

PIP

Products in Practice
Mar/Apr 2015

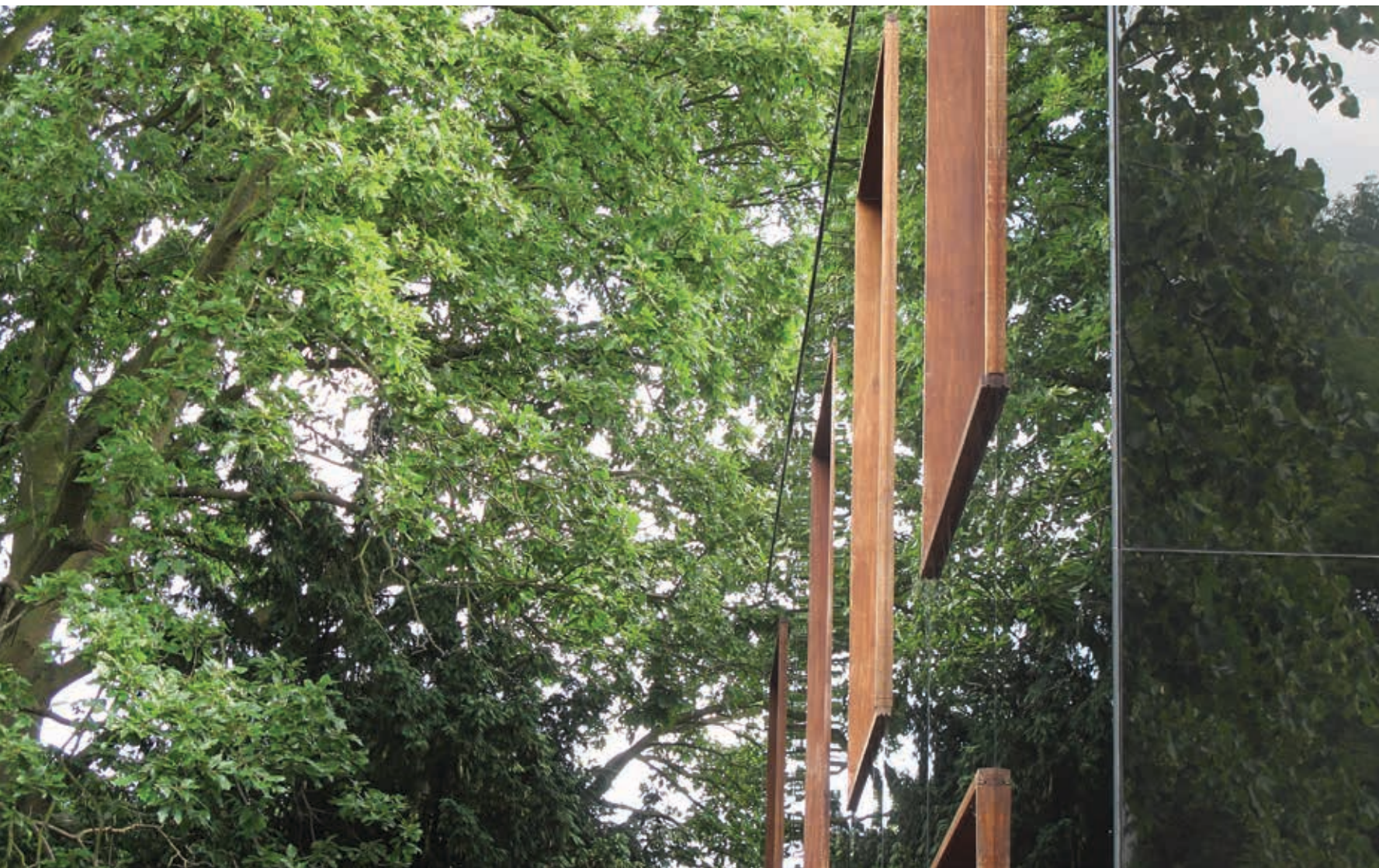
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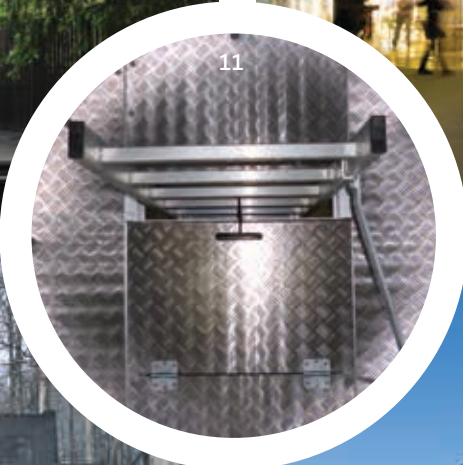


Hearing...

...about lycra-clad construction consultants on their charity bike ride to Cannes, destination MIPIM, I can't help feeling the road to hell's paved with good intentions. The booze-fuelled property event, where Europe's local authorities side up to global big money to sell off tracts of cities to regenerate – usually for profitable housing – is no longer an industry secret but a politically hot potato. Cue last year's inaugural MIPIM UK which, a day after a Guardian

exposé, was shut down by protesters before a shampoo cork had even been popped. But bank tax evasion scandals, spiralling house prices, and the popularity of Piketty's 'Capital in the 21st Century' point to society genning up on how the economic market works and the impotence of the individual. Admittedly, we recently saw Camden planners turn down a Qatari royal request to knock through a Nash Terrace to create a mini-palace, and East London's New

Era Estate win a high profile victory over a US landlord threatening to double the rents. But these are drops in the ocean. Critic Martin Pawley put his finger on it a decade ago when he said the time would come when the houses we live in earn more than we do; yet in that aspiration, as a nation, we're all addictively complicit. I might not have donned the cycle lycra yet – but I'm happily sporting a pair of horns. ●
Jan-Carlos Kucharek, Editor

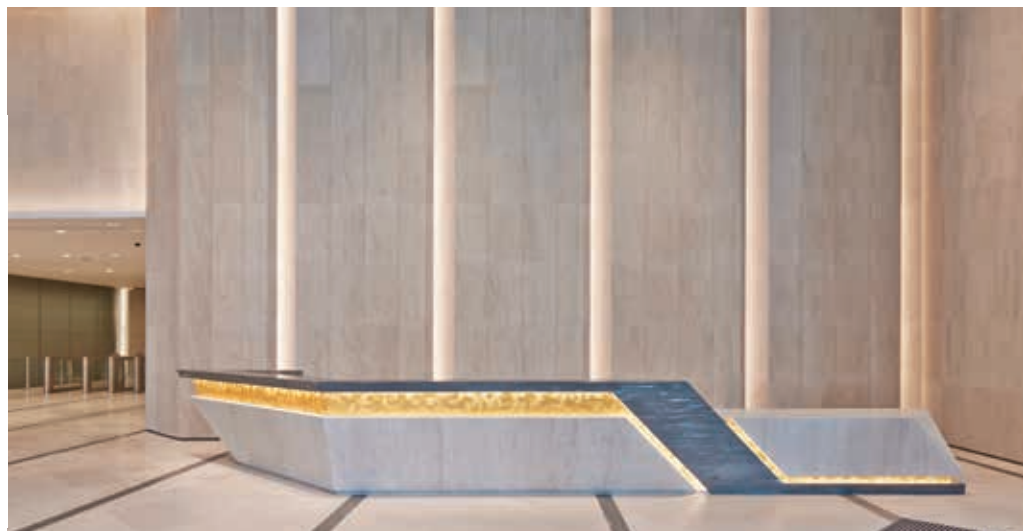


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Cover image: Tree House by Ian McChesney Architects. Photograph: Adam Scott

Compendium

GG ARCHARD



Mum's the word

As was hammered home during the war, careless talk costs lives. Exchange the last word for 'profits' and you may have a reason as to why the reception lobbies in KPF's new 130m high 25 Churchill Place commercial development in Canary Wharf have been kitted out in Knauf Apertura perforated acoustic panels. And when the next financial meltdown occurs, fired bankers can rest assured that Knauf's fire rated Shaftwall on the escape staircases should see them and their boxes delivered safely to the exits and into the arms of incensed taxpayers.

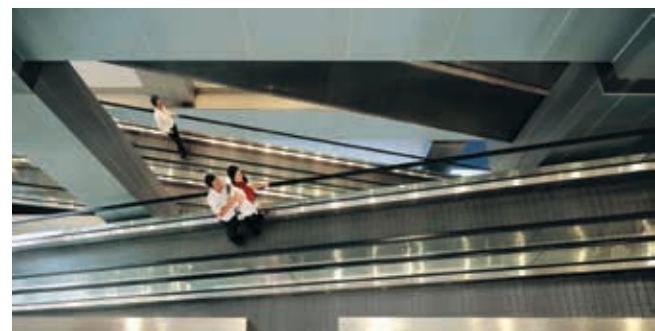
Gangnam style

Yes, it's not just a digital billboard, Jim, it's a G-Glass clear glass media screen, meaning that whole building facades can effectively be turned into a colour TV – whether it's glazing or spandrel panel. The construction grade, LED-impregnated laminated glass technology is by G-SMATT Global of South Korea, which developed the active glass in partnership with German sealant company Kommerling. The secret behind the project is apparently 'stripping a metalised coating to facilitate the correct mapping that co-ordinates and synchronises the power and programmes'. In development for two years, the system has been installed at the Shanghai Stock Exchange and is styling out the Gangnam Financial Centre in Seoul.



Power shower

It's a shame that most of the really posh places that architects get commissioned to design never get publicised due to client sensitivities, so it's nice to get a glimpse of German firm MWE's Austin Powers-like shower plinths. Big enough to swing a Mini-me in, its curved glass doors have been fitted, claims the firm, with teutonically efficient sliding mechanisms on engineered rails, which means that there should be nothing standing in the way of a shower and any megalomaniac desire for world domination. The plinth also comes with stainless steel magnetic caps on the fixing screws, discreetly hiding them away and considerably lessening the cleaning struggle for your legions of bonded slaves. Like you care.



Stairing at the sum

An escalator might offer bipeds an easy way to get from A to B but we can rest easy that such firms are working hard to increase energy efficiencies of their mechanisms. Schindler claims its latest range, with optimised motors and advanced gearing, is 11% more efficient than industry standard. At 10.5kg, its aluminium steps are also the lightest – 40% lighter than steel and improving energy efficiency it says, by 5%. Taken together, this is all aimed at ensuring a lower carbon footprint, despite all that heavy footfall.

UPCOMING

Ecobuild Excel, London, 3-5 March**Retail Design Expo** Olympia, London, 10-11 March**MIPI** Palais des Festivals, Cannes, France, 10-13 March**BIM Show Live** Manchester Central, 8-9 April**International Passive House Conference** Congress Center, Leipzig, Germany, 17-18 April**Sustainability Live** NEC, Birmingham, 21-23 April

IVAN BRODEY

Copper topped

Apparently it's all conceived as a hilltop plateau, White Arkitekter's secondary school in Strømmen, Norway. The lower level, with full-height glazing, is completely open plan and contains the library, workshops and studios; while the 'introverted copper box' above contains the classrooms. Clad in Aurubis Architectural's Nordic Brown corrugated copper sheet, the firm says it was inspired by the town's old riverside sawmills and heavy industries. Looks great, but the last time I saw school kids in Scandinavia being tucked away in dark boxes I was watching the compelling Swedish vampire flick 'Let the Right One in'. And that didn't end well for anyone.



THOR BJORN FESSEL

The ties that bind

Danish product designer Wahl&Ross is behind the bespoke furniture designed for the NOMA pop-up restaurant that appeared last month in Tokyo. Built in kebono wood, the items' strength is apparently derived from 'rope bracing and tightening techniques rediscovered from Nordic maritime explorers'. The 'timber lashing technique' meanwhile is inspired by 'historic Japanese craft'. Would that be ancient 'Shibari' rope art, gentlemen? If so, your research has probably been as naughty as it was nautical.

**Jurassic parquet**

The tile might resemble the walls of Nelson Mandela's prison cell as he ticked off the days, but in fact it's the winner of Italian tile firm Refin Ceramiche's 2014 'Create Your Tile' competition, which PIP's editor helped judge. The design is by young Polish architect Kasia Zareba, who studied architecture first in Poland and then Eindhoven Design Academy. Her concept centred on prehistoric imprints found in fossils of the grooved shells of extinct ammonites. Able to be tessellated together in random patterns leading to quite pleasing outcomes, consider it part of Refin's theory of natural selection, which ensured through its competition that only the fittest survived. Something, thankfully, that could also be said for Madiba.

Pull the other one

The line between genius and the patently bleedin' obvious can be a fine one; and in the case of Pereen d'Avoine's door pulls, it's got a return at both ends. The young architect who heads up her own company, Russian for Fish, created three aluminium extrusions that each require only a 100mm slit in the your cupboard door to supply the 'purchase' it needs to work. Having identified this (very small) gap in the market, she set up an ironmongery firm to make the door pulls in either anodised finish or painted to any RAL colour. Available as double door, single horizontal or under counter, the pulls come in at a slightly eyebrow raising £15+VAT each. True, the PR says good design 'does not cost the earth' – but it does cost more than IKEA.



MATT DUNKINSON

Spud-U-Like

Fresh from its success laying the timber clad artists' retreat Exbury Egg on the River Beaulieu in the New Forest, arts promoter SPUD, funded by the Arts Council, has commissioned architect FCB Studios to create the Observatory; a sculpture, workspace and shelter for 12 artist residencies in four UK locations. It's moving not just

round the country but on the spot too, able to rotate 360° to take full advantage of light and views. Sponsoring the scheme, timber panel and products distributor James Latham supplied the wood for free – including the western red cedar and larch, which was charred black to make the object as much 'look at me' as it is 'look from me'.



Greener on the other side

Mobilane, which develops 'sustainable living systems for interior and exterior use' has launched its LiveDivider, a living office partition made of plant cassettes. It claims these offer not only privacy, but a range of health benefits. They apparently require no power and only need to be watered once a month – preferably not by a guide dog.



All must have risers

When designer Peldon Rose was appointed to design some 'quirky and interesting' interiors for a new business centre in London's Waterloo, it looked to Alice in Wonderland via the area's 'Mad Hatter' millinery past for inspiration. Cue the involvement of SAS International, which supplied its System 330 metal ceilings to create the stark white, gloss finish in the corridors, drawing visitors down the rabbit 'hall' to the very big bunny at the end, as well as System 120 in black and white to create chequerboard effects in common areas, alluding to Alice's famous chess game. Over 2000m² of System 130 was applied in the offices upstairs, giving acoustic attenuation as well as keeping the warren of service ducts above as invisible as the Cheshire Cat.

PHILIP VILE

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Retail Design Expo

Part of the fun of something like a specialist retail design show is that it panders to precisely the notions of temporality and change that run counter to the idea of permanent architecture- the firmity that serious practitioners will always gravitate to. But there's lashings of commoditas and utilitas here and Retail Design Expo is well placed to give us a good helping of both. I'm quite excited by the seminar programme they are offering. Ab Rogers talking on retail's role in brand stories, 'innovative retail design' by the CEO of Boxpark and trends in hospitality design by Universal Design Studio's Jason Holley, who brought us London's achingly trendy Ace Hotel.

But I must admit, the niche seminars are really piquing my interest. Standing in that queue is where I always ponder the bigger philosophical questions, so 'The changing face of the Post Office' is a dead cert and I'm hoping to do something about my open pores with 'Reinventing the beauty salon and beauty

I'm hoping to do something about my open pores with 'Reinventing the beauty salon and beauty retailing' – because I'm worth it

retailing' – because I'm worth it. But perhaps it's my love of Mariachi band Señor Coconut's cover of Kraftwerk's classic 'Showroom Dummies' that will have me beating down the door to designer Rootstein's 'Everything you need to know about mannequins' seminar. Go on – you know you want to...

If you can keep the envy in check you might also check out the design consultancies and architects in the 'Designer Pavilion'. Or try a 10 minute consultation with Future

Trends Laboratory's forecasters, giving insights into consumer thinking in specific markets. The POPAI theatre will be bringing retailers and brand owners to a roundtable to discuss 'business critical issues' and running a series of 'bite-sized training sessions' to help design 'point of purchase' friendly spaces – architects need to be aware that the rise of the phablet has knock-on effects on the environments they design.

It was the 1988 V&A rebranding that came up with the prophetic 'An ace caff with quite a nice museum attached'; a reminder that branding used to be a rare concept. So despite my inclination to turn tail and run, I feel compelled to attend the 'Selling culture' seminar on retail environments in museums and galleries, just to see how far we've come – and whether, in the end, any of us feel better for having 'been there, done that and got the two Sarah Lucas fried eggs on the T-shirt.' ●
Retail Design Expo, 10-11 March, Olympia London. retaildesignexpo.com

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



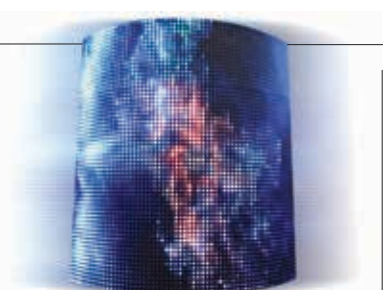
LIGHT SHEET

Applelec

While we wait in cross-legged anticipation for the pure '2001: A Space Odyssey'-like seamless ceilings of flat light promised by OLED technology, LED manufacturers are pushing the envelope in panel lighting. Applelec's Light Sheet is now available 20% brighter than in its former guise and in 6/8mm thicknesses. It can be supplied in a single sheet of up to 1.5m by 3m, is warranted for three years and has 50,000 hours lamp life. That's enough to take Kubrick up to 2006.7.

Stand L40

applelec.co.uk



RGB LED DISPLAY

Pulse Lighting

Warhol said we'd all be famous for 15 minutes; but with the rise of social media, Snapchat and Vine, we can update that to 15 seconds. Music to the ears of companies like Pulse Lighting, who's developed its latest programmable RGB LED display which can broadcast illuminated static images and videos with variable colour, speed, complexity and intensity. Just imagine your mug on a billboard in Time Square – no problem! There's no size restriction and it works on curved as well as flat surfaces.

Stand E62

pulselighting.co.uk



MAX LUMINAIRE

Quattrobi

The peccadilloes of its infamously corrupt ex-prime minister aside, everyone, even if they don't admit it, wants to be Italian. It's got the best looks, food, most beautiful cities and a big ol' boot full of beaches to endear it. No wonder they strut around Europe every summer like they're on stage. Well, now, Italian firm Quattrobi is giving them a LED spotlight to enjoy being under. Adjustable sliding projector, brushed aluminium, tempered glass cover, ribbed metal heat sink. Makes you sick.

Stand H72

4bi.it



ADHESIVE FILMS

Doro Tape UK

Gone are the days when I used to fashion makeshift light sabres from a foil-covered loo roll tube, rolled up coloured plastic sheet and a deconstructed bike lamp, but there must be a similar sense of fun at Doro Tape's warehouse. The firm specialises in self-adhesive decorative films which include colour, metallic, holographic and dichroic films. If you're looking to be truly postmodern and/or ironic, there are also wood, leather and marble effects to choose from – perfect for decking out Darth's imperial office.

Stand H1

dorotape.co.uk

A common language



Working in Australia, Europe and the Middle East I have come to realise the process of making architecture almost transcends local language. Our choice of materials and the way we describe them in documents is essentially the same in all countries. Affordable software and standardised building techniques make it possible to work on architectural projects almost anywhere, regardless of language or culture.

In Australia recently, I came across a few large architectural firms outsourcing bulk documentation to Asia for international projects. This was not so successful as project leaders were unable to have regular face to face meetings, so inaccurate information passed from team to team. They relied on traditional transfer of documents via email and FTP sites which slowed co-ordination and stunted creativity.

There are many positive examples where small firms have successfully outsourced documentation locally. I've worked in offices that have used this method to take on work that would normally exceed their capacity or

technical capability. With regular in-office team meetings to ensure timely feedback and co-ordination, outsourcing is well suited to local projects but is testing for international teams.

Sometimes international expertise is needed to broaden the skill and reputation of a project team. We've all seen the commercial and political cachet that brilliant design offices can bring to difficult projects. Hundreds of iconic projects are born of international collaboration rather than international outsourcing.

While working for a progressive firm in London, I was involved with an international team working on a complex project in the Middle East. To overcome co-ordination challenges, we created a new working method that combined the immediacy of a local team with using our collective global expertise.

We created our own cloud based BIM server which allowed the entire team to work on one model in one file simultaneously from our different geographical locations. The cloud based server connected each team member to a single

standalone box with project files, BIM server software, VPN access and IP linking. It was as if the whole team was working in one room. We regularly used Skype's 'Share Screen' to clarify and amend details on the fly. The consolidated information was there in real time and completely accurate. Rather than solving tedious co-ordination issues we could concentrate on resolving tricky design issues.

This way of working led us to create new 'office' standards specific to the project, with a set of filters and tags in two languages that conformed with national regulations. All new elements created within the file contained a consultant reference, to assign responsibility to them. We established this way of working primarily to overcome global collaboration; but there are tremendous co-ordination and design benefits to using a cloud based BIM server when working in any BIM driven consultant team – and that includes local ones. ●

Alan McLean works at Bates Smart Architects in Melbourne Australia

Books



The Commercial Mediator's Handbook

Cyril Chern

Routledge Informa law, 410pp, £120

It's a help to know that Cyril Chern is not only a chartered architect but a barrister, which should bring comfort to those negotiating this dense, information loaded text on contract mediation. As Chern warns, this isn't about mediation methodologies per se but understanding how parties come to feel aggrieved, and what interests might motivate their thinking. It's true, architects are most likely to be either one of those parties, but getting a barrister's view of the process may well help an architect in better teasing out more cogent and rigorous arguments should that be necessary. Broken down into 25 chapters, themes are approached methodically, making the complex topic of mediation itself more manageable.

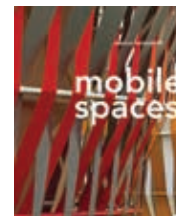


Tile Envy

Deborah Osburn

Cicada Books, 125p, £17.95

After years in the modernist wilderness, coloured ceramic tiles have been enjoying a strong resurgence in contemporary architecture, championed by the likes of OMA, FOA and Caruso St John. You'll see evidence of that in this lovely book showcasing dozens of examples of their use in projects from all over the world. Splitting design types into 'illustration', 'texture' and 'pattern' we're shown examples of everything from handcrafted to screen printed and computer printed tiles – a modern snapshot, in fact, of the designs, processes, material and methodologies employed by the modern tile industry. From Byzantine to CNC printed, the book is richly illustrated throughout, offering real inspiration to those who only see the world in black and white.



Mobile spaces

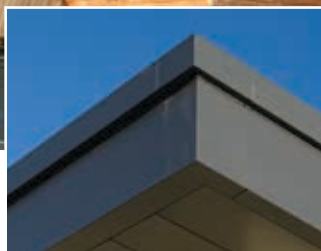
Markus Heinsdorff

Jovis, 183p, £50

Judging by just about every public space nowadays, this is the Age of the Pop-Up. Or it is if Markus Heinsdorff is to be believed. The German installation artist was commissioned by the Goethe Institute to create a number of temporary shelters highlighting German industry and culture 'Urban Mela' (Hindi for 'festival'), that toured India in 2012. Adapted to the climatic region, his 'Textile Buildings', first developed for China in 2008, were quick to assemble and dismantle and easy to repair and recycle. The 16 innovative, environmental pavilion structures used elegant engineering and novel textiles to push the envelope of the typology. The book is a stretched out compilation of photos and essays describing the their design and construction.

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T-pylon



What: National Grid T-pylon

Where: Mabey Bridge Plant, Chepstow

It looks like it's full steam ahead for Bystrup Arkitekter's T-pylon, with final designs now being constructed at fabricator Mabey Bridge's steel manufacturing plant in Chepstow. Won in an RIBA competition in 2011, the first 35m high, 43 tonne steel pylons that will be erected at the National Grid's training academy at Eakring in Nottinghamshire later this year.

Mabey Bridge T-pylon project manager, Andy Hosking, says the firm is fabricating all five types – 3 'T' pylons, a gantry and a terminating pylon – using experience gained in manufacturing large tubular steel structures, including wind turbines. The five types are: the standard suspension pylon, designed for straight runs; the F-10 flying angle pylon to carry deviations of up to 10°; the D-30 pylon, for up to 30° deviation, and the gantry and 'double diamond' – terminal pylons for use at substations or to help transition to cables underground. The T-pylon is basically a monopole steel structure of three tubular sections, each fabricated from rolled 'cans', whose diameter goes from 2m at its base to 1m at the top. Cast bearing components allow the 'T' arms

to extend from the body of this pylon. The 12-40mm thick steel plates are cleaned before being passed through a cutting and profiling machine. Cut edges are cleaned up and the plates passed through a heavy duty 'DAVI' machine which, after a few minutes under extreme loads, rolls the plate into a cylindrical can form, welded down the seam and to the adjacent 'can' to form a large tube before being shot blasted and painted. Internal flanges at the can ends allow the 10-12m sections to be invisibly bolted together on site. The robust 13m by 8m upper frame of the 'double diamond' terminal pylon ranges from 600mm to nearly 1m in diameter and is formed of 15mm thick steel plate. Meanwhile, on the standard suspension pylon, insulator assemblies weighing 2.5 tonnes hang like earrings either side of the monopole. The F10 – with beefier insulators tied back with an additional support to the mast, and designed to allow power lines to continue around up to 10° angles without conductor termination – has an insulator assembly weighing 12 tonnes. This spring pylons will be sent to Seville in Spain, where they will undergo full mechanical testing; with the electrical components tested at a high voltage laboratory in Sweden. Pylons are planned to be erected at Eakring from April. ●

LESS HEIGHT, MORE SLIGHT, EVEN OUT OF SIGHT

First introduced in 1928, there are now more than 88,000 steel lattice electricity pylons in the UK so the new T-pylon will have a significant effect on the landscape. At 15m lower than the current pylon, the new monopole is not only less obtrusive, it has been designed so that cables can be routed by following the contours of the land with sweeping curves rather than the lattice pylons' sudden changes of direction. The lower height is possible because of the new ways the cables are held in place. Instead of being attached to three arms each side, a diamond arrangement carries cables on one in a much smaller space. T-pylons are part of the planning consultation for the new Hinkley Point C nuclear plant in Somerset and the bigger strategy of upgrading the nation's electricity infrastructure. In areas of particular environmental sensitivity, cables are planned to run underground. Costing £16m/km more to construct, it's proposed to bury some of the Hinkley Point route under the Mendip Hills.



Left Looking up through the T-pylon, small steel access ladders running through to the top.

Above Visualisation of the suspension T-pylon.

Below A 10m 'can' of the T-pylon showing the invisible bolted connection flanges.



T-pylon and its power runs

- | | |
|--|---|
| ● 400kV power lines. | lattice pylons |
| ● T-pylon: more compact, with conductor bundles closer together, producing lower magnetic fields | ● Typically run at 500A/circuit. The T-pylons at Hinkley Point may run at up to 1000-1300A/circuit. |
| ● Capable of carrying larger conductors | Source: <i>Electric and magnetic fields and health</i> , emfs.info |
| ● Carries two circuits either side of the pylon body, as do current | |

Tree House, south London

There's a surprise self build at the end of the leafy lane – sleek black cladding reflecting the trees, tricking the eye as it moves in and out of view

Words: Jan Carlos Kucharek Photography: Adam Scott



Strange that a suburban house that's covered in over 200m² of black glass should be so difficult to find. But turn off a busy main road from Forest Hill station in south London and you're on a street that's palpably less urban. Turn again, down a track with a view framed on both sides and terminated by trees, and you feel you've left the city behind and are wandering down a country lane. When you reach the dense copse, look left again and the Tree House comes into view – or not, depending on the light. Its glazed walls run hard alongside the nearby trees, reflecting them; at times the house seems defined only by the timber reveals of its deep-set windows. At others its black mirror creates an uncanny and compelling Rorschach effect of its context, lost in the trees with its dark cloak of invisibility.

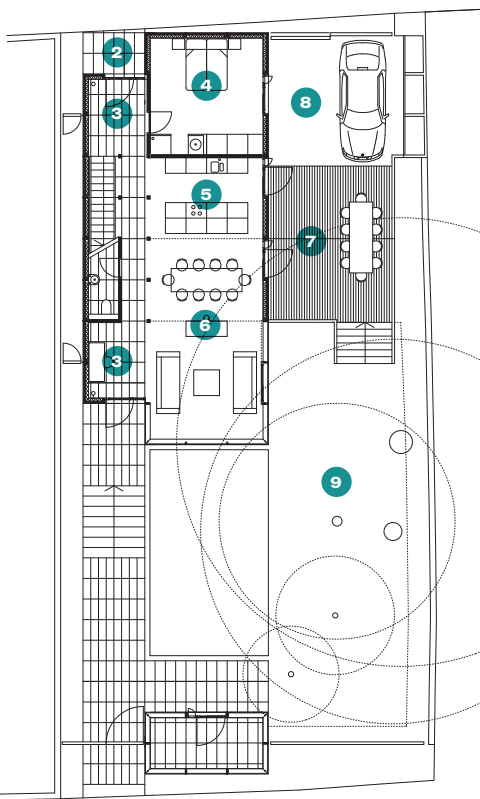
The home's client, Kenneth Martin, is a lawyer – friendly, mildly eccentric and with a can-do attitude. He says he asked architect and family friend Ian McChesney to design the new house for him at the end of a large

garden attached to a period property he had bought expressly for that reason. The story of the project is a rare one in that Martin's reliance on working relationships was key. Some of his sub-contractors for the build-out were employed, strangely for a lawyer, on no more than a gentleman's agreement.

McChesney recalls that despite the site's sensitivity, Lewisham planners made it clear at the pre-app meetings that if anything was going to be built, it would have to be a high quality exemplar with no recourse to pastiche, saying: 'We were imagining something clean and sumptuous, with minimal detailing and no external guttering or copings'. Part of that aesthetic involved consideration of white glass cladding, but in the initial conversations with the client and planners, that turned to black. 'It was not entirely original,' concedes the architect. 'We'd seen DSDHA's Møller Centre in Cambridge and were influenced by its look.' That academic building was itself probably influenced by Foster's Willis Faber offices in

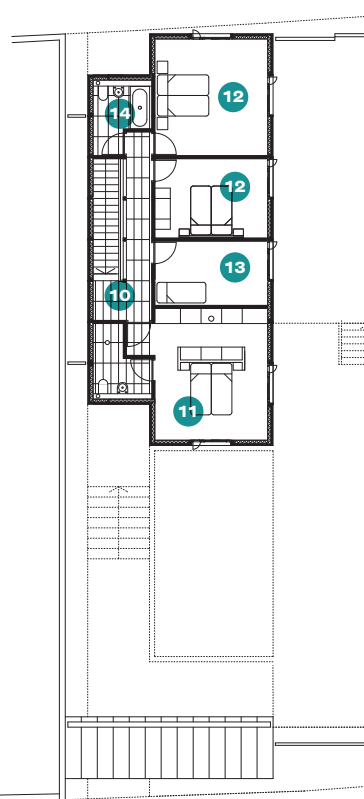
Its black mirror creates an uncanny and compelling Rorschach effect of its context, lost in the trees with its dark cloak of invisibility

Ground floor plan (planning)



- | | |
|------------------------------|--------------------------|
| 1 Entrance from the lane | 7 Decking area |
| 2 Rear entrance from road | 8 Parking |
| 3 Vestibule | 9 Garden |
| 4 Bedroom (now kitchen) | 10 Hallway |
| 5 Kitchen (now dining) | 11 Main en-suite bedroom |
| 6 Dining/living (now living) | 12 Bedroom |

First floor plan (planning)

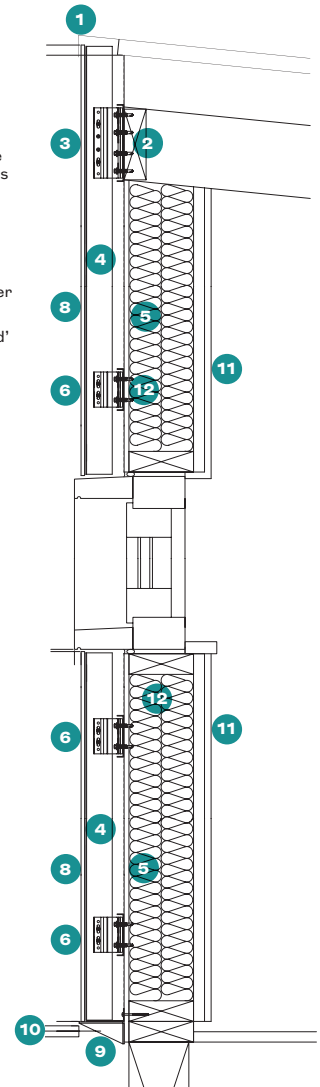


- | |
|-------------|
| 13 Study |
| 14 Bathroom |



Section

- 1 Zinc roof sheet with painted zinc roof edge trim.
- 2 Galvanised steel channel fixed to timber studs to take rain screen brackets
- 3 60mm fixed point bracket
- 4 Aluminium vertical rail
- 5 Black Tyvek breather membrane
- 6 60mm 'helping hand' bracket
- 7 8mm toughened glass with black enamel finish. Bonded to vertical support rails
- 8 Timber window frame and double glazed unit
- 9 Temporary galvanised glass support bracket (removed)
- 10 External timber decking
- 11 200mm rigid insulation
- 12 Internal dry lining
- 13 5mm shadow gap between panels





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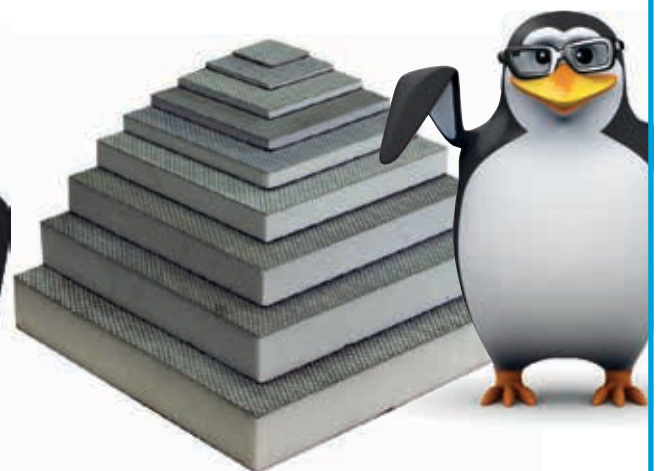
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Ipswich, but such cladding on a residential home feels shockingly new. So much so that when it went to planning, the then five-bed, Lifetime Homes, Code 4 house received 62 letters of objection from local residents but, with the architect 'sitting sheepishly at the back of the room', it was recommended for approval.

The idea had a material clarity. 'While the black glass was the overriding aesthetic, I wanted to celebrate the fact that it was a timber framed building and to expose all the surfaces internally,' says McChesney. He contacted the likes of Eurban to discuss the viability of a frame and interior of pure spruce. 'I wanted the wooden window frames in the facade to mediate between the glass exterior and solid timber interior,' he adds. But perhaps it was the cost of this approach that alerted him to the fact that the planning submission would need to be robust, saying: 'Ken never told me if he was going to build the home or sell the site on with permission – so we did a set of corner junctions and window reveal details and made them all part of the planning submission.'

Given the fact that, for financial reasons, the client opted to proceed with the build without his architect, it was an amazing parting gift by McChesney to the project, leaving him with a basic set of details, that, with the right sub-contractor team on board, could still deliver the project as drawn on a very strict budget. The lawyer assumed the project manager role with relish, saying: 'It was like being a ringmaster – I just needed to cover myself by getting bigish companies involved with the major parts of the build – structure, cladding, pad foundations and glass – to make sure they worked together.' Initially, Martin looked at bespoke cladding systems by specialist suppliers, but these were offering turnkey solutions that he didn't want at prices well beyond his budget. The timber frame remained but he had to replace the homogeneous expressed solidity of the Eurban approach with a cheaper softwood stud framing system by supplier Scandia-Hus. The SIP panels between them were formed of 200mm rigid insulation to give it its Code 4 energy efficiency, with a plywood exterior face and Tyvek breather membrane. Two steel columns installed on the south facade as a sway frame gave required stability to the timber system. Internally, the softwood frame was dry lined and painted white, giving a clean finish, albeit at variance with McChesney's original intent.

For the black glass cladding, after a lot of research, Martin opted for Kent firm Facade Concepts, which supplied and fitted the white glass walls in the Shard's reception. It limited its works to fixing the support system and the glazed panels themselves, so came in at a much



Above The north elevation of the Tree House with its butterfly roof form reflects the grand terrace opposite. Frosted glass in the spare bedroom window was a concession at planning.

lower cost. Facade Concepts director Matthew Small, used to bigger projects, confesses being intrigued by self-build and the project piqued his interest. He was also intrigued by Martin – it seems he trusted him, agreeing to do the works with no contract to speak of, just a handshake and an understanding of agreed payment stages. He admits that it's not something he'd normally do.

Facade Concepts sourced the 8mm black ceramic coated toughened glass from Germany, affecting lead times. It looked at self-cleaning coatings, but that had a significant cost implication. And despite the high level of panel to panel accuracy with virtually no deviation, yielding almost seamless reflections on the facade, the process turns out to have been very

manual. Small cites logistics was the biggest single issue, with glass panels of up to 3.6m by 1.4m being manhandled onto site and installed by two men; at times, such as with the west elevation, they were standing on scaffolding no more than two boards thick.

Preparation was everything. Small needed to fit steel studs interstitially between the timber ones to help the SIPs panels take the load of the 450mm centres for the support grid. To this was fixed thermally insulated aluminium fixed point brackets and vertical cladding backing rails, plumb lined to ensure they took out any inaccuracies in the timber frame system. Clipped onto these were the 'helping hand' adjustable sliding brackets to which aluminium 'L' section rails were attached ('T' section

at joints). With the support gridwork set true, it was then a matter of hanging the panels. These were glued on the vertical galvanised angles, acting as a guide, then aligned and set by hand with laser beams running along the facade. The fixing is notably adhesive rather than mechanical – Sika Panel was used as the final bond to the brackets, with tape allowing final adjustment before the adjacent glue fixing went off 2-4 hours later. Apart from being laser-aligned, the whole process was manual, involving, the client explains, ‘just standing back, looking at it and going “is that okay?”’

The floor to ceiling glazed units at ground level, iroko-framed windows and west roof-light all had their share of problems – poorly specified silicon seals that reacted to full south light blew a couple of the units, and there are imperfections in the joints of the iroko frames, though this counterpoints the sleek glazing pleasingly and they are weathering in nicely. Most problematic was the rooflight. Formed of 70mm thick, 12mm triple glazed Saint Gobain Cool-Lite units weighing at 250kg each, their 70% cutting in solar gain doesn't stop the first floor hall being uncomfortably hot at times, concedes Martin. The suggested solutions – high level vents addressing the butterfly roof's

box gutter and the proposal for timber brise soleil – involved going back to the planners, but with local feathers ruffled, Martin decided to do without either. Perhaps no bad thing. The counterpoint of the sheer glass and timber frames is part of the charm of the home, giving it a slightly Walter Segal-esque feel – a physical roughness standing out against a reflective facade that makes it almost invisible.

This isn't just a story about ‘the house that wasn't there’; it's one that, despite a planning process fraught with objections, the absence of an architect after Stage D and a self-build by an inexperienced client, perhaps shouldn't exist at all. The real story's this: an architect whose design was robust enough to ensure the core design concept was carried through, despite post planning changes, and a cash-strapped client determined and obsessive enough to manage the job from start to finish with sub-contractors ostensibly employed to ‘de-risk’ the project – some purely on a trust basis. ‘I was lucky with all the people I got to work with on this,’ says Martin; and the result of the interaction is a handsome, sleek yet curiously hand-made black glass and timber home facing its copse. It could have been a dog's dinner; instead it is wonderfully odd because it beat all the odds. ●

Architect Ian McChesney Architects
Client Kenneth Martin

Structure


Construction and piling Terrawise ● **Timber frame** Scandia-Hus ● **Black glass panels and installation** Facade Concepts ● **Front Steps** Everton Smith ● **Timber products** Whitten Timber and WL West ● **Zinc roof** Brian Unwin

Fixtures and Fittings

Wood burner Dik Guerts ● **Appliances** Gaggenau ● **Corian** isufaces ● **Wise wireless lighting controls and LED light fittings** Mr Resistor; ● **Mitsubishi air conditioning installation** PDM ● **String shelving** Nils Strinning



Left View from the raised decking to the garden, showing the intimacy of the home to the landscape. The machined look of the glass is counterpointed by the slightly rough edges of the timber cladding.
Above North elevation with the copse beyond. The high level west rooflight with solar coatings gives great views but without vents results in significant heat gain.



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Specified



2



1



3



4

1

Trisomet insulated panels Tata Steel

For anyone who thought the word tata was Scottish for spud, the steel giant has sent a very grown up press release pointing out that it has extended its BES 6001 certified Trisomet insulated panel range to a core thickness of 135 mm. It goes on: 'This meets the lower U-value of 0.15W/m²K required for the latest Scottish Technical Standard (Section 6) ...' This will be splendid news for the mystery building above, which strikes an authoritative pose in a crisp dark steel suit. It's important – as Billy Connolly said: 'In Scotland, there is no such thing as bad weather – only the wrong clothes.'

tatasteelconstruction.com

2

Metal fabric GKD

Henry VIII would have loved it: a cloth of gold cloaking the auditorium of Singapore's Victoria Theatre and Concert Hall. Part of an upgrade of not just this building but the whole Civic District, the theatre's metal drapes are made of GKD's stainless steel with a coated wire weft, which creates the shimmer. You can almost imagine the ladykiller king prowling the pleasure house for amorous conquests, eating, drinking and carousing, with the added frisson of a pleasing anachronism: Henry dancing and flirting in a post-colonial hall named after the prudish Queen Vic.

gkd.uk.com

3

Modified wood Accoya

Accoya has been used both structurally and aesthetically – for columns, decking and window frames – at an Amsterdam complex for people living with dementia. Its name, Fagelcats, summons a Disneyesque world of cats, only instead of the expected gangsterism in the group, the friendly felines perform a role of caring and guardianship for the unsuspecting residents, like the cat that got the custodian. They use the Accoya latticework to pad stealthily from person to place, maintaining their anonymity as pets and speeding their mission. Purrrfect! – Oh go on, I had to.

www.accoya.com

4

Weatherboard Marley Eternit

What a delightful image to cheer us on towards summer. There's a definite coastal feel to this house, not just for the blue sky and light, salt-washed colours. That roof, angled like a sail and its underside clad like a ship's deck in Marley Eternit's Cedral Weatherboard, implies a view over the estuary where sloops bob on the tide and the tinkling sound of rigging blown against masts floats on the breeze to the cocktail-sippers on the terrace. 'With 23 colours now, selecting that Cedral must have been tricky,' they're saying. 'I suppose it doesn't come in shocking pink?'

marleyeternit.co.uk



5
Curtain walling
Kawneer

The name of this supplier of aluminium curtain walling and doors tripped up my colleague, but it's simple – pronounced like cornea, apparently, part of the eye. And fittingly so, as council workers in Eastleigh, Hampshire, have a real eyeful with their colourfully refurbished offices. Kawneer's AA100 zone-drained curtain walling and series 190 heavy-duty commercial entrance doors wrap the BREEAM 'Excellent' building in a sustainable coat, keeping occupants comfortable and giving local citizens a highly visible focus to serve their every need.
kawneer.co.uk

6
Translucent cladding
Rodeca

You'd be surprised how many ways things change on different coloured days. When Craig Park youth centre was being redeveloped, Rodeca's translucent polycarbonate panels were chosen to bring transparency and illumination to the scheme. The cladding houses LED colour-change lighting which is programmed by youth centre members. Perhaps they use it as a mood signal, like the ever rewarding Dr Seuss: 'Then comes a Yellow Day and Wheeee!/I am a busy, buzzy bee.' Either way, the centre has reportedly seen a great change for the better in Craig Park.
rodeca.co.uk

7
Fire-resistant glazing
Schott

What is this alien object now, among the bemused citizens of Budapest? Is it a creature or some sci-fi vessel, filled with gawky creatures bent on world domination? Did it crash down from deep below the Earth's crust? Whatever it is, Schott's fire-resistant Pyran S glazing is keeping its contents both safe and warm as it lies there like a beached whale. Are Schott's glazing qualities so famed that the material is sought in outer space? Or did the superhumans inside it come specially to steal their secrets? It's ET all over again...
schott.com

8
Vitra windows
IQ Glass

Everything that's not fat is slim nowadays, and windows are no exception. If you're looking for as near as possible to invisible, then Vitra's frames from IQ Glass are, at 21mm, the size zero of the glazing world. Certainly here they give a great sense of space, their slimness adding to way the interior bleeds out to the trees. Strangely enough, the lights are on even in the height of summer – rather unexpected given all the natural illumination from the windows. Perhaps the occupant is so used to brightness that the merest hint of gloom is repellent – a sort of Count Dracula in reverse.
iqglassuk.com

Costed

Jonathan White, consultant at Gleeds R&D, gives an overview of cladding costs

Cladding has become a significant part of the construction process. Its selection, specification and procurement is now on par with building services as a major sub-element. For many large projects, its procurement can be a primary factor in determining the overall construction programme. Erection time can be of paramount importance, especially if access at street level will cause disruption.

Amendments to Building Regulations mean

that the building envelope has to meet increasingly stringent performance criteria.

Changes to Part L have major implications for cladding design particularly with regard to overheating. Care must be taken when specifying insulation and when ensuring that the air tightness of the building is sound and tested.

With glazing still a preferred look for commercial buildings, innovation and smart designs are needed to achieve compliant performance.

The implications of sustainability and its effect on the appearance of the facades should be addressed early in the design process.

Cladding contractors usually have design responsibility but must consider the building's dynamics. Elements that contain brittle components, such as facades, will need the building movement to have been fully assessed.

Other factors to consider early are buildability and access for cleaning and maintenance. ●

The rates below are a guide to cladding costs and are current at 1Q2015 and UK mean. No allowance is made for sundry or related preliminaries costs. VAT is excluded.

PANELLED WALLING	range m² £
Precast concrete panels; including insulation; lining and fixings generally 7.5 m by 150 mm thick by storey height	
Standard panels or aggregate finish	£200-£300
Reconstructed stone faced panels	£250-£8200
Brick clad panels (pc £400/1000 for bricks)	£350-£470
Natural stone faced panels (Portland stone or similar)	£430-£520
Marble or granite faced panels	£560-£750
Tiles (clay/slate/glass/ceramic)	
Machine made clay / handmade sand faced tiles; including battens	£30-£45
Concrete plain tiles; including battens	£40-£50
Natural slates; including battens	£70-£90
20 X 20 mm thick mosaic glass or ceramic; prepared surface	£90-£110
PROFILED METAL SHEETING	
Steel covering, profiled A50-30 to outer face, GA600 lining to inner face, inc profile filers and sealing, fixing to and inc vertical and horizontal secondary supports	
100 mm / 150mm shiplap	£60-£70 / £50-£60
Composite wall panel; micro rib, coated steel outer and inner liners, 0.6m-1m widths	
60 mm thick; u-value 0.35	£80-£90
80 mm thick; u-value 0.26	£80-£100
100 mm thick; u-value 0.20	£90-£110
Composite wall panel; flat, coated steel outer and inner liners, 0.6m-1m widths	
60 mm thick; u-value 0.35	£130-£150
80 mm thick; u-value 0.26	£130-£160
100 mm thick; u-value 0.20	£140-£170
RIGID SHEET CLADDING	
6mm thick melamine finish solid laminate wall panels	
Up to 300 mm wide / more than 300 mm wide	£30-£40 / £80-£90
MINERAL ENAMEL FACED RIGID FIBRE CEMENT SHEETING	
7.5 mm thick cladding	
Up to 300 mm wide / more than 300 mm wide	£25-£30 / £70-£90
To eaves, verge soffit boards, fascia boards, and the like	
100 / 200 / 300 mm wide	£15-£20 / £20-£30 / £25-£30
Weatherboarding; resin-bonded cellulose fibre panels, supports and fixing	
8 mm face fixed / adhesive fixed to timber battens / aluminium rails	£130-£190
10 mm secret fixed to aluminium rails	£180-£220

RAINSCREEN	Range m² £
Tongued and grooved tandalised softwood boarding; including timber battens or timber shingles, western red cedar, no sub-frame/battens	
25 mm thick to walls	£40-£65
Western red cedar T+G wall cladding on treated softwood battens on breather membrane, 10 mm backing board, 50 mm insulation, fixed to a steel frame including sealing all joints etc	
26 mm thick to walls, boards laid horizontally	£70-£90
Aluminium composite cladding with thermoplastic cores, back ventilation, including insulation, vapour control membrane and aluminium support system	
4 mm thick, fixed to walls	£130-£160
Terracotta cladding, insulation, vapour control membrane, aluminium support system	
400 X 200 x 30 mm tile cladding; to walls	£230-£280
Curtain walling excluding integral doors and/or windows	
Stick curtain walling system, proprietary solution, PPC solid colour matt finish or natural anodized. Floor to ceiling glass sealed units with 8.8 mm low e coated laminated inner pane, air cavity and 8 mm monolithic heat strengthened outer pane with external beading. Includes glass fronted solid spandrel panels, all brackets, membranes, fire stopping contractor prelims and external access equipment	
Flat system	£310-£380
Extra over for:	
High performance coating in lieu of low e coating	£25-£30
Inner laminated glass to be heat strengthened laminated	£25-£30
Outer glass to be heat strengthened laminated in lieu of monolithic strengthened	£25-£30
Ceramic fritting glass on surface	£35-£40
Flush glass finish without external face caps	£35-£40
Typical coping detail	£190-£230
Typical sill detail	£150-£180
Intermediate transom	£35-£40
As above; unitised curtain walling system, proprietary solution, PPC	
Flat system	£630-£770
Extra over figures as above except:	
Flush glass finish without external face caps	£45-£50

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Why the office needs an overhaul

Ideas of collaboration and productivity, flexible working and innovative technologies will transform our workplaces

Words: Stephen Cousins

Hit TV comedy *The Office* hilariously exposed the shortcomings of the modern day workplace, where browbeaten employees struggle to find motivation from a psychobabble boss in a bland environment of beige carpets, rows of cluttered desks and stark fluorescent lighting.

Almost 15 years on, the way people work has radically changed, but the design and layout of most office buildings has not. Despite the widespread use of mobile technology, staff preference for remote working and the proven benefits of social spaces and natural environments, most offices are still organised around the same rigid principle of a permanent desk, or cubicle, with a hard wired desktop PC, and different departments performing different functions but set out in similar ways.

The result is chronic under-utilisation of office space. Global observational studies have shown that on average, workspaces of all kinds are only occupied 42 per cent of the typical day.

In the future, creating dynamic and comfortable workplaces will be vital as companies try to attract and retain skilled employees in the face of a global talent shortage, forecast in Europe, the US, China and Japan (a result of ageing populations and declining growth rates).

Intelligent offices

Meanwhile, the ongoing march of technology will impose new space and infrastructure requirements, enabling offices to function more intelligently, monitoring and controlling functions such as ambient temperature, security

systems, lighting, fire and life safety systems intuitively in real time.

Architects will have to adapt to meet the challenges of this brave new world, says Greg Lindsay, a workplace design expert and author: 'I find it fascinating that there is a litany of business literature about the importance of disruption to working patterns to improve creativity and productivity, by changing teams, altering their food and environment etc, yet we still work in offices that are designed once and typically last 10 years or more without a refresh.'

He adds: 'Workplace design today reflects the formal hierarchies of how work is supposedly done, yet we know from studies that work actually gets done in an informal, less structured way. The question for architects designing the offices of the future is: how do you do a better job of reflecting that, rather than struggling against it by producing the same pointless buildings over and over again?'

Some projects already attempt to break with traditional hierarchies and create workplaces that inspire employees to greater creativity and productivity. One theory, that personal interactions correlate directly with performance and innovation, is central to architect NBBJ's design for Google's new US headquarters in Mountain View, California, which is set out specifically to maximise casual employee conversations. Every worker inside the 1.1 million ft², multi level complex is expected to be within a 2½ minute walk of each other, connected via an 'infinity-loop'-shaped pathway that slopes through the building.

Chance meetings

A similar, but more modest, technique is employed at the BBC's new Broadcasting House headquarters in central London, where staff can have chance meetings in large units akin to American diner booths in common areas. And Samsung's plans for its new US headquarters will include vast outdoor areas sandwiched between floors where it is hoped engineers and salespeople will mingle and exchange ideas.

This trend is supported by new data, gathered using network analytics and from sociometric badges that capture workers' interaction, communication, and location information. A study published in *Harvard Business Review* last year, co-written by Greg Lindsay, found that



BBC IMAGES / JEFF OVERS

Below left MJP's original open plan design for the news room at the BBC's new Broadcasting House – supposedly negotiating the new world of work.

Below SelgasCano's 'Second Home', a workspace whose design is not the only thing that's curated – the occupants are too.

face-to-face interactions are by far the most important activity in an office, and that chance encounters and unplanned interactions between workers can improve performance.

Biophilia is the latest buzzword in workplace discussions, focused on the idea that some exposure to natural elements – such as views of the outside, natural light, plants, natural sounds like bird calls or water – contributes to improved mental and physical health.

The concept underpins the design of the Second Home office in Shoreditch (RIBA February 2015), where workers sit among 1,000 hydroponic plants, cared for by two gardeners and with a plant hospital in a courtyard.

The two storey refurbishment, by Spanish practice SelgasCano (the brains behind this year's Serpentine Pavilion), was also informed by insights from evolutionary psychology, says client Rohan Silva: 'Humans evolved over thousands of years in environments full of fractals and curves, complexity and seasonality, so there is not a straight line in the design. And reflecting the variety in nature, no two chairs are the same; we have 600 different mid-century Bauhaus originals.'

Second Home functions more like a café than an office, and similar to the campuses of US tech giants Apple and Google, it is engineered to bring people together to share knowledge and networks, most obviously in a ground floor restaurant and a central hot desk 'roaming' area, which becomes an events space at night.

Curated offices

Significantly, it is one of the first 'curated' offices in the UK, where tenants are selected to complement and share information with one another in the hope of driving innovation.

'The innovations cycle is so fast today, that big companies want to be close to early stage innovators, which requires curation to choose carefully how you bring people together,' says Silva, the prime minister's former technology advisor, and who manages the process with fellow entrepreneur Sam Aldenton. 'Our approach is that you can only apply for a studio with us if you are either referred or recommended to us. We have a preference for companies at the interface of different industries, be that tech and financial services, or life sciences and innovation. So far we have turned down around 80



IWAN BAAN

We will have to think differently about what the purpose of the office is, or even if office is the right word for where work will happen in the future

companies that we didn't feel were right.'

This concept of the office 'community manager' is miles apart from the typical use of agents or brokers to fill vacant office space based on cost per square metre. 'The problem with the property industry today is a building gets designed and built, then you move onto your next project, but here we are going to be actively stirring the pot indefinitely, pulling new people together in different arrangements. Spaces need to be designed with that in mind,' he adds.

Increasing flexibility in how and where people work is likely to create an explosion of 'nomadic' workers able to work almost anywhere at any time. Running parallel to this, increasing reliance on mobile devices and virtual online networks will alter the notion of people's actual physical connection to a work space.

All this will throw into question the very idea of the office and its function, with work extending to the outdoors, public spaces and building types not normally associated with jobs.

'We will have to think differently about what the purpose of the office is, or even if office is the right word for where work will happen in the future,' says Andrew Laing, author of 'Work and Workplaces in the Digital City', and global practice lead at Aecom's strategic business unit Strategy Plus. 'Architects need to break away from the typical "functionalist" programming of building types for single use activities. The opportunity in the future is to look at buildings from a multi-use perspective and to recognise that activities can blend together in new ways.'

Engaged with the users

As a result design will need to be a more user-engaged process, as creating a programme for a hybrid, multi-functional environment means understanding the profiles of various users and what activities they perform over 24 hours. He adds: 'It is no longer just about space; it's about technology, patterns of use, new ways of using space and enlarging architects' responsibilities to think about design in a new way.'

The communal workspace in the lobby of the Ace Hotel in New York is an example of the blurring of typologies we might see in future. This large columned space with its long tables of co-workers and comfy sofa 'chill out' areas has recently become a famous gathering place for technology, fashion and media employees who use it to work online and network face-to-face, while being entertained and drinking coffee.

None of this will necessarily mean the death of the conventional office, but it might see its reinvention. In the future there could be a proliferation of small co-working centres able to handle basic office functions, located across suburbs, closer to where people live, which operate in conjunction with main offices where important staff meetings are held.

'The office will still be a place where you have specialised technologies useful for collaboration, or more sophisticated equipment that help us connect virtually in ways not suited to tablets or smartphones, such as telepresence video conferencing,' says Laing. 'Large screens enabling users to manipulate data and imagery are going to become more important, and are more suited to larger permanent office environments.' It's a bold vision of things to come, which might one day make the typical office the subject of admiration, rather than jokes. ●

Softly, softly: Glazing for Getty

Providing the glazing for a pavilion intended to make minimal impact on its parkland surroundings required precision, high aesthetic awareness and careful planning. Fineline stepped up to the mark



Opposite page Fine lines and large panes of glass allow the parkland to almost inhabit the pavilion.

Below right The pavilion's presence in its natural surroundings is barely perceptible.

Using the full design abilities of Fineline 22 sliding and fixed panels, the Island Pavilion project on the Getty Wormsley estate fitted perfectly with the bespoke nature of the requirement for minimal frames.

After consultation with Robin Snell of architect Robin Snell & Partners, a design was formulated to complement his requirement for slimline sliding glazing that would enhance both the appearance and performance of the pavilion.

With its function as a permanent reception area, intricate design parameters were of primary importance. With detailing that would require inter face with the Sarna roof, external envelope and flooring, attention to detail was needed at every stage of the project.

Finalising varied options on glazing, threshold designs and drainage, Fineline presented a glazing package of low iron glass, bi-parting and sliding panels, and glass to glass corners with 22mm sightlines. Offering level thresholds for access, bespoke extended cill designs and with 3m by 2.4m individual glass panels, the overall package of 72m² of glass was agreed.

After the initial survey, two Fineline teams completed the installation working alongside

primary contractor MACE. The perimeter framework was carried to the island over the footbridge, and installed to grid and datum by drilling, taping and machine screw fixing into the stainless steel structure.

Glazing was always going to be the most challenging aspect, with double glazed units weighing more than 440kg each. These were transported to the island via a tele handler on a pontoon, then installed in the framework using Fineline's crawler/spider crane.

This programme was well thought out and designed and the overall glazing installation worked to within the project timings. From initial quotations and drawings all the Fineline operatives worked to ensure a timely and complete project.

Fineline prides itself on grasping the aspirations of clients' concepts. From initial meetings with architects or clients to agreeing designs, glazing options and interfacing with other building components, Fineline offers a bespoke system to complement any project.

With the Island Pavilion, Robin Snell's design aspirations were able to be achieved and we were pleased to be involved with this prestigious project and the teams involved. ●



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University of Wales Trinity Saint David

A rainbow-scaled facade not only updates a Victorian building's insulation levels, it sets a contemporary note

Words: Pamela Buxton Photography: Adrian Toon

With its rainbow glass brise soleil, there's no missing the new addition to Swansea's former central library, now occupied by the University of Wales Trinity Saint David. Powell Dobson Architects worked with facade engineer D2e to devise the bespoke, double-skinned facade for the extension, which provides passively ventilated and flexible studio space for product and automotive design students.

Rising 13.3m, the twin facade is the showpiece of an £15m refurbishment and extension of the 1887 building, which included a first floor gallery and basement workshops as well as the library. What was then Swansea Metropolitan University had occupied part of the grade II-listed building for decades and the management team saw an opportunity to do far more than

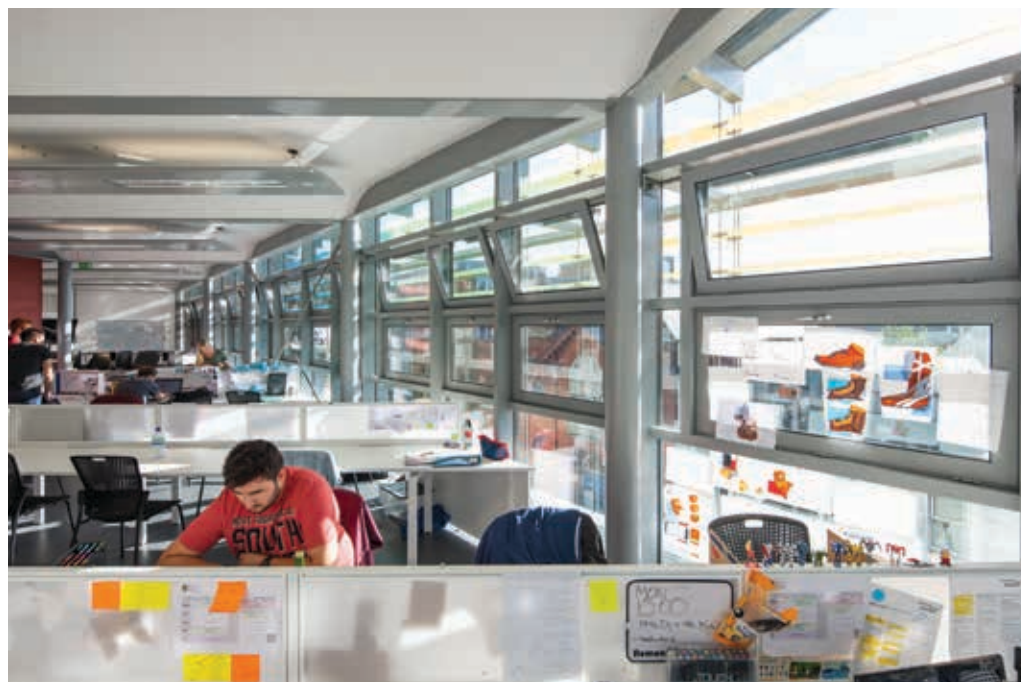
simply gain extra accommodation when the library left the premises. As well as creating new light-filled and energy-efficient studios, the refurbishment improved accessibility through a new entrance while revealing more of the original building and creating a prominent presence for the university on the street.

Powell Dobson swiftly identified the corner site of Alexandra Road and Pleasant Street as the only viable location for any new build, removing two extensions from the 1930s and 60s that were particularly poor in terms of thermal efficiency. These were replaced with thermally superior new accommodation in the form of a new entrance on the corner and studio space stretching 38m back down Pleasant Street.

'Our approach was to come up with

something as passive as possible given the constraints of the listed building. We had to be creative about introducing cross ventilation and dealing with constraints such as the busy roads and solar gain on the south facing facade,' said project architect Yvonne Gibbs, adding that a key objective was creating a clear contrast between the heavy masonry of the original and the lean, engineered aesthetic of the new.

The idea was for the double-skinned facade to provide a buffer for heat, light and noise, admitting fresh air without noise pollution and controlling the temperature by providing thermal insulation and passive ventilation when needed. The outer skin would also protect the brises soleils that deals with glare and allow the inner windows to be opened securely.



Main image The new facade creates a dramatic and insulated wall to the south and the city's Pleasant Street.

Bottom left Looking along the south facade, the horizontal brises soleils do their best to mitigate direct solar gain.

Bottom right Study spaces are conditioned by the double skin, making them comfortable as well as lending visual excitement.



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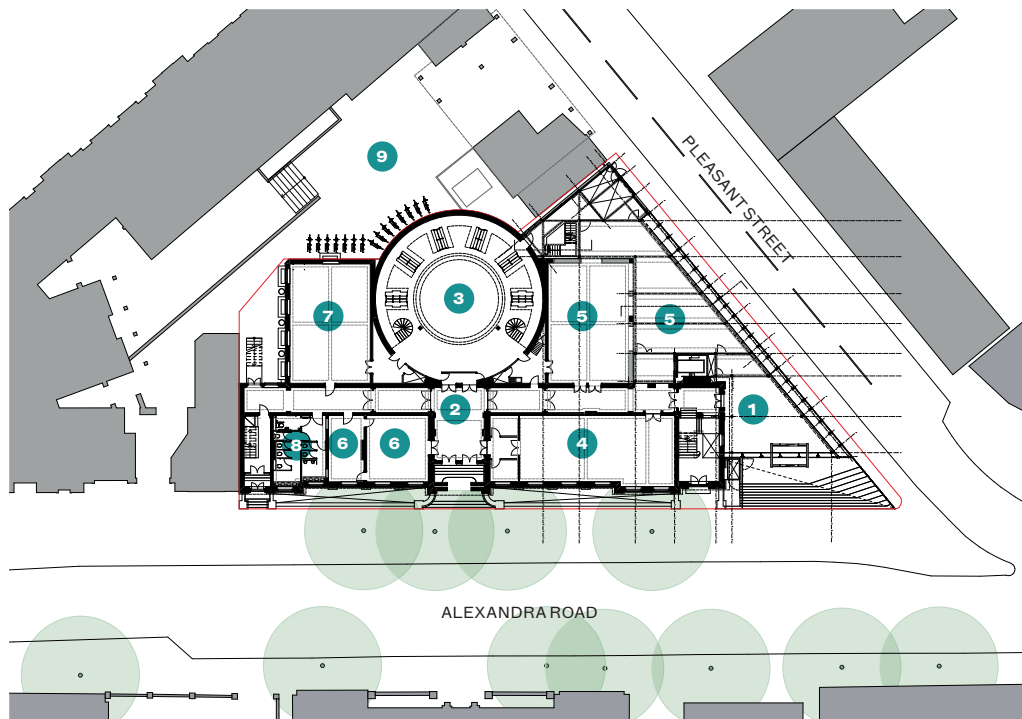
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Site plan



- | | |
|-------------------------|---------------------------|
| 1 Main entrance | 6 Meeting rooms |
| 2 Circulation | 7 Post grad spaces |
| 3 Exhibition conference | 8 Toilets |
| 4 Staff areas | 9 Courtyard and bike park |
| 5 Product design studio | |

However specifying such a system with the required transparency proved easier said than done. 'We looked at various systems for double-skinned facades but a lot of them were designed for applications which were more efficient for use on massive buildings,' said Gibbs.

A particular issue was the lack of transparency when viewed at an oblique angle, due to the relatively deep mullions.

So the architect brought in facade engineer D2e to devise a bespoke solution. Managing director Dave Tyson came up with the idea of using a structural system of Vierendeels within the 900mm cavity between the two skins, so the outer one could be used without any mullions. The whole ensemble was installed by glazing subcontractor System Glaze.

AluK SL60 curtain walling system, with 150mm deep mullions, forms the inner skin of the facade, and is connected back to the structural frame at the floor slabs. The outer skin is of structurally-bonded, toughened, laminated glass, hung from the roof.

Bespoke aluminium Vierendeels link the two skins, acting as horizontal beams between

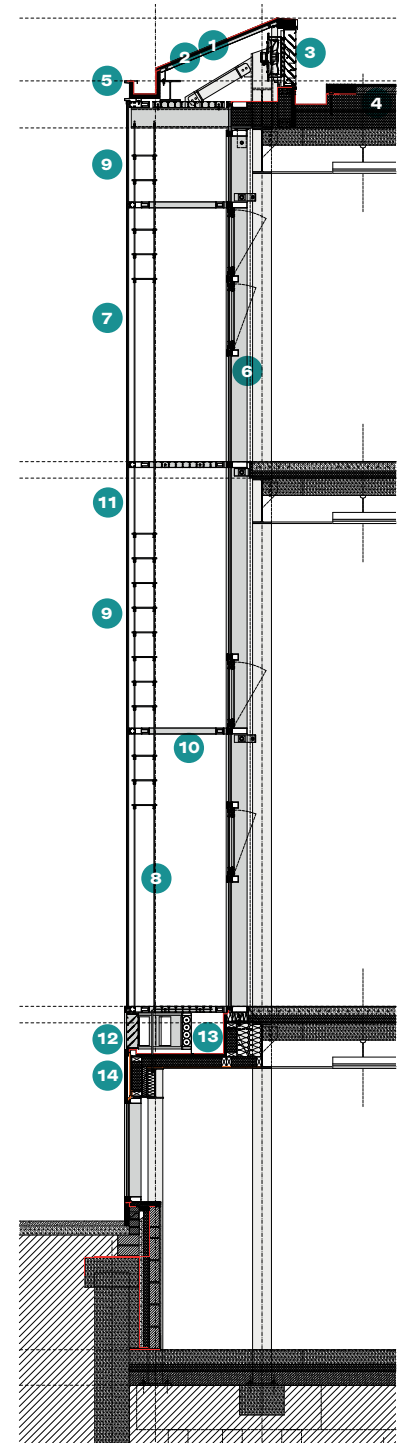
the main building columns behind the twin wall and forming walkways at ground and first floor level within the interstitial space. At the back they take vertical support from the main structure at the floor positions. At the front, they take vertical support from pairs of stainless steel rods hung from the roof in tension. Horizontal wind loads are transferred from the outer glass panes to the Vierendeels above and below the glass via a small extruded aluminium bead that is structurally bonded to the top and bottom of each pane. The rods also hold the brise soleils.

'It was a interesting collaboration whereby Dave Tyson from D2e progressed the engineering ideas while I modelled the facade in 3D. The two processes evolved and informed one another to achieve the most transparent solution possible,' said Gibbs.

Overall, the aim was to minimise peak heat and cooling loads. The facade can perform in different ways according to the season, with banks of bespoke open-in AluK 58BW windows on the internal wall regulated by sensors on the curtain walling and opening and closing automatically depending on the weather. The twin wall

Double skin facade section

- | | |
|--|--|
| 1 Single ply waterproof membrane over insulation | 8 Twin wall outer skin structural glazing |
| 2 PIR insulation bonded profiled metal sheet | 9 Glass louvres as brise soleil |
| 3 Gilberts louvres and fan | 10 Twin wall PPC aluminium access walkway |
| 4 Sedum vegetation blanket on rigid insulation and concrete roof deck | 11 Twin wall outer skin structural glazing |
| 5 Aluminium PPC profile as eaves | 12 Gilberts louvre and attenuator |
| 6 Twin wall inner skin PPC aluminium double glazed curtain walling with openable vents | 13 Air plenum |
| 7 Tension rods as structural glazing support | 14 Slate fascia panel |





The brises soleils were an opportunity to signal the creative activities within the buildings, and in particular those of the glass school

intake vents are at the base of the facade and extract vents are in the parapet. In winter, solar gain provides a thermal buffer that effectively acts as a blanket, reducing the heating load. In spring and autumn, the vents are more open to draw heated air through the interstitial space into the extension and then out through high level vents within the lift core riser and new rear stair. In summer, when the interstitial space becomes quite hot, warm air is extracted via vents in the outer facade as cooling air is drawn through from the basement. At night, this can be used to cool the floor slab.

'The facade buffers light, air, heat and noise throughout the seasons, and constantly adjusts to create a conformable internal climate. In terms of insulation, it uses solar gain to minimise internal heating load,' says Gibbs.

The brises soleils were an opportunity to signal the creative activities within the buildings, and in particular those of the glass school, which had occupied it for some time. The architect chose 10mm, sandblasted low-iron glass blades which are connected to the rods that link the two layers using fixings designed by D2e.

These blades were treated with a durable nano-technology coating created by Rodney Bender of Innovative Glass Products in various hues to give the colour transitions required across the facade. This gives different effects of transparency and opacity depending on light conditions.

Access to the interstitial zone is via AluK GT55 NI doors on each floor.

At the entrance on the corner of Alexander Road there was no need for a double-skin facade, so an 11m by 11m structurally glazed glass assembly was used, running the full height of the building and giving maximum views of the newly-exposed original side wall, which hadn't been visible for decades. Above the entrance a cantilevered roof with aluminium soffit extends dynamically towards the corner to establish a visual marker that heralds both the new way in and the creative activity inside.

Completed last November, the extended and refurbished building is seen as part of an ongoing renaissance of Swansea's historic arts quarter. The ornate, circular library reading room at the heart of the building has been restored and will be used as a public venue. ●

Top left The rainbow-coloured brises soleils are the first thing you see on entering the main reception.

Top right Viewed along the north elevation, the entrance to the new extension seems barely more than a blade-like sliver.

Client University of Wales Trinity Saint David
Architect Powell Dobson Architects
Structural engineer CB3
Facade engineer D2e
M&E engineer Intention SL
Glazing sub-contractor System Glaze
Contractor Andrew Scott

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1 Roof insulation Knauf

In these days of stress avoidance for the very young, it's exciting to hear of a forgotten codicil to the Jack and the Beanstalk story. It seems the giant was nicer than Jack thought, and was saving his gold as a present for his daughter. Alas, with it stolen, all he could get for young Fi-fi was a whoopee cushion. Luckily, her fairy Knaufmother heard the child sobbing. 'Polyfoam ECO Roofboard Extra in 205mm and 220mm and Slimline Membrane and... bibbety bobbity boo! Look – your pillow is full of little humans having Center-Parcs fun for you to play with. And it won't vanish at midnight either!' knaufinsulation.co.uk

2 Spray-foam insulation Walltite

Inside this stylish Grand Designs house in Co Derry is something truly fabulous: a bath that hangs like a hammock. Not what you might expect to find in a shipping container – but the house is made of four of them. So how do you maintain comfort levels so you can luxuriate in Badedas in a tin can? Simple: what GD's Kevin McC calls 'paranormal goo' – Walltite's spray-foam insulation, which seeped into every corrugated crevice to guard against cold and condensation. The result is cosy as well as super-stylish, creating an Irish fairytale that's, well, simply out of this world. walltite.basf.co.uk

3 weber.therm St Gobain

We've all heard of the night a colleague couldn't quite make the journey from pub to home so slept under the desk, but long ago I knew a chap who, between homes, lived in the office for six months before being rumbled. Admittedly, it was in the 18th Century Bedford Row, one of London's most handsome streets – and a desirable address to entertain from. I wonder if he later worked at Longbridge House office near Gatwick, which with the help of weber.therm XM external wall insulation has been turned into a Hampton by Hilton hotel. Cosier now, and plenty of rooms for him to choose from. netweber.co.uk

4 Vacuum insulated panel Bauder

Does this look like a VIP terrace? Certainly that al fresco furniture brings to mind last August's rooftop bar on a balmy Girona evening, swigging – oops, I mean sipping – the bubbly with his lordship and bright young things in Versace and Louboutin... ah, heady nights! However, a closer look at the PR reveals that these VIPs are vacuum insulated panels, providing high thermal performance for terrace and balcony applications. And keeping warm matters: you don't look smart with a red nose, as my gran used to say, and that Catalan breeze could get quite nippy... bauder.co.uk



5



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7



8

5 Waveform roof Kalzip

In the year 2525, if man is still alive, and woman can't survive they may find... sea levels have risen so high that giant waves threaten London's Heathrow Airport, lapping the very apron where planes dock. The sandy beach is so hot it has been covered in a special cooling concrete, and the turbulent ocean is petrified to a rigid surface, emulating Kalzip's waveform roof on the 2014 Queen's Terminal. The roof that stood then was lined with Earthwool Building Slab RS45 insulation from Kalzip's partner Knauf. They need it again now – to keep the searing heat out.

kalzip.com

6 Kooltherm Kingspan

This beautiful shot has a touch of the estate agent about it. Don't be taken in by that golden glow, this church-turned-home is on Berneray in the Outer Hebrides, where the cold is bitter. The couple who created an artist's studio out of the derelict shell wisely wrapped it in two layers of 60mm Kooltherm K12 framing boards plus 30mm insulated plasterboard, ensuring the retreat remains desirable in all weathers. Looks like weekend parties have already cleared out the neighbours – we've all seen The Wicker Man. Is that Britt Ekland slapping it on another wall?

kingspaninsulation.co.uk

7 Product Celotex

Manchester's Chetham's music school is at the top of its game, filled with talented students busily practising and performing in a high-octane atmosphere of ambition and aspiration. Its new £31m building has been insulated with 4,000m² of 100mm Celotex CW4000, which will keep all that energy throbbing away inside and preventing any leaks to the outside world. Handily, it will keep tomorrow's Hahn-Bins and James Rhodes warm as well, leaving staff and students alike able to bathe in a warm glow of certainty that they are the chosen rather than the frozen.

celotex.co.uk

8 Hybrid Actis

Actis is excited to announce that its Hybrid insulation has broken into the housebuilder market big time with a secret contract in the north east, and has helpfully supplied a pic of one it made earlier so we can see what it looks like. While its Part L compliance looks unquestionable, it's hard to decide whether this Cardiff loft most resembles a 1970s sofa or a 1980s shell suit. Thinking about it, if you wore the shell suit and sat on the sofa, you'd be as unnoticeable as the insulation is here – and as comfy as the home's occupants must be, leaving fashion a matter of style rather than substance.

hybrid.insulation-actis.com

Vipp Shelter, Denmark

From products to architecture: Vipp proves it has style and substance with its remotely sited, self-contained living pavilion

Words: Jan-Carlos Kucharek Photography: Anders Hviid

My first experience of Danish product design company Vipp was at a Conran Shop charity event, where the company had asked a number of UK designers to customise its classic 1939 Holger Nielsen-designed steel pedal bins for auction on the night. I'd been most impressed by Ron Arad's approach; he had taken his 3ft high version to a recycling centre and had it summarily crushed to half its height. Reinserting a shortened lever mechanism, Arad ensured the lid duly popped up when you pressed the pedal. Sitting there at the auction, transformed through its crumpling, the 'function' that Vipp seem so obsessed by had been raised by Arad to

an altogether more subliminal level.

Crushing excepted, that is, in a sense, what's going on here with Vipp's latest foray from products into the greater world of architecture with its newly released 55m² pre-fabricated steel Shelter. The firm has come a long way from bins, having expanded into the world of kitchen and bathroom product design; but the shelter, which has just won Best Brand Extension at the 2015 Wallpaper* Design Awards, marks a shift in scale for Vipp, creating the physical enclosure within which it installs its products.

Vipp chief designer Morten Bo Jensen sees the new Shelter very much as a product rather

than a piece of architecture, although he had to work with specialist steel fabricators to arrive at the two-storey, four module design that can be transported to site and then bolted together on pad foundations and waterproofed to create the volume. While crammed full of the company's designs, Shelter's aesthetic evokes something of fellow Dane Arne Jacobsen's volumetric Kubeflex house. Designed in 1970 and decked out with his furniture, Kubeflex was a system of 10m² square modules that could connect together to form an intrinsically flexible, expandable housing model. Only one was ever built however, and was set to become the summer house at the architect's Sjælland residence.

Jensen claims that rather than architecture he's looked to caravan and yacht design – moisture exposed objects, which might account for the black rubber coated steel panels that predominate. Connected to water, electricity and sewerage, and constructable over a couple of days, the whole is 'plug and play,' with every internal component of the shelter designed by the firm. 'Ground' floor comprises kitchen, living space and bathroom, with a steep ladder up to separate loft space that forms the double bedroom. Huge triple-glazed glass panels are offset by the highly insulated and stylised black steel exterior, reflecting the contiguous (and rigorous) nature of the internal design on the exterior.

As a result the whole look for the shelter is deeply satisfying – a small utopian pavilion set in the wilderness. Does it have a lot to tell us about the future for mass volumetric building? Possibly not; this seamless, highly minimalist example of the typology will set you back €485,000 – nearly €9000/m². ●



Jensen looked to caravan and yacht design – moisture exposed objects, which might account for the black rubber coated steel panels



Main image Looking towards the fireplace and kitchen area – everything forms part of a singular, branded design aesthetic.

Far left Sitting on pad foundations up from the ground, the shelter, like Mies' Farnsworth House, has the sense of a Utopian pavilion.

Near left From the whole to the detail, everything has been considered.

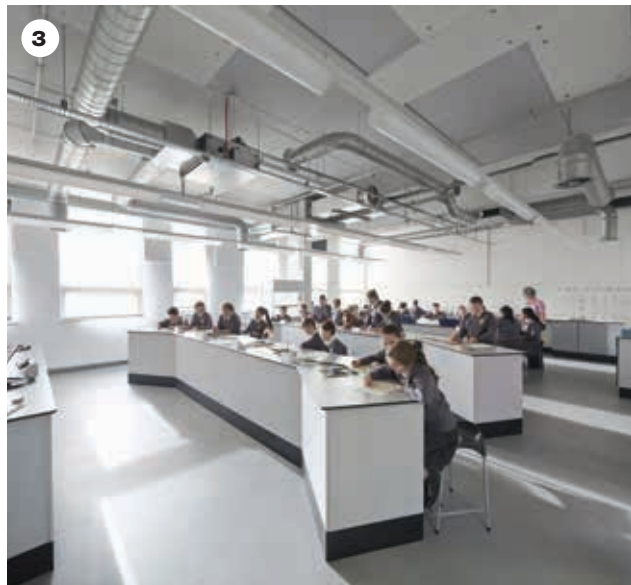
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1 Wood burning stoves Forgo

Eurostove has a new addition to its toys for men, Forgo Montanha steel stoves from Portugal. Keep the man in your house happy for hours, prodding and poking the burning logs, adjusting the air inlet, making a mess both clearing up the ash and stacking unused logs, and telling everyone how to manage a blaze properly. Even better, these six Defra-approved stoves can be used in smoke controlled urban areas, and their wood consumption and CO₂ emissions are low. So the kids are warm, Dad's happy, Gran's nodded off, and Mum can nip down the pub in peace.

eurostove.co.uk

2 Console basins Arcade

When, on a rainy Sunday afternoon, your mind strays to making a statement in the bathroom, surely you'll remember Rick shouting in *The Young Ones*: 'Neil! The bathroom's free!' adding in Dave Spart mode, '... unlike the country under the Thatcherite junta...' Arcade substitutes style for posturing and usefulness for aggression with 900mm console basins to make a different kind of statement. Boasting a Belle Epoque design signature, this nickel finish can give your bathroom a cool Jazz Age look. Be careful practising your Charleston in the shower...

arcadebathrooms.com

3 Rubberised flooring Nora

The girls at Notre Dame Catholic College in Liverpool look like they are enjoying their new school premises, heads down for the camera like Miss Jean Brodie's crème de la crème. Nora systems supplied 2,400m² of its noraplan unita flooring to the upper circulation areas, and 1,500m² of norament grano for the ground floor atrium. Is the grey colour scheme a nod to the monochrome world of the Sisters who founded the school over 100 years ago? Anyway, it's a shame nora doesn't do ceilings too – didn't anyone notice that someone forgot to put one over all those pipes?

nora.com

4 Ceiling baffles Hunter Douglas

Leaving aside all those grey areas in our legal system, this law firm seems to have chosen a colour scheme for its staff cafe that encourages them to see the world in more black and white terms. But to avoid giving any uncompromising impression, Wragge Lawrence Graham's new office in Birmingham Central softens the space with 250m² of Hunter Douglas' high profile baffle system, with a solid wood grille system in European Oak. Improving looks and acoustics, it's good to have the ceiling bring some welcome colour to all those legal shades of grey.

hunterdouglas.com

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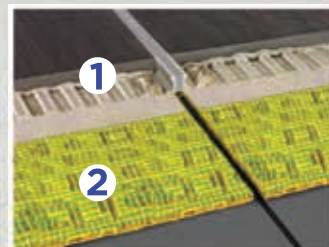
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Prestigious international prize for new handmade brick **Petersen Tegl**

A new product for façade and roof cladding by Petersen Tegl has won the World Architecture News Award in the category Product Innovation/Facades 2014. The innovative aspect is the design. Unlike traditional brick, Petersen Cover doesn't require mortar and trowels but instead is attached to the underlying steel or wooden structure of the façade or roof.
www.en.petersen-tegl.dk/



An airtight investment for high-spec Eco Lodges **DuPont**

The Residence is a £6m development of 50 high-spec 'Eco-Lodges' in Cornwall constructed by Building With Frames. Built to beyond Code Level 4, the scheme uses SIPs framed construction together with DuPont™ Tyvek® breather membranes, to achieve optimum performance. A total of 5,500 square metres of Tyvek® Housewrap has been installed to achieve high levels of performance.
www.tyvek.co.uk



Keilaranta 1 building features VIVIX® exterior façade panels **Formica Group**

Formica Group's VIVIX® exterior façade panels have been used to clad Keilaranta 1, an office building in Keilaniemi, Finland. Designed by the architectural firm Arkton Arkkitehdit, Keilaranta 1 has been awarded LEED® Platinum, the highest possible certification level. Manufactured in Europe to ISO 9001 standards, VIVIX panels cause minimal environmental impact and incorporate Formica Group's commitment to sustainable principles and practices.
www.formica.com/en/uk/



High life for high-rises **Reynaers**

A 13-storey residential and commercial development by Bellway Homes in Enfield town utilises Reynaers' CW 50 curtain walling facade with ES 50 opening vents and CS 68 doors inset to enable balcony access for residents. Use of stylish integral opening vents and doors fit seamlessly into the facade. The CS 68 three chamber door system combines high insulation levels with optimal safety.
www.reynaers.co.uk



Modern homes with old feel **SIG**

Bespoke cut-to-size zinc from SIG Zinc and Copper was chosen for two four-bed luxury houses in Hertford. The pre-weathered NedZink Nova cladding not only gave a traditional feel, but minimised the thickness of the wall build up. For the roof, a rolled standing seam was specified. The mid-grey colour blended with the natural tones of the surrounding buildings.
www.sigzincandcopper.co.uk



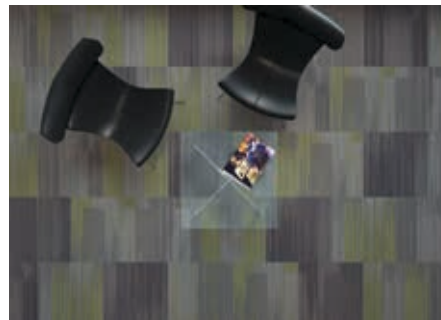
Nature just got tougher **Gerflor**

Gerflor has refreshed its popular Taralay Impression range with two new ranges. Taralay Impression Control and Wood are both multi-purpose floorcoverings available in 2m sheet format with a Group T wear rating, which makes them ideal for tough, heavy traffic environments. The range comes with Gerflor's new ProtecSol® Control surface treatment that improves the slip resistance performance.
www.gerflor.co.uk



New flooring leads marketplace with new opus enhance range **Karndean**

The UK's market leader in Luxury Vinyl Flooring, Karndean Design-flooring, is unveiling its new Opus Enhance range, available from February 2015, responding to calls from architects and designers for unprecedented slip resistance. Ideal for use in a variety of commercial settings, the enhancement to the PU coating allows for added grip without compromising on aesthetics.
www.karndean.com



Quadrant Carpets frequency range inspires the individual in us all **Quadrant Carpet**

Frequency, the latest carpet tile creation from Quadrant Carpets, is gaining momentum with its architect and interior design clientele. Its myriad combinations, from light, subtle hues, to vibrant iridescent colours and blends of textures, allow the designer a truly personalised palette. The subtle colour-ways provide a smart choice for open plan spaces.
www.quadrantcarpets.com/products



Altro increases warranty **Altro**

Altro has increased the warranty, sustained slip resistance and life expectancy on its 2.5mm safety flooring ranges. Altro Designer 25, Altro Unity 25 and Altro Classic 25 now come with the added peace of mind of a 20 year warranty, 25 year life expectancy and sustained slip resistance. Altro's ranges have proved their resilience and reliability in some of the world's most testing environments.
www.altro.co.uk



Edinburgh University – William Robertson Wing **Nora**

Norament Serra was installed in the main corridor areas for the university's William Robertson Wing, providing a resilient hard wearing, quiet under foot and easy to maintain floor. This building, with its high foot traffic, is just one of several key refurbishments projects being carried out by the university proving that nora® flooring meets its high standards.
www.nora.com/uk



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HI-MACS® provides limitless possibilities for surfacing solutions and inspires creative minds from all over the world. Zaha Hadid, Jean Nouvel, Rafael Moneo among others, have completed projects using HI-MACS®. From kitchens and bathrooms, including decorative aspects, to hotels as well as museums, shopping centres and on external façades. HI-MACS® does not absorb moisture, is highly resistant to stains, and is easy to clean. www.himacs.eu/en



Sydney students stay cool Tile of Spain

Ceramica Mayor extruded porcelain stone-ware make makes up part of a double skin ventilated façade for a new academic faculty building for the University of New South Wales in Sydney. With homogenous colouring throughout its section and available in natural or glazed finish, it has high impact resistance, is dimensionally stable and here, was easy to assemble on site to give a dramatic aesthetic. www.ceramicamayor.com



Expert advice on restoration Crown Paints

Crown Paints' renowned specification services combined their expertise to support the restoration of an historic hall at a prestigious school. A team of technical, colour and product experts collaborated on the project at The Manchester Grammar School. The process enabled the school to see exactly how the restoration would take shape, giving them the reassurance the project was in capable hands. www.crownpaintspec.co.uk



Dramatic transformations David Clouting

Interior Film from David Clouting is a unique range of self-adhesive films manufactured by LG Hausys. Rooms can be dramatically transformed in hours with minimum disruption. Interior Film is versatile too and can be adhered to most substrates including wood, metals, plaster board, plastics and melamine. A bubble free finish is achieved utilising air-free technology. CE Certificated. Designs include: exotic woods, leather effect, metals and stone. www.davidclouting.co.uk



Expona Flow - A unique addition to the Expona Family Polyflor

Polyflor have launched Expona Flow, an exciting collection of 50 heavy commercial sheet vinyl flooring designs launched under the renowned Expona brand, recognised internationally for offering the highest quality, design-led luxury flooring. Developed to provide a broad range of engaging and innovative design options, it's suitable for use in a range of heavy commercial environments. www.polyflor.com



Johnstone's Trade delivers lasting specification at Police HQ Johnstone's

The high performance attributes of Johnstone's Trade's products have helped to deliver an unbeatable finish for new state-of-the-art police training facilities. Johnstone's Acrylic Durable Matt was used to provide the hardwearing finish required in the office areas, while Johnstone's Acrylic Eggshell was applied in the staff shower areas as it is resistant to condensation. www.johnstonestrade.com



Seating helps transform library Lyndon Design

A newly refurbished library at the University of Reading serves to echo the bespoke handcrafted seating capabilities provided by Lyndon Design and underscores its ability to deliver state-of-the-art soft furnishings in a modern learning environment. Several of Lyndon Design's high-backed Arthur booths are featured throughout the project. These provide informal group meeting areas and breakout spaces within the library. www.lyndon.co.uk



SONA Silgranit sink Blanco

Launched in 2015, BLANCO's SONA Silgranit sink is not only available in classic and contemporary colours but also in four different sizes to suit every scenario - from compact kitchens to super-sized ones. Suiting any of the BLANCO tap range, the TIVO-S mixer tap can even match the look in complementing colours, offering an elegant and durable solution, even at entry level. www.blanco.co.uk



Armstrong Ceilings launches its project showcase for 2015 Armstrong

Armstrong Ceiling's annual showcase of European projects shows how the leading manufacturer of interior ceiling system solutions delivers on its strapline for 2015 - inspiring great spaces. The coffee table-styled brochure takes specifiers like architects and interior designers on an epic journey through some of the most innovative, intelligent and stunning ceiling solutions available www.armstrong-ceilings.co.uk



Carron Phoenix aim at the market sweet spot Carron Phoenix

Carron Phoenix's Logica polished stainless steel inset sink range is designed to hit the sweet spot for the contract market combining modern design, precision manufacturing, competitive pricing and built to last quality. With a clean design and linear drainer pattern, the Logica range offers a distinct 'designer' feel, perfect for adding style and flair to a new build project. www.carron.com

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A Touch of glass for luxury forest cabins

Glassolutions

New luxury holiday cabins at three woodland sites across the UK have been installed with energy efficient windows and doors, and a range of interior glass accessories from Glassolutions. The new cabins at Cropton in North Yorkshire, the Forest of Dean and Sherwood Forest will benefit from double glazed windows and doors incorporating SGG SECURIT PLANITHERM Total+ www.glassolutions.co.uk



First past the post Kemmlit

As part of the £45m re-development of Cheltenham Racecourse, the 'See You Then' bar named after a former Champion Hurdle winner was one of the first hospitality areas to reopen. For the bars' washroom facilities, Kemmlit's Cronus Cubicles were specified. Cronus is a versatile cubicle that can be used for dry or wet areas. The panels are made from 13mm solid grade laminate with a special overlay to protect them against abrasion, wear and scratches. www.kemmlituk.com



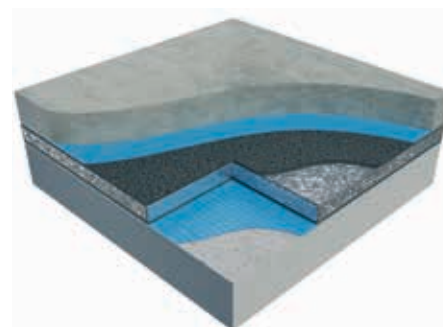
OPTIM-R performs in East End Kingspan

The luxury, mixed-use London Fields Mentmore Terrace development in the capital's East End, has recently benefited from the high thermal performance of Kingspan's OPTIM-R Balcony and Terrace System. For the spacious roof terrace of its 4th floor 3-bedroom penthouse apartment, USE Architects took advantage of its slim-line characteristics, allowing them to achieve requisite u-values without exceeding internal floor heights. www.optim-r.co.uk



Five-star cleanliness, comfort and luxury from Geberit Geberit

With luxury and comfort being at the heart of the hotel's design, it's important that the bathrooms feature high quality fittings throughout. That is why Geberit AquaClean 8000 plus was the natural choice for the bathrooms at the Chedi Andermatt Hotel located in the beautiful Swiss Alps. The Geberit AquaClean 8000 plus perfectly fulfilled the hotel's requirements with respect to quality, hygiene and comfort. www.geberit-aquaclean.co.uk



A great step to a better environment Kevothermal

NanoFloor Insulation is the off-the-shelf insulation solution for both new and existing floors. Created from Vacuum Insulation Panels, NanoFloor Insulation offers a dramatically superior insulation performance, with the additional benefit of taking up to 5 times less space when compared with traditional PUR solutions. NanoFloor Insulation's VIP insulation can be available immediately. www.kevothermal.eu



ACO delivers on all counts to three bridges ACO

ACO Water Management has provided a complete surface water management solution at Network Rail's Three Bridges railway maintenance depot near Crawley. By utilising products from its permanent way and rail infrastructure range, ACO was able to meet the project's specification and help overcome challenging on-site logistics. www.aco.co.uk/rail



Frozen architects left glowing after launch Dow Building

Following a successful pilot in 2014, Dow Building Solutions announced the commercial roll-out of XENERGYTM SL with an event for over 70 leading architects, specifiers and roofing contractors at the Icebar London. This inverted roof insulation improves Lambda performance by up to 11%. XENERGYTM SL has been formulated with the addition of infra-red blockers, resulting in reduced heat transfer. www.styrofoam.co.uk



ERCO casts light on legal process ERCO

Renowned law firm Pinsent Masons have recently opened a branch office in the prestigious new 'Soloist' building in Belfast. For concentrated working, ERCO Quadra recessed luminaires were specified for glare-free task lighting with ERCO Compact downlights providing attractive accent lighting. ERCO Quintessence recessed adjustable luminaires with oval characteristics, meanwhile, were specified for precision lighting to circulation areas. www.ercos.com



Kingspan sets the standard for energy efficiency Kingspan Insulation

Kingspan Insulation is pleased to announce that its manufacturing facility in Pembridge, Herefordshire has been certified to energy management standard ISO 50001. The voluntary standard provides organisations with a best practice framework for integrating energy performance improvements into all aspects of their management practices. www.kingspaninsulation.co.uk



British Spirals & Castings makes its mark British Spirals

A family run producer of bespoke staircases, balconies and railings is flying the flag for British quality-compliance, by becoming one of the first spiral stair manufacturers to achieve the CE Mark for its products. In achieving the CE mark, Derbyshire based British Spirals & Castings has put itself on the top rung, providing assurance that its manufacturing processes meet the highest European standards. www.britisshsc.co.uk



SIKA makes light work of Jodrell Bank Observatory repairs **SIKA**

At Jodrell Bank Observatory in Cheshire Sika has demonstrated its ability to deliver concrete remediation and protection solutions with a comprehensive range of the company's products helping to repair a concrete frame supporting their Mark II telescope. Sika's repair and protection solutions are designed to rehabilitate and restore concrete.

www.sika.co.uk



Lighting up retail **Structura**

Translucent Kalwall is specified for different retail buildings, from supermarkets and warehouses to facilities like this spectacular 2300sqm Thurlow Nunn showroom in Milton Keynes. Designed by Bisset Adams, its unusual square grid diffuses daylight evenly and deeply and glows at night. Kalwall is also widely specified for the refurbishment of aged cladding and rooflights.

www.structura-uk.com/kalwall



Hansgrohe launches Axor Citterio E: The Essence of Luxury **Hansgrohe**

Designed by Italian architect and designer, Antonio Citterio the new Axor collection of bathroom fittings exude elegance, high quality and worth. Axor Citterio E is characterised by a balanced contrast of smooth shapes, clean lines and precious surfaces and offers exceptional ease of use. Soft and slender mixer handles characterise the entire collection's design

www.hansgrohe.co.uk



Steel windows are for life **SWA**

Aesthetically pleasing, high performing, and with a heritage dating back to the 1920s, steel windows are strong and durable and, with their slender glazing bars and characteristically large areas of glass, can be expected to last the life of the building, if properly maintained. The modern steel windows are double-glazed, thermally-efficient and benefit from good security, durability and ease of maintenance.

www.steel-window-association.co.uk



Abloy's key to security **Assa Abloy**

Security expert Abloy UK has launched a new PROTEC2 CLIQ Key and Cylinder, a web-based security management solution, which allows for the remote management of disparate or large electronic master-keyed sites at any time, from anywhere in the world. The new PROTEC2 CLIQ Key has a larger memory capacity and 3500 locks or lock groups can now be programmed.

www.abloy.co.uk



RIBA Approved CPD from **Aluprof**

Aluprof UK is now offering specifiers a RIBA approved CPD, "The use of glazed screens to control the spread of smoke and fire in buildings" The CPD aims to offer guidance in the correct specification and installation of high performance fire screens. The 45 minute CPD is available across the UK for specifiers and presentations are undertaken by Aluprof technical staff.

www.aluprof.eu



At the top of the class **Knauf Heradesign**

Knauf AMF Ceilings' Heradesign has been installed in a new school building catering for students with complex special needs. Architects Haverstock chose coloured panels matching the school's emblem for its entrance and corridor spaces- hung as rafts either side of the rooflights. Offering Class A ratings for sound absorption, it also helped create a conducive learning environment in the classrooms too.

www.amfceilings.co.uk



Clear benefits of concealment **GEZE**

GEZE's new 'Boxer' range of guidance compliant concealed closers maintain design aesthetics -leaving only the guide rail visible when the door is open- whilst offering robust performance, accommodating doors of up to 180kg in weight. Closing speed and force, latching action and hydraulic backcheck are all adjustable, with the range good for fire doors, anti-ligature environments and where accessibility is key.

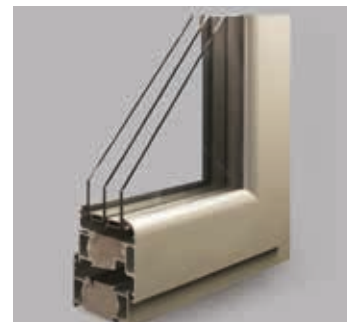
www.geze.co.uk



Long-term gains with rural energy **Rural Energy**

Burrough Court business park in Leicestershire has received a new, Herz Firematic 199kW biomass boiler from Rural Energy to provide the heating needs of its warehouse, office units and 200 business tenants, as part of a second phase biomass upgrade. The new boiler enables Burrough Court to heat even more offices, and has been designed to maximise efficiency, keep heating bills low and achieve the best possible return from the RHI.

www.ruralenergy.co.uk



New window of opportunity **Senior Architectural**

Senior Architectural Systems has launched PURe, a new aluminium window system that can help specifiers achieve low U-values and high thermal performances. The PURe window range is the first on the UK market to benefit from an enhanced thermal barrier manufactured from expanded polyurethane foam. Ideally suited for use across the sectors, from education to healthcare, commercial to domestic, refurbishment and new build projects.

www.seniorarchitectural.co.uk

Sign Up

Liam O'Grady, project director at John Robertson Architects, gives us three of his specification favourites



CONCRETE SURFACES

Melbourne House is one of four refurbished 1920's office buildings in London's Aldwych. The internal finishes consist of a limited palette of natural materials providing a simple clean aesthetic. In contrast to the detailed soap-finish douglas fir in the reception, large concrete panels clad the adjacent lift shaft. Mass Concrete manufactured bespoke panels, allowing us to minimise the joints and achieve the monolithic design. Also used to form the vanity tops with integrated basins in the washrooms, the concrete surfaces provide a robust, stain-resistant solution with a silky satin finish.

www.mass-concrete.com



REFIN CERAMIC FLOOR TILES

Individual unisex washrooms were designed throughout Melbourne House. Similar to the reception area, the proposed materials provide a clean contemporary finish. Seeking a rich textured floor tile to complement the monolithic concrete vanity tops and high gloss laminate wall finish, we selected Refin's Design Industry range in Raw Grey in the largest format possible (1500mm by 750mm) to minimise grout lines. The finish is based on the chromatic and structural interpretation of raw cement and flaking plaster, which is in keeping with the natural materials used elsewhere.

www.refin-ceramic-tiles.com



LAMINATED GLASS WALLS

King House also forms part of Aldwych Quarter but quite different materials were used. Here, the original Art-Deco inspired travertine clad stairwells were restored and back-painted glass was proposed to connect the new reception to the original stairwell, wrapping the wall of lifts. SwisslameX Tissue by Glastroesch was selected, which has a metallic coated mesh within the laminated glass, giving it a depth and character which changes depending on the light and angle of view. A copper mesh was used in King House, its warm tone complementing the travertine.

en.glastroesch.ch/products/swisslameX-tissue

...Sign Off

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



IN SICKNESS AND IN HEALTH

Treatment bed and chair manufacturer Plinth 2000 hasn't been sitting on its laurels, if its PR is to be believed. The Suffolk firm's had a 15% annual increase in revenues, with its 'largest ever equipment order for 130 couches' – meaning 19½ more of its beds cluttering up the casualty corridor this year. MD Niall Dyer is nonetheless 'always available for interview'; presumably so he can tell us about its range of bariatric, gynae couches and phlebotomy chairs plus the new one for 'an innovative leg ulcer package'. It's just as well it's adopted 'advanced AutoCAD and 3D mechanical design to design parts and assemblies' – that's a whole lot of BIM for your bum.



UP IN SMOKE

Getting high in Amsterdam may recall giggly caffeine-themed teenage shenanigans so it's good to see department store De Bijenkorf trying to restore some seriousness with its 'Room on the Roof'. The initiative involves bunging an artist in its bell tower, overlooking the cycling-mad city to the Rijksmuseum, which is riding pillion by funding it. First to take up residence in Belle Epoque splendour is hot-shot designer Maarten Baas, who made a name with his graduation show 'Smoke', in which he singed period furniture black with a blowtorch. Given his pyromaniac penchant, De Bijenkorf will hope he doesn't decide to spark up its joint while he's there.



ADAM'N' EVE IT

It's all about 'seduction, beauty and temptation' runs French crystal company Daum's press release on its new 'Eden' chandelier, a huge pendant of pale green glass 'leaves' with a red crystal apple hanging off the side of it. It even comes with a gold serpent slithering down from the ceiling in a delicate evocation of original sin. Of course, there are more literal ways for designers to seduce and tempt, as a recent court case testifies. A now-suspended associate director architect is doing 200 hours community service for inadvertently funding two brothels in York run by his wife. In the day-to-day grind of running the second oldest profession, it seems not everyone's forgotten about the first.

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A picture of a finished wetroom would be lovely,
but our advice at this stage would be better.

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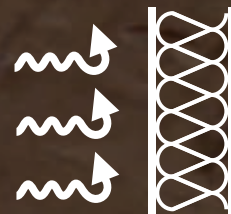
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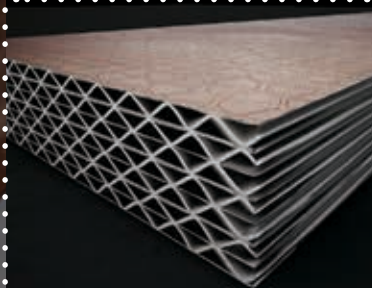


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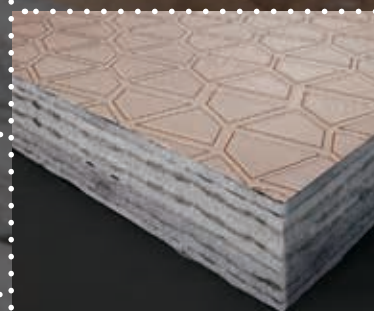
LIGHTWEIGHT
Less than 10kg/roll



ONLINE SIMULATOR



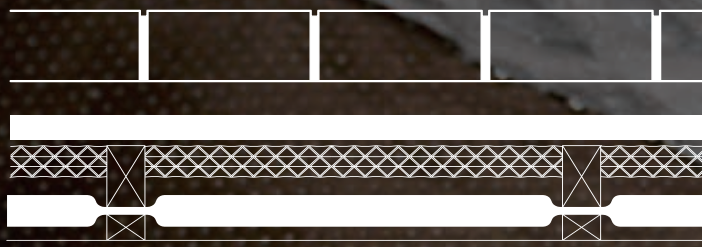
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