70 vinyl tiles. Robust enough to withstand the surfer dudes' sandy feet, yet suitably stylish for any passing yacht passengers, it's well set to attract holidaymakers looking for a night on the tiles.
tarkett.com

Cladding

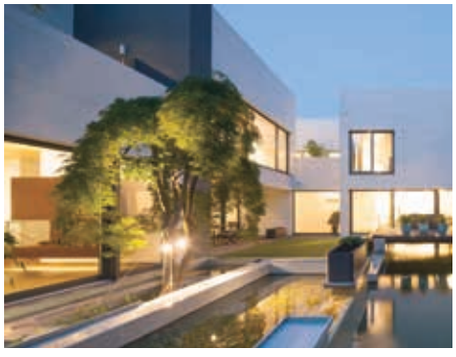
STRUCTURA Kalwall brings natural light to FA's indoor training pitch

St George's Park, the FA's National Football Centre and training ground in Burton-on-Trent, is one of the world's largest sporting facilities to use Kalwall with aerogel insulation technology. The full-size indoor football pitch and separate sports hall are both side lit by natural light using Kalwall. The cladding admits Museum-Quality Daylighting™, flooding the interior with natural diffused daylight while eliminating glare and shadows to create perfect playing conditions.
www.structura-uk.com/kalwall

CAREA CLADDING Eye-catching facade for John Lewis Exeter

At the £17m refurbishment of an ageing multi-storey building into the new John Lewis Exeter store, Carea Ardal cladding was specified to create a new eye catching, decorative facade. The original concrete-clad structure of two eight storey towers had a four storey extension added, clad in glass and a ceramic artwork. To complement the modern aesthetic, high quality cladding was required for the existing towers – with Carea's Ardal range offering the perfect solution.
www.carea.uk.com

LG HAUSYS HI-MACS acrylic stone helps make architect's dream home



Architect and builder Volker Wiese has built his dream Bauhaus style home, cladding it in HI-MACS acrylic stone. The sustainable material was an obvious choice for the nature-loving Wiese, who with this choice has become a pioneer in the use of this modern building material for exterior walls. Made of 70 % natural stone powder, 25 % high quality acrylic resin and 5 % natural pigments, the cladding is extremely wear-resistant and durable.
www.himacs.eu

EUROBOND New BIM library will help designer choices

Eurobond Laminates has launched BIM files for its range of stone wool core internal and external wall and ceiling composite panels. It includes material colours and COBie datasheet parameters and the designer is supported by a wide range of construction details. Available in a number of formats, the new BIM files – which include those for Europanel, Rockspan and Firemaster – can be accessed via the company's new website.
www.eurobond.co.uk

EUROBOND First UK panel producer to win responsible sourcing standard

Eurobond Laminates has gained the prestigious accreditation - BES 6001 Responsible Sourcing of Construction Products - for its entire range of stone wool cored internal and external wall and ceiling composite panels. It is the first UK composite panel manufacturer to achieve this significant standard that demonstrates a building material has been produced in a way that minimises its environmental impact and is sustainable.
www.eurobond.co.uk

CEMBRIT Bideford homes get an A+ roof

Around 80,000 Cembrit Jutland A+ rated slates have been used on a new housing development near Bideford in North Devon. The Salterns, developed by Cavanna homes, have a 10 year NHBC Buildmark Warranty which indicates all materials, including the Jutland slates, are manufactured to a high standard. Jutland is an attractive flat, square edged fibre cement slate that is lightweight, durable and pre-holed, and suitable for all types of projects.
www.cembrit.co.uk

APERAM Low weight, low cost, stainless steel roofing systems

The Uginox range of stainless steel facade and roofing systems from Aperam unites distinctive aesthetics and exceptional design life. Nickel-free ferritic grades are lower in cost per square metre than metals such as copper and zinc, their inherent strength enabling them to be used at gauges as thin as 0.4mm. Overall weight savings can therefore be as much as 35%. English Heritage has endorsed Uginox Patina, one of 16 available surface finishes, as an alternative to lead.
www.aperam.com

STENI Cladding prepares refurbished Aberdeen blocks to face the weather

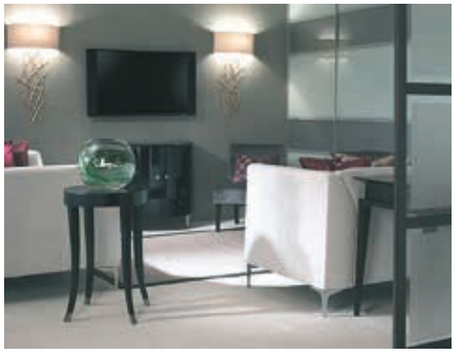
Steni cladding panels have been used in the £3.6m refurbishment of three residential tower blocks in Aberdeen. The thermal upgrade of Morven and Grampian Courts, and the sheltered housing Brimmond Court, involved over-cladding with external solid wall insulation and a mixture of almost 8,000m² of Steni's Nature and Colour rainscreen panels. Both are resistant to weather and climate, impact, moisture and water, chemicals, heat and UV light.
www.steni.co.uk

Interiors & Bathrooms

GRANITE TRANSFORMATIONS New worktop material recycles bathtubs

Home makeover specialist Granite Transformations has a new porcelain work surface collection. A new raw material for the brand, it incorporates recycled porcelain from reject baths, sinks and sanitary ware, which are crushed to workable fragments. The new material meets the same technical specifications as Granite Transformations' granite, quartz and recycled glass surfaces, and comes in three colours: Terra Chiara (1606), Terra di Siena (1607), and Sierra Nevada (1624). granitetransformations.co.uk

CANTOS Stylish room dividers that add to the sum of the parts

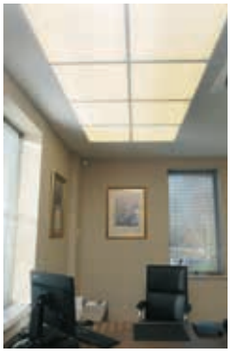


Cantos, the UK-made timber room divider range from Draks, optimises the aesthetics and functionality of interior spaces such as kitchens, bathrooms, bedrooms, home offices or living areas. The solid timber room dividers can be painted or stained and can be specified in almost any finish. They run in a rebated track in the floor so the doors become an integral part of the room, while a spring-loaded, bottom-weighted track system gives even large doors great stability. www.draksonline.co.uk

KARNDEAN Luxury vinyl tile designs go back to nature

The UK market leader in luxury vinyl flooring Karndean Designflooring is launching its LooseLay Series Two. Designed for convenience with style, the collection features six on-trend wood tones, two slate-inspired stone designs and two textile tiles – available in large planks (41.3in by 9.85in) and tiles (19.7in by 24in). Designs inspired by natural wood include delicate oak, worn wood and distressed patterns, while the textile stone has a modern linear pattern. www.karndean.com

SAINT GOBAIN Proof of the pudding: Soundlight used first in company HQ



Saint-Gobain Ecophon, in close partnership with Philips, has introduced the Soundlight Comfort. The refurbished Saint-Gobain head office is the first UK building to feature the product – a fully integrated ceiling system designed to maintain optimum noise and lighting levels for personal comfort. Installed as a suspended ceiling, its LED tiles contain lighting elements but also provide acoustic absorption, with an integral 15mm absorber in the LED unit. www.saint-gobain.co.uk

STYLE Zenith Skyfold helps moveable wall offer reach new heights

Innovative partitioning supplier Style has added the Zenith Skyfold to its range of vertical-rising moveable walls for which it is sole UK supplier. The Zenith is designed for locations requiring minimal disruption to the furniture, or where space is particularly limited. Unfolding from the ceiling cavity at the touch of a button, the Zenith slides automatically into place almost entirely as flat, vertical panels. Its acoustic barrier of up to 59dB Rw sets a new industry record for partitioning walls. www.style-partitioning.co.uk

HANSGROHE ShowerSelect concealed thermostat sets make a clean sweep

Hansgrohe's innovative new ShowerSelect concealed thermostat relies on the simple push of a button to select and operate different functions. There are no complex electronics, just a reliable mechanical control that is easy to install in conjunction with the firm's tried and tested iBox. The ready-to-use sets are available in five different functional versions, from a thermostat with simple on/off function to a combination featuring up to three different functions. www.hansgrohe.co.uk

BAGNO New literature for 2014

More than 400 new products join an already extensive and portfolio of bathroom products in Bagnodesign's new brochure for 2014. Encompassing every aspect of a bathroom's design, the new brochure includes sections on sanitaryware, washbasins, mixers, shower solutions, baths, mirrors, Spa TVs, urinals, assisted bathing products and accessories. From contemporary styles to products that create a timeless finish, the Bagnodesign collection for 2014 is now available at 020 7553 6999 or online. www.bagnodesign.co.uk

VITRA Practicalities and superior design ready to occupy the smart hotel

VitrA UK's M-Line range is ideal for superior hotel projects. The basin has an optimal bowl depth to prevent dirt build up, promoting hygiene and cleanliness; while the rimless WC features a channel free design that eliminates germ reproduction and provides the option of a VitrA Fresh flush tank to add cleaning liquid to every flush. As well as practicalities, sleek clean lines and subtle curved edges elevate the range to a design statement. www.vitra.co.uk

Interiors & Bathrooms

CROSSWATER Mike Pro brings designer style to commercial bathrooms

Mike Pro is a complete basin, bath and showering collection in chrome or brushed stainless steel. The sleek, unassuming yet sophisticated design is an ideal choice for hotels, public buildings and luxury homes. All products feature WRAS compliant components, shower valves are fully TMV2 approved and water saving features are included as standard or an option where required, to satisfy any number of technical, water saving and safety criteria.
www.crosswater-mikepro.co.uk

FRANKE A washbasin design advantage that will keep students sparkling

Franke Washroom Systems has expanded its basin range to offer Miranit Bespoke for schools, colleges and care homes. These come as either a run of basins or individual units made to measure in four styles: straight, D shape, L shape and corner-convex, in lengths up to 3.6m. Miranit High Gloss white has a gelcoat surface that is quick and easy to clean, while Miranit Matte is robust and resistant to scratches, and so extremely hygienic.
www.franke.com

VOGUE Stylish towel warmers bring aesthetic as well as practical comfort

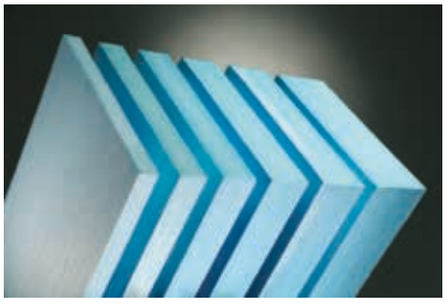
Leading manufacturer of towel warmers, Vogue (UK), has launched the Aquila and Phoenix models. These practical warmers are stylish design statements that will create a focal point in any contemporary bathroom or kitchen. Manufactured from the highest quality mild steel, and supplied with a 10 year guarantee, both Aquila and Phoenix can be left or right hand mounted, and are suitable for closed/indirect heating systems.
www.vogueuk.co.uk

POLYFLOR Expona luxury tiles double up on innovation

Expona, Polyflor's luxury vinyl tile brand, underwent a dramatic relaunch towards the end of 2013. The new Expona offers two design focussed collections across two specifications. Expona Design PUR has a 3.0mm gauge and 0.7mm wear layer, while Expona Commercial PUR features a 2.5mm gauge and 0.55mm wear layer. Mirroring the beauty of natural materials, the range of colours, materials and surface textures meet the demands of heavy commercial environments.
www.polyflor.com

Insulation

STYROFOAM Floormate 300-A insulation wins BBA accreditation



Floormate 300-A extruded polystyrene insulation from Dow Building Solutions has won BBA certification. Floormate 300-A – a Styrofoam-A grade manufactured in the UK – is durable enough to be laid beneath concrete floor slabs, and can help to prevent thermal bridges at floor and wall junctions. Thermal conductivity is 0.034W/mK in 100mm thickness; and the product has a compressive strength of 300kPa and a high design load of 130kPa.
www.styrofoam.co.uk

KINGSPAN INSULATION New school steeled for success

Ebbw Fawr Learning Community Secondary Phase, a new secondary school at the heart of The Works regeneration project in Blaenau Gwent, Wales, is on course to achieve a BREEAM 'Excellent' rating with the help of products supplied by Kingspan Insulation. The company's high performance Thermataper TT46 LPC/FM and Thermaroof TR26 LPC/FM were specified for the school's flat roof as part of architect BDP's passive design approach for the building.
www.kingspaninsulation.co.uk

CELOTEX Insulating Britain campaign is a double-decked drive for change

Insulation specialist Celotex launches its 'Insulating Britain' campaign in spectacular fashion on 4 March, when its custom designed double-decker bus begins a 50-stop UK roadshow. The bus also features as part of Celotex' presence at Ecobuild 2014. Aiming to help simplify our clients' route to regulatory compliance, the campaign will see Celotex take part in live webinars and deliver one hour technical presentations from the pink double-decker.
www.insulatingbritain.co.uk

KNAUF INSULATION Tenants can toast warmer homes in south west London

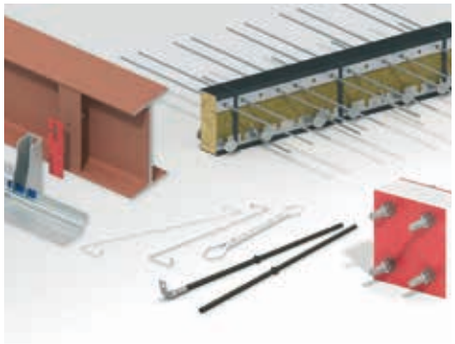
An energy refurbishment programme by London-based housing association Guinness South to improve the thermal performance of 80 of its Victorian street properties used Knauf Insulation's ThermoShell internal wall insulation system. 'Knauf's ThermoShell was perfect as it is simple to install and very flexible, allowing other contractors to work around each other,' said Rolston Dennis, planned maintenance surveyor for Guinness South.
www.knaufinsulation.co.uk

Ecobuild

EPWIN A new standard: it's time to focus on supply chain partners

Restricted by your supply chain? Feeling the pressure of reduced capacity? Margins not what they were? Epwin Group understands the importance of partnerships, and their critical role in the long-term success of a business. So as the recovery builds momentum, it's time to reconsider this vital element. Join us on the stand to hear why 'standard' just isn't good enough, and learn why our sector specific, niche and specialist products and services set us apart.
Stand N1110/11
www.epwin.co.uk

ANCON Energy efficient construction solutions on show



Ancon, leading UK manufacturer of stainless steel masonry support and restraint fixings, is to team up with the country's largest brick manufacturer, Ibstock, to present a range of sustainable and low energy construction solutions at this year's Ecobuild. Ancon will launch its ground-breaking ultra-low thermal conductivity TeploTie which has a stainless steel L-shaped upstand for connecting to steel, concrete or timber frames.
Stand N1120
www.ancon.co.uk

SMART SYSTEMS What's behind the curtain wall?

Commercial systems specialist Smart Architectural Aluminium will showcase its products and present its sustainability credentials at Ecobuild. A 6m run of Smart Wall curtain walling will form the spine of the company's stand. Featuring prominently will be the recently-launched Alitherm Heritage range of windows and doors, alongside products from the Alitherm 700 and Eco Futural range of products.
Stand N110/211
www.smartsystems.co.uk

SWISH Modern materials' conservation role sports a robust defence

Swish Building Products will tackle conservation critics head on at Ecobuild 2014, proving that modern materials can work hand in hand with traditional design; combining the high performance, low maintenance characteristics of PVC-U with lasting good looks. A heritage display will showcase the PVC-U Tudor Board with a ball finial and bracing bar, concave decorative roofline with trims and a new cast effect Ogee gutter system with downpipe castings.
Stand N1110/11
www.swishbp.co.uk

BUZON UK Pedestal range steps up into the spotlight at Ecobuild

Designed to create raised access external and internal floors, Buzon UK's high quality adjustable screw-jack pedestals will be on display at Ecobuild. The versatile pedestals are ideal for commercial, industrial and domestic use – from small rooftop terraces to large permanent and temporary raised floors. Each pedestal can support loads in excess of 1000kg and is made from 80% recycled and 100% recyclable polypropylene.
Stand S1830
www.buzonuk.com

ELTA FANS Ecobuild launch for residential ventilation range

Ecobuild will be the platform for 2014 Elta Fans to launch its new line of fans and whole house systems designed to meet the ventilation needs of modern residential buildings. The range features options for bathrooms, toilets, shower rooms, kitchens and utility rooms, as well as MVHR, MEV and dMEV units for whole house systems. It offers excellent performance while recognising the role of aesthetics in modern interior design.
Stand N1945
www.eltafans.com

KEMPER SYSTEM Liquid waterproofing system is top of its game

Kemper System will promote its market leading solvent-free, sustainable and odourless Kemperol 2K-PUR liquid waterproofing system and Stratex Warm Roof System at Ecobuild. Kemperol 2K-PUR is the first solvent-free wet-on-wet cold liquid waterproofing system on the UK market and remains the only product of its kind commercially available. In the last year sales have grown for the membrane, which bonds to almost any substrate.
Stand 1520/21
www.kemper-system.com/UK

IBSTOCK Helping specifiers to meet technical and aesthetic challenges

Ibstock Brick, the UK's largest brickmaker, will exhibit some of its most innovative products at Ecobuild 2014. Ibstock will display the diversity, breadth and sustainability properties of its range, with its own expert design advisors on hand. Centre stage will be the relaunched and expanded Linear long thin brick range, Ibstock-Kevington's underslung brick-faced soffits and BrickShield external wall insulation system.
Stand N1120
www.ibstock.com

General

BISON Staircases and floors take a role in BBC documentary

Bison Manufacturing's market leading pre-cast concrete units have featured in a prime-time BBC documentary. *Hidden Histories: Britain's Oldest Businesses* featured the work of R Durtnell & Sons, including Hollowcore flooring units and precast staircases from Bison. Specified throughout the estate's 15 high-end homes, 4,300m² of 200mm deep Hollowcore flooring units and 26m³ of precast staircases provide a stable, sound deadening alternative to wood.
www.bison.co.uk

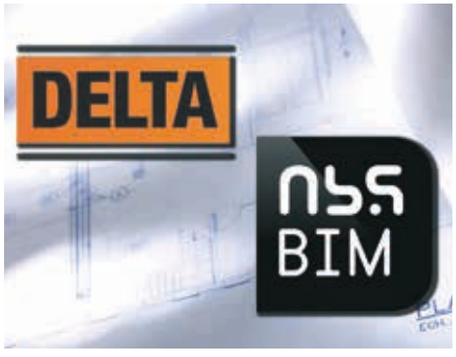
PROTAN Wind risk becomes an advantage with Provac roof

Ineos, One of the world's largest chemical producers, has used more than 11,000m² of Protan's SE1.8 vapour permeable membrane with its Provac system on the roofs of a waste to energy thermal power station at Runcorn. In an area of high winds along the River Mersey, Provac harnesses the wind to suck out any air beneath the roof membrane: 'The stronger the wind, the better the roof sticks,' said roofing contractor SIAC project manager Robbie Grimes.
www.protan.co.uk

WOLF SYSTEMS Easi-joist attic trusses strike a chord with housebuilders

The latest version of Wolf Win truss software enables customers to incorporate an easi-joist into the ceiling-tie of an attic truss. This development means designers can now easily incorporate the strength and cost benefits of the easi-joist system in attic truss design, significantly improving truss performance and enabling greater clear span and larger room sizes. Wolf constantly updates its software portfolio to ensure its products incorporate important features to help our customers.
www.wolfsystem.co.uk

DELTA MEMBRANE SYSTEMS Embracing the benefits of BIM

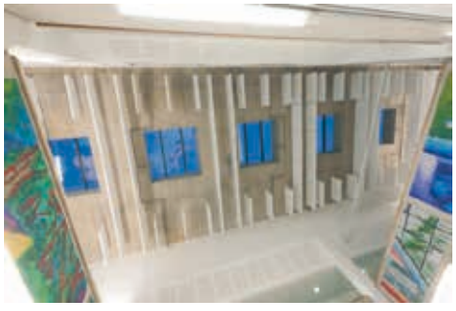


The benefits of BIM (Building Information Modelling) include knowledge sharing, improved project management, faster and more economical creation of a project, and lower environmental impact. These goals are shared by Delta Membrane Systems, which is why it has made its product range BIM compatible and available on its website. The National BIM Library, run by NBS for the UK construction industry, also hosts Delta's range of systems and products.
www.deltamembranes.com.

DORMA First class service at luxury Westminster hotel

At the new InterContinental London Westminster – in the former Queen Anne's Chambers – over 300 door closers and floor springs from Dorma have helped transform a 19th century former government building into a luxury hotel fit for the 21st century. The hotel design embodies luxurious living and British heritage. Dorma supplied and installed the ITS 96 concealed door closers and 40 x BTS 80 EMB, BTS 80 and BTS 75V floor springs across the hotel.
www.dorma.com.

ROCKFON Making sound sense for the new Phoenix Academy



Rockfon has successfully worked with Global Contract Interiors, Kier Construction and architect Seymour Harris, to establish a fully compliant range of acoustic solutions for the new Phoenix Academy in Telford – a Building Schools for the Future scheme. Around 2,000m² of Rockfon products: Scholar and Samson wall panels; Contour suspended baffles; and Alaska suspended raft islands, were installed throughout the school to improve acoustic sound absorption.
www.rockfon.co.uk

LEADERFLUSH SHAPLAND Doorset manufacturer is BIM Level 2 ready

Leaderflush Shapland, the UK's leading performance timber doorset manufacturer, is BIM Level 2 ready now. The company has been at the forefront of working with its customers in a collaborative way to deliver a quality product and service. Building Information Modelling was a natural progression – to further improve collaboration and given the government's aim for all centrally procured construction projects to be delivered using BIM by 2016.
www.leaderflushshapland.co.uk

CISTERMISER Stylish new hands-free infra-red tap

Cistermiser, specialist in the manufacture and supply of infrared washroom controls – has launched a new hands-free infrared tap. The Vectatap delivers up to 80 per cent water savings, and exceptional hygiene standards due to its 'no-touch' technology. It is the newest of four models in the range, which includes Vectaspout, Novaspout and Novatap. The Vectatap is easy to fit and retrofit and its infrared sensor technology helps lower water use.
www.cistermiser.co.uk

COMAR Deepings School keeps cosy with efficient windows, doors and walls

Comar Architectural Aluminium Systems, with its approved fabricator Page Group, has completed a new build 6th form centre at Deepings School in Cambridgeshire, using its 5P.i ECO casement windows, Comar 6 framing and Comar 7 doors. The windows are thermally efficient polyamide insulated aluminium with outstanding weather performance and reduced heat loss. Comar 6 curtain walling is a versatile thermally efficient system ideal for facetted curtain walls and sheer glazed facades.
www.comar-alu.co.uk

LUMEN-TUSCAN Proud to be part of helping the homeless

Lumen Rooflight has supplied 15 conservation style rooflights for a homelessness charity project in Dorset. The project, for charity CRASH, involved converting a stable block into short-term accommodation for people who have been sleeping rough , at The Pilsdon Community working farm and refuge. Lumen's conservation style rooflights, with their low profile and high specification, were considered perfect for the sympathetic restoration of the buildings.
www.lumenrooflight.co.uk

AET Under-floor air conditioning helps upgrade to BCO standard

AET Flexible Space has supplied an under-floor air conditioning system to Reading Bridge House, one of the largest buildings in the town. The project was the second phase of major refurbishment and services upgrade, for which AET supplied an under floor air conditioning design based on AirFixture technology; 1200 floor terminal boxes, comprising PMIT grilles with multi-directional airflow, and an upgraded Time Modulation controls system.
www.flexiblespace.com

HOPPE Opening the door to learning

Door hardware from Hoppe has been used on an award-winning primary school in Yorkshire. Chosen for their contribution to the school's industrial-feel design as well as their performance and longevity, the Hoppe hardware makes an important contribution to the style, function and safety of Sandal Magna Community Primary School in Wakefield. Hardware from the company's duranorm range of lever handles on a choice of rose or backplates was selected for the job.
www.hoppe.com

SCHUECO New facade insert window adds to facade options

Schueco UK has launched AWS 114, a facade insert window that can be fitted into all types of Schueco facades including stick, unitised and add-on constructions. Its design benefits include large vent sizes, high levels of thermal insulation and the option of 'TipTronic' automatic actuator operation. The window comes in three formats – fully framed, structurally glazed and structurally glazed with a glass retention frame; all with standard or super insulation .
www.schueco.com

MAPEI Paving the way in Birmingham New Street

A complete system of Mapei products has been specified in the flooring build up of new public concourses within Birmingham's New Street Station. The £600m redevelopment will include a new concourse, exterior facade and entrances. Mapei systems were chosen to enable fast installation and provide a surface suitable for exceptionally high levels of foot traffic. Overall project completion is set for 2015, along with further Mapei specifications.
www.mapei.co.uk

CRITTALL Michael Moran wins Crittall photography prize

Northwest Peach Farm, a stunning upscale modern family home in New York State by Bates + Masi Architects, has been announced winner of The Crittall Prize 2013. The Crittall Prize recognises the best application of Crittall steel fenestration in North America, where the British based company is a dominant player. Two runners up, highly commended by the judging panel were: Private Residence in St. John's Dallas, Texas and The Hudson River House, New York.
www.crittall.co.uk

IQ GLASS Innovare Windows stand up against the elements

Innovare windows, a frameless window and door system, were installed on this exposed tower on the coast. The system reduces noise through its triple glazed glass makeup, while the double seal, gas fillings and high specification glass create a strong thermal performance. The windows provide the highest protection from the most violent of weathers but have a full glass finish, meaning no exposed framing and easy maintenance on coastal environments such as this.
www.iqglassuk.com

Sign Up

Dieter Kleiner, director of RCKa, gives us three of his specification favourites

LAFARGE DUCTAL ULTRA HIGH PERFORMANCE CONCRETE

The cladding of our TNG Youth & Community Centre in Lewisham had to be both beautiful and robust. This product allowed us to cast bespoke panels against sections of the polycarbonate upper levels to achieve a continuous, sinusoidal profile. The material, with a tactile, porcelain-like quality, picks up every nuance of the mould yet is 100 times stronger than regular concrete, so can take major abuse but is light enough to hang from a CLT/ Timber framed building.
ductal-lafarge.com

KME TECU BRONZE

Tecu Bronze is an alloy of copper and tin, and we've used it recently to form the roof of our Twisted House extension in Wimbledon. We wanted something that measured the subtle geometry of the twisted-pyramid shaped roof so installed it in a standing-seam arrangement. The product has a beautiful quality, and will weather gracefully over time to a dark, nutty-brown colour. It's not a 'blingy' material; instead it has a crafted, hand-made quality that is understated and elegant, and allows itself to be manipulated into unusual forms.
kme.com

BOLON WOVEN VINYL FLOORING

Bolon is a Swedish flooring product that we've used numerous times in both domestic and commercial projects. It combines the benefits of vinyl flooring – hardwearing and impervious to spills – with the tactile qualities of carpet. The product is available in a huge range of colours and patterns, and some weaves are designed to vary depending on the angle from which they are viewed, which means they have a dynamic quality that changes as you move through a space. It's an exciting product and we are constantly finding new ways of using it.
bolon.com

...Sign Off

Jan-Carlos Kucharek enjoys three of this issue's out-takes

NO CASH FLOW

If the coalition's taught us anything in imposing its punishing cuts across the public sector, it's that we need to think money a bit more. Not thinking money was how New Labour got us into this mess in the first place. If we all did a fewer vocational courses and more Economics and IT, we wouldn't be in this state. Thank God for the completing Think Money campus in Manchester. Although next to the Ship Canal, it's got its own – although this one doesn't go anywhere. It just dead ends, which is just as well. If it did, you might get distracted at your desk wondering where it went, and the point here is to concentrate on thinking money.

SCOTCH BONNET

Elizabeth Bennett's pallid cheek would surely develop a blush of shame on hearing of imminent reparations to that place that nigh scandalously divested the Bennett family of social position and fortune. Scotland's 'First House' in Gretna, the Toll Bar Cottage will, but this year, be vexatiously restored in its former guise as a place of illicit conjoinment for those choosing a life forever excluded from polite company. It is a truth generally acknowledged that its coffee shop will 'create a ambience' and purvey a hit of the Kenyan to gird wayward youth before they solicit the services of the 'anvil priests'. Oh, Mr Darcy!

BLACK HUT DOWN UNDER

You'd assume the only clients for these old caravan-style huts would be Channel 4 documentary makers looking for props for the next series of 'My Big Fat Gypsy Wedding', but no! Somerset firm Blackdown Shepherd Huts reveals there's been a 'global surge' in self-build huts, doubling its order book this year. Looks like everyone wants a piece of flat-pack action – it even has orders from Australia for huts for 'mining operations, healing retreats and vineyard wineries'. That's the international market – the domestic one's probably just pre-orders from the government to deal with a housing crisis that, like a caravan, is just impossible to address.

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