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## Products in Practice Mar/Apr 2016

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# It was nice...

... last month to see some organised resistance to the creeping privatisation of the public realm in the form of a ‘public space intervention’ outside London’s City Hall. Anna Minton – author of the book ‘Ground Control’, which drew attention to the phenomenon in the UK, and who’s running a University of East London MA on the neo-liberal city – must have decided to emerge from under the cloak of academia and get on the soapbox with some field experience. And her

cause is laudable; while regenerated city spaces might be springing up funded by private finance, the pact is Faustian. Security firms monitor them, so try protesting in one and see what happens. Stealth privatisation amounts to a ‘killing me softly’ erosion of citizens’ rights in the public realm. London’s Garden Bridge could be seen as the apotheosis of the model, even having some public funds allocated to what is effectively going to be private property – with

all the limits on public access this might entail. There’s a reason I love Rome; designed for moving pilgrims through it with both grace and wonder, it shows the levels of urban drama achievable when a place enshrines in its very makeup the principle of free movement. There are 99 reasons to criticise the Catholic church nowadays – but that, thank God, will never be one of them. ●

Jan-Carlos Kucharek, Editor



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Cover image: Roof lantern, New House, Hadlow Down. Photograph: Leigh Simpson



# Compendium



## Stijl conscious

PIP's relationship with designer sofas is ambivalent. Much like Rietveld's classic chair, form too often triumphs over function – a Quaker-like self-consciousness shrugging off any notion of comfort. Thank God that architect Giuseppe Bavuso concentrated on posterior rather than posterity with his Swing sofa for manufacturer Alivar. It's a hybrid oak and steel frame; but get this – memory foam and sterilised feather cushions! Perfect for Gerrit to pass out on after thinking those lofty aesthetic thoughts.

## In a historical vane

When London's V&A Museum needed its European Galleries refurbishing it went to lighting consultant Sutton Vane. Spaces sealed off from natural daylight in the 1970s, were reconfigured to allow it back in, but not before the firm had gone to London's Bartlett School to model the new spaces with its proposal to provide far better lighting quality – even in the historic room sets.



## Light-bending

PIP's been thoroughly beguiled by award-winning designer Mathieu Lehanneur's Les Cordes, his design for the Carpenter's Workshop gallery in Paris. Hand blown glass tubes loop down from the ceiling like rope, run through with LED, to give a contemporary interpretation of the traditional chandelier. Running off different circuits, the tubes can be dimmed in different ways to fit a number of lighting permutations. Lehanneur's designs are already in the permanent collection of New York's MoMa and at the Centre Pompidou in Paris. He's also chief designer at Chinese mobile phone company Huawei, the only firm in Asia able to take on the hegemony of the iPhone. One hopes his designs for them won't result in as many crossed lines as his light possesses.



## The way, the youth and the light

Great to see Wolverhampton's The Way Youth Zone opening its doors to 9-18 year olds. It gives local kids in the city all manner of diversions to keep them busy of an evening – from dance to music, martial arts and even culinary skills for any budding Jamie Olivers. Perhaps as a metaphor for the potential to rise in the world, there's also a climbing wall at the Zone, denoted by a wall of Lumaglass U-profile glazing that floods the space with light by day and glows away satisfactorily by night. How's that for a beacon in the community?





CHRISTOPHER NUTT

### Belgian alien

Looking like an ad campaign for Paco Rabanne's men's trophy-shaped perfume Invictus writ large, Ben van Berkel's UN Studio has just completed its first building in Brussels – Le Toison d'Or – in collaboration with Jasper-Eyers Architects. Made up of 72 apartments and 13,000m<sup>2</sup> of retail space, the quirky design is defined by curved vertical frames that form upper level balconies and narrow down at the bottom to increase the glazed area for retail units at ground level. It might be good on paper, and apparently has a lot of sustainability innovations built-in, but PIP has to say that the jury's out on the final result, with the effect seeming to be more HR Giger than Victor Horta; a distinction registered with commensurate levels of dread.

### UPCOMING

**Ecobuild** 09-10 March, ExCel, London

**Retail Design Expo** 09-10 March, Olympia, London

**MIPI** 15-18 March, Palais des Festivals, Cannes, France

**BIM Show Live** 08-09 April, Manchester Central

**International Passive House Conference** 22-23 April, Darmstadt, Germany



JACK HOBHOUSE

### Rolled dowels

Fantastic Mr Fox author Roald Dahl inspired architect Da Rosee Sa's new building for Prestwood Infant School in Bucks. The £160,000 building takes Mr Fox's dream of an underground village for all his friends to create a dining hall and community space. With teaching areas, a book wall and WCs evoking a fox's den, the kids are apparently happy as Larry. Outside, the timber frame construction was clad in white corrugated polycarbonate and cement board cladding embellished with a rainbow of painted red cedar battens whose profile matches the school's many rooflines, making a great place for little foxes to lunch – out of what seems like a dog's dinner of roof pitches.

### Space-framed

The annual Tile of Spain Awards were recently announced, with the top accolade going to the educational Hall of the Gavina School in Picanya, Valencia. The multi-purpose facility is an extension to the original 1980 school and features a latticework facade made of Estartit by Cerámica Ferres – cubic multi-coloured ceramic pieces fitted onto a metallic structure and enclosed in safety glass. Judges were taken by the smart use of ceramics to resolve acoustic and light control challenges for the space while maintaining a connection with the surroundings. Not least, sailing overhead is a fine, elegant space frame structure supporting its insulated corrugated metal roof; celebrating, like the wall on which it sits, the spaces in between.



MARIELA POLLONIO

# Let's outsource everything!



Many Melbourne firms are bursting at the seams with a flurry of new and returning work. While resourcing these projects, we have debated the merits of hiring versus outsourcing. An interesting thought emerged – should outsourcing be used for all the labour-intensive design development and documentation? This would allow us to specialise in front end design. At first I felt this was crazy – you could easily lose control over the end product. But what if we outsourced everything: changed the culture completely?

In essence we would decentralise the many roles of architecture and restructure as specialised fields. I'm not suggesting that we abolish multi-faceted studios, merely promote greater specialisation and collaboration. Studios could specialise in fields of architectural and interior design, research, documentation, facade and complex geometry, visualisation, and material fabrication. To an extent these studios are already appearing.

Traditional architectural offices provide services that are so diverse that they lack a

consistent flow of projects and continuity of staff to really innovate. Specialisation gives the building industry access to a larger pool of talent, each dedicated to innovating in their field.

Project offices would be established for the duration of the process and house various studios for each work stage. Smaller studios could be engaged on larger projects as the role is more refined, breaking the mentality of 'large project – large office'. Our place of work would shift from year to year as would those we collaborate with. We could adopt a similar structure to the film industry. The Producer (Investor) typically looks for a Director (Design Architect) and with their small team would select a suite of collaborating studios capable of exploring and resolving the design intent. Over time preferred collaborations would naturally form between studios.

This type of structure is tremendously flexible, allowing teams to be tailored to the project. We wouldn't see coding specialists or design architects drawing bathroom details as they wait for new projects. Rather, these studios would

seek continuity of work through their network of contacts. At any one time the collaboration of studios would bring together a broad network of people. Graduates spending time in them would gain knowledge by blending experiences and absorbing the complexity of the industry.

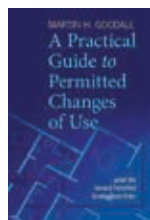
Imagine if we could focus most of our time on our architectural strengths, and be part of a group delivering amazing work through collaboration. We would build efficiencies and innovate. We could work with different size projects and briefs without having to expand or contract. Our overheads would be much smaller; we would be flexible and adapt to change easily. Directors and investors would have more opportunities to attract the best talent.

In a film, everyone who made a contribution is acknowledged. In a way film making is a celebration of individual talent in collaboration, something that is obscured in our current architectural structure. ●

**Alan McLean** is an architect at Bates Smart Architects in Melbourne

## Books

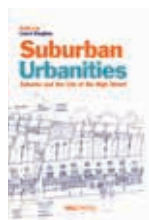
Buy at [ribabookshops.com](http://ribabookshops.com)



### A Practical Guide to Permitted Changes of Use

Martin H Goodall, Bath Publishing, 265pp PB £40

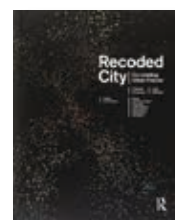
The writer has spent over 35 years as a specialist planning lawyer, is a member of the Law Society's Planning Panel and, more to the point, is author of the Planning Law blog – which probably ensures him a readership beyond the buyers of this detailed breakdown of the General Permitted Development Order. Goodall covers all the bases here, his chapters conveniently split into all the permutations of 'to' and 'from' Change of Use. While planning permission for these developments is no longer required, many require prior approval by authorities; and Goodall gives clear, detailed advice on the operation of the prior approval procedure. The general introduction provides a concise overview of the legal context; after that, it's a case of diving in to the specific chapters. A solid reference book for architects on current CoU policy.



### Suburban Urbanities – Suburbs and the Life of the High Street

Laura Vaughan ed, UCL Press, 345pp PB £25

Jane Jacobs' pioneering work on the death and life of the city continues to engage, with UCL Professor Laura Vaughan's collection of essays analysing the morphology of the UK high street through time and via the likes of Spain's Toledo, Limassol in Cyprus and urban Tripoli. With her specialisation in urban form and society, the emphasis here seems to be more on the former, with analytical studies of spatial typologies evident through space syntax and quantitative evaluations. The aim is a worthy one, to see suburbia as a factor of time rather than its stasis – 'not a caricature of a life less lived but a dynamic context of metropolitan agency and creativity'. Essays are dense and perhaps only for those with a deeper knowledge of the subject, but it's alleviated by attractive interspersed infographics and maps.



### Recoded City: Co-creating Urban Futures

Thomas Ermacora & Lucy Bullivant eds, Routledge, 320pp PB £34

Regeneration architect Ermacora and cultural commentator Bullivant delve into the sea of 'participatory placemaking', otherwise known as 'bottom-up regeneration', by giving it a new title: 'Recoding'. All very well, but the term already creates a semantic veil to the essentially simple notion of community engagement and mobilisation. The book argues for this worthwhile and highly beneficial process by highlighting case studies from architects and organisations globally who stand at the coal-face of the issue. While there's no doubt the content should engage the reader, the book's design adopts 'Monocle-like' layouts and graphics throughout, seeming to homogenise what one assumes to be highly different stories and experiences – serving to render real human stories through the subtle, slightly disassociated filter of style.



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# Dementia simulator



**What:** Virtual Dementia Tour  
**Where:** Mobile unit touring the UK

Within a few minutes, I feel like giving up, just sitting out the rest of the experience no matter how long it takes. I'm in the back of a van in the car park of a specialist nursing home for patients with dementia testing the new mobile Virtual Dementia Tour (VDT), an interactive, immersive experience touring the UK for the first time that uses props to simulate what it is like to live with mid-level dementia.

But I'm not allowed to sit down. I'm told to sort out the socks on the bed by someone I can barely make out through the dark and the goggles I'm wearing – these simulate loss of vision from macular degeneration and damage to peripheral vision. I can't even see the bed. I can't remember whether it was a man or a woman. I bend down to try to get a better view of the objects in the room and pat a few things while unconsciously subvocalising. Eventually I find some socks, but trying to make them match is impossible. Alongside the poor vision, gloves numb feeling in my hands, while my mind is confused by noises from the headphones and green and red lights moving across the room. My grip has gone, along with perception of distance, time and space, and I am bamboozled by periodic

blasts of noise over the chatter in my ears.

During the eight-minute experience I feel defeated, getting increasingly agitated and angry at how difficult everything has become. I feel unable to do anything – unable to hear, feel anything, see and unravel what to do about the pens stuck in the water jug. Abstract tasks are beyond me. I sense myself slowed down and shuffling around the black mat on the floor unsure of myself and what it is.

'You could have done anything in that room,' says the VDT's American geriatrics specialist inventor PK Beville of the mobile which is set up as a studio flat inside. 'You could have switched on the lights, or opened the curtains. But no one ever does. Of the nearly two million people who have experienced the VDT worldwide, I have seen five people do that.'

The only one of its kind in the UK, and launched in January by Training 2 Care with The Abbeyfield Society, the simulator gives those on board the chance to experience firsthand how people living with moderate dementia see and interact with everyday spaces.

The tour was originally designed to help carers, nurses and healthcare professionals understand the condition and revolutionise care. The experience is incredibly spatial and demonstrates how much knowledge we are missing.

## THE PROPS

**Goggles:** Replicate the reduced peripheral vision and macular degeneration in the middle vision associated with damage to the occipital lobe, so people can't discriminate visual stimuli.

**Headphones:** Replicate noise in the brain, difficulty in hearing and the startled response that occurs when the reticular activating system is damaged. Then it responds to everything, causing people to be distracted from trains of thought.

**Gloves:** Replicates the inability to feel things normally as a result of temporal lobe damage. People with dementia may be able to see an object but not manipulate it effectively.

**Insoles:** Replicate peripheral neuropathy (pins and needles) in the feet associated with ageing and being in pain but being unable to do something about it.

**Lights:** Replicates visual hallucinations associated with some dementias, caused by an inability to correctly integrate brain processing and vision. For example, people see things that are not there or moving things in food, called 'flashes' and 'floaters'.



**Above** VDT inventor PK Beville in front of the new mobile at The Abbeyfield Society.

'The VDT is intended to increase awareness, help people identify with dementia and, most of all, humanise people with dementia so we don't keep it at a distance and view it with fear,' explains Beville.

In the second part of the VDT, participants stand in the room watching the next pair go through. With my mental capacities back intact, in the quiet again, a host of things make sense. The participants, changed by the VDT's few simple props – gloves, glasses, headphones, shoe insoles and two instructors – are demonstrating all the key behavioural characteristics in response to everyday stimuli. It's unnervingly convincing. As a tool for architects designing hospitals, lifetime homes, nursing and care centres, eight minutes in the VDT would be gamechanging and alter the focus completely. 'Care homes,' explains Beville, 'are often designed to look pleasing to the family and are not particularly designed well for the residents.' ●

Isabelle Priest

Read the full interview with PK Beville on designing for dementia at [ribaj.com/products](http://ribaj.com/products)  
 Book your own Virtual Dementia Tour at [training2care.co.uk](http://training2care.co.uk)

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# New House, Hadlow Down

When Waste House designer BBM was asked to deliver a large and energy-hungry country pile, the result was high spec and sustainable, with a visible twist

Words: Stephen Cousins Photographs: Leigh Simpson

When BBM Sustainable Design was contracted, in 2008, to develop a sustainable master plan for a country estate in East Sussex, south of Tunbridge Wells, the high spec, high energy brief would have had many environmentally-minded practices running for the hills.

New House called for a £1.8 million new country house, conversion of a derelict 1940s dairy into a heated swimming pool, and the retrofit of a 19th century oast house, all set in 110ha of Wealden countryside.

The pool house, with its sauna and steam room, was predicted to sap around 80% of the total power load, and the requirement for all the windows in the house to remain closed in summer to prevent insects from entering meant a heavy reliance on mechanical ventilation.

This was a very different proposal to the Waste House, BBM's award-winning research building for the University of Brighton,

constructed entirely of rubbish including old toothbrushes and floppy discs, for just £100,000.

BBM director Duncan Baker-Brown comments: 'Some people might say, if you want to be sustainable why didn't you just tell the client he couldn't have a heated swimming pool, but then he would have gone to another architect that might not have been so preoccupied with trying to save energy. The fact is, architects also have to work with super-rich clients because they have carbon footprints 25 times the size of everyone else and they need to be educated and supported if they have inclinations towards being less carbon hungry.'

A combination of low energy strategies was devised to meet the brief with the smallest carbon footprint possible. Studio Engleback produced an estate-wide sustainable management plan, introducing woodland management and transforming land into wildflower meadows,





**Far Left:** View of New House looking south west, showing the north bedroom block projecting above the main entrance lobby.

**Main image:** New House, south elevation. The home is part of the wider modernisation of the whole farm site: oast house, pool house and energy centre.



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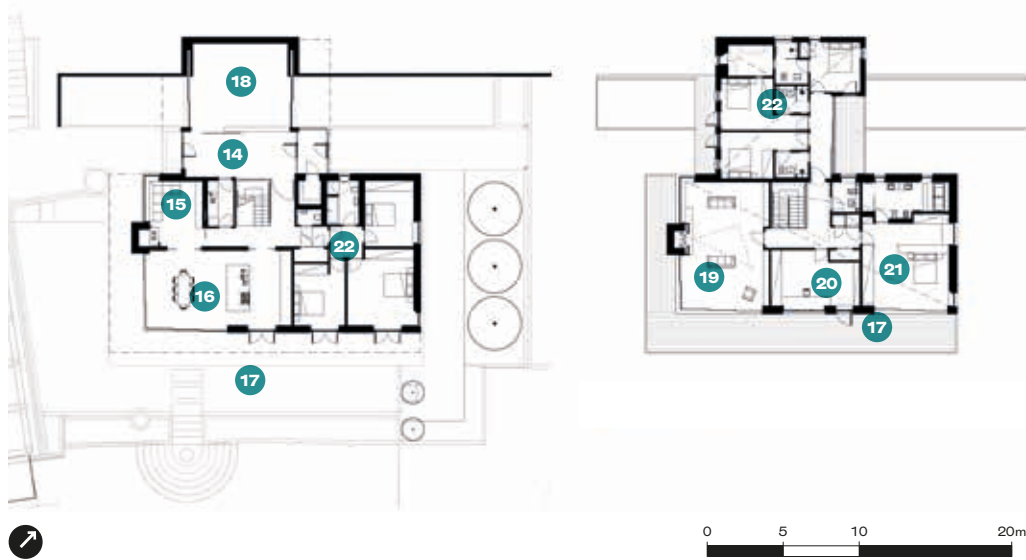


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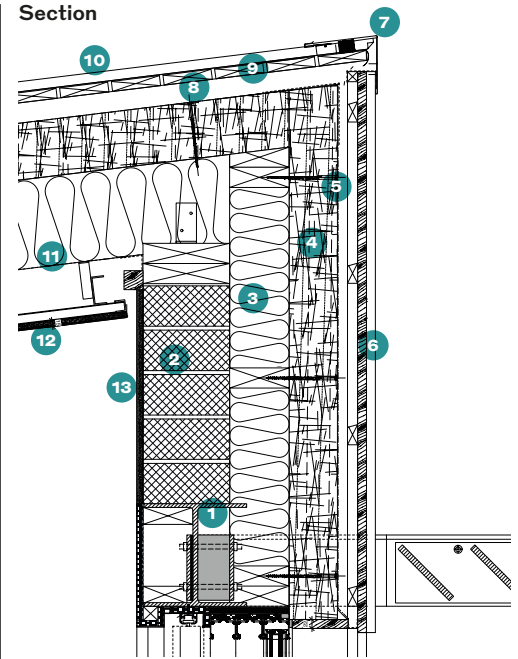
Main house: ground and first floor plans



Main house: longitudinal section looking southwest



Section



- |  |  |
|--|--|
| 1 254 x 254mm steel beam and plate                     | 11 Pro Clima vapour barrier              |
| 2 215mm flat laid blockwork                            | 12 12.5mm plasterboard on Gypframe studs |
| 3 Lambswool insulation                                 | 13 Lime finish to internal face          |
| 4 Compressed timber fibre insulation batts             | 14 Entrance hall                         |
| 5 Breather membrane                                    | 15 Snug                                  |
| 6 Sweet chestnut hit miss cladding on chestnut battens | 16 Kitchen/dining                        |
| 7 Zinc verge coping                                    | 17 Terrace                               |
| 8 50mm ventilation gap                                 | 18 Meditation room                       |
| 9 100 x 25mm treated SW gapped roof boarding           | 19 Living                                |
| 10 Zinc sheet finish with standing seam                | 20 Study                                 |
|  | 21 Master bedroom and ensuite            |
|  | 22 Bedroom block                         |

and Battle McCarthy produced the energy plan.

The house was originally planned as a retrofit extension of the 1970 property, but the client was put off by the £350,000 VAT bill associated with refurbishment, so chose to demolish the building and construct a new build in its place.

'It is concerning that the industry is demolishing perfectly good buildings to save the 20% VAT, our laws are skewed to encourage new build not retrofit and extension,' says Baker-Brown. To mitigate the impact on sustainability, timber from the existing house was salvaged and used in the Waste House project.

The house was conceived as a sculptural object in a working rural landscape and its angular and non-symmetrical form responds to the landscape, views and the movement of the sun. The north-facing elevation is dug into a Tonbridge sandstone bank, with the spoil used to create an internal rammed earth wall separating the entrance hall from a meditation room.

Above that, a three-story Le Corbusier-style 'light cannon' casts shafts of sunlight down into the space at certain times of the year. The south-facing elevation is mostly glazed, to

harness solar energy, with deep balconies providing shade in the height of summer.

With a brief to deliver a 'robust elegance appropriate for a large farmhouse', local materials were specified for all three buildings to create a sense of place and reduce embodied energy. The external walls of the house are constructed with load-bearing blockwork, wrapped with 300mm of external insulation made from waste timber-fibre and finished with either lime render or a rainscreen of finger-jointed sweet chestnut cladding. Chestnut cladding was used on the pool house elevations and its curved ceiling. Internal walls are hand finished in a breathable plaster called 'tadelakt', from Morocco.

'Cladding was sourced from the neighbouring woodland. It is untreated and looks bruised and patchy at first but then matures to give a grey, textural appearance,' says Baker-Brown. Most materials were specified to be self-finishing, including polished concrete or reclaimed oak floorboards and internal joinery made from locally sourced oak.

Woodchip harvested from the owner's 150 acres of woodland fuels a biomass boiler, located

in a separate energy centre, which provides hot water and heating for the pool house and the two residential properties.

Both pool and country house have photovoltaic and solar panels on the roof. A large section of pitched roof on the house is twisted to face due south to maximise solar PV exposure. The scheme's total annual energy use from renewable sources is 35.2kWh/m<sup>2</sup> resulting in a CO<sub>2</sub> emissions reduction of 8.97kgCO<sub>2</sub>/m<sup>2</sup>.

A mixed-mode ventilation strategy was initially planned for the house, combining a regular sized MVHR system with the ability to open windows to provide cross-ventilation and prevent overheating. However, at a late stage of design the client asked instead that the windows remain closed year-round to keep out flying insects attracted to the farm's pond. He also wanted to be able to smoke inside the property without the smell of stale smoke in the air.

'This seemingly simple request resulted in a difference in spec and a real head scratcher for Battle McCarthy,' says Baker-Brown. 'Suddenly the M&E budget rose substantially: we had to source an industrial-scale MVHR system but the



engineer managed to avoid increasing the roof height, which would have been a planning issue.'

During summer, the temperature of the internal spaces is controlled using the MVHR with supplementary passive cooling provided by the adjacent pond, which is always cooler than even the hottest day of the year. Air supply to the building and oast house is pre-cooled to a constant 15°C using a passive earth tube system that draws in air from woodland to the north and cools it as it travels through underground pipes. During winter, the same system primes the air to 15°C, reducing the amount of heating required from the biomass boiler.

The house is a slow response building, gradually absorbing heat from the sun, underfloor heating and occupants in its heavyweight blockwork walls and concrete floors, then radiating it out at night. The MVHR circulates and

recovers heat from around the building.

'The effectiveness of the system depends on wrapping the building in an airtight overcoat of insulation, to isolate it from the external climate,' says Baker-Brown. 'Buildings that exploit thermal mass normally depend on high occupancy, drawing heat from people inside, but here we rely more on heat from the sun, through windows in the south elevation, so it works more on a seasonal basis than daily.'

The development was designed to achieve Code for Sustainable Homes Level 5, but struggled to achieve it due to the large amount of south-facing glazing. However, by taking into account issues of building orientation and passive climate response, such as the use of thermal mass, and demonstrating that overall annual CO<sub>2</sub> emissions would be just 2.53kgCO<sub>2</sub>/m<sup>2</sup>, Battle McCarthy was able to show that it

effectively surpassed Level 5 requirements and planning approval was awarded.

But questions remain over how it will perform in use. Issues related to the over-complication of the MVHR system, including problems with its software and sensors, mean it has still to be signed off, potentially resulting in higher energy consumption. 'This is a small job for the system supplier so it has been difficult getting it back on site to adjust the programming. It will be interesting to see how the building performs in use,' says Baker-Brown.

That setback aside, BBM Sustainable Design has shown how a 21st century country house can be developed as low carbon, to a high spec, without having to resort to using DVD cases and two tonnes of denim offcuts for insulation. As Baker-Brown puts it: 'Give us any building typology and we can do the greenest version of it.' ●

**Below left:** View of the upper living area looking south west.

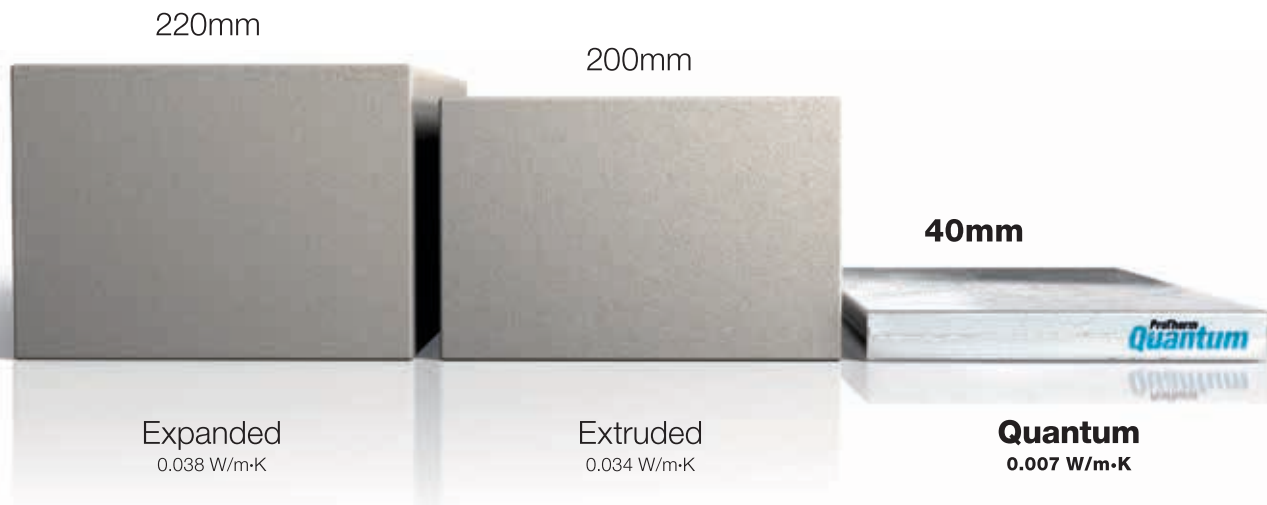
**Bottom left:** There's some bold detailing evident internally with a central staircase of black concrete and frosted green glass.

**Below right:** The pool house was clad in locally sourced chestnut with Moroccan 'tadelakt' plaster inside.

**Bottom right:** The pool house might look understated but with a sauna and steam room, it uses 80% of the site's energy demand.



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Photo: David Cation

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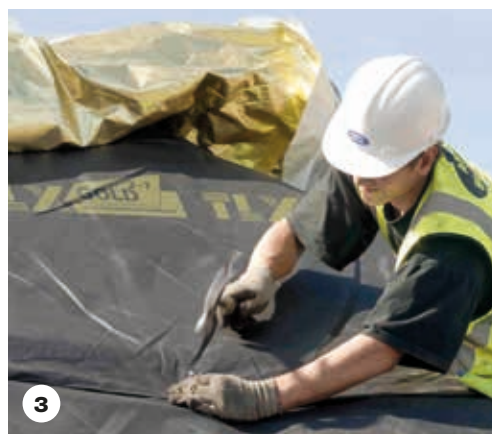
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# Specified



## 1 External doors Internorm

One of the most useful things about purple is that it can be seen from a long way away. Handy, or we might just not spot Internorm's doors on this Passivhaus-certified social housing scheme on the Isle of Wight. Pretty much everything else, from the frolicsome cirrus clouds to the tessellated rain stains via the simple shapes of the homes, commend themselves to our sight first. And that's a shame for the nice doors, which sport not only U-values down to 0.62 and feature perimeter seals but an external aluminium skin too. [internorm.co.uk](http://internorm.co.uk)

## 2 Infill panels Aluglaze

These handsome green infill Aluglaze panels, glazed onto new windows at these three apartment blocks, part of the regeneration of the Oatlands Estate in Leeds, have been sprinkled among the grey in a random pattern. Iain Duncan Smith of the Department of Work and Pensions could license the technology and use it to highlight the apartments of the sick people he thinks aren't working hard enough. He can even sort the chaff, with panels that are also available in Interpon D, Syntha Pulvin and anodised colours. [panelsystems.co.uk/aluglaze](http://panelsystems.co.uk/aluglaze)

## 3 BBA approval TLX

TLX Gold, the 2-in-1 insulating breather membrane, has finally been certified by the British Board of Agrément (BBA)! What, the what? What's 'Agrément'? Google reveals: 'Formal approval for a construction project to proceed'. Oh, right. Of all organisations in need of a rebrand, we would put the BBA at the front of the queue (in front of Volkswagen), featuring in its name, as it does, a word that 1) is foreign; 2) has an accent; and 3) is unfathomable and with no familiar root. Still, what do we know – TLX still has the Blue Riband. [tlxinsulation.co.uk](http://tlxinsulation.co.uk)

## 4 External wall insulation Saint-Gobain Weber

It's only because it's stuck on the side of a building in large(ish) letters that we knew New QEII is not the latest version of a type of programming language – maybe a really crunchy one, that controlled something like rocket trajectories or weather simulations. But no, it's a new hospital in Welwyn. Are buildings named like this to tempt Her Maj to come and cut the ribbon, or does the promise of a regal visit come first? Saint-Gobain's weber.therm XM external wall insulation meanwhile presents Ma'am with an attractive and high performance outer skin. [weber.ie](http://weber.ie)

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# Making the office work for employees

Offices are changing, in unusual and 'fun' ways. The idea is that happy employees are more productive

Words: Josephine Smit

There is a huge dichotomy between the everyday reality of office life for the many and the vision of the modern workplace that has been created in trendy tech companies and start ups. Brands like Google have thoroughly disrupted workplace design and practices, turning offices into communities where workers collaborate with colleagues and like-minded businesses, socialise over a latte and pizza, and take a break with a workout or a whoosh down a slide. Even the basic meeting room has been reinvented as huddle space, touchdown space or war room.

Look at Selgas Cano's Second Home in Shoreditch, which provides co-working space alongside a restaurant and event space, Rockwell Group's NeueHouse Hollywood in Los Angeles, which has transformed William Lescaze's CBS Radio Building into a co-working facility and social club, or Alphabeta close to London's Silicon Roundabout (see box). These seductive spaces show how the 'high fashion' style of Apple and Google could be filtering through to the high

street, perhaps holding out the hope of a happier, healthier working day for office workers.

But the drivers for change in business practices and workplaces are far from altruistic, as Karen Williamson, associate director at property consultant JLL, explains. 'Companies are wanting to provide an environment that attracts and retains the best talent. With that are strategic drivers for sustainability and productivity. They're probably not doing a Google office, but there is a greater focus on workplace design.'

## Tickling the imagination

Research by Oxford Economics puts the cost of replacing an average London office worker at well over £50,000 – five times that of renting and servicing the office space for their desk. Tech companies hope to attract the smartest young recruits – the average age of a Googler is around 30 – with games rooms and amenities that keep staff happy, healthy and above all working hard.

'We can look at the slides of Google and

Facebook and say that would never work for us,' says Owen King, workplace consultant with Unwork, which helps businesses develop new ways of working. 'The message is who is the workplace for? It is not about a slide. It is about creating workplaces where we can bring in ideas that will change the way we do business.'

King collaborated with property consultant Cushman and Wakefield on The Future of the TMT Workplace, the recent report into the fast-moving technology, media and telecoms (TMT) sector. It shows how the sprawling, amenity-packed campus headquarters of tech giants grew out of their out-of-city locations. King adds: 'Now the move's away from campuses to the city, because that's where the talent is. But that poses challenges of how you recreate campus characteristics in a vertical building in the city.'

In the UK these challenges are already being addressed and the TMT sector seems to be influencing broader workplace design in locations beyond Silicon Roundabout. MoreySmith has given fashion retailer Primark's international HQ in Dublin a makeover, uniting a 20th century listed building and its 14-year old neighbour with an atrium bringing natural daylight into four floors of workspace. Alongside the informal café and flexible work areas, there is a business lounge for visiting suppliers, bicycle storage for sustainable commuters, and a wellbeing zone with exercise suite. The practice is now working on a follow-on project with Primark, reinventing 115,000ft<sup>2</sup> in Reading, and has similar projects in London.

## Office makeovers

Many existing offices are ripe for a makeover, says Lesley Kelly, director of architecture at MoreySmith. 'There is a lot of opportunity to take the old, soulless buildings of the 1960s, 70s and 80s and make them more engaging and vibrant. They are adaptable, which is inherently more sustainable than knocking them down and starting again.' Wellbeing and movement are key priorities in the design, she adds. 'The nature of office work is fundamentally unhealthy, as it's sedentary. Creating a range of flexible working spaces is therefore a good way to get the most out of staff, allowing people to choose how, where and when they work. Access to natural light is key to a healthy office, and the provision of this and fresh air is feeding into architecture.'



Left MoreySmith's design for Primark in Dublin picks up on current trends in office design.

Typically, existing buildings have large floorplates and so poor natural light levels, but that can be remedied by 'cutting and carving' into the existing structure to create atria, says Kelly. In addition to increasing daylight levels, this allows for the integration of a staircase, a feature that has come out of the shadows to take centre stage in the modern workspace, promoting physical activity and the kind of chance interactions that lead to collaborative working.

The World Green Building Council's 2014 report, *Health, Wellbeing and Productivity in Offices: The next chapter for green building*, made a powerful business case for investing in sustainability and wellbeing, backed by a wealth of evidence. It pointed out that good indoor air quality could boost productivity by up to 11%.

However, John Alker, campaign and policy director at the UK Green Building Council, says businesses still need to take its messages

to heart: 'There are relatively few real leaders in the sector. The likes of Google have an enormous profile, but that's one end of the market. The mainstream – representing some of the largest employers in the country – is of interest now.'

### Reaping the benefit

A new global standard is aiming to change that. The WELL Building Standard, run by the US-based International WELL Building Institute, has two projects registered in the UK and nearly 100 worldwide. The standard sits alongside existing sustainability standards, focusing on seven factors of occupant health and wellbeing: air, water, nourishment, light, fitness, comfort and mind. Paul Scialla, WELL Building Institute founder, explains, 'The workplace is one of the top three factors affecting performance and job satisfaction. Personnel costs significantly outweigh the costs for design, construction,

maintenance and operations. Addressing occupant health channels resources towards reducing the largest line item in the 30-year costs of a building – the personnel – offering a meaningful return on investment.'

Such a standard might also help identify the healthiest and most effective ways of working, as some of the new approaches are already proving to be passing fads. Open plan hot desk farms are now being equipped with essential quiet zones, or turned into more varied areas that can allow activity based working. Homeworkers are being called back to the office to collaborate with colleagues. In fact, rather than making our homes into workplaces, we could see the reverse. Unwork's King says 'One company we interviewed for the TMT report said, "We don't want a work-life balance because we want them to be the same thing"'. That's reason enough to make the office a healthier and better place. ●

### FREE WHEELING IN THE CITY

New visitors to the Alphabeta office building on the Shoreditch/City of London borders may be surprised to see cyclists freewheeling down a ramp in the entrance atrium on their way to the cycle racks and changing rooms. Not for these the back door – here, they're celebrated and centre stage.

Studio RHE's £48million retrofit – for client Resolution – of the Finsbury Square offices demonstrates what Richard Hywel Evans calls a recent 'sea-change' in workplace design that is becoming increasingly visible as major post-recession developments come to market.

'Workplace culture has changed. Agents say it's all about amenity-value as employers look to attract and retain staff, and wellness at work is central to doing that,' says Richard Hywel Evans. 'Rather than being add-on features, these amenities are now on the primary menu. If you provide people with everything they want in their workplace, it's a happy marriage.'

This attitude manifests itself throughout the 22,172m<sup>2</sup> Alphabeta building, which houses multiple tenants as well as a 300-desk co-working space, all with access to shared communal facilities. Central to this vibe is the lively entrance.

'We wanted an active ground floor space rather than a hero atrium,' said Hywel Evans, adding that the redesign reduced the size of the still-considerable atrium, from which meeting rooms project from the surrounding office floors. At ground floor level, the space is animated by a café and by touchdown seating created as a continuation of the reception desk, while quieter working space is created in a library area off reception. Space is given to the cycling ramp, which becomes a key feature as it leads down to bike storage, locker, shower and changing facilities – for some 20% of those working in the building. Hywel Evans expects this percentage to increase in further office developments – in his next building for the same client, the aspiration is to include cycling provision for 50% of the eventual tenants, as well as a full-time mechanic.

There's also a darts club (this is Shoreditch hipster territory after all), gym, basketball court, restaurant, and outdoor terraces. While these facilities are obvious selling points that contribute to the overall wellbeing factor, Hywel-Evans was keen to embrace wellness throughout, especially in the lighting and acoustics. 'Wellness starts with what you're breathing and with light. We strive to incorporate areas of chiaroscuro with shadow and contrast, depth and distance so that there's plenty of interest for the eye,' he says.

Client Resolution definitely has a sense of well-being, having sold Alphabeta for £280 million – quite a profit on its £48million redevelopment and £43million original purchase of the property. The building is 100% let – Hywel Evans reckons communal bike storage and shower/changing provision such as that at Alphabeta is now worth £10/ft<sup>2</sup> on rental value.

'Tenants are voting with their feet. People buy into the atmosphere of the place,' he says.

Hywel Evans is looking to develop the Alphabeta approach to workplace design further in the eight storey Notting Hill office and residential project for Resolution, which is due to go in for planning this spring.

**Below** Rather than a 'hero' atrium, Alphabeta's ground floor is designed for casual interaction and working.



**Bottom** The bicycle ramp to lower level is celebrated front of house rather than consigned to the building's 'service' side.





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# Stade de Lyon

There's only one Stade de Lyon... Populous' new stadium marries references to its rural location with strength and power

Words: Jan-Carlos Kucharek

There can't be many football stadiums in the world where the fans' chants will have informed the structure's section, but that's clearly the case at Olympique Lyon's new Stade des Lumières. Some stadia might have one kop but it's here, uniquely, it has two. Even more notably they sing chants to each other over the pitch, creating a particularly intimidating experience for visiting teams. 'The Virage Nord and Virage Sud, as they're known, will each have a conductor and drummers', explains Populous project architect Garry Reeves, 'So it was important that the sightlines allowed all terraces on both sides to see them. We removed all the mid-level hospitality suites on the north and south sides and shifted the section. This not only gives the terraces a huge parabolic sweep down towards pitch level but also allows VIPs dispersing right or left to the suites an amazing view of the goal opposite through a slim concrete aperture – it's really something.'

This must appeal to the stadium's client, which, having filled its trophy cabinet, moved from the 40,500-seat stadium designed by Tony Garnier in 1918 to this state-of-the-art 59,000-seat replacement on the city's eastern fringes in January. In France stadia are usually owned by the city, but in 2003 the team struck a deal with the local government to create its own €297 million private ground and training facility, as part of a wider €405 million mixed-use regeneration of a 38ha site. Reeves recalls that: 'Populous was originally approached by the club with the request for "another Arsenal", but



**Left** West elevation looking south. Core walls meet the full height glazing and the oversailing roof of the

promenade. **Above** By night, the canopy remains dominant, lit from below.

we said we were far more concerned with designing something that arose from the unique conditions of the site'. Those were a large plot of arable land with a copse very near a lake that forms the main reservoir for the city. To maintain as much as possible of the site's bucolic character the stadium was raised above a huge underground car park to hide nearly 2000 of its 6,500 parking spaces, with the remaining space to be laid out in parkland of reinforced grass and trees. Preservation of the copse to the east as part of the bus approach, and green esplanade alongside the city tram stop, also maintain this

connection with the landscape. From the access promenade that runs around the lower tier of the stadium the impression is of one set in a sylvan landscape, says Reeves.

For the 54,000m<sup>2</sup> stadium itself, however, formed of over 130,000m<sup>3</sup> of concrete with a 7300t steel roof structure – both materials Garnier would have known well – those natural inferences are more metaphorical than physical. Trees and the shade that they provide inspired Populous' huge ETFE stretched fabric roof. This extends up to 40m beyond the main structural line of the stadium bowl to form a canopy for the promenade area connecting the north and south access ramps. All around, tall trunk-like steels rise at angles out of the deck level to grab the canopy's leading edge and hold the whole structure in tension as it undulates asymmetrically around the stadium ring. The



resulting, slightly jarring elevation of concrete and massive planes of PVC has been likened to the other alien that recently landed in Lyon, Coop Himmelblau's Confluence Museum. From some angles, the resemblance seems uncanny.

The canopy does help to offset the sheer volume of concrete to the stadium bowl and its supporting structure. The massive walls of pre-cast concrete really define the building – something Reeves puts down to French Building Control's demands for emergency egress, which differ significantly from those in the UK. Populous and contractor Vinci worked alongside French organisations Socotec and Veritas to navigate their way through the circulation, safety and technical standards. 'In the UK egress is time-based whereas in France it is based on the factors of people numbers and stair width and it's a critical difference,' he explains. 'Capacity here is similar to the Emirates stadium. There we have 48m total stair width to decant 60,000 people whereas here it's 143m. They will both take around eight minutes to empty but the difference that latter figure makes to the final look of the building is significant.' So more mass, basically. Within every 46m by 8m insitu cast core there are two pairs of scissor access stairs

serving the bowl tiers, a fire stair for use only by emergency services and an additional VIP stair.

But, he goes on, access and egress are not the only reasons the cores are as big as they are. Not only were the loads of the roof enormous, requiring reinforced concrete walls, but Lyons, lying on the plane of the Alps, is subject to seismic activity, which the structure needed to take account of. This led to the decision to shutter and cast the whole lot. Pours were carried out using concrete batched on site, allowing any colour differences, if they occurred, only to manifest on a floor by floor basis, delineated by 'baguette' nylon sections fixed back to the formwork. By contrast, all the concrete in the stadium used concrete planks, obviating the need for acro jacks and saving programme time. Reeves explains the logistics are usually that two construction teams start at opposite sides of the stadium, work their way around in both directions and meet in the middle. Here four teams worked their way around to create the stadium from quadrants so in the end the bowl superstructure, cores and 12m high concourses were all constructed, using 11 tower cranes, in nine months.

For the conferencing and hospitality zones

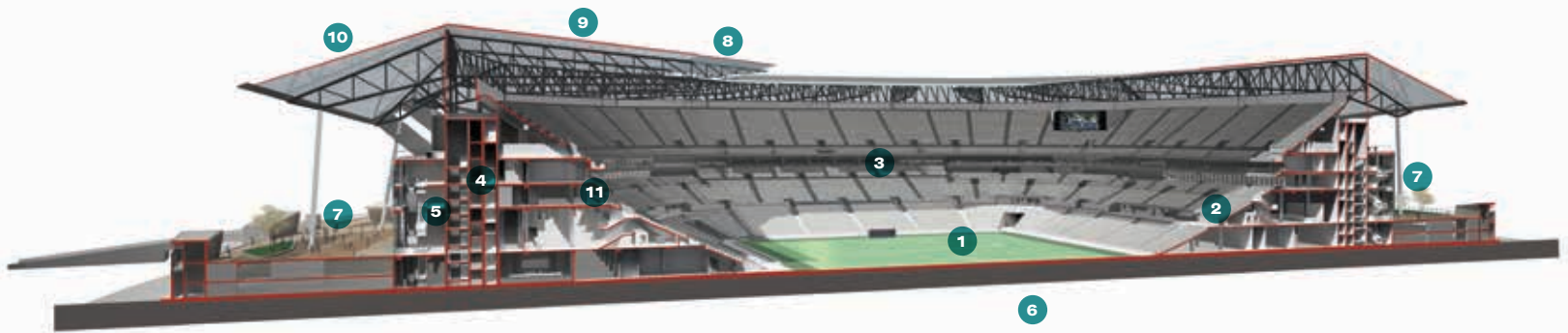
on the west and north sides of the stadium there was a desire to underplay the Lenoir structural glazing to allow the superstructure to be read through it. However, more seismic regulations meant the firm's preferred mullion-free system had to be replaced with transoms and mullions, the latter on the inside face of the glass to reduce their effect. The horizontal runs at promenade level, with their bullnoses draw punters around the building but remain discreet, as the canopy above serves the main role of reducing solar gain on the glass. French guidance required fire truck access through the facade, accounting for the recessed blank aluminium openable panels that occur every 40m along the facade. Luckily Populous saw this requirement to mediate between the concrete and glass facades, so they appear, duly recessed, at their interfaces.

The roof, which dips down in front of the structure to create impact on the elevation, is a tri-partite structure, modifying in nature and material to serve three different purposes. On the inner leading edge, a clear polycarbonate roof reaches out over the pitch, allowing UV light through to support grass growth. Above the main stadium seating a Sarnafil roof takes over, fulfilling the waterproofing requirement.



## Stade de Lyon: east/west section

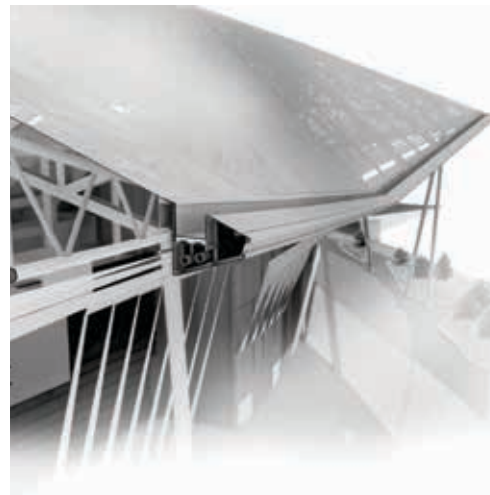
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|--|--|
| 1 Pitch  | 7 Promenade  |
| 2 Main access at top of lower tier                           | 8 Clear polycarbonate sheeting for UV sensors            |
| 3 Section shifts to create 'Virage' tiers on north and south | 9 Sarnafil roof over steel structure                     |
| 4 Concrete cores   | 10 TX-30 PVC tensile roof over promenade                 |
| 5 VIP access   | 11 Hospitality suites (removed on north and south sides) |
| 6 Parking below  |  |



**Left** The massive concrete walls are the result of French guidance on fire egress and seismic considerations.

**Below left** The 10m high blade walls of the vomitory, poured at an angle, are well finished with wrap-round stairs.

**Below right** 3D visualisation showing the gutter detail at the perimeter of the tensile fabric roof.



Above the promenade its 23,000m<sup>2</sup> Serge Ferrari TX30 PVC composite material extending out to the steel columns. Specialist contractors used high frequency welding to bond together the 30m by 6m panels together, producing a tensile resistance of 11t/m<sup>2</sup>. Prestressing in both warp and weft gave it good dimensional stability. Serge Ferrari's Francoise Fournier says the tension is key to the material's performance, with a stretch of only 1-2% on any 30m long panel – to ensure it could deal with the necessary snow and wind loadings. Eyelets in the fabric edge are tied by marine cord to lacing tubes, which are in turn attached to the steel perimeter beam, with a gutter detail at the outer edge dealing with run-off. Two panels a day were installed – 144 in all – totalling three months' work.

Programme and logistic savings both contributed to the fact that a project that would have taken 36 months to complete was finished in 29, with the inaugural match in January this year. By all accounts the two Virages are very happy with their new stadium, but perhaps the proof of the pudding will come when the stadium hosts one of this year's Euro semi-finals, making the Stade de Lyon centre stage for millions, not thousands, of chants. ●

Not only were the loads of the roof enormous, requiring reinforced concrete walls, but Lyons, lying on the plane of the Alps, is subject to seismic activity

# Costed

Ruby Galloway, associate director at Gleeds R&D, looks at cladding costs

Amendments to the Building Regulations mean the building envelope has to meet increasingly stringent performance criteria. Designers and engineers should be fully versed in all applicable safety legislation, particularly with the requirements of the Building Regulations Part B (Fire Safety), Part E (Resistance to Sound) Part K (Protection from Falling) and Part L (Conservation of Fuel and Power).

Amendments to Part L have had major

implications for cladding design, especially in respect of overheating – care must be taken when specifying insulation, and also to ensure that the air tightness of the building is sound and tested.

Many of the claddings incorporate BRE AAM compliant features such as recycled polyamide for thermal bridging, reduced fossil fuels and water consumption. Some cladding types may be designed as a ventilated facade system.

Electrically operated louvre-blinds have added an innovative edge to provide efficient solar and glare control to many glazing systems.

Often, the cladding sub-contractor will have design responsibility for the cladding element, but the employer and designer should ensure that the functionality of the building is communicated at the outset. Other factors to consider at an early stage of the design are buildability and access for cleaning and maintenance. ●

The rates stated below represent a guide to cladding costs and are current as at Q4 2015 are based to a location of UK mean. No allowance is made for sundry costs or related preliminaries costs. VAT is excluded.

PANELLED WALLING	
Precast concrete panels; including insulation; lining and fixings generally 7.5 m x 150mm thick x storey height	
Standard panels	£206-£247/m²
standard panels; exposed aggregate finish	£226-£278/m²
reconstructed stone faced panels	£257-£309/m²
brick clad panels (PC £400.00/1000 for bricks)	£360-£484/m²
natural stone faced panels (Portland Stone or similar)	£442-£535/m²
marble or granite faced panels	£576-£772/m²
Tiles (clay/slate/glass/ceramic)	
machine made clay tiles; including battens	£30-£41/m²
standard panels; exposed aggregate finish	£226-£278/m²
best handmade sand faced tiles; including battens	£36-£46/m²
concrete plain tiles; including battens	£41-£51/m²
natural slates; including battens	£72-£92/m²
20 x 20mm thick mosaic glass or ceramic; in common colours; fixed on prepared surface	£92-£113/m²
PROFILED METAL SHEETING	
Steel covering, profiled A50-30 to outer face, GA600 lining to inner face incl profile filers and sealing, fixing to and incl vertical and horizontal secondary supports	
250mm girth	£206-£247/m²
standard panels; exposed aggregate finish	£226-£278/m²
reconstructed stone faced panels	£257-£309/m²
brick clad panels (PC £400.00/1000 for bricks)	£360-£484/m²
natural stone faced panels (Portland Stone or similar)	£113.32-£133.92/m²
Extended, hard skinned, foamed PVC-UE profiles sections; Class 1 fire rated to BS 476, part 7, in white finish; vertical fixed to timber	
100mm shiplap / 150mm shiplap	£62-£72 / £52-£62/m²
Extra over for vertical angles / raking cutting	£5-£15 / £5-£10/m²
Composite wall panel; micro rib, coated steel outer and inner liners, 600-1000mm widths	
60mm thick; U-value 0.35 / 80mm thick; U-value 0.26	£82-£93/£82-£103/m²
100mm thick; U-value 0.20	£92-£113/m²
Composite wall panel; flat, coated steel outer and inner liners, 600-1000mm widths	
60mm thick; U-value 0.35 / 100mm thick; U-value 0.20	£134-£155/£144-£175/m²
Associated flashings: 0.7mm pre-coated steel sill; 300mm girth	£15-£21/m²

composite top hat	£21-£31/m²
RIGID SHEET CLADDING	
Melamine finish solid laminate panels	
6mm thick cladding to walls	
over 300mm / up to 300mm wide	£82-£93 / £31-£41/m
Mineral enamel faced rigid fibre cement sheeting	
7.5mm thick cladding	
over 300mm / up to 300mm wide	£72-£93 / £26-£31/m
external angle trim	£10-£21/m
100mm / 200mm / 300mm	£15-£21/£21-£31/£26-£31/m
Weatherboarding; high density resin-bonded cellulose fibre panels, including secondary supports and fixing	
8mm face fixed to timber battens / aluminium rails	£134-£165/m / £155/m
10mm secret fixed to aluminium rails	£185-£227/m
RAINSCREEN	
Tongued and grooved tandalised softwood boarding; including timber battens	
25mm thick to walls	£41-£52/m²
Timber shingles, Western Red Cedar, preservative treated in random widths; not including any sub-frame or battens	
26mm thick to walls	£52-£67/m²
Western Red Cedar tongued and grooved wall cladding on and including treated softwood battens on breather membrane, 10mm backing board, 50mm insulation board, fixed to a steel frame system including sealing all joints etc	
26mm thick to walls, boards laid horizontally	£72-£93/m²
Aluminium composite cladding with thermoplastic cores, back ventilation, incl insulation, vapour control membrane and aluminium support system	
4mm thick, fixed to walls	£134-£165/m²
Terracotta clay cladding, including insulation, vapour control membrane and aluminium support system	
400 x 200 x 30mm tile cladding; to walls	£236-£288/m²
Curtain walling excluding any integral doors and/or windows	
Stick curtain walling system, proprietary solution, polyester powder coated solid colour matt finish or natural anodized curtain walling	
Flat system	£319-£391/m²
Unitized curtain walling system, proprietary solution, polyester powder coated solid colour matt finish or natural anodized curtain walling	
Flat system	£649-£793/m²



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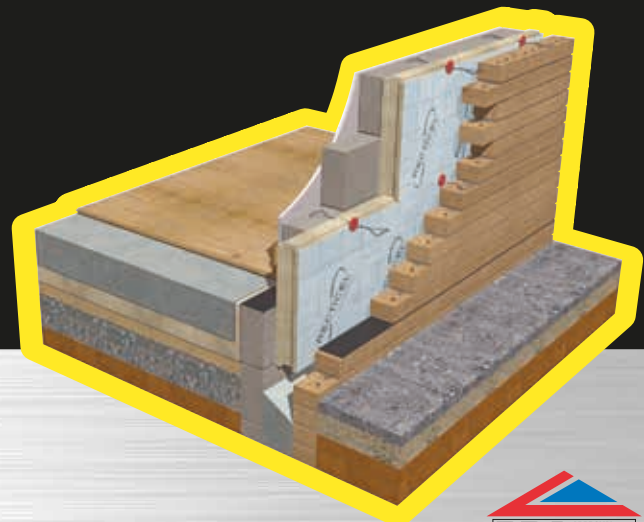


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# Specified



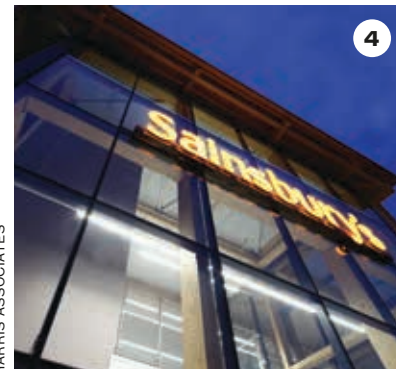
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## 1 Curtain walling Lakesmere North

The £43m, drum-shaped Factory 2050 houses the UK's first fully reconfigurable assembly and component manufacture facility – home to The University of Sheffield's Advanced Manufacturing Research Centre (AMRC) with Boeing. Lakesmere North's banging the drum, so to speak, for the curtain walling systems it used here – Jansen Viss Ixtra (steel), and Schueco FW50 and 60+ (aluminium). The giant disk is pretty groovy for a factory, although Charles Holden's 1932 Arncliffe Station is still our favourite rotunda, just for the record. [lakesmere.com](http://lakesmere.com)

## 2 Glazing panels Brett Martin Daylight Systems

Ribbit software's new UCMIU (UCouldn'tMakeItUp) module is a must for creating renders to simulate the mess of everyday life. So if you fear planning committees becoming immune to the rhetoric of hyper-reality, apply the UCMIU layer, and Ribbit will put random elements into your final image to add verisimilitude to your scheme. Here, we see a cluster of finishing trade vans around Land Rover Ben Ainslie Racing (BAR)'s Portsmouth HQ, with four very convincing cones at the fire exits. Yet the Marlon Clickfix1040 glazing panels remain illuminated at full lustre. [brettmartin.com](http://brettmartin.com)

## 3 Structural glazing Wicona

Don't look so down, Ironman – feet aren't everything! You managed to get on top of that perforated plinth without losing too many of your rusty strips, didn't you? Sure, that woman on the fourth floor was chuckling at your ferrous ascent, but she's gone to make a cup of Bovril. So you may as well look up and try to enjoy the view of Wicona's WICTEC 50 SG performance structural glazing at Axis Architecture's mixed-use Velocity Village in Sheffield. And remember, whatever you do, don't jump! (Not that you could...) [wicona.com](http://wicona.com)

## 4 Curtain Walling System Senior Architectural Systems

Have suppliers ever thought of offering Nectar Points with their products? Given the cost of good curtain walling, the development manager of this vast Sainsbury's at Wadsley Bridge, Sheffield, could surely clear out Argos and Homebase; give his friends and family a day out at Alton Towers and still treat architect Hadfield Cawkwell Davidson to a year's free lunches at Pizza Express. And this 'eco' branch of the supermarket gets points for being the first to feature Senior Architectural's SF52 structural silicone glazed curtain walling – all shall have prizes! [seniorarchitectural.co.uk](http://seniorarchitectural.co.uk)



#### Green roofing system Bauder

Last year Bauder launched its vacuum insulation panel at Ecobuild. Providing high thermal performance in areas with limited height, VIP is well-suited for terrace and balcony applications. It can be just 60mm thick to achieve a U-value of 0.18 W/m<sup>2</sup>K. This year Bauder is launching its green roof and PV integrated system, BioSOLAR, and both innovations can be seen at stand E4090.

[www.bauder.co.uk](http://www.bauder.co.uk)



#### 1960s home transformed Kingspan TEK

A 1960s bungalow is set to become Jersey's first EnerPHit certified home, featuring the Kingspan TEK Building System to replace the property's roof and to form the walls of the new extension. Kingspan TEK Building System panels comprise a high performance insulated core sandwiched between two layers of OSB/3, allowing them to deliver outstanding thermal performance.

[www.kingspantek.co.uk](http://www.kingspantek.co.uk)



#### Render gains BBA accreditation Weber

The high performance weber.rend MT multi-coat render system from Saint-Gobain Weber has recently gained full BBA Certification. This accreditation meets NHBC requirements for new build housing where house builders constantly seek modern methods of construction for speed and cost efficiency. The weber.rend MT system is designed to rapidly finish buildings with a frame and panel construction.

[www.netweber.co.uk](http://www.netweber.co.uk)



#### Slim and energy efficient Senior Architectural Systems

For projects requiring a sleek, uniform appearance with exceptional energy efficiency, the new SF52 curtain wall system from Senior Architectural Systems could be the perfect solution. Available as a mullion drained system which removes the need for visible drainage slots, the SF52 system can also be specified as capped, silicone sealed or as a combination of the two.

[www.seniorarchitectural.co.uk](http://www.seniorarchitectural.co.uk)



#### New aluminium window system Senior Architectural Systems

Senior Architectural Systems has launched a new aluminium window system that offers enhanced aesthetics, improved thermal performance and flexible solutions for a variety of site installations. The new Aluminium Series 2 system boasts impressive thermal credentials and has the potential to achieve U-values of 0.95 W/m<sup>2</sup>K when calculated as a CEN standard commercial window.

[www.seniorarchitectural.co.uk](http://www.seniorarchitectural.co.uk)



#### Steam cooking made easier BLANCO

To make the preparation and presentation of steamed food even easier, BLANCO has introduced a Silgranit sink designed specifically to accommodate steaming accessories. The key component of the ZENAR XL 6 S SteamerPlus is the spacious bowl, which features an integrated ledge designed to match all sizes of Gastronorm steam cooking containers produced by leading manufacturers.

[www.blanco.co.uk](http://www.blanco.co.uk)



#### Fila launches new glue remover Fila

Surface care specialist Fila is introducing a new treatment to its aftercare range. New FILAZERO SIL removes new and old silicone, glue and sticky label residue. It can safely be used on absorbent and non-absorbent surfaces, including stone, grout, porcelain and ceramic, marble, glass and metal. FILAZERO SIL also removes other residues, including candle wax and resin.

[www.filasolutions.com](http://www.filasolutions.com)



#### Pleasure at the push of a button Hansgrohe

Hansgrohe extends its popular Select technology to the wash basin with its new mixer range Talis Select. The flow of water is turned on and off by pressing the Select button instead of using a conventional lever. Created in close collaboration with Hansgrohe's long-standing partner Phoenix Design, Talis Select is available in two versions: with a flat spout or a round, conical spout.

[pro.hansgrohe.co.uk](http://pro.hansgrohe.co.uk)



#### A new Caesar meeting point Cermiche

With the opening of Urban Lab in Clerkenwell, London, the quality of Made in Italy porcelain tiles is now available to the large community of designers from London and elsewhere. Urban Lab is dedicated to material display, and has a basement with offices and meeting rooms; a venue at the disposal of designers and planners to share ideas, choose new materials and solve any technical problem.

[www.caesar.it](http://www.caesar.it)



#### Steel windows add style SWA

Creating a striking aesthetic, steel windows were chosen by a homeowner in south London to form the rear 'walls' of both a new basement area and ground floor extension during the year-long renovation of their 1900 house in Fulham. The windows were supplied and installed by Steel Window Association member, Steel Window Service and Supplies.

[www.steel-window-association.co.uk](http://www.steel-window-association.co.uk)





#### Laminating the future Abet

Abet is delighted to announce that it has recently obtained single site certification for the chain-of-custody standards of the Forest Stewardship Council. This follows on from Abet Laminati which was awarded both FSC and the Programme for the Endorsement of Forest Certification schemes (PEFC) in January 2014. [www.abetuk.com](http://www.abetuk.com)



#### Altro revamps Newcastle tower Altro

An extensive package of Altro flooring and wall cladding products has been used in the £18m refurbishment of one of Newcastle's most striking landmarks – the 11-storey Parsons Tower, which is part of Newcastle College. The former sixth form block has been transformed into a state-of-the-art teaching facility that incorporates exciting and stimulating learning environments. [www.altro.co.uk](http://www.altro.co.uk)



#### Guide to floating ceilings Armstrong

A dynamic guide for flexible, acoustic canopies and baffles has been published by Armstrong. The new floating ceilings brochure contains expert advice on the comprehensive range of dramatic design and acoustic possibilities that can be achieved with canopies and baffles, including Optima Baffles Curves, the first curved mineral baffles in the industry. [www.armstrong-ceilings.co.uk](http://www.armstrong-ceilings.co.uk)



#### First class finish from Cembonit Cembonit

Cembrit Cembonit cladding has created a stylish finish for new student accommodation in Liverpool. The Arch, which houses students from John Moores University, opened in September 2014 and provides 241 student rooms. Approximately 500m<sup>2</sup> of Cembonit Flint cladding was installed as feature panels and window surrounds as part of the building's redesign. [www.cembrit.co.uk](http://www.cembrit.co.uk)



#### Horizontal sliding wall range Dorma

DORMA UK has launched the latest addition to its horizontal sliding wall and glass partition range. HSW EASY Safe is suitable for applications such as store fronts, or internal winter gardens in residential apartments. In addition to using toughened safety glass panels, DORMA's new clamp & glue technology provides the option to use laminated safety glass, which reduces the danger of glass breakage. [www.dorma.com](http://www.dorma.com)



#### Divine and diffused light Structura

At Trinity Methodist Church in East Grinstead CPL Architects have specified Kalwall translucent cladding to enhance the interior with diffused shadow and glare-free light, while preserving privacy. It incorporates glazed opening windows to optimise natural ventilation while the focal point is a 5m square Kalwall pyramid which floods the assembly room with light from above. [www.structura-uk.com/kalwall](http://www.structura-uk.com/kalwall)



#### Compac's Turkish delight Compac

The Zorlu Centre, Istanbul, features a 96,500 m<sup>2</sup> shopping centre, a five-star hotel with 130 rooms, apartments, office spaces and a culture and art centre. Compac's high performance, technological marble in Beige Faraya was specified for the building's external facades which covered an area of 85,000m<sup>2</sup> and more than 12,000m<sup>2</sup> was specified for internal flooring and wall cladding. [www.compac.es](http://www.compac.es)



#### Crown offers perfect partnership Crown Paints

Crown Paints offers the perfect partnership for specifiers wanting to access colour expertise and inspiration for their projects. Accessed through Crown Paints' Specification Services, initiatives include bespoke colour scheming and a library of sector-focused colour books for environments including healthcare, housing and education. Two CPD modules are also offered. [www.crownpaintspec.co.uk](http://www.crownpaintspec.co.uk)



#### Film transforms many surfaces David Clouting

Interior Film is a high-performance, self-adhesive film manufactured by LG Hausys that can be applied to virtually any surface, including wood, metal, plasterboard, plastics and melamine. This enables columns, feature walls, doors, furniture, skirting and architraves to be quickly transformed with minimum disruption and at low cost. Interior Film is available to view on Bimstore. [www.davidclouting.co.uk](http://www.davidclouting.co.uk)



#### Electric glass adds wow factor DR Services

DR Services now offers modern, switchable glass for the wow factor in a wide variety of installations. Its switchable glass system contains an electric current within the glass and when this current is switched off, the glass has a natural opaque appearance, blocking vision from either side yet still permitting light to pass through. Switch the electric current off and the glass turns transparent instantly. [www.drservices.co.uk](http://www.drservices.co.uk)





#### Quality surface is also flexible LG Hausys

HI-MACS® is a solid surface material that can be moulded into any shape. It is widely used for architectural and interior applications, such as sculptural and high-performance wall-cladding or kitchen, bathroom and furniture surfaces. It is composed of acrylic, natural minerals and pigments that come together to provide a smooth, non-porous and visually seamless surface.

[www.himacs.eu/en](http://www.himacs.eu/en)



#### Making an entrance in Glasgow Geze

As part of the solution to make the Theatre Royal Glasgow accessible to all, GEZE UK was commissioned by Gray & Dick to install automatic sliding doors to create an entrance lobby on either side of the new foyer and a further set of automatic sliding doors were installed to access the city's only public roof terrace. Allgood also specified several of the company's manual closers throughout.

[www.geze.co.uk](http://www.geze.co.uk)



#### Shutter counters terrorist threat Gilgen

In response to heightened global security threats, Gilgen Door Systems has launched a unique SR5 rated shutter that combines the highest physical attack standard yet achieved in a security shutter with unrivalled ballistics and blast protection properties. Rolegard SR5-B is designed to help protect facilities against emerging threats such as hostile incursion and swarm attack.

[www.gilgendoorssystems.co.uk](http://www.gilgendoorssystems.co.uk)



#### Online psi value calculator Keystone

The Keystone Group is the first lintel manufacturer to offer a psi value calculator designed for energy assessors and architects who specify products and value engineer specifications to meet regulations and code of sustainable home requirements. Energy assessors can now directly input the lintel psi value into their SAP calculations and view the performance benefit.

[www.keystonelintels.com](http://www.keystonelintels.com)



#### All black is a winner at Oxford Kemmlit

Oxford's Blavatnik School of Government new multi-million pound building, designed by Herzog & de Meuron and built by Laing O'Rourke, features Kemmlit's Classic Cell floor to ceiling cubicles in black with stainless steel fittings and full height duct panels. Classic Cell features 42mm thick smooth surfaced weltd doors and sound reducing floor-to-ceiling dividing partitions.

[www.kemmlituk.com](http://www.kemmlituk.com)



#### New matting catalogue launched Gradus

Contract interiors specialist Gradus has introduced a new barrier matting systems catalogue, which includes full details of its extensive matting portfolio, including a selection of new products and formats. As well as new, striking photography, the 64-page catalogue includes advice and product recommendations, enabling the end user to select the right matting system for specific applications.

[www.gradusworld.com](http://www.gradusworld.com)



#### Keeping up appearances Safeguard

Traditional appearances were preserved while damp and woodworm were eliminated at an upmarket conservation and redevelopment of a Victorian building at Askham Bryan near York using the Dryzone System rising damp treatment range and Soluguard woodworm treatment developed by Safeguard Europe.

[www.dryzonesystem.com](http://www.dryzonesystem.com)



#### Panels help Danish acoustics Troldekt

Danish Social and Healthcare College has relocated to the Aarhus suburb of Skejby. The new 13,000m² building is intended to be a town within a town arranged around a central hub. Natural wood Troldekt panels have been installed throughout the college to ensure good acoustics in the open and high ceilinged rooms while creating a particularly attractive and warm atmosphere.

[www.troldekt.co.uk](http://www.troldekt.co.uk)



#### Neolith revamps Ottawa store TheSize

Neolith by TheSize has been specified for the facade restoration of an Ottawa department store as part of the building's conversion into a Nordstrom retail outlet. Seattle-based Callison was in charge of revamping the 14,000 sq ft outdated exterior and interior storefronts and specified Neolith Arctic White as the base, accenting the design with scattered panels of Barro, Perla and Arena.

[www.thesize.es](http://www.thesize.es)



#### RIBA uses Thistle Plaster British Gypsum

The Royal Institute of British Architects has used British Gypsum's innovative Thistle Magnetic Plaster in a recent refurbishment of the President's office at its Grade II\* listed London headquarters. Thistle Magnetic Plaster provides a smooth, high-quality surface that attracts magnets and can be used to create a highly interactive space, making it ideal for creative environments.

[www.british-gypsum.com](http://www.british-gypsum.com)





#### Sports floor for boathouse Kahrs

Kahrs' Maple-FSC sports system has been installed by Reflex Sports at a new community facility for sport charity Whitlingham Boathouses Foundation. Situated on the banks of the Norfolk Broads, the £1.2m centre will provide a rowing and canoeing facility. The Swedish-designed floor, from Kahrs' Activity Range, was specified for the gym and lounge areas, spanning an area of over 260m<sup>2</sup>.

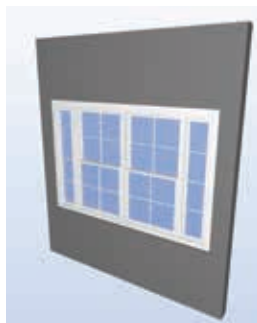
[www.kahrs.com](http://www.kahrs.com)



#### Electro-conductive flooring Gerflor

The smart Gerflor GTI range from International vinyl flooring and finishing solutions specialist Gerflor has just been stepped-up a notch with the addition of two new electro-conductive floorcovering products. GTI EL5 is a multi-layered loose-lay vinyl tile, 6mm thick, reinforced with two glass fibre grids and will be available in two new additional formats.

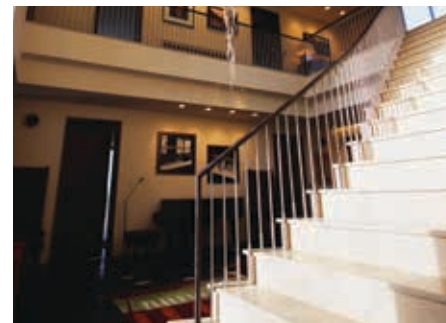
[www.gerflor.co.uk](http://www.gerflor.co.uk)



#### NBS BIM product library Mumford & Wood

Mumford & Wood announces compliance with NBS National Building Information Modelling (BIM) Library Data for core Conservation entrance, balcony, bi-folding, single and French doorsets and Conservation casement windows, box sash and spring sash windows. Architects and specifiers can now visit our technical page online and download the full NBS BIM Library Data.

[www.mumfordwood.com](http://www.mumfordwood.com)



#### Leather adds quality to staircase Canal Engineering

With a growing number of leather finishes available, which can be hand stitched using various styles and patterns, the popularity of including leather in architecture is increasing. Canal Architectural has seen a rapid rise in leather being included in their staircases over the past 12 months. This luxury staircase has a dark brown leather installed onto its handrail and around the intricate balustrade design.

[www.canal.eu.com](http://www.canal.eu.com)



#### Expona adds a modern touch Polyflor

Expona luxury vinyl tiles from Polyflor were recently installed at 20-21 Visual Arts Centre in Scunthorpe to give the café area a modern new look as part of its renovation. The Expona Design range includes 28 designs specially developed to withstand the demands of heavy commercial environments such as leisure centres and tourist attractions.

[www.polyflor.com](http://www.polyflor.com)



#### The Automatic Choice guide Geze

GEZE UK has published a new technical guide to provide contractors, fabricators and architects with the information they need to specify the most appropriate and effective automatic operator. *The Automatic Choice* brochure encompasses GEZE's extensive range of sliding, swing, revolving and folding doors including the latest Powerturn swing door drive and the Slimdrive range.

[www.geze.co.uk](http://www.geze.co.uk)



#### Grey is on trend for bathrooms Keramag

Bringing two colour and interior design trends together in one, Keramag Design has launched chic ultra-matt furniture in a vogue new grey colour onto all furniture options in its myDay collection, bringing a warm, tactile dimension to bathroom design. The water- and humidity-resistant furniture comes with a two-year guarantee.

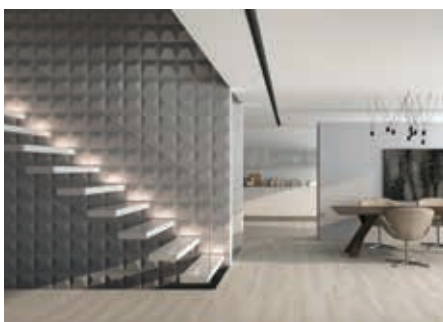
[www.keramagdesign.com](http://www.keramagdesign.com)



#### Online Design Room launched Twyford

Twyford has launched a new interactive feature, the Design Room, on its website which allows users to create their own virtual bathrooms and cloakrooms. To help with their decision making, The Design Room features products from Twyford's Energy Collection e100, e200 and e500 ranges, which users can browse through and place in situ in the 3D space.

[www.twyfordbathrooms.com](http://www.twyfordbathrooms.com)



#### New tile range launched Solus Ceramics

Solus Ceramics has launched a new range of futuristic, three-dimensional wall tiles that challenge the idea of traditional interior design and decor. The new Dimensional range features stunning space age and contemporary patterns. With varying three-dimensional designs, the imaginative decoration allows architects and designers to create an array of complex patchwork arrangements.

[www.solusceramics.com](http://www.solusceramics.com)



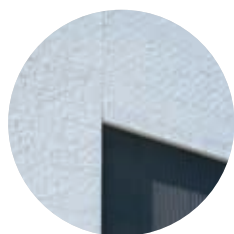
#### Couplers approved by HAPAS Ancon

Ancon's MBT mechanically-bolted couplers are the first reinforcing bar splicing system to be approved by the Highway Authorities Product Approval Scheme. This provides assurance of the product's suitability for infrastructure work. MBT ET-type couplers have been independently proven to have 100% strength of the bars being joined and exceed 'Class D' fatigue strength requirements.

[www.ancon.co.uk](http://www.ancon.co.uk)

# Sign Up

**David McKenna**, technical director at Sutherland Hussey Harris, gives us three of his specification favourites



## WHITE PAINTED STOCK BRICK

We often work with limited budgets so constantly look for ways to use low cost materials for the benefit of the architecture. Our new studios for Edinburgh Sculpture Workshop replaced those in a dilapidated brick railway shed. We drew from the construction of the original buildings, using a painted brick as the primary facade material. It is robust and easy to maintain and we liked the way that character and texture of the bricks seems to change in oblique light. We used cheap stock brick coated with Sto Lotusan self cleaning facade paint. [sto.co.uk](http://sto.co.uk)



## ORSOGRIL

On Edinburgh Sculpture Workshop south facade 108 identical galvanised steel grilles form a secure but semi transparent screen between a covered working yard and tree-lined cycle path. The grille offers privacy to sculptors working in the yard but lets in sunlight. It also avoids having a security fence and allows the south elevation to address the second public edge to the cycle path directly. The grilles consist of very fine galvanised rods and plates that are electro-fused to bespoke spacings. [langandfulton.co.uk](http://langandfulton.co.uk)

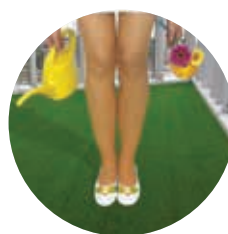


## THERMALLY MODIFIED HARDWOOD

Our house at Edge Hill consists of an internal solid volume wrapped in a veiled skin of timber battens. The length and close spacing of the battens required a highly dimensionally stable timber as most conventional hardwoods would warp along the length of the battens. Russwood Natural Cladding is a thermally modified hardwood with very few knots and a clean appearance. Heat treatment makes it extremely durable so we were able to use it untreated. Installed without additional finishes, the cladding will weather to a light grey tone over time. [russwood.co.uk](http://russwood.co.uk)

# ...Sign Off

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



## ROLLING IN CLOVER...

Nope... it's not a bucolic still from 'Bridget Jones 3: The Edge of Friesian' starring Renee Zellweger but PR from an artificial turf firm. With 20% of our housing stock being flats, it seems a balcony lawn is what we all want, minus the work. Cue Wonderlawn – 'pleasant to touch and feeling soft and natural...' as beau Mark Darcy might have murmured. It's also 'easy to clean as a carpet and hoovers and washes well.' Alternatively, Boris Johnson could fire gardener Dan Pearson off the Heatherwick bridge, lay this stuff on it, allow drunken riff raff 24-hour access and just give it a damn good hose down every morning. Garden Bridgets? Jets and The City more like...



## BOOBY PRIZE

Who'd have thought? The Pulitzer Arts Foundation & Washington's Sam Fox School of Design & Visual Arts has announced the finalists of the PXSTL design & build competition, whose winner gets to teach a grad unit at the Sam Fox School of Architecture. The \$10K award reflects Sam Fox's support of St Louis' sculptural history; big things like Eero Saarinen's Gateway Arch and Richard Serra's 'Shania Twain'. Finalists will join an Alanis Charette in the fall for the audience to pick a winner. Unbelievably, Sam Fox is ranked at No.6 in the USA; but still has a way to go before matching the success of the pin-up's 1986 single 'Touch Me', which made No.1 in 17 countries.



## ...IT'S THE MURAL THING

It's nice to see Coca-Cola keeping University of Northampton students busy – beyond them tipping it into their Freshers' Week vodkas. Seven students have created a mural for its local distribution centre showing the five stages in the life of the champagne of the masses: harvesting the sugar cane, shipping the bottles, bottling, distribution and finally a family quaffing it at a picnic. No mention here of any issues round the sourcing of the H<sub>2</sub>O – unlike the Dasani debacle where that firm apparently sold us in the UK our own (treated) tap water. Like Basil Fawlty, it could be a case of 'Don't mention the war-ter...'

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